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An Update to the Budget and Economic Outlook: 2016 to 2026

Provided as a convenience, this "screen-friendly" version is identical in content to the principal ("printer-friendly") version of the report. Any tables, figures, and boxes appear at the end of this document; click the hyperlinked references in the text to view them.

Notes

Unless otherwise indicated, all years referred to in describing the budget outlook are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end. Years referred to in describing the economic outlook are calendar years.

Numbers in the text, tables, and figures may not add up to totals because of rounding. Also, some values are expressed as fractions to indicate numbers rounded to amounts greater than a tenth of a percentage point.

Some figures in this report have vertical bars that indicate the duration of recessions. (A recession extends from the peak of a business cycle to its trough.)

The Congressional Budget Office's economic forecast was completed in early July. Unless otherwise indicated, projections of economic variables presented in this report are based on information that was available at that time; in particular, the projections do not reflect the annual revisions to the national income and product accounts, which this year the Bureau of Economic Analysis released on July 29. However, the actual and historical data shown in figures describing the economic forecast are based on those revisions, and so are discussions of recent economic events in the text. The implications of the revisions for CBO's economic projections are described in Box 2-1.

As referred to in this report, the Affordable Care Act comprises the Patient Protection and Affordable Care Act (Public Law 111-148), the health care provisions of the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152), and the effects of subsequent judicial decisions, statutory changes, and administrative actions.

Supplemental data for this analysis are available on CBO's website (www.cbo.gov/publication/51908), as is a glossary of common budgetary and economic terms (www.cbo.gov/publication/42904).

Summary

In fiscal year 2016, the federal budget deficit will increase in relation to economic output for the first time since 2009, the Congressional Budget Office estimates. If current laws generally remained unchanged—an assumption underlying CBO's baseline projections—deficits would continue to mount over the next 10 years, and debt held by the public would rise from its already high level.

CBO's estimate of the deficit for 2016 has increased since the agency issued its previous estimates in March, primarily because revenues are now expected to be lower than earlier anticipated.[1] In contrast, the cumulative deficit through 2026 is smaller in CBO's current baseline projections than the shortfall projected in March, chiefly because the agency now projects lower interest rates and thus lower outlays for interest payments on federal debt. Nevertheless, by 2026, the deficit is projected to be considerably larger relative to gross domestic product (GDP) than its average over the past 50 years.

CBO's economic forecast—which serves as the basis for its budget projections—indicates that, after a tepid expansion in the first half of 2016, economic growth will pick up in the second half of the year. That faster pace is expected to continue through 2017 before moderating in 2018. In CBO's estimation, the faster growth over the next two years will spur hiring, increase employment and wages, and put upward pressure on inflation and interest rates. In the latter part of the 10-year projection period, however, output will be constrained by a relatively slow increase in the nation's supply of labor.

The growth in GDP that CBO now projects is slower throughout the 2016–2026 period than the agency projected in January.[2] Weaker-than-expected economic growth indicated by data released since January, recent developments in the global economy, and a reexamination of projected productivity growth contributed to that downward revision. The reduction to CBO's projections of interest rates reflects the revisions to projected economic growth as well as CBO's reassessment of the future demand for Treasury securities.

The Budget Deficit for 2016 Will Be About One-Third Larger Than Last Year's

CBO now estimates that the 2016 deficit will total $590 billion, or 3.2 percent of GDP, exceeding last year's deficit by $152 billion (see Summary Table 1). About $41 billion

1. For CBO's March 2016 projections, see Congressional Budget Office, *Updated Budget Projections: 2016 to 2026* (March 2016), www.cbo.gov/publication/51384.

2. CBO's previous economic projections were reported in January 2016; see Congressional Budget Office, *The Budget and Economic Outlook: 2016 to 2026* (January 2016), www.cbo.gov/publication/51129.

of that increase results from a shift in the timing of some payments that the government would ordinarily have made in fiscal year 2017; those payments will instead be made in fiscal year 2016 because October 1, 2016 (the first day of fiscal year 2017), falls on a weekend.[3] If not for that shift, the projected deficit in 2016 would be $549 billion, or 3.0 percent of GDP—still considerably higher than the deficit recorded for 2015, which was 2.5 percent of GDP.

The deficit is growing in 2016 because revenues are up only slightly, by less than 1 percent ($26 billion), whereas outlays are projected to rise by 5 percent ($178 billion). As a share of GDP, total revenues are expected to fall from 18.2 percent to 17.8 percent. In contrast, outlays are projected to rise to 21.1 percent of GDP, up from 20.7 percent last year. That increase is the result of the following: a 6 percent rise, in nominal terms, in mandatory spending for programs such as Social Security and Medicare (which is generally governed by statutory criteria); a 1 percent increase in discretionary outlays (which stem from annual appropriations); and an 11 percent jump in net interest outlays.[4] Debt held by the public will amount to nearly 77 percent of GDP by the end of 2016, CBO estimates—3 percentage points higher than last year and its highest ratio since 1950.

Growing Deficits Projected Through 2026 Would Drive Up Debt

In CBO's baseline projections, the budget deficit is generally on an upward trend over the next decade, reaching 4.6 percent of GDP in 2026. A slight decline in the deficit over the next two years is largely explained by the shift in the timing of payments from one fiscal year to another because certain scheduled payments fall on weekends. In later years, continued growth in spending—particularly for Social Security, Medicare, and net interest—would outstrip growth in revenues, resulting in larger deficits and increasing debt.

Outlays

In CBO's projections, annual federal outlays rise by $2.4 trillion (or about 60 percent) from 2016 to 2026. Relative to the size of the economy, outlays remain near 21 percent of GDP for the next few years—higher than their average of 20.2 percent over the past 50 years. Later in the coming decade, the growth in outlays would exceed growth in the economy, and by 2026, outlays would rise to 23.1 percent of GDP. That

3. October 1 will fall on a weekend not only in calendar year 2016 but also in calendar years 2017, 2022, and 2023. In all of those years, certain payments due on October 1 will instead be made at the end of September and thus be shifted into the previous fiscal year. The shifts noticeably boost projected spending and deficits in fiscal years 2016 and 2022 and reduce them in fiscal years 2018 and 2024.

4. About $37 billion of the increase in mandatory spending and $4 billion of the increase in discretionary spending result from the timing shift mentioned above. If not for that shift, total outlays would rise by 4 percent this year (and equal 20.8 percent of GDP); mandatory spending would rise by 4 percent, and discretionary spending by 1 percent.

increase reflects significant growth in mandatory spending and interest payments, offset somewhat by a decline, in relation to the size of the economy, in discretionary spending. More specifically:

- Outlays for mandatory programs are projected to rise by close to 70 percent in nominal terms from 2016 to 2026, increasing as a percentage of GDP by almost 2 percentage points over that period. That increase is mainly attributable to the aging of the population and rising health care costs per person, which substantially boost projected spending for Social Security and Medicare.

- Because of rising interest rates and, to a lesser extent, growing federal debt, the government's interest payments on that debt are projected to rise sharply over the next 10 years—nearly tripling in nominal terms and almost doubling relative to GDP.

- In contrast, discretionary spending is projected to rise by a much smaller amount in nominal terms, consequently dropping to a smaller percentage of GDP than in any year since 1962 (the first year for which comparable data are available).

Revenues

If current laws generally remained unchanged, revenues would gradually rise—by $1.7 trillion, or about 50 percent, from 2016 to 2026—increasing from 17.8 percent of GDP in 2016 to 18.5 percent by 2026. They have averaged 17.4 percent of GDP over the past 50 years.

Only revenues from individual income taxes would grow faster than the economy. In CBO's baseline, with revenues from each source measured as a percentage of GDP:

- Receipts from individual income taxes increase each year—for a total rise of 1.3 percentage points over the 10-year period—because of real bracket creep (the process in which, as income rises faster than prices, an ever-larger proportion of income becomes subject to higher tax rates), rising distributions from tax-deferred retirement accounts, an increase in the share of wages and salaries earned by higher-income taxpayers, and other factors.

- Remittances from the Federal Reserve, which have been unusually high since 2010, return to more typical levels, dropping by 0.4 percentage points from 2016 to 2026.

- Payroll tax receipts decline by 0.2 percentage points over the next decade, primarily because of the expected increase in the share of wages going to higher-income taxpayers.

- Corporate income tax receipts change little over the 10-year period.

Debt Held by the Public

As deficits accumulate in CBO's baseline, debt held by the public rises from 77 percent of GDP ($14 trillion) at the end of 2016 to 86 percent of GDP ($23 trillion) by 2026. At that level, debt held by the public, measured as a percentage of GDP, would be more than twice the average over the past five decades (see Summary Figure 1). Beyond the 10-year period, if current laws remained in place, the pressures that contributed to rising deficits during the baseline period would accelerate and push up debt even more sharply. Three decades from now, for instance, debt held by the public is projected to be about twice as high, relative to GDP, as it is this year—which would be higher than the United States has ever recorded.[5]

Such high and rising debt would have serious negative consequences for the budget and the nation:

- Federal spending on interest payments would increase substantially as a result of increases in interest rates, such as those projected to occur over the next few years.
- Because federal borrowing reduces total saving in the economy, the nation's capital stock would ultimately be smaller, and productivity and total wages would be lower.
- Lawmakers would have less flexibility to use tax and spending policies to respond to unexpected challenges.
- The likelihood of a fiscal crisis in the United States would increase. There would be a greater risk that investors would become unwilling to finance the government's borrowing needs unless they were compensated with very high interest rates; if that happened, interest rates on federal debt would rise suddenly and sharply.

The Projected Deficit for 2016 Is Larger Than CBO's March Estimate, but the 10-Year Deficit Is Below Previous Projections

The deficit that CBO now projects for 2016 is $56 billion larger than the amount the agency estimated in March. Revenues and outlays are both expected to be lower: revenues by $87 billion, mostly as a result of lower collections of individual and corporate income taxes, and outlays by $31 billion.

For the 2017–2026 period, CBO now projects a cumulative deficit that is $0.7 trillion smaller than the $9.3 trillion the agency previously projected. The average deficit in the baseline over the 2017–2026 period is 3.8 percent of GDP, compared with the 4.0 percent CBO projected in March.

5. See Congressional Budget Office, *The 2016 Long-Term Budget Outlook* (July 2016), www.cbo.gov/publication/51580. The projection of debt held by the public that CBO published in that report was based on the agency's March 2016 baseline projections.

That decrease stems primarily from revisions to CBO's economic forecast. Projected revenues over the 10-year period are $0.4 trillion (1 percent) lower, in large part because of lower projected nominal GDP. However, projected outlays are lower by much more—$1.1 trillion (2 percent)—mainly because CBO anticipates lower interest rates, and thus smaller interest payments, than it did in March.

By 2026, debt held by the public is projected to total $23 trillion, whereas in March it was projected to total $24 trillion. Because CBO also lowered its projection of GDP for that year, both of those amounts equal 86 percent of GDP.

Economic Growth and Interest Rates Are Projected to Increase in the Near Term but Remain Lower Than in Earlier Decades

According to CBO's projections, the economic expansion over the next two years will reduce the quantity of underused resources, or "slack," in the economy. In addition, interest rates on federal borrowing are expected to rise over the next few years. Beyond the next two years, the economy is expected to grow more slowly.

Economic Growth

In real terms (that is, with adjustments to exclude the effects of inflation), GDP rose at an annual rate of 1.0 percent in the first half of calendar year 2016. However, CBO expects that the economy will expand more rapidly in the coming months, with GDP growing by 2.0 percent over the whole of 2016 and by 2.4 percent in 2017—mainly because the major forces restraining the growth of investment, such as a decline in oil prices, have begun to subside (see Summary Figure 2). Economic growth is expected to slow in 2018 and fall below but remain close to the growth of potential (maximum sustainable) GDP in 2019 and 2020. Most of the growth in output during the coming years will be driven by consumers, businesses, and home builders, CBO anticipates.

CBO's projections for the second half of the 10-year period are not based on forecasts of cyclical developments in the economy; rather, they are based on the projected trends of underlying factors, such as growth in the labor force, the number of hours worked, and productivity. According to those projections, productivity will grow faster than it did over the past decade, and both actual and potential GDP will expand at an average annual rate of about 2 percent. However, that rate represents a significant slowdown from the average growth in potential output that occurred during the 1980s, 1990s, and early 2000s—mainly because of slower projected growth in the nation's supply of labor, which is largely attributable to the ongoing retirement of baby boomers and the relatively stable labor force participation rate among working-age women.

