Changes in Long-Term Budget Projections
Since July 2016

The 30-year projections of federal spending and revenues presented in this report differ from the projections that the Congressional Budget Office published in 2016 because of certain changes in law, revisions to some of the agency's assumptions and methods, and the availability of more recent data.[1] (Changes in demographic and economic variables are described in Appendix A.) CBO bases its long-term projections on the most recent 10-year budget projections available. This year, those projections are from the report published in January 2017; historically, however, the projections in *The Long-Term Budget Outlook* have been consistent with CBO's spring baseline.[2] Because most projections in the 2016 report ended in 2046, CBO compares projections through that year.

Federal debt held by the public is projected to rise from about 77 percent of gross domestic product (GDP) this year to 146 percent in 2046 under the extended baseline; last year, CBO projected that debt would rise from 76 percent of GDP in 2017 to 141 percent of GDP in 2046 (see Figure B-1).[3] As a percentage of GDP, revenues and noninterest spending are generally higher than CBO projected last year. Those differences stem primarily from lower projected GDP; projections of revenues and noninterest spending themselves were revised only modestly. (See Appendix A for details about CBO's projections of GDP.) The increase relative to GDP is larger for projected noninterest spending than for projected revenues.

Net spending for interest measured as a percentage of GDP is lower in most years compared with last year's projection, primarily because of lower projected interest rates. The resulting deficits are smaller from 2018 to 2037 than CBO projected a year ago; thereafter, they are larger than last year's projections.

In January 2017, CBO published less detailed long-term budget projections than those in this volume.[4] Those projections were not a full update but rather were based on a simplified approach that the agency uses between full updates.[5] Differences between the projections presented here and those published in January result from fully incorporating new budget, economic, and demographic projections into CBO's long-term model.

Changes in Spending and Revenues Under the Extended Baseline Since July 2016

In CBO's extended baseline, both total outlays and noninterest spending exceed revenues throughout the projection period. The difference between revenues and total spending (the deficit) is smaller, relative to GDP, than last year's projection for about two-thirds of the projection period, whereas the difference between revenues and noninterest spending is greater in nearly all years than last year's projection (see Figures B-1 and B-2). The discrepancy between the two differences stems primarily from lower projected net interest costs. Because of lower

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1. See Congressional Budget Office, *The 2016 Long-Term Budget Outlook* (July 2016), www.cbo.gov/publication/51580.

2. See Congressional Budget Office, *The Budget and Economic Outlook: 2017 to 2027* (January 2017), www.cbo.gov/publication/52370. CBO typically publishes 10-year budget projections three times per year: in winter, spring, and summer.

3. The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

4. See Congressional Budget Office, *The Budget and Economic Outlook: 2017 to 2027* (January 2017), www.cbo.gov/publication/52370.

5. For additional information about that simplified approach, see Congressional Budget Office, *Budgetary and Economic Outcomes Under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Price, March 2016* (March 2016), pp. 13–15, www.cbo.gov/publication/51260.

Figure B-1.