Interest Rates

Because of slow economic growth in the first half of the year and increased uncertainty about global economic growth and financial stability, CBO expects the Federal Reserve to hold the target range for the federal funds rate at 0.25 percent to 0.5 percent until

the fourth quarter of 2016. (The federal funds rate is the interest rate that financial institutions charge one another for overnight loans of their monetary reserves.) CBO anticipates that the central bank will gradually reduce the extent to which monetary policy supports economic growth, and, as a result, the federal funds rate will rise to 1.8 percent in the fourth quarter of 2018 and average 3.1 percent during the 2021–2026 period.

Interest rates on federal borrowing will also increase gradually over the next few years, CBO projects, as slack in the economy continues to diminish, inflation returns to the Federal Reserve's 2 percent target, and the federal funds rate rises. For example, CBO projects that the interest rate on 10-year Treasury notes will be 1.9 percent in the fourth quarter of 2016, rise to 3.4 percent in the fourth quarter of 2020, and average 3.6 percent over the 2021–2026 period. That projected rise in interest rates reflects the expectation that both foreign and domestic economic growth will improve, which should result in higher interest rates abroad as well as in the United States. In addition, CBO expects the "term premium"—the extra return paid to bondholders for risk associated with holding long-term Treasury securities—to increase from historically low levels. In CBO's estimation, the term premium has remained low, in part, because of low foreign interest rates, heightened concern about global economic growth, and increased demand for Treasury securities as a hedge against possible adverse economic outcomes.

Although CBO projects that interest rates will rise above those currently in effect, they would still be lower than the average rates during the 25-year period that preceded the most recent recession for several reasons: slower growth in the labor force, slightly slower growth in productivity, and only partial dissipation of the factors that have held down the term premium and increased the demand for Treasury securities.

The Labor Market

According to CBO's estimates, the growth in output will heighten demand for labor over the next year and a half, leading to solid employment gains and eliminating labor market slack in 2017, thereby putting upward pressure on wages. The agency projects that the unemployment rate will fall below the estimated natural rate of unemployment (the rate that arises from all sources except fluctuations in the overall demand for goods and services), bottoming out at 4.5 percent in the fourth quarter of 2017. In CBO's projections for later years, which are primarily based on long-term trends, the unemployment rate rises to 4.9 percent.

The increases in employment and wages in the near term are expected to mitigate an otherwise prevailing decline in participation in the labor force—both by encouraging people who were out of the labor force because of weak job prospects to enter it and by encouraging people who were considering leaving the labor force to remain in it. As a result, CBO anticipates that over the next year and a half, the rate of labor force participation will change little from the 62.7 percent that it was in the second quarter of

this year. (The labor force participation rate is the percentage of people in the civilian noninstitutionalized population who are at least 16 years old and are either working or seeking work.) It is projected to decline by roughly 2½ percentage points through 2026.

The prevailing decline in the labor force participation rate reflects underlying demographic trends and, to a smaller degree, federal policies. More specifically, the factors that contribute to that decline include the continued retirement of baby boomers, reduced participation by less-skilled workers, and the lingering effects of the recession and weak recovery. In addition, certain aspects of federal laws, including provisions of the Affordable Care Act and the structure of the tax code, will reduce participation in the labor force by reducing people's incentive to work or seek work.

Inflation

CBO expects that the diminishing slack in the economy, along with higher prices for crude oil, will put upward pressure on prices for goods and services. That upward pressure will be somewhat alleviated by the effects of a strong dollar in relation to other currencies. This year, CBO projects, the rate of inflation in the price index for personal consumption expenditures will rise to 1.5 percent from 0.5 percent in 2015. In 2017, the rate of inflation is projected to rise to the Federal Reserve's longer-run goal of 2.0 percent; in CBO's projections, it remains at that rate throughout the coming decade.

GDP and Interest Rates Are Now Projected to Be Lower Than CBO Estimated in January

CBO's current economic projections differ in two important respects from those the agency made in January 2016. First, potential and actual real GDP are lower: By 2026, those measures are 1.6 percent lower than CBO previously projected. Second, interest rates are significantly lower than CBO projected in January. By 2026, short-term rates are 0.4 percentage points lower, and long-term rates are 0.5 percentage points lower. Other changes to CBO's projections are more modest.

CBO now projects slower growth in real GDP for 2016, largely because growth during the first half of the year was weaker than previously anticipated. Downward revisions to potential and actual GDP over the decade were made on the basis of new data and a reassessment of projected growth in the labor force and in potential total factor productivity in the nonfarm business sector. (Total factor productivity is the average real output per unit of combined labor and capital services.)

The weak growth so far this year, coupled with uncertainty about the effects of the United Kingdom's vote to leave the European Union, leads CBO to anticipate that the Federal Reserve will raise the federal funds rate more slowly than was projected in January. As a result of that revision, and because of lower projected interest rates

abroad, CBO has revised downward its projections for the interest rates on 3-month Treasury bills and 10-year Treasury notes over the next several years. The downward revision to interest rates over the rest of the decade primarily reflects greater expected demand for Treasury securities.

Chapter 1: The Budget Outlook

The Congressional Budget Office estimates that the federal budget deficit in fiscal year 2016 will total $590 billion, or 3.2 percent of gross domestic product (GDP), up from 2.5 percent in 2015. This year's deficit will mark the first increase in the budget shortfall, measured as a share of the nation's output, since 2009 (see Figure 1-1). As a result, debt held by the public is expected to increase to almost 77 percent of GDP at the end of 2016—about 3 percentage points higher than last year's amount and the highest ratio since 1950.

The deficit projected for this year is $56 billion above the estimate that CBO published in March, primarily because receipts from individual and corporate income taxes have been lower than anticipated.[6] The agency also has reduced its baseline projection of the cumulative deficit for the 2017–2026 period by $712 billion—from $9.3 trillion to $8.6 trillion. The projected deficit for 2017 is larger, but those projected for every year between 2018 and 2026 are smaller.

Revenues in CBO's baseline over the 10-year period are $431 billion (or 1 percent) below the amount that CBO previously reported, in large part because of lower projected nominal GDP. However, projected outlays decline by a larger amount—$1.1 trillion (or 2 percent)—mainly because CBO anticipates lower interest rates and thus smaller interest payments than it did in March. Despite the reduction in projected deficits, debt held by the public at the end of 2026 remains at about the same percentage of GDP, largely because CBO has reduced its estimate of economic output in that year.

As specified in law, CBO constructs its baseline projections of federal revenues and spending under the assumption that current laws will generally remain unchanged. Under that assumption, annual budget shortfalls in CBO's baseline rise substantially over the 2017–2026 period—from a low of $520 billion in 2018 to $1.2 trillion in 2026.[7] That increase is projected to occur mainly because growth in revenues would be outpaced by a combination of significant growth in spending on health care and

6. See Congressional Budget Office, *Updated Budget Projections: 2016 to 2026* (March 2016), www.cbo.gov/publication/51384.

7. CBO's updated baseline projections incorporate the effects of legislation and administrative actions through July 15, 2016.

retirement programs—caused by the aging of the population and rising health care costs per person—and growing interest payments on federal debt.

Deficits are projected to dip from 3.1 percent of GDP in 2017 to 2.6 percent in 2018 and then to begin rising again, reaching 4.6 percent at the end of the 10-year period—significantly above the average deficit as a percentage of GDP between 1966 and 2015. Over the next 10 years, revenues and outlays alike are projected to be above their 50-year averages as measured relative to GDP (see Figure 1-2).

In CBO's current baseline projections, federal debt held by the public as a percentage of GDP grows in nearly every year, reaching 86 percent by 2026. By comparison, federal debt has averaged 39 percent of GDP over the past five decades. Beyond 2026, if current laws remained in place, the pressures that contribute to rising deficits during the coming decade would accelerate and push debt up sharply relative to GDP.[8]

Such high and rising debt would have serious consequences, both for the economy and for the federal budget. Federal spending on interest payments would increase substantially as a result of increases in interest rates, such as those projected to occur over the next few years. Moreover, because federal borrowing reduces national saving over time, the nation's capital stock ultimately would be smaller, and productivity and income would be lower than would be the case if the debt was smaller. In addition, lawmakers would have less flexibility than otherwise to respond to unexpected challenges, such as significant economic downturns or financial crises. Finally, the likelihood of a fiscal crisis in the United States would increase. Specifically, the risk would rise of investors' becoming unwilling to finance the government's borrowing unless they were compensated with very high interest rates. If that occurred, interest rates on federal debt would rise suddenly and sharply relative to rates of return on other assets.

The Budget Outlook for 2016

In the absence of additional legislation that would affect spending or revenues, the deficit in fiscal year 2016 will be $590 billion, $152 billion more than the shortfall recorded in 2015, CBO estimates (see Table 1-1). Part of that increase is attributable to a shift of certain payments from fiscal year 2017 into fiscal year 2016 (because October 1, 2016, falls on a weekend). Without that shift, CBO estimates, the deficit would amount to $549 billion in 2016. (For more details about timing shifts in the baseline, see Box 1-1.)

Even after adjusting for the shift in payments, CBO anticipates an increase in the budget shortfall for 2016. Revenues, which rose by almost 8 percent last year, are expected to increase by about 1 percent in 2016—significantly less than the increase in outlays,

8. For a more detailed discussion, see Congressional Budget Office, *The 2016 Long-Term Budget Outlook* (July 2016), www.cbo.gov/publication/51580.

which are anticipated to grow by nearly 4 percent this year (after adjusting for the timing shifts). As a percentage of GDP, the deficit will increase in 2016 to 3.2 percent, CBO estimates, exceeding last year's deficit of 2.5 percent as well as the 2.8 percent average recorded over the past 50 years; if not for the timing shifts, the deficit would be 3.0 percent of GDP.

Outlays in 2016

Outlays are expected to increase by $178 billion this year to a total of $3.9 trillion. CBO projects that federal spending will equal 21.1 percent of GDP, which is above both last year's 20.7 percent and the 20.2 percent average over the past 50 years. If not for the shift of some payments, outlays in 2016 would increase by $137 billion and would equal 20.8 percent of GDP, CBO estimates, slightly above last year's percentage.

Growth in outlays for 2016 is driven by an increase in mandatory spending (above the rate of growth of the economy) and higher interest payments; discretionary outlays are projected to rise only slightly from last year's total. Specifically, adjusted for the shift in timing:

- Mandatory spending is estimated to rise by about 4 percent in nominal terms in 2016, increasing to 13.1 percent of GDP (compared with 12.9 percent in 2015).[9]
- Discretionary spending is projected to increase by 1 percent this year but fall to 6.4 percent of GDP (compared with 6.6 percent last year).[10]
- Net interest spending is expected to rise by about 11 percent, increasing to 1.4 percent of GDP (compared with 1.3 percent in 2015).

Mandatory Spending. Outlays for mandatory programs will rise to $2.4 trillion this year, CBO estimates, an increase of $139 billion from 2015 (see Table 1-2). Without the shift in the timing of some payments, mandatory spending would grow by $102 billion. Most mandatory spending is for the federal government's major health care programs and Social Security. Those health care programs consist of Medicare, Medicaid, and the Children's Health Insurance Program, along with federal subsidies for health insurance purchased through the marketplaces established by the Affordable Care Act (ACA) and related spending.[11] The largest increases in net outlays, compared with

9. Mandatory spending is governed by statutory criteria and is not normally controlled by the annual appropriation process.

10. Discretionary spending is controlled by annual appropriation acts that specify the amounts that are to be provided for a broad array of government activities—including, for example, defense, law enforcement, and transportation.

11. For a more detailed discussion of federal health care subsidies, see Congressional Budget Office, *Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2016 to 2026* (March 2016), www.cbo.gov/publication/51385.

spending in 2015, are attributable to growth in the major health care programs and Social Security, as well as a decrease in receipts from the auction of licenses to use the electromagnetic spectrum (the proceeds of those auctions are recorded as reductions in mandatory outlays). Those increases in outlays will be partially offset by lower spending for higher education.

Major Health Care Programs. Federal spending for the major health care programs will jump by $77 billion (or about 8 percent) in 2016, CBO estimates. That amount overstates underlying growth in those programs, however, because it reflects a $22 billion shift in the timing of certain Medicare payments from 2017 into 2016. After adjusting for the payment shift, CBO anticipates that spending for the major health care programs will rise by $55 billion (or about 6 percent) in 2016. Medicare accounts for more than half of that increase: Outlays for the program (net of premiums and other offsetting receipts) are expected to grow by $30 billion (or 6 percent) this year, largely because of increased spending per person, particularly for prescription drugs. Spending for such drugs is projected to increase by roughly 15 percent this year, after adjustments for timing shifts and reconciliation payments.[12] Much of that increase stems from spending for people whose out-of-pocket costs for prescription drugs exceed the catastrophic limit on out-of-pocket spending.

Medicaid outlays are expected to climb by $15 billion (or 4 percent) this year; that rate of growth is roughly one-quarter of the increase recorded in 2015, in part because the optional expansion of coverage authorized by the ACA has been in place for two years and the rapid growth in enrollment that occurred during the initial stage of the expansion has begun to moderate. In total, CBO anticipates that Medicaid enrollment will be roughly flat in 2016 (compared with an estimated 5.5 percent increase in 2015).

Outlays for the Children's Health Insurance Program will increase by $5 billion in 2016, to $14 billion, CBO estimates. That growth stems almost entirely from an increase in the rate at which the federal government matches states' payments; that increase went into effect at the beginning of the fiscal year.

Outlays for subsidies that help eligible people purchase health insurance through marketplaces, as well as related spending, will total $43 billion in 2016, CBO estimates—an increase of $5 billion. That growth largely reflects an increase in the number of people who are estimated to have purchased subsidized coverage through the marketplaces (on average, 9 million in calendar year 2016, compared with 8 million in calendar year 2015) and an increase in premiums for such coverage.

Social Security. CBO estimates that outlays for Social Security benefits will climb by $28 billion, or 3 percent, this year. That percentage increase is about a percentage point below the rate of growth in 2015, primarily because there was no cost-of-living adjustment for beneficiaries in January 2016.

12. Reconciliation payments are adjustments typically made two years after initial disbursements were made for certain elements of the prescription drug program.

Spectrum Auctions. Net receipts from the 2015 auction of licenses to use a portion of the electromagnetic spectrum will total $9 billion in 2016; that auction brought in $30 billion in 2015. Those lower receipts have the effect of boosting outlays in 2016 by $21 billion relative to the total in the previous year.

Higher Education. Although mandatory outlays for higher education totaled $22 billion in 2015, they are expected to be just $5 billion this year. Those outlays include subsidy costs for federal student loans issued in the current year, revisions to the subsidy costs for loans made in previous years, and mandatory spending for the Federal Pell Grant Program. This year, the Department of Education has recorded a revision to the subsidy costs for past loans that resulted in a $7 billion increase in outlays; the 2015 revision was larger, increasing outlays by $18 billion. That difference accounted for most of the drop in mandatory outlays for higher education this year.[13] In addition, CBO estimates that mandatory outlays for Pell grants will fall by $4 billion in 2016.[14]

Discretionary Spending. CBO anticipates that outlays from annual appropriations will total nearly $1.2 trillion in 2016—$13 billion more than last year (see Table 1-3). Although defense outlays will fall slightly (their fifth consecutive year of decline), nondefense discretionary outlays will increase for the third consecutive year, more than offsetting the decline in defense spending.

Defense outlays, which amounted to $583 billion in 2015, will fall by $4 billion, to $579 billion, according to CBO's calculations. If not for the shift in the payment date for military pay, outlays would total $575 billion, a decline of about 1 percent. Most of that change will result from a reduction in spending designated for overseas contingency operations (war-related activities, primarily in Afghanistan). Such spending will decrease by roughly $5 billion this year, CBO estimates. All told, defense outlays in 2016 are expected to be 18 percent less (in nominal dollars) than they were at their peak in 2011; roughly 70 percent of that decline will stem from lower spending for military operations in Afghanistan and Iraq.

13. Under the Federal Credit Reform Act, a program's subsidy costs are calculated by subtracting the present value of the government's projected receipts from the present value of its projected payments. The estimated subsidy costs can be increased or decreased in subsequent years to reflect updated assessments of the payments and receipts associated with the program. Present value is a single number that expresses a flow of current and future income (or payments) in terms of an equivalent lump sum received (or paid) today. The present value depends on the rate of interest (the discount rate) that is used to translate future cash flows into current dollars.

14. Most of the Pell grant program is funded through discretionary appropriations; such outlays are anticipated to rise by $3 billion this year. All told, spending for Pell grants—including both mandatory and discretionary outlays—will dip by $1 billion in 2016, CBO estimates, primarily because of a drop in the number of students receiving such grants.

CBO expects that nondefense discretionary outlays will increase by $18 billion (or 3 percent) in 2016, to $602 billion. A lower negative subsidy rate for mortgage guarantees by the Federal Housing Administration accounts for $5 billion of that increase in outlays.[15] Because such receipts are recorded as reductions in discretionary outlays, the decline in receipts will cause overall spending for nondefense programs to rise. In addition, discretionary outlays for Pell grants will climb by $3 billion this year, CBO estimates.[16] The remaining growth in nondefense discretionary outlays is the result of a number of relatively small increases in spending for various programs. In total, nondefense outlays in 2016 will be about 9 percent less than their peak in 2010.

Net Interest. Outlays in this category consist of the government's interest payments on debt held by the public minus interest income the government receives. In 2016, such outlays will rise to $248 billion, from $223 billion last year, CBO estimates. The increase stems primarily from adjustments to the principal of inflation-protected securities.[17] (Those adjustments are made monthly to account for inflation and recorded as outlays for interest; they are based on the consumer price index for all urban consumers.) The continued accumulation of debt also contributes to the increase in outlays for net interest.

Revenues in 2016

On the basis of tax collections through July 2016, CBO expects federal revenues to total $3.3 trillion this fiscal year, $26 billion (or about 1 percent) more than in 2015. CBO anticipates that revenues will decline from 18.2 percent of GDP in 2015 to 17.8 percent in 2016, closer to the 17.4 percent average over the past 50 years.

Individual Income Taxes. CBO estimates that collections of individual income taxes will increase by $13 billion (or about 1 percent) in 2016. Specifically, CBO expects that taxes withheld from paychecks will rise by $30 billion (or 2 percent), most likely because of growth in wages and salaries. Offsetting that rise are higher refunds of $14 billion and lower nonwithheld payments of $3 billion. The sources of that $18 billion decrease in revenues will become clearer as tax return data become available over the next two years.

Payroll Taxes. CBO expects that receipts from payroll taxes—which primarily fund Social Security and Medicare's Hospital Insurance program—will increase by $49 billion (or about 5 percent) this year, largely from increases in withheld taxes for Social Security and Medicare that stem from rising wages and salaries. The expected increase in withheld payroll taxes exceeds that for withheld individual income taxes; however, the amounts currently recorded for those two sources are allocations of total withholding made on the

15. A negative subsidy indicates that, for budgetary purposes, the transactions are recorded as generating net income for the government.

16. However, mandatory spending for Pell grants will fall by $4 billion in 2016.

17. At the end of July, there were $1.2 trillion of Treasury inflation-protected securities outstanding.

basis of estimates by the Department of the Treasury. When actual tax return data for 2016 become available, the department may reallocate the 2016 receipts from those two sources by adjusting the amounts recorded for 2017 (or some subsequent year). Taken together, receipts from withheld individual income and payroll taxes are expected to rise by 4 percent in 2016.

Corporate Income Taxes. Income tax payments by corporations, net of refunds, are expected to decrease by $44 billion (or 13 percent) in 2016. Such payments declined in most of the first 10 months of the fiscal year, compared with the same period a year ago, and that trend is expected to continue in September, when a significant amount of estimated payments are due. At least some of the decline in receipts probably stems from the enactment in December 2015 of the Consolidated Appropriations Act, 2016 (Public Law 114-113), which extended—retroactively and prospectively—tax rules that allow businesses with large amounts of investment to accelerate their deductions for those investments. Since that law's enactment, businesses know that those tax rules will be in effect for all of 2016; as a result, many are making smaller payments of estimated taxes in 2016 than they made in 2015, when the rules had temporarily expired.

However, the drop in 2016 is greater than can be explained by currently available data on business activity. The specific reasons will become clearer as detailed information from corporate income tax returns about taxable profits becomes available over the next two years. The decrease may in part reflect taxable profits in 2015 and 2016 that are smaller than would be expected given other economic indicators.

Other Revenues. CBO expects that other revenues will increase, on net, by $9 billion (or 3 percent) in 2016. Most of that increase stems from remittances by the Federal Reserve, which are expected to increase by $19 billion (or 19 percent), largely because the Fixing America's Surface Transportation Act (P.L. 114-94) required the Federal Reserve to remit most of its surplus account to the Treasury. The central bank remitted that additional amount ($19 billion) in late December.[18] All other receipts, which had been boosted in 2015 by unusually large civil monetary penalties paid by financial institutions, are expected to decrease by $10 billion, on net.

CBO's Baseline Budget Projections for 2017 Through 2026

CBO's baseline projections are not a forecast of future outcomes. They are constructed in accordance with provisions of the Congressional Budget and Impoundment Control

18. Such transfers have no practical effect on the government's fiscal condition because the Federal Reserve would have remitted its earnings on such funds to the Treasury anyway; whether those amounts are held by the Treasury or by the Federal Reserve has no economic significance. See Congressional Budget Office, letter to the Honorable Tom Price concerning a revision to the CBO cost estimate for the Surface Transportation Reauthorization and Reform Act of 2015 transmitted on November 17, 2015 (November 19, 2015), pp. 3–4, www.cbo.gov/publication/51015.

Act of 1974 and the Balanced Budget and Emergency Deficit Control Act of 1985. As those laws specify, CBO constructs its baseline projections under the assumption that current laws governing taxes and spending will generally remain unchanged; the projections can therefore serve as a benchmark for measuring potential changes in law.

Under that assumption, CBO projects, the budget deficit would fall over the next two years—from 3.2 percent of GDP in 2016 to 3.1 percent in 2017 and to 2.6 percent in 2018. That pattern of declining deficits over the next two years is mostly attributable to shifts in the timing of certain payments; without those shifts, the deficit would total 3.0 percent of GDP in 2016 and 3.1 percent in 2017, before dipping to 2.8 percent in 2018.[19] Beginning in 2019, deficits would be on an upward trend, reaching 4.6 percent of GDP by the end of the projection period. That deficit in 2026 would be 1.4 percentage points larger (or 1.6 percentage points larger, adjusted for the shift in timing) than the shortfall in 2016. Specifically:

- Outlays for Social Security and the major health care programs would be higher by 2.2 percent of GDP (or 2.3 percent, adjusted for the shift in timing).
- Net interest costs would be greater by 1.3 percent of GDP.
- Other spending would be lower by 1.4 percent of GDP (or 1.3 percent, adjusted for the shift in timing).
- Revenues would be higher by 0.6 percent of GDP.

As a result of the growing deficits, debt held by the public increases in CBO's baseline, climbing from 77 percent of GDP in 2016 to 86 percent in 2026.

Even if federal laws did not change over the next decade, however, actual budgetary outcomes almost certainly would differ from CBO's baseline projections, perhaps significantly, because of unanticipated changes in economic conditions and other factors that affect federal spending and revenues. CBO's projections of outlays and revenues depend on the agency's economic projections for the coming decade—including forecasts for such variables as interest rates, inflation, and GDP—as well as myriad technical factors. Discrepancies between those economic and technical projections and actual outcomes can result in significant deviations from baseline projections of revenues and outlays. For example, if interest rates were 1 percentage point higher each year from 2017 through 2026 and if all other economic variables were unchanged, cumulative deficits projected for the 10-year period would be about $1.6 trillion higher, mostly as a result of larger interest payments on Treasury debt.[20]

19. The drop in 2018 results from several factors, including the following: Receipts from individual income taxes rise faster than GDP; a tax on health insurers is scheduled to be reinstated; and caps on budget authority for discretionary programs are scheduled to be lower in that year than in 2017.