Comparison of CBO's 2016 and 2017 Projections of Federal Debt Held by the Public and the Deficit Under the Extended Baseline
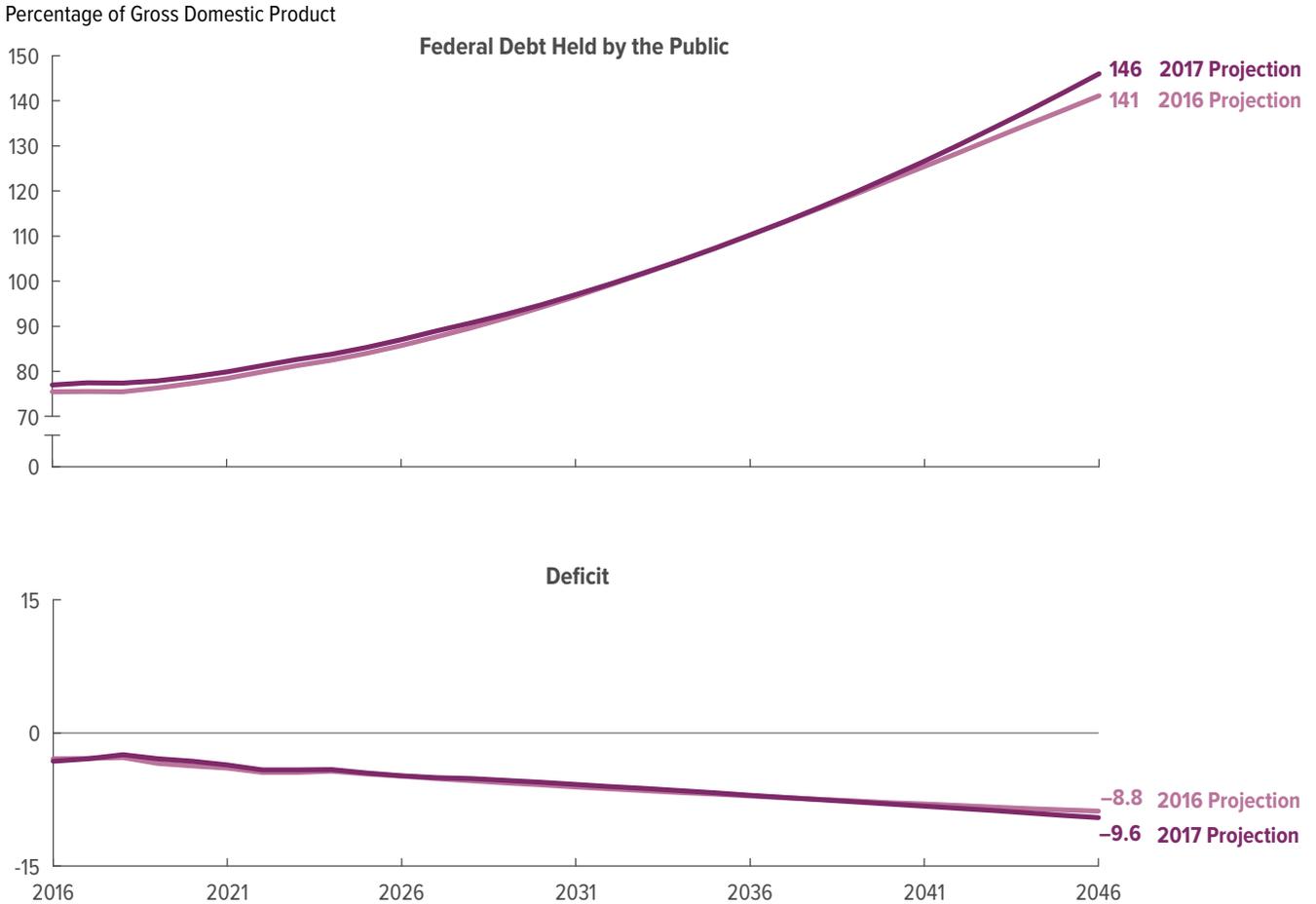
Percentage of Gross Domestic Product

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

projected interest rates, net interest costs as a percentage of GDP are smaller in most years than CBO projected last year.