20. For further discussion, see Congressional Budget Office, *The Budget and Economic Outlook: 2016 to 2026* (January 2016), Appendix B, www.cbo.gov/publication/51129.

Outlays From 2017 Through 2026

Under current law, total outlays are projected to hover around 21 percent of GDP through 2019, rise to 22 percent the following year, and then remain at that level for several years before reaching 23 percent at the end of the projection period. In nominal terms, outlays would grow, on net, by $2.4 trillion between 2016 and 2026, CBO estimates—an average annual increase of 5 percent. Three major components of the budget—the major health care programs, Social Security, and net interest—account for 82 percent of the total increase in outlays (see Figure 1-3). That percentage reflects adjustments to eliminate the effects of shifts in the timing of certain payments.

Mandatory Spending. CBO's projections for mandatory programs reflect the estimated effects of economic factors, caseload growth, and other influences that affect the cost of those programs. The projections also incorporate a set of across-the-board reductions (known as sequestration) that are required under current law for spending on certain mandatory programs.

Mandatory spending (net of offsetting receipts, which are recorded as reductions in outlays) is projected to increase from $2.4 trillion in 2016 to $4.1 trillion in 2026, an average yearly increase of 5.5 percent. That spending is projected to equal 13.3 percent of GDP in 2017 and 2018 (adjusted for timing shifts) and then to rise each year through the end of the projection period, reaching 15.2 percent of GDP in 2026. By comparison, the highest percentage for mandatory spending in any year since 1962 (the earliest year for which such data have been reported) was 14.5 percent in 2009, the only year such outlays have exceeded 14.0 percent of GDP.

Social Security and the Major Health Care Programs. Outlays for Social Security and the major health care programs—particularly Medicare—drive much of the growth in mandatory spending. CBO estimates that spending for those programs, net of offsetting receipts, will grow at an average annual rate of 6.0 percent over the next 10 years and will increase from 10.4 percent of GDP in 2016 to 12.6 percent in 2026. (That percentage in 2016 and the following discussion reflect adjustments to eliminate the effects of shifts in the timing of certain payments.) Specifically, in CBO's current baseline:

- Outlays for Social Security total 4.9 percent of GDP in 2017 and then rise steadily thereafter, reaching 6.0 percent of GDP in 2026 (see Figure 1-4).
- Outlays for Medicare remain at 3.1 percent of GDP through 2018 and then increase each year through 2026, when they total 4.0 percent.
- Federal outlays for Medicaid are stable relative to GDP for the next 10 years, totaling about 2 percent in each year.
- Spending on subsidies for health insurance purchased through marketplaces, along with related spending, is also stable relative to GDP over the projection period, totaling 0.4 percent in most years through 2026.

Most of the growth in spending for those programs (particularly Social Security and Medicare) results from the aging of the population. The number of people age 65 or older is now more than twice what it was 50 years ago. Over the next decade, as members of the baby-boom generation age and as life expectancy continues to increase, that number is expected to rise by more than one-third, boosting the number of beneficiaries of those programs (see Figure 1-5). As a result, projected spending for people age 65 or older in three large programs—Social Security, Medicare, and Medicaid—increases from roughly one-third of all federal noninterest spending in 2016 to about 40 percent in 2026.

Growth in health care spending per enrollee also contributes to the increase in mandatory spending (and in federal spending as a whole). Although health care spending grew more slowly in the past several years than it has historically, CBO projects that spending per enrollee in federal health care programs will grow more rapidly over the coming decade than it has in recent years.

The government also collects taxes dedicated to Social Security and Medicare; however, outlays (net of premiums and other offsetting receipts) for those two programs exceed those revenues. On net, the contribution of those two programs to the federal deficit would rise from 2.0 percent of GDP in 2017 to an average of 3.5 percent over the 2022–2026 period (see Table 1-4).

Other Mandatory Programs. Aside from spending on Social Security and the major health care programs, all other mandatory spending is projected to decline as a share of GDP, falling from 2.8 percent in 2017 to 2.5 percent in 2026. That category includes spending on income support programs (such as unemployment compensation and the Supplemental Nutrition Assistance Program), military and civilian retirement programs, most veterans' benefits, and major agriculture programs. That projected decline occurs in part because benefit levels for many of those programs are adjusted for inflation each year, and inflation in CBO's economic forecast is estimated to be well below the rate of growth in nominal GDP.

Discretionary Spending. An array of federal activities is funded or controlled through annual appropriations. Such discretionary spending includes most defense spending as well as outlays for highway programs, elementary and secondary education, housing assistance, international affairs, and the administration of justice, for example. In total, discretionary spending is projected to increase from $1.2 trillion in 2016 to $1.4 trillion in 2026, which would be an average yearly increase of 2 percent. Measured as a share of GDP, however, discretionary outlays are projected to drop from 6.4 percent in 2016 to 5.3 percent in 2026, which would be the smallest percentage in any year since 1962 (the earliest year for which such data have been reported); by comparison, over the past 50 years, discretionary outlays have averaged 8.7 percent of GDP.

Through 2021, CBO's baseline incorporates the caps on budget authority for discretionary programs established by the Budget Control Act of 2011; in later years,

the baseline reflects the assumption that such funding keeps pace with inflation.[21] Some elements of discretionary funding are not constrained by the caps—the appropriations designated for overseas contingency operations, activities designated as emergency requirements, disaster relief (up to certain limits), and certain efforts to reduce overpayments in benefit programs. For those elements, funding is assumed to grow with inflation from the amounts provided in 2016.[22]

For 2017, the cap on discretionary budget authority for defense programs is $3 billion higher than for 2016, and the cap for nondefense programs is largely unchanged. However, the year-to-year changes projected in the baseline are different:

- Discretionary budget authority for nondefense programs declines by $17 billion in 2017 primarily because, for 2016, some reductions in mandatory budget authority were included in appropriation legislation to help keep funding within limits set by the caps. (When such reductions in mandatory programs are included in appropriation acts, the savings are credited against the discretionary funding provided in those acts.) CBO's baseline for discretionary programs for 2017 does not include such changes to mandatory programs (because no such changes have been enacted for 2017), so adhering to the caps would require providing less discretionary budget authority in that year than in 2016 (unless similar changes to mandatory programs are legislated again in the appropriation process).

- Budget authority for defense programs is $4 billion greater in 2017 than in 2016 because the cap is slightly higher and because funding for overseas contingency operations is assumed to grow from this year's amount at the rate of inflation.

In 2018, CBO estimates, the caps will decline by a total of $5 billion (or about 0.5 percent) relative to 2017 amounts.[23] (That estimate incorporates the automatic reductions required by law and excludes adjustments for overseas contingency operations and other activities not constrained by the caps.)

Discretionary budget authority after 2018 would rise by about 2 percent a year, on average, reflecting the rate of increase in the caps prescribed in the Budget Control Act and under the assumption that such budget authority grows with inflation after the caps expire in 2021.

21. Budget authority is the authority provided by law to incur financial obligations that will result in immediate or future outlays of federal government funds.

22. Spending for certain transportation programs is controlled by obligation limitations, which also are not constrained by the caps on discretionary spending.

23. The Bipartisan Budget Act of 2015 canceled the automatic reductions in discretionary spending for 2017 imposed by the Budget Control Act and set new caps for that year that are, in total, $30 billion above what the limits would have been if the automatic spending reductions had occurred. (That law also made changes to the caps for 2016.) No adjustments have been made to the caps and automatic reductions in place for 2018 through 2021.

Under those assumptions, total discretionary outlays in CBO's baseline (adjusted for the shifts in the timing of certain payments) grow by 2.5 percent in 2017 and by 0.2 percent in 2018 and then keep pace with the projected 2 percent annual increase in budget authority.

Net Interest. Rising interest rates and growing federal debt are projected to boost outlays for net interest significantly. In the baseline, they nearly triple, rising from $248 billion (or 1.4 percent of GDP) in 2016 to $712 billion (or 2.6 percent of GDP) in 2026—which would be the largest ratio since 1998.

Nearly all of the projected increase in the government's borrowing costs is attributable to rising interest rates. During the coming decade, economic conditions are expected to improve, and the Federal Reserve is expected to gradually reduce support for economic growth. As a result, CBO anticipates that interest rates on Treasury securities will rise noticeably over the next several years from their current, unusually low, levels. CBO estimates that the interest rate on 3-month Treasury bills will rise from 0.4 percent in the last quarter of 2016 to 2.8 percent by the end of 2020 and will remain there through 2026. The rate on 10-year Treasury notes is projected to rise from 1.9 percent at the end of 2016 to 3.6 percent at the end of 2021 and to remain there through 2026. (For further discussion, see Chapter 2.) The remainder of the increase in net interest costs occurs mainly because of interest payments on the greater amount of debt held by the public that would accrue over the next decade as a result of the projected deficits.

Revenues From 2017 Through 2026

In CBO's baseline, total revenues rise from 17.8 percent of GDP this year to 18.5 percent in 2026. That growth mainly reflects an increase in revenues relative to GDP from individual income taxes that is partially offset by decreases in remittances from the Federal Reserve and, to a lesser extent, by decreases in payroll tax receipts relative to GDP (see Figure 1-6). The largest movements over the next decade in sources of revenues are the following:

- Individual income tax receipts are projected to increase relative to GDP in each year from 2017 to 2026 because of real bracket creep (the process in which, as real income rises, an ever-larger proportion becomes subject to higher tax rates), rising distributions from tax-deferred retirement accounts, an expected increase in the share of wages and salaries earned by higher-income taxpayers, and other factors.

- Remittances to the Treasury from the Federal Reserve—which have been very large since 2010 because of changes in the size and composition of the central bank's portfolio—decline to more typical levels.

- Payroll tax receipts are projected to decrease slightly relative to GDP over the next decade, primarily as a result of an expected continued increase in the share of wages earned by higher-income taxpayers; that increase will cause a greater share of wages to be above the maximum amount subject to Social Security payroll taxes. (That amount, which is indexed to growth in average earnings for all workers, is $118,500 in calendar year 2016.) The resulting reduction in payroll taxes offsets about three-fifths of the expected increase in individual income tax receipts that is projected to occur for the same reason.

- Corporate income tax receipts are estimated to remain relatively stable relative to GDP over the next decade—rising slightly through 2020 and then declining slightly through 2026.

All told, CBO estimates, under current law revenues would grow over the projection period by $1.7 trillion—an average annual increase of 4.3 percent. That rate is slower than the 5.0 percent rate of increase CBO projects for outlays (after adjusting for the timing of certain payments).

Individual Income Taxes. If current laws remain generally unchanged, receipts from individual income taxes are expected to rise markedly relative to GDP over the next 10 years—from 8.5 percent in 2016 to 9.8 percent by 2026, which would be a greater share of GDP than has been recorded in all but one of the past 50 years. That increase relative to the size of the economy would result mainly from the aforementioned factors.

Real Bracket Creep. The most significant factor pushing up taxes relative to income is real bracket creep. That phenomenon occurs because the income tax brackets and exemptions under both the regular income tax and the alternative minimum tax are indexed only to inflation.[24] If income grows faster than inflation, as generally occurs when the economy is growing, more income is pushed into higher tax brackets. That factor causes projected revenues measured as a percentage of GDP to rise in CBO's baseline by 0.4 percentage points from 2016 to 2026.

Retirement Income. As the population ages, taxable distributions from tax-deferred retirement accounts (including individual retirement accounts, 401(k) plans, and traditional defined benefit pension plans) will tend to grow more rapidly than GDP. CBO expects the retirement of members of the baby-boom generation to cause a gradual increase in distributions from tax-deferred retirement accounts. Under current law, CBO projects, those growing taxable distributions would boost revenues relative to GDP by 0.3 percentage points over the next decade.

Relatively Faster Growth in Earnings of Higher-Income Taxpayers. In CBO's baseline projections, earnings from wages and salaries are expected to increase faster for higher-income people than for others during the next decade—as has been the case

24. The alternative minimum tax is similar to the regular income tax but its calculation includes fewer exemptions, deductions, and rates. People who file individual income tax returns must calculate the tax owed under each system and pay the larger of the two amounts.

for the past several decades—causing a larger share of income to be subject to higher income tax rates. Over the next 10 years, CBO projects, faster growth in earnings for higher-income people would boost estimated individual income tax revenues relative to GDP by about 0.3 percentage points; that increase would be partially offset by a projected decrease in payroll tax receipts, as explained in the next section.

Other Factors. CBO anticipates that over the next decade, other factors would further boost individual income tax revenues by 0.3 percentage points, on net. The most significant of those remaining factors is the expectation that the unexplained weakness in recent receipts, which is beyond what can be accounted for in current economic data, would gradually dissipate over the next several years: Taxable income as a share of GDP and effective tax rates (total taxes as a percentage of total income) fluctuate from year to year but are expected to return to more historically typical levels, adjusted for the structure of tax law and longer-term trends in income and demographics.

Two other, smaller factors largely offset one another. The first factor is recently enacted legislation that extended a number of expiring tax provisions. That legislation reduced revenues by more in 2016 than in future years, boosting revenues in the 10-year projection period relative to the amount in 2016. The second factor is a projected decline in realizations of capital gains relative to the size of the economy to levels consistent with their historical average share of GDP (after accounting for differences in applicable tax rates).

Payroll Taxes. In CBO's baseline projections, receipts from payroll taxes gradually decline from 6.1 percent of GDP this year to 5.8 percent by 2026. The main reason for that decline is the expectation that wages and salaries will continue to grow faster for higher-earning taxpayers than for other taxpayers, which will push an increasing share of such earnings above the maximum amount per taxpayer that is subject to Social Security taxes.

Corporate Income Taxes. Under current law, CBO projects, corporate income tax receipts would rise from 1.6 percent of GDP in 2016 to 1.8 percent of GDP in 2020 and then gradually decline to 1.6 percent of GDP by 2026. That pattern over the next decade is the net effect of four main factors:

- A temporary increase in receipts between 2016 and 2020 resulting from a phaseout between 2018 and 2020 of provisions that allow firms with large amounts of investment in equipment (and certain other property) to immediately deduct from their taxable income 50 percent of the costs of those investments in 2016 and 2017.

- An increase in receipts over the next few years because the weakness in tax collections in 2016, beyond that which can be explained by currently available data on business activity, is not expected to persist permanently. CBO expects that the factors that are responsible, which will not become apparent until information from tax returns becomes available over the next two years, will gradually dissipate.

- A projected decline in domestic economic profits relative to GDP. That decline is expected to occur mainly because of an increase in the growth of labor compensation and rising interest payments on businesses' debt, and because CBO projects that nonlabor income will grow less rapidly than output (reversing a trend seen since 2000).

- An expected increase in the use of certain strategies that many corporations employ to reduce their tax liabilities. One such strategy is to shift business activity from entities subject to the corporate income tax into those subject to the individual income tax.[25] Another strategy is to increase the amount of corporate income that is shifted out of the United States through a combination of methods such as setting more aggressive transfer prices, increasing the use of intercompany loans, undertaking corporate inversions, and using other techniques.[26]

Receipts From Other Sources. The federal government also collects revenue in the form of excise taxes, estate and gift taxes, customs duties, remittances from the Federal Reserve, and miscellaneous fees and fines. CBO projects that, under current law, revenues from all of those sources would decline from 1.7 percent of GDP this year to 1.3 percent in 2026.

Most of that decline reflects projected remittances from the Federal Reserve, which will rise in 2016 as a result of recently enacted legislation and then fall as the central bank's interest expenses increase and the size and composition of its portfolio return to more typical conditions.[27] By 2026, CBO projects, remittances from the Federal Reserve will have fallen from 0.6 percent of GDP this year (the sixth consecutive year at roughly that percentage) to 0.3 percent of GDP, just above the average over the 2001–2009 period. In recent years, the central bank has significantly expanded and changed the composition of its asset holdings, boosting its earnings and subsequent remittances to the Treasury to far above typical amounts. CBO anticipates that the size and composition of the Federal Reserve's portfolio, along with its remittances to the Treasury, will gradually decline to amounts that are more typical.

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25. For a detailed analysis of the taxation of business income through the individual income tax, see Congressional Budget Office, *Taxing Businesses Through the Individual Income Tax* (December 2012), www.cbo.gov/publication/43750.

26. To allocate profits among U.S. and foreign affiliates, transactions between those affiliates must be assigned a price. The price that is set is known as the transfer price. By strategically setting transfer prices, a corporation can reduce the share of total profits that it reports on U.S. tax returns. A corporate inversion refers to a process through which a U.S. corporation changes its country of tax residence, often by merging with a foreign company. Inversions reduce U.S. corporate tax revenue both because the inverted U.S. corporation no longer must pay U.S. taxes on earnings in other countries and because a corporation can shift additional income out of the United States through the use of intercompany loans and the resulting interest expenses.

27. The income produced by the various activities of the Federal Reserve System, minus the cost of generating that income and the cost of the system's operations, is remitted to the Treasury and counted as revenues in the federal budget.

Tax Expenditures. The tax rules that form the basis of CBO's projections include an array of exclusions, deductions, preferential rates, and credits that reduce revenues for any given level of tax rates in both the individual and corporate income tax systems. Some of those provisions are called tax expenditures because, like government spending programs, they provide financial assistance for particular activities as well as to certain entities or groups of people. The tax expenditures with the largest effects on revenues are the following:

- The exclusion from workers' taxable income of employers' contributions for health care, health insurance premiums, and premiums for long-term-care insurance;
- The exclusion of contributions to and the earnings of pension funds (minus pension benefits that are included in taxable income);
- Preferential tax rates on dividends and long-term capital gains;
- The deductions for state and local taxes (on non-business income, sales, real estate, and personal property); and
- The deferral for profits earned abroad, which certain corporations may exclude from their taxable income until those profits are returned to the United States.

Tax expenditures have a substantial effect on federal revenues. On the basis of estimates prepared by the staff of the Joint Committee on Taxation (JCT), which were published before the enactment of the Consolidated Appropriations Act, 2016, and do not include numerous changes made by that law that affect tax expenditures, CBO expects that those and other tax expenditures will total almost $1.5 trillion in 2016. That amount equals about 8 percent of GDP—more than 40 percent of the revenues projected for the year. CBO estimates that if the effects of the recently enacted legislation were incorporated into the estimates, the total magnitude of tax expenditures in 2016 would be significantly larger, but by no more than 1 percentage point of GDP. Most of that amount arises from the 10 largest tax expenditures, which CBO estimates would total about 6 percent of GDP both in 2016 and over the 2017–2026 period.[28]

Federal Debt From 2017 Through 2026

Taking into consideration deficits that are projected to total $8.6 trillion under current law and accounting for the government's other borrowing needs, CBO estimates that federal debt held by the public would rise from $14.1 trillion at the end of 2016 to $23.1 trillion at the end of 2026 (see Table 1-5). Federal debt would remain near 77 percent of GDP through the end of 2018, but it would rise steadily thereafter, reaching about 86 percent of GDP at the end of 2026, CBO estimates. That amount of debt relative to the size of the economy would be the greatest since 1947.

28. For more information on how that total was determined, see Congressional Budget Office, *The Budget and Economic Outlook: 2016 to 2026* (January 2016), pp. 101–105, www.cbo.gov/publication/51129.

Debt held by the public consists mostly of securities issued by the Treasury to raise the cash that funds the federal government's activities and that it uses to pay off maturing liabilities. The net amount that the Treasury borrows by selling those securities (the amounts that are sold minus the amounts that have matured) is determined primarily by the size of the annual budget deficit. In addition, the Treasury borrows to finance student loans and other federal credit programs. CBO projects that such additional borrowing, often called other means of financing, would range from $33 billion to $76 billion annually between 2017 and 2026.

Another measure of federal debt is the amount that is subject to the statutory limit on federal borrowing. In addition to debt held by the public, that amount includes debt issued to accounts of various federal agencies, such as the Social Security trust funds. (Debt issued by agencies other than the Treasury and the Federal Financing Bank is excluded from the debt limit.) Currently, there is no statutory limit on the issuance of new federal debt because the Bipartisan Budget Act of 2015 (P.L. 114-74) suspended the debt ceiling from November 2, 2015, through March 15, 2017. In the absence of any legislative action on the debt limit before the suspension ends, the amount of borrowing accumulated during that period will be added to the previous debt limit of $18.1 trillion on March 16, 2017. In CBO's baseline projections, the amount of outstanding debt subject to limit increases from $19.4 trillion at the end of 2016 to $28.2 trillion at the end of 2026. (For those projections, CBO assumes that increases in the statutory ceiling would occur as necessary.)

Alternative Assumptions About Fiscal Policy

To illustrate the ways in which future deficits would be affected by various decisions of policymakers about federal spending programs and the federal tax system, CBO estimated the budgetary effects of several alternative policies (see Table 1-6). The discussion here focuses on the policies' direct effects on revenues and outlays, but the changes also would affect the amount of interest paid on federal debt (those costs are shown separately in the table).

Discretionary Spending

Policymakers could vary discretionary funding from CBO's baseline amounts. For example, if appropriations grew each year at the same rate as inflation after 2016, discretionary spending would be $717 billion above the baseline amount for the 2017–2026 period. If, by contrast, lawmakers kept appropriations at the nominal 2016 amount, total discretionary outlays would be $738 billion lower over that 10-year period. Under that scenario (sometimes called a freeze in regular appropriations), total discretionary spending would fall from 6.4 percent of GDP in fiscal year 2016 to 4.5 percent in 2026.

Automatic Spending Reductions

The Budget Control Act put in place automatic procedures to reduce discretionary and mandatory spending through 2021.Those procedures require equal reductions (in

dollar terms) in defense and nondefense spending. The Bipartisan Budget Act of 2015 canceled discretionary reductions for 2016 and 2017 and instead set new caps for those years. That law also extended the required reductions to mandatory spending (by means of sequestration) through 2025. If lawmakers chose to prevent those automatic cuts each year—starting in 2017—without making other changes that reduced spending, total outlays over the 2017–2026 period would be $897 billion (or about 2 percent) higher than the amounts in CBO's baseline. Total discretionary outlays would be $768 billion (or 6 percent) higher, and outlays for mandatory programs—most of which are not subject to sequestration—would be $129 billion (or 0.4 percent) higher.[29]

Revenues

A number of tax provisions are scheduled to expire over the next decade. Most have been extended several times. Most recently, the Consolidated Appropriations Act, 2016 (enacted in December 2015), made permanent some provisions that had expired or were scheduled to expire and temporarily extended others. That law also phases out the ability of businesses with large amounts of investment to expense (immediately deduct from their taxable income) qualifying equipment investment, allowing those companies to expense 50 percent of such investment through 2017, 40 percent in 2018, and 30 percent in 2019, after which the partial-expensing provisions are scheduled to expire. That law also postpones or suspends for one or two years certain taxes related to health care.

If the provision allowing for 50 percent expensing became permanent after 2017, it would reduce revenues (and increase outlays for refundable tax credits) by a total of $245 billion over the 2018–2026 period, JCT estimates. If, instead, the provision allowing for 30 percent expensing became permanent after 2019, it would reduce revenues (and increase outlays) by a total of about $145 billion from 2020 through 2026. If all other tax provisions scheduled to expire before 2027 were permanently extended, CBO and JCT estimate, revenues would be lower by $173 billion over the 2017–2026 period.

Deficits also would increase if delays in the implementation of certain taxes established by the Affordable Care Act were extended or made permanent. The Consolidated Appropriations Act, 2016, suspended for 2016 and 2017 the medical device tax that took effect in 2013, placed a moratorium for 2017 on the health insurance provider tax that took effect in 2014, and postponed for two years (to 2020) the start of the tax on high-premium health insurance plans. Permanently repealing those taxes would reduce revenues by a total of about $246 billion between 2018 and 2026, according to JCT's estimates.

29. Under that scenario, the caps for 2018 through 2021 would revert to the original limits set in the Budget Control Act. Because of interactions between the effects of different policy options, the estimated budgetary effects of this option cannot be added to the estimated budgetary effects of either of the other alternatives that affect discretionary spending.

Changes in CBO's Baseline Projections Since March 2016

CBO completed its previous set of baseline projections in March 2016. Since then, the agency has increased its estimate of the deficit in 2016 by $56 billion and reduced its estimate of the cumulative deficit from 2017 through 2026 by $712 billion (see Table 1-7 and Appendix A).