Noninterest Spending

Noninterest spending as a share of GDP is projected to be lower in 2017 and higher afterward compared with last year's projections. This year, noninterest spending is projected to equal 19.3 percent of GDP in 2017; last year's projection was 19.4 percent. For 2046, noninterest spending is projected to reach 23.1 percent of GDP; last year's projection was 22.4 percent.
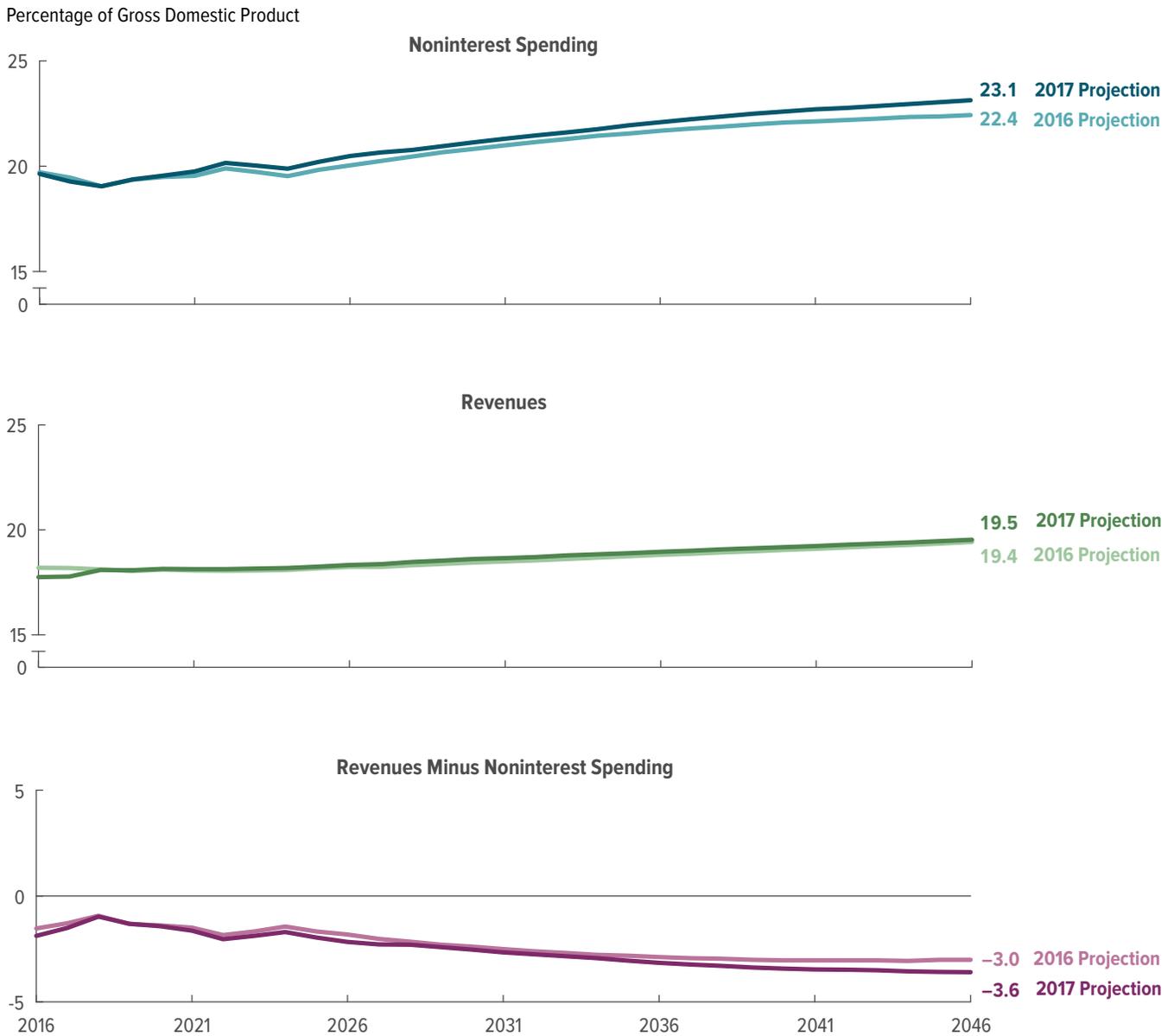
After 2017, spending for Social Security and for the major federal health care programs—Medicare,

Medicaid, and the Children's Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act (ACA) and related spending—and other non-interest spending are projected to be slightly higher as a share of GDP than the amounts CBO projected last year. Those changes result mainly from the decrease in projected GDP; in dollar terms, noninterest spending projections were revised only modestly.

Social Security Spending. Relative to GDP, outlays for Social Security will be slightly higher in most years, CBO projects, compared with the amounts projected in 2016, even though those projections have declined in dollar terms. The changes to Social Security spending reflect

Figure B-2.