Changes for 2016

CBO now estimates that both revenues and outlays in 2016 will be lower than it projected in March, by $87 billion (or 3 percent) and $31 billion (or 1 percent), respectively. Technical updates to CBO's estimates of revenues and outlays—that is, revisions that do not stem from legislation or changes in economic projections—account for most of those changes. Revenues in 2016 will be $63 billion lower than previously estimated for technical reasons, primarily as a result of weaker-than-expected collections from individual and corporate income taxes in recent months. (The reasons for that weakness will not be clear until additional data from tax returns and other sources become available.) Partially offsetting that adjustment, CBO has reduced its estimate of outlays in 2016 by $27 billion—about half of which stems from lower estimates of discretionary spending. CBO's revised economic forecast further reduced revenues and outlays this year, by $24 billion and $4 billion, respectively.

Changes for 2017 Through 2026

CBO has also reduced its projections of both revenues and outlays over the 10-year projection period—by $431 billion (or 1 percent) and $1,143 billion (or 2 percent), respectively—almost entirely because of updates to CBO's economic forecast.

The 10-year change in outlays is dominated by a $998 billion reduction in estimated net interest costs, primarily as a result of lower projected interest rates throughout the period. The reduction in interest rates mainly reflects CBO's reassessment of the future demand for Treasury securities in light of lower-than-anticipated interest rates in financial markets and recent global economic developments that point to less demand for foreign assets and greater demand for U.S. Treasury securities. It also reflects slower projected GDP growth in the United States and abroad. (For more details, see "Revisions to Projected Interest Rates" on page 51 in Chapter 2.)

The $428 billion reduction in projected revenues for 2017 through 2026 attributable to economic factors stems mostly from CBO's expectation that GDP and its associated taxable income—primarily wages and salaries as well as corporate profits—will grow more slowly than previously projected, largely as a result of newly released data and changes in the method CBO uses to project productivity growth.

Technical changes to outlays offset a small portion of the economic changes, increasing outlays in CBO's baseline by $21 billion over the projection period. Projected revenues decline by $4 billion for technical reasons.

Although CBO has reduced its estimate of the cumulative deficit by $712 billion since March, its estimate of debt held by the public in 2026—relative to the size of the economy—has not changed materially, remaining at 86 percent of GDP. Projected deficits over the 10-year period are noticeably lower, but CBO's forecast of nominal GDP is also lower (by $630 billion, or 2 percent, in 2026), leaving the ratio of debt to GDP largely unchanged.

Chapter 2: The Economic Outlook

If current laws governing federal taxes and spending generally remain in place, the Congressional Budget Office estimates, the economy's real output (that is, its output adjusted to remove the effects of inflation) will expand by 2.0 percent in 2016, as measured by the change from the fourth quarter of 2015 (see Table 2-1). Real gross domestic product (GDP) rose at an annual rate of just 1.0 percent in the first half of 2016. CBO expects a stronger second half, however, mainly because major forces restraining the growth of investment in the first half—such as a decline in oil prices that reduced mining investment—have begun to wane. The 2.0 percent rate of growth that CBO anticipates for 2016 is roughly the same as the rate of growth experienced in 2015. The agency also projects that output will increase by 2.4 percent in 2017, by 2.1 percent in 2018, and slightly more slowly through 2026. (CBO's economic projections were completed in early July and therefore do not reflect recently released economic data; see Box 2-1.)

CBO projects that the economic expansion over the next two years will reduce the quantity of underused resources, or "slack," in the economy. One sign of slack at the end of 2015 was that actual GDP was about 1.8 percent smaller than CBO's estimate of potential (that is, maximum sustainable) GDP. CBO expects that gap to narrow to less than its historical average by 2018. As a result, CBO projects that the improving economy will spur further hiring, reducing the unemployment rate from 4.8 percent in the second quarter of 2016 to 4.5 percent in 2017 and putting upward pressure on workers' wages and benefits. The increases in employment and in wages and benefits will increase participation in the labor force—both encouraging people who were out of the labor force because of weak job prospects to enter it, and encouraging people who were considering leaving the labor force to remain in it.

The reduced slack in the economy will increase inflation over the next year and push up interest rates over the next few years. CBO expects the rate of inflation—as measured by the growth in the price index for personal consumption expenditures (the PCE price index)—to rise to the Federal Reserve's goal of 2 percent in 2017. CBO also expects the interest rate on 3-month Treasury bills to go up, rising from an average of 0.3 percent in the first half of 2016 to 1.0 percent by the end of 2017 and stabilizing

at 2.8 percent by the end of 2020. Long-term interest rates are expected to rise as well, partly in response to the increase in short-term rates and partly in response to an expected increase in global interest rates as foreign economic growth improves. CBO projects that the rate on 10-year Treasury notes will increase from an average of 1.8 percent in the first half of 2016 to 2.5 percent by the end of 2017 and to 3.4 percent by the end of 2020.

Unlike its projections for the next few years, which reflect predictions of business cycle fluctuations, CBO's projections for the 2021–2026 period are based primarily on projections of underlying trends in such variables as the size of the labor force, the number of hours worked, capital investment, and productivity—that is, trends that those variables follow after the effects of business cycle fluctuations are removed. Real output will grow more quickly through 2026 than it has done over the past decade, CBO expects, because business investment will be stronger and because the economy's total factor productivity (TFP), the average real output per unit of combined labor and capital services, will grow more quickly. Nevertheless, slower growth in the nation's supply of labor is projected to keep the growth of output slower than it was during the 1980s, 1990s, and early 2000s. In CBO's projections, the economy grows by 2.0 percent per year, on average (as measured on a fourth-quarter-to-fourth-quarter basis), between 2021 and 2026.

Recognizing the uncertainty of economic forecasts, CBO constructs its projections so that they fall in the middle of the distribution of possible outcomes, given current law and the economic data that are available when the projections are prepared. Nevertheless, many developments—such as slower-than-expected growth in business investment, faster-than-expected growth in productivity, or weaker-than-expected economic growth abroad—could make outcomes differ substantially from what CBO has projected.

CBO's current economic projections differ in some significant respects from its last projections, which were published in January 2016. For example, CBO now projects slower growth of real GDP in 2016, largely because of the weaker-than-anticipated growth during the first half of the year. Also, the agency's projections of potential and actual GDP in 2026 are now roughly 1½ percent lower than they were in January. Those revisions were made on the basis of new data and a reassessment of future growth in TFP. In addition, CBO has reduced its projections of interest rates on Treasury securities; by 2026, those rates are roughly one-half of a percentage point lower than CBO projected in January. That revision reflects CBO's reassessment of the future demand for Treasury securities, in light of lower-than-anticipated interest rates in financial markets and recent global economic developments that point to less demand for foreign assets; it also partly reflects the revisions to projected GDP growth.

The economic projections in this report do not differ much from those of most other forecasters. They are generally similar to the *Blue Chip* consensus forecast, which was

published in August, though CBO's projection of real GDP growth is higher. The agency's projections of economic activity are also generally similar to the forecasts developed by the Federal Reserve, which were presented at the Federal Open Market Committee's June 2016 meeting.

The Economic Outlook for 2016 Through 2020

Since the end of the 2007–2009 recession, real GDP has grown faster than potential GDP, on average, reducing the gap between the two and hence the amount of slack in the economy. CBO expects that gap to keep narrowing as real GDP grows more quickly in the second half of this year and next year than it did during the first half of this year (see Figure 2-1). However, growth in real GDP is expected to slow in 2018 and to fall below but remain close to the growth of potential GDP in 2019 and 2020.

In CBO's projections, developments in the federal tax and spending policies specified in current law have a small negative effect on economic growth over the next few years, on net. By contrast, monetary policy continues to support growth over the next few years, albeit less and less so as the economy nears its potential output and the labor market tightens.

Most of the growth of output during the coming five years will be driven by consumers, businesses, and home builders, CBO anticipates. Demand from federal, state, and local governments and from foreign customers will contribute much less to economic growth.

CBO expects that slack in the labor market will nearly disappear over the next year. In the agency's projections, increased demand for workers reduces the unemployment rate and draws more workers into the labor force. Reduced slack in the labor market and the economy will help boost the rate of inflation to the Federal Reserve's target rate of 2 percent.

Unlike CBO's projections for the 2016–2018 period, those for 2019 and 2020 do not reflect expected cyclical developments in the economy. Rather, they serve as transitions to the values that CBO projects for the 2021 2026 period—which themselves are not based on predictions of business-cycle fluctuations.

Federal Fiscal Policy

If current laws remained generally the same, changes in federal spending and revenues would modestly dampen aggregate demand for goods and services over the next few years.[30] Those changes would also slightly reduce the supply of labor in the economy.

30. Aggregate demand refers to total purchases by consumers, businesses, government, and foreigners of a country's output of final goods and services during a given period. All else being equal, changes in aggregate demand affect businesses' decisions about whether to increase production, invest in equipment, and hire workers, which in turn affect income, demand, and output.

Together, the changes in aggregate demand and in the supply of labor would restrain the growth of output through 2020.

Specifically, in CBO's projections, four broad changes in federal spending and revenues that would occur under current law reduce growth in aggregate demand over the next five years:[31]

- Partly because of statutory caps limiting the growth of discretionary spending, the federal government's real purchases of goods and services decline, slightly reducing real GDP growth through 2018.[32] Real federal purchases provide negligible contributions to growth in 2019 and 2020.

- The phasing out of various provisions of law governing the taxation of investment spending reduces businesses' incentives to invest, tempering the growth of their investment in structures and equipment from 2018 through 2020.

- Growth in real income pushes some households into higher tax brackets, raising effective marginal tax rates—that is, tax rates on an additional dollar of income earned by those households. That effect, which is known as real bracket creep, slightly increases households' tax liabilities, reducing their disposable (that is, after-tax) income and slightly dampening the growth of consumer spending over the next few years.

- The stimulus provided by automatic stabilizers—the automatic decreases in revenues and increases in outlays that occur when the economy weakens—continues to diminish over the next few years as the economy improves.[33]

Fiscal policy also reduces the supply of labor in CBO's projections. The increase in effective marginal tax rates described above would reduce the incentive to work, thus diminishing the amount of labor that people choose to supply. CBO also expects elements of the Affordable Care Act, such as the phasing out of health insurance subsidies as people's income rises, to reduce the amount of labor supplied over the

31. The effects of those changes are incorporated into CBO's projections, but the agency has not separately quantified the impact of each.

32. Discretionary spending consists of the outlays that result from budget authority provided by appropriation acts.

33. All else being equal, automatic stabilizers affect aggregate demand because they are changes in the amount of taxes that households and businesses pay and in the transfer payments that households receive. For more discussion of automatic stabilizers, see Congressional Budget Office, *The Budget and Economic Outlook: 2016 to 2026* (January 2016), Appendix C, www.cbo.gov/publication/51129; and Frank Russek and Kim Kowalewski, *How CBO Estimates Automatic Stabilizers*, Working Paper 2015-07 (Congressional Budget Office, November 2015), www.cbo.gov/publication/51005.

next few years, as people adjust their employment circumstances in response and as more people choose to participate in health insurance marketplaces.[34]

Monetary Policy and Interest Rates

CBO expects that as the economy improves, and as the rate of inflation approaches the Federal Reserve's longer-run goal of 2 percent, the central bank will gradually reduce the extent to which its monetary policy supports economic growth. At its December 2015 meeting, the Federal Reserve's Federal Open Market Committee began that process, raising its target range for the federal funds rate—that is, the interest rate that financial institutions charge each other for overnight loans of their monetary reserves. The range is now 0.25 percent to 0.50 percent. In light of two developments—slow domestic growth in the first half of the year, and the United Kingdom's recent vote to leave the European Union, which has exacerbated uncertainty about global economic growth and financial stability—CBO expects the target range to remain at its current level until the fourth quarter of 2016. CBO expects the federal funds rate to then rise gradually, reaching 1.1 percent in the fourth quarter of 2017 and 1.8 percent in the fourth quarter of 2018 (see Figure 2-2).

As the federal funds rate rises, interest rates on federal borrowing will also rise gradually over the next few years, CBO projects. The interest rate on 10-year Treasury notes fell from 2.2 percent in the fourth quarter of 2015 to 1.8 percent in the second quarter of 2016. That rate is projected to begin increasing in the second half of 2016, reaching 1.9 percent in the fourth quarter of 2016, 2.9 percent in the fourth quarter of 2018, and 3.4 percent in the fourth quarter of 2020.

Those projected increases reflect three factors. First, CBO anticipates that the interest rate on 3-month Treasury bills will rise (to 0.4 percent in the fourth quarter of 2016, 1.7 percent in the fourth quarter of 2018, and 2.8 percent in the fourth quarter of 2020) as the Federal Reserve gradually reduces the extent to which monetary policy supports the growth of aggregate demand.[35] Such increases in short-term rates boost longer-term rates because the latter are partly determined by investors' expectations of the former. Second, foreign economic growth is expected to improve, pushing up rates abroad and in the United States. In CBO's assessment, the interest rate on 10-year Treasury notes fell over the first half of 2016 partly because falling interest rates abroad put downward pressure on rates here; improving foreign economic growth is expected to reverse that effect.

34. For more information, see Edward Harris and Shannon Mok, *How CBO Estimates the Effects of the Affordable Care Act on the Labor Market*, Working Paper 2015-09 (Congressional Budget Office, December 2015), www.cbo.gov/publication/51065.

35. CBO expects the interest rate on 3-month Treasury bills to be lower than the federal funds rate over the next 10 years, as it has generally been in the past. The reason for that historical difference is that Treasury securities are free of default risk, whereas the overnight unsecured loans made at the federal funds rate carry a small risk of default.

And third, CBO expects an increase in the term premium—the extra return paid to bondholders for the added risk associated with holding long-term Treasury securities (after average expected interest rates on shorter-term securities are accounted for). Several factors have pushed the term premium on U.S. Treasury securities to historically low levels in recent years. One is limited long-term investment opportunities abroad, which may have prompted global investors to shift their holdings out of foreign bonds and into longer-term U.S. Treasury securities, keeping interest rates on those securities down. Other factors are investors' heightened concern about global economic growth and their perception that the value of long-term Treasury securities rises when growth is weak (which implies that those securities may provide a useful hedge against such risks). CBO projects that the term premium will rise over the next several years as the factors that have recently suppressed it dissipate. However, because those factors are expected to dissipate slowly, CBO expects the interest rate on 10-year notes to rise more slowly than the rate on 3-month bills and to stabilize slightly later.[36]

Despite CBO's expectation that the 10-year rate will rise, the agency does not expect it to return to the levels seen in the two decades before the 2007–2009 recession. Several factors discussed below will probably continue to suppress interest rates throughout the 10-year projection period (see "The Economic Outlook for 2021 Through 2026").

Contributions to the Growth of Real GDP

CBO expects that consumer spending, business investment, and residential investment will drive the growth of real GDP over the next few years (see Figure 2-3).[37] Consumer spending is expected to provide the largest contribution to that growth, as it has generally done in the past. However, the anticipated pickup in growth in the second half of 2016 and in 2017 stems largely from faster growth in investment—particularly in business equipment and structures—as the growth in spending by consumers slows (see Table 2-2). On net, total purchases by governments are projected to have a small positive effect on the growth of GDP through 2020. In contrast, net exports (exports minus imports) will restrain growth from 2016 through 2019 but contribute slightly to growth thereafter, CBO projects.

Consumer Spending. CBO expects consumer spending on goods and services, which accounts for over two-thirds of economic output, to be a major component of the

36. In addition, long-term rates have probably been held down by the influence of the Federal Reserve's large portfolio of long-term assets. CBO expects the size of that portfolio to gradually diminish, beginning next year; that development will put upward pressure on the term premium and the 10-year rate. CBO's expectation that the reduction in the size of the Federal Reserve's portfolio will begin later than the resumption of increases in the federal funds rate is another reason that the interest rate on 10-year Treasury notes is expected to rise more slowly than the rate on 3-month bills and to stabilize slightly later.

37. Those components' contributions to real GDP growth reflect their growth rate weighted by their share of nominal GDP.

growth of real GDP through 2020. It is expected to contribute nearly all—1.8 percentage points—of the 2.0 percentage-point growth of real GDP this year. However, CBO estimates that the contribution of consumer spending to real GDP growth will recede to 1.5 percentage points in 2017 and decline somewhat thereafter.

In CBO's projections, the main factor explaining the slowing growth of consumer spending over the next few years is slowing growth in real disposable personal income—which, in turn, largely reflects slowing growth in employees' real compensation (see Figure 2-4). The growth rate of real compensation diminishes, notably in 2017 and 2018, as the growth in employment slows; that moderation outweighs an acceleration in compensation per hour. Also reducing the projected growth of real disposable income are CBO's expectations that energy prices will continue to rebound through the end of 2017 (reducing some of the extra purchasing power that consumers gained in recent years) and that factors such as real bracket creep will slightly increase personal tax liabilities.

Nevertheless, CBO expects consumer spending to grow—by 2.6 percent in 2016 and by smaller amounts in later years. One factor projected to support consumer spending is further increases in housing prices, which will help raise household wealth. Another is improvements in households' access to credit and creditworthiness. As employment and disposable income rise further, CBO expects banks to continue to increase their willingness to make consumer loans. Households' debt and debt-service payments have fallen markedly as a percentage of disposable personal income since the recession ended in 2009, and delinquency rates on consumer loans are historically low, by some measures. Lighter debt burdens give families greater capacity to borrow for major purchases. Although interest rates are likely to rise in the future, their effect on debt-service burdens will be muted, because the rates are expected to remain low by historical standards.

Business Investment. CBO projects that real business investment will contribute 0.1 percentage point to the growth of real GDP in 2016, the result of a negative contribution in the first half of the year and an expected positive one in the second half. Real business investment is projected to make a larger contribution to real GDP growth in 2017, 0.6 percentage points, and that increase accounts for much of the projected rise in the growth of GDP next year. Investment contributes 0.4 percentage points to the projected growth of output in 2018 and less after that. All of those contributions will be from business fixed investment—that is, investment in non-residential structures, equipment, and intellectual property products—rather than from investment in inventories. Inventory investment is expected to make a small negative contribution to growth in 2016, largely because it slowed during the first half of the year, and thereafter to make neither a positive nor a negative contribution.

Businesses' response to the past and expected growth of demand for their output will drive the growth of their fixed investment over the next few years, in CBO's view (see

Figure 2-4). In addition to replacing worn-out or obsolete capital assets, businesses invest in new assets to meet unexpected demand for their goods and services in the past and expected demand in the future. Although the current level of nonmining investment is roughly compatible with businesses' need to keep pace with expected new demand, in CBO's estimation, businesses still need to make up for some investment forgone during the recession and slow recovery—when sluggish consumer spending, residential construction, and spending by state and local governments curtailed investment. For example, both the national office vacancy rate and the national industrial availability rate are near the lows reached during the last business cycle.[38] CBO expects that the growth in demand will continue to significantly boost investment through 2018 but that it will slow and provide a smaller boost in later years.

A number of other factors contribute to the projected increase of business investment next year. For one, CBO anticipates that the price of crude oil will rise. During 2015 and early 2016, falling oil prices sharply reduced real investment in mining structures and mining equipment; modestly higher oil prices are expected to boost mining-related investment next year. Also, factors that contributed to the weakness in real investment in nonmining equipment at the end of last year and during the first half of this year—declining productivity (which reduced the profitability of new investment) and weaker business confidence—will wane, in CBO's view.

Some factors temper CBO's projections of business investment after next year. Partial-expensing provisions in the tax code, which encourage investment by letting businesses deduct new capital expenses from their taxable income more rapidly than they could otherwise, will gradually expire during the 2018–2020 period. The increase in interest rates anticipated in CBO's forecast will also exert some downward pressure on investment, but not enough to offset the influence of the ongoing economic expansion.

Residential Investment. CBO expects real residential investment to keep growing rapidly over the next few years, even as mortgage interest rates rise.[39] The fact that the sector is small will limit its contribution to the growth of real GDP, but CBO expects that contribution to be noticeably larger than the historical average. CBO projects that residential investment will contribute 0.2 percentage points to the growth of real GDP in 2016—slightly less than in 2015, because the growth of housing starts slowed this year.[40] As such growth picks up, residential investment is projected to contribute 0.4 percentage points to GDP in 2017 and a smaller amount thereafter.

38. The office vacancy rate is the amount of vacant office space for lease divided by the total square footage of office space. The industrial availability rate is the supply of available space in large industrial buildings as a percentage of the total amount of such space.

39. Residential investment consists mostly of the construction of single-family and multifamily residences, residential improvements, and real estate agents' commissions and other ownership transfer costs.

40. Housing starts are the number of new housing units on which construction has begun in a given period.

CBO anticipates that the construction of new homes will be the primary contributor to residential investment, mainly because of stronger household formation (see Figure 2-4).[41] Aside from a puzzling surge in 2014, household formation has been unusually weak since the 2006 peak of the housing boom, averaging only about 750,000 net new households per year over the past 10 years—far lower than the annual average of 1.23 million over the 20 years before that. Some of the recent weakness probably stems from a sharp tightening of mortgage lending standards from 2007 to 2009. Even though those standards remain tighter than they were before 2007, they have begun loosening over the past few years; as they continue to loosen and as employment continues to improve, household formation will gradually return to historical averages, CBO expects.

CBO anticipates that stronger growth in demand for housing will put upward pressure on house prices. In 2015, house prices rose by 5.9 percent.[42] CBO projects that they will increase by 4.2 percent in 2016 and by about 2.5 percent per year, on average, over the 2017–2020 period. (That projection incorporates an expected increase in the supply of housing units, which will temper the price increases resulting from stronger housing demand.)

Government Purchases. During each of the next three years, if current laws governing federal fiscal policies generally remained in place, total real purchases of goods and services by federal, state, and local governments would contribute 0.1 percentage point to the growth of real output, roughly the same amount as in 2015, CBO projects. The projected growth of the real value of total government purchases in 2016 results from an estimated 0.8 percent decrease in federal purchases and an estimated 1.5 percent increase in state and local purchases. CBO projects similar changes for 2017 and 2018, assuming that the statutory caps on funding for discretionary programs would cause reductions in real purchases by the federal government in both of those years. (See Chapter 1 for a discussion of how the caps affect projected outlays.) In later years of the projections, real purchases by the federal government change little.

In 2019 and 2020, real government purchases are projected to contribute 0.2 percentage points annually to the growth of real output, almost entirely because of growth in real purchases by state and local governments. CBO projects that state and local purchases will grow throughout the 2016–2020 period because, in its view, state and local governments will increase spending as their tax revenues continue to grow.

41. Household formation is the change in the number of occupied housing units.

42. That increase, which is on a fourth-quarter-to-fourth-quarter basis, was calculated from the Federal Housing Finance Agency's price index for home purchases.

Net Exports. CBO expects real net exports to fall from 2016 through 2019, extending the decline of the past two years.[43] The projected decline reflects CBO's expectation that real imports will grow faster than real exports, on average. The decline in real net exports reduces projected GDP growth by 0.2 percentage points in 2016, by 0.3 percentage points in 2017, by 0.1 percentage point in 2018, and by a negligible amount in 2019. In 2020, real net exports are expected to rise slightly, making a very small contribution to growth.

CBO's projection of real net exports is strongly influenced by a significant increase in the exchange value of the dollar during the past two years and by the agency's forecast of that value (see Figure 2-4). From mid-2014 through the second quarter of this year, the trade-weighted U.S. dollar appreciated by approximately 20 percent.[44] In CBO's estimation, that appreciation occurred because long-term interest rates declined among the United States' leading trading partners, particularly in Europe and Asia, and because the outlook for foreign growth deteriorated. Those developments boosted the dollar by increasing demand for dollar-denominated assets relative to assets denominated in other currencies. More recently, after the United Kingdom's vote to leave the European Union, the dollar rose significantly against the British pound and the euro, implying that the expected return on assets from the United Kingdom and the European Union fell in relation to the expected return on dollar-denominated assets. In CBO's projections, foreign central banks' efforts to boost aggregate demand in response to such factors continues to increase the exchange value of the dollar over the next two years, making U.S. exports more expensive abroad and thus tending to reduce net exports.

CBO also expects that stronger growth in the United States than in its trading partners will weaken net exports over the next two years. In particular, prices for oil and other commodities, which are lower than their averages over the past 10 years, are dampening growth in Canada and Mexico. The United Kingdom's pending exit from the European Union will probably reduce growth in European economies and especially in the British economy over at least the next few years. In addition, China's economic output is projected to keep decelerating as its economy shifts to depend less on investment and more on consumption.