Comparison of CBO's 2016 and 2017 Projections of Spending and Revenues Under the Extended Baseline

Percentage of Gross Domestic Product

Noninterest Spending

23.1 **2017 Projection**
22.4 **2016 Projection**

Revenues

19.5 **2017 Projection**
19.4 **2016 Projection**

Revenues Minus Noninterest Spending

−3.0 **2016 Projection**
−3.6 **2017 Projection**

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

several developments: a lower estimate of the number of eligible beneficiaries resulting from downward revisions to population projections, a reduction in the projected number of disability insurance caseloads reflecting recent trends in disability prevalence, and lower projections of wage growth and, over the next decade, cost-of-living adjustments.

Major Federal Health Care Spending. CBO's current long-term projection of federal spending for the major health care programs, measured relative to GDP, is slightly higher than last year's projection. Projected health care spending was revised downward by less than projected GDP was reduced, in part because excess cost growth for Medicare is slightly faster in this year's

projection.[6] Spending for Medicare net of offsetting receipts is now projected to amount to 6.0 percent of GDP in 2046, or about 0.3 percentage points higher than CBO projected last year. Outlays for Medicaid and the Children's Health Insurance Program, combined with spending to subsidize health insurance purchased through the marketplaces established under the ACA and related spending, are projected to total 3.2 percent of GDP in 2046, similar to the sum projected last year.

To project spending for the major health care programs, CBO used the same method it used last year. Namely, CBO combined estimates of the number of people who are projected to receive benefits from those government health care programs with fairly mechanical estimates of the growth of spending per beneficiary (adjusted to account for demographic changes to the beneficiaries in each program). CBO has estimated such growth by combining projected growth in potential GDP per capita with projected excess cost growth for each program. (From 2017 to 2026, potential GDP per capita is projected to grow at an average rate of about 3.1 percent per year, down from the 3.2 percent estimated last year; from 2017 to 2046, the average growth rate is projected to be about 3.4 percent per year, down from last year's estimate of 3.5 percent.)

For each category of spending, CBO used the excess cost growth rates implicit in the 10-year baseline projections through 2027. For 2028, the rate equals the average rate from 2023 to 2027 (the last five years of the baseline projection).[7] The rates of excess cost growth for Medicare, Medicaid, and private health insurance all differ in 2028. After 2028, the rate for each category moves linearly, by the same fraction of a percentage point each year, from that category-specific rate to a rate of 1.0 percent in 2047.[8]

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6. Excess cost growth is the extent to which health care costs per capita, as adjusted for demographic changes, grow faster than potential GDP per capita. (Potential GDP is the maximum sustainable output of the economy.)

7. To better account for the volatility of health care spending, CBO extended the period over which the average excess cost growth rate is calculated for the 11th year from three years to five years.

8. For more information about CBO's method, see Chapter 3 of *The 2016 Long-Term Budget Outlook* (July 2016), www.cbo.gov/publication/51580.

For Medicare, the average annual rate of excess cost growth implicit in CBO's baseline projections is about 1.1 percent from 2018 through 2027, up from last year's average of 0.7 percent from 2017 through 2026. The excess cost growth rate for 2028 is 1.2 percent, an increase of 0.2 percentage points from last year's estimate. Excess cost growth is projected to average 1.1 percent over the full projection period, an increase of 0.1 percentage point from last year's estimate but lower than the historical average of 1.4 percent from 1985 to 2014.

For Medicaid, the average annual rate of excess cost growth implicit in CBO's baseline projections for the federal share of such spending is 1.3 percent over the 10-year period, down by 0.1 percentage point compared with last year's estimate. The rate for 2028 is 0.7 percent, similar to last year's estimate. The rate of excess cost growth is projected to average 1.2 percent over the full projection period, which is 0.1 percentage point lower than last year's estimate and 0.2 percentage points higher than its 1985–2014 average.

For private health insurance premiums over the 10-year period, the average annual rate of excess cost growth implicit in the agency's baseline projections is about 2 percent, which is similar to last year's estimate. The rate for 2028 is also about 2 percent, again similar to last year's estimate. The rate of excess cost growth is projected to decline from 2028 to 2047 and to be lower in 2047 than its historical 30-year average.