In later years, however, as commodity prices rebound, CBO expects faster growth among the nation's major trading partners—especially Canada and Mexico, and to a lesser extent China. As a result, net exports are projected to decline less in 2019 than in previous years and to start rising in 2020. Moreover, CBO expects that as growth strengthens and inflation rises in foreign economies, central banks will gradually tighten

43. Net exports are currently negative, meaning that the United States imports more than it exports. A decrease in net exports indicates that imports are increasing more than exports.

44. CBO's measure of the exchange value of the dollar is an export-weighted average of the exchange rates between the dollar and the currencies of leading U.S. trading partners. Similarly, CBO calculates the economic growth of leading U.S. trading partners as a weighted average of their growth rates, using shares of U.S. exports as weights.

their monetary policies—pushing up interest rates in those countries, reducing the exchange value of the dollar, and leading to an increase in U.S. net exports in 2020 (and beyond).

The Labor Market

The labor market continued to improve in the first half of 2016. The primary measure that CBO uses to assess the amount of slack in the labor market—the estimated shortfall in employment from its potential amount—fell by about 1 million people between the end of 2015 and June 2016, when it stood at 1.4 million people. (For more discussion of the current amount of slack, see Box 2-2.) That decline reflected both a drop in the unemployment rate and an increase in the labor force participation rate.[45]

According to CBO's estimates, the growth of aggregate demand will increase demand for labor, shrinking the employment shortfall to about three-quarters of a million people by the end of 2016 and eliminating it by the middle of 2017 (see Figure 2-5). That projection reflects two expectations that partly offset each other: first, that the labor force will be smaller than its estimated potential size during that period; second, that the unemployment rate will fall below the estimated natural rate of unemployment (the rate that arises from all sources except fluctuations in aggregate demand for goods and services) from mid-2016 until the end of 2018.

Furthermore, the projected drop in the unemployment rate, combined with a labor force participation rate expected to approach its potential value in 2017, leads to a small projected employment surplus—that is, actual employment that is higher than CBO's estimate of potential employment—from the second half of 2017 through 2018. The agency expects the surplus to peak at roughly a quarter of a million people in early 2018. The increased demand for labor and competition for workers, CBO projects, will boost the growth of hourly labor compensation (a measure that includes not only wages and salaries but benefits as well). During 2018, the increase in labor compensation will slightly dampen demand for labor, eliminating the employment surplus by the end of the year, CBO anticipates.

CBO's labor market projections for 2019 and 2020, by contrast, do not reflect expected cyclical developments in the economy. Instead, they serve as transitions to the values that CBO projects for later years, which are based primarily on long-term trends in the supply of labor. Consequently, the unemployment rate is projected to rise slightly in 2019 and 2020 so that it reaches its historical relationship with the natural rate of unemployment, increasing labor market slack to its average level over past decades.

45. The labor force participation rate is the percentage of people in the civilian noninstitutionalized population who are at least 16 years old and are either working or seeking work.

Employment. CBO expects demand for labor to remain healthy. Nonfarm payroll employment rose solidly in the first half of 2016, posting an average increase of 186,000 jobs per month, and the agency expects it to continue to increase, though more slowly, over the next few years—by about 164,000 jobs per month in the second half of 2016 and by about 123,000 jobs per month in 2017. CBO projects that slowdown in employment growth not because it projects a cyclical decline in demand for labor but because it expects the retirement of baby boomers—people born between 1946 and 1964—to slow the growth of the labor force. CBO's employment projections imply that the number of people employed, measured as a percentage of the population, will be roughly unchanged over the next two years. After 2017, however, CBO expects a steady decline in that percentage, as the agency expects the labor force participation rate to fall (see Figure 2-6).

Labor Force Participation. CBO expects the labor force participation rate to decline slightly next year and more quickly in later years, when its fall would match the fall of the potential participation rate (see Figure 2-7). The actual rate was 62.7 percent in the second quarter of this year—roughly where it has stood since the fourth quarter of 2013, and one-half of a percentage point below CBO's estimate of the potential rate. CBO projects that the actual rate will reach 62.6 percent by the middle of 2017. That rate would be roughly one-tenth of a percentage point below the potential rate, reflecting the long-term relationship between the two rates.

The projected declines in the actual and potential rates of labor force participation reflect several factors. The most important is that members of the baby-boom generation will continue to retire from the labor force in large numbers. The lingering effects of the recession and ensuing weak recovery also continue to push down participation, in CBO's view: Despite recent declines in long-term unemployment, some of the people who lost jobs in the recession left the labor force and will not return. Furthermore, federal tax and spending policies are expected to lower participation rates slightly over the next several years. In particular, the amount of labor that people are willing to supply is projected to continue to decline over the next few years as people continue adjusting their employment circumstances in response to the provisions of the Affordable Care Act. The structure of the tax code, which pushes some people with rising income into higher tax brackets, will also lower participation rates over the next decade. Finally, long-term trends involving particular groups of people are projected to push down the participation rate slightly. Those trends include, for example, declining labor force participation rates by younger and less educated workers.

During the next year and a half, the effect of those factors will be largely offset by continued improvement in hiring, as brisk employment growth and rising wages are expected to draw some workers back into the labor force. That improvement explains why the labor force participation rate declines only slightly in CBO's projections through 2017. Thereafter, the actual labor force participation rate is projected to decline, in tandem with the potential rate, to 61.5 percent in the fourth quarter of 2020.

Unemployment. The unemployment rate fell from 5.0 percent in the fourth quarter of 2015 to 4.9 percent in the middle of 2016. That decline continued the fall that occurred during 2015, when the unemployment rate decreased by nearly three-quarters of a percentage point. Most of the decline over the past two years stemmed from a drop in long-term unemployment (that is, unemployment lasting at least 27 consecutive weeks) as some people who had been unemployed for a long time obtained jobs (see Figure 2-8). That decline suggests that two factors that have perpetuated long-term unemployment in recent years—the stigma associated with it and the erosion of skills that can result from it—have diminished.

CBO projects that the unemployment rate will fall to 4.6 percent by the end of this year and to 4.5 percent next year, which would be about 0.2 percentage points below the agency's estimate of the natural rate of unemployment. That decline in the unemployment rate reflects a projected increase in demand for labor that would reduce the number of unemployed people. The stronger demand for labor would also encourage people to remain in or rejoin the labor force and seek work, raising the labor force participation rate and moderating the decline in the unemployment rate. Even though the unemployment rate is expected to be relatively low during the coming year, CBO anticipates that some slack will remain in the labor market through the middle of 2017 because fewer people will be participating in the labor market than would do so if the economy was operating at its potential.

CBO expects the natural rate of unemployment to be 4.7 percent from 2018 through 2020. That expectation reflects the rate's decline in recent years—which has occurred as the composition of the workforce has shifted toward older workers, who tend to have lower unemployment rates, and away from less educated workers, who tend to have higher unemployment rates.

Labor Compensation. Hourly compensation rates for workers in private industry, which have grown slowly since the end of the recession, have recently shown signs of a faster increase. CBO estimates that the employment cost index (ECI) for those workers grew at an average annual rate of 2 percent during the 2010–2015 period but at an average annual rate of 2¾ percent during the first half of this year. The agency projects that the ECI for those workers will grow by more than 3 percent a year, on average, over the next several years (see Figure 2-9). The growth rates of other measures of compensation, such as the average hourly earnings of production and nonsupervisory workers in private industries, are similarly expected to increase.[46]

46. An additional indicator of recent acceleration in wage growth comes from the Federal Reserve Bank of Atlanta's Wage Growth Tracker, which measures the median change from year to year in the hourly wages recorded in the Current Population Survey. That indicator shows average wage growth of 3.3 percent in the first half of 2016, compared with 3.1 percent in 2015. See www.frbatlanta.org/chcs/wage-growth-tracker for more details.

CBO's projections of labor compensation are based on its projections of demand for workers, slack in the labor market, productivity, and inflation. In the past, growth in labor compensation has been among the last labor market indicators to recover after a recession, picking up only when little slack is left in the labor market. As slack diminishes and firms must increasingly compete for a shrinking pool of unemployed or underemployed workers, growth in hourly compensation will rise, in CBO's assessment.

Inflation

CBO expects inflation to rise through 2017. Diminishing slack in the economy will increase inflation, but widely held expectations of low and stable inflation will restrain the increase.

This year, CBO projects, the rate of inflation in the PCE price index will rise to 1.5 percent, up from 0.5 percent in 2015 (see Figure 2-10). That increase reflects diminishing slack and CBO's forecast of higher prices for crude oil, which will boost prices for energy goods and services; working in the opposite direction is an increase in the value of the dollar in relation to other currencies, which will suppress inflation in the price of many imported goods. In 2017, the rate of inflation is projected to rise to 2.0 percent, the Federal Reserve's longer-run goal. After 2017, CBO expects the rate to remain at 2.0 percent. That projection reflects CBO's judgment that consumers and businesses expect the Federal Reserve to adjust monetary policy to prevent inflation from deviating from its 2 percent target for long. CBO has a similar projection for core PCE inflation, which excludes food and energy prices. In CBO's forecast, that inflation rate reaches 1.8 percent this year, 1.9 percent in 2017, and 2.0 percent in 2018, where it remains through 2020.

The consumer price index for all urban consumers (CPI-U) and its core version are expected to increase a little more quickly than their PCE counterparts because of the different methods used to calculate them. CBO projects that the difference between inflation as measured by the CPI-U and inflation as measured by the PCE price index will generally be about 0.4 percentage points per year, which is close to the average difference over the past several decades.

The Economic Outlook for 2021 Through 2026

CBO's projections of GDP, unemployment, inflation, and interest rates for 2021 through 2026—unlike its projections for the next few years—are not based on forecasts of cyclical developments in the economy. Rather, they are based mainly on projections of underlying trends in key variables, such as the size of the labor force, the number of hours worked, capital investment, and productivity. CBO also considers the effects on those variables of the federal tax and spending policies specified in current law.

CBO has made the following projections for the 2021–2026 period:

- Actual and potential real GDP grow at an average rate of roughly 2.0 percent per year. Real GDP stays one-half of one percent below real potential GDP, on average—as it has roughly been, on average, over the seven complete business cycles that occurred between 1961 and 2009.[47]

- The unemployment rate remains stable at 4.9 percent, slightly above the estimated natural rate of 4.7 percent. That gap is consistent with the average gap between actual and potential GDP.

- Both overall inflation and core inflation average 2.0 percent per year as measured by the PCE price index, and both are slightly higher as measured by the CPI-U.

- The interest rates for 3-month Treasury bills and 10-year Treasury notes average 2.8 percent and 3.6 percent, respectively.

Potential Output

Real output will grow more quickly during the 2021–2026 period than it has during the past decade, CBO expects, because the economy's productivity will grow more quickly and because business investment will be stronger. Nevertheless, slower growth in the nation's supply of labor will probably keep economic growth weaker than it was during the 1980s, 1990s, and early 2000s.

Growth in Potential Output Compared With Growth Since the Last Recession. For the 2021–2026 period, CBO expects potential output to grow by 2.0 percent per year, on average (see Table 2-3). Such growth would be faster than the 1.5 percent per year estimated for the 2008–2015 period. The main reason for the projected increase is that CBO expects potential labor force productivity (the ratio of potential GDP to the potential labor force) to accelerate. By contrast, CBO anticipates that the potential labor force will grow at almost exactly the same rate at which it grew from 2008 through 2015.

In CBO's projections, the pickup in potential labor force productivity is concentrated in the nonfarm business sector, which accounts for about three-quarters of GDP. In particular, CBO expects growth in potential TFP in the nonfarm business sector to quicken from its unusually slow pace of 0.8 percent per year since 2008 to 1.2 percent during the 2021–2026 period.[48]

47. See Congressional Budget Office, *Why CBO Projects That Actual Output Will Be Below Potential Output on Average* (February 2015), www.cbo.gov/publication/49890.

48. CBO projects that by 2020, growth in potential TFP will gradually return to a rate equal to the weighted average of the growth rates estimated between 1991 and 2015. The projected rate for 2020 is slightly slower