Other Noninterest Spending. In this year's projections, total federal spending on everything other than Social Security, the major federal health care programs, and net interest is slightly higher as a percentage of GDP than the share CBO projected last year. Although that projected spending has declined in dollar terms, as a percentage of GDP, it is generally slightly higher than last year's estimate because this year's projections of GDP are lower.

Over the coming decade, other noninterest spending relative to GDP is revised only slightly. Other mandatory spending is lower in dollar terms; the largest reductions stem from projected outlays for the Supplemental Nutrition Assistance Program, the refundable portion of the earned income and child tax credits, and higher education programs. The decline in other mandatory outlays is partially offset by an increase in projected discretionary

spending, chiefly stemming from additional appropriations thus far in 2017 for overseas contingency operations and activities designated as emergency requirements.

Beyond 2027, other noninterest spending is projected to be higher as a share of GDP than CBO projected last year. Discretionary spending measured as a share of GDP after 2027 is projected to be slightly higher than it was in last year's projections, reflecting the increase in the projection of such spending at the end of the coming decade. Beyond the next decade, CBO projects, discretionary spending will remain roughly constant as a share of GDP. The agency projects that other mandatory spending will decline in relation to GDP (excluding any effects that fiscal policy may have on the economy) after 2027 at the same rate by which it is projected to fall between 2022 and 2027. That rate of decline is slightly lower than CBO projected a year ago. After 2027, other mandatory spending as a share of GDP is slightly higher in the current extended baseline.

Interest Costs
Because CBO projects lower interest rates over the 30-year projection period, net interest costs as a percentage of GDP are projected to be lower for most years. Net interest costs for the coming decade are projected to average 2.1 percent of GDP; last year, the projected average was 2.5 percent. From 2017 to 2046, net outlays for interest are projected to average 3.4 percent of GDP, 0.3 percentage points lower than the amount CBO projected last year (see Figure B-3).

Revenues
Federal revenues relative to GDP are projected to be lower in 2017 and 2018 and slightly higher thereafter compared with CBO's 2016 projections. In 2027, revenues are projected to equal 18.4 percent of GDP, an increase of 0.1 percentage point over last year's estimate; by 2046, they rise to 19.5 percent of GDP, also 0.1 percentage point higher than last year's estimate.

An increase in projected payroll taxes accounts for most of the increase in total revenues relative to last year's projection. Although the share of total wages and salaries received by high earners is projected to increase over the next decade, CBO has reduced the extent of that increase relative to last year's projection. As a result, CBO now expects that a greater share of wages will be subject to Social Security payroll taxes throughout the projection

period. Largely as a result of that revision, payroll taxes are projected to be higher than they were in last year's projection. Projections of individual income taxes have changed only slightly, on net, reflecting several offsetting effects. On the one hand, the revision to the share of total wages received by high earners pushes down individual income tax revenues slightly. On the other hand, an upward revision to distributions from retirement accounts boosts individual income taxes.

Social Security's Finances
A common measure of the sustainability of a program that has a trust fund and a dedicated revenue source is its estimated actuarial balance over a given period—that is, the sum of the present value of projected tax revenues and the current trust fund balance minus the sum of the present value of projected outlays and a year's worth of benefits at the end of the period.[9] When that balance is negative, it is a deficit. The 75-year actuarial deficit currently projected for Social Security is 1.5 percent of GDP (slightly smaller than the 1.6 percent estimated last year) or 4.5 percent of taxable payroll (also smaller than last year's estimate of 4.7 percent).

Greater rates of labor force participation boosted the number of earners paying Social Security taxes but also increased the projected number of people who will later receive Social Security benefits. Over the 75-year period, the net effect of that change was to reduce the actuarial deficit. An increased projection of the share of wages taxable for Social Security also reduced the actuarial deficit. Offsetting those changes were factors that increased the actuarial deficit. Lower interest rates increased the extent to which future years with larger deficits are weighted in the projections. The 75-year period of analysis, which ends in 2091, includes an additional year of deficits. In addition, changes to the projected population reduced the ratio of workers paying payroll taxes to people receiving benefits, and a lower projection of productivity

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9.   A present value is a single number that expresses a flow of past and future income (in taxes) or payments (in benefits) in terms of an equivalent lump sum received or paid at a specific time. The value depends on the rate of interest, known as the discount rate, used to translate past and future cash flows into current dollars at that time. To account for the difference between the trust fund's current balance and the balance desired for the end of the period, the balance at the beginning is added to projected tax revenues, and an additional year of costs at the end of the period is added to projected outlays.

Figure B-3.

Comparison of CBO's 2016 and 2017 Projections of Net Spending for Interest Under the Extended Baseline
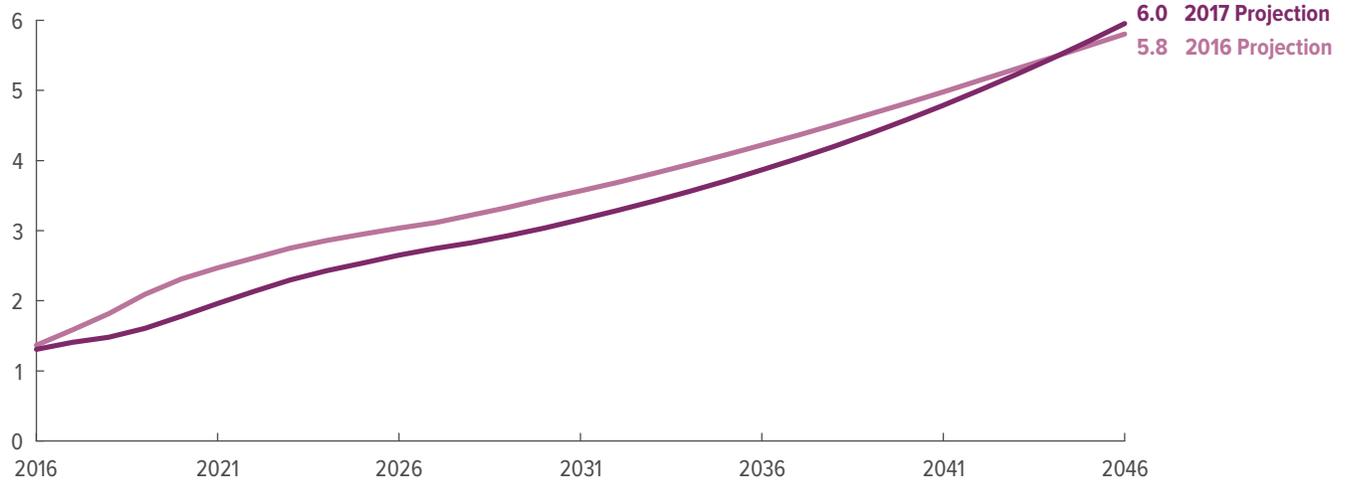
Percentage of Gross Domestic Product

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period.

reduced projected wages and payroll tax receipts more than it decreased projected spending.

Another commonly used measure of Social Security's sustainability is a trust fund's date of exhaustion. CBO projects that, under current law, the Disability Insurance (DI) trust fund would be exhausted in fiscal year 2023 and the Old-Age and Survivors Insurance (OASI) trust fund would be exhausted in calendar year 2031. The combined OASDI trust funds are projected to be exhausted in calendar year 2030. Last year, those exhaustion dates were one year earlier.

Changes in Long-Term Budget Projections Since January 2017
CBO published updated long-term budget projections in January 2017, but those projections were not a full update of CBO's July 2016 results. Instead, those projections followed the January 2017 baseline

projections from 2017 to 2027 and then, for years after 2027, incorporated long-term economic projections that had been updated on an interim basis and applied those to estimates of spending for Social Security and net interest. For other components of the budget, CBO adopted a simplified approach that it uses regularly between full updates—in this case, by incorporating the growth rates for such components from the extended baseline in *The 2016 Long-Term Budget Outlook*. The current report, by contrast, fully incorporates new budget, economic, and demographic projections into CBO's long-term model.

Federal debt held by the public is now projected to reach 150 percent of GDP in 2047; in January, CBO projected it would reach 145 percent in that year. That change primarily reflects higher projected total outlays toward the end of the 30-year period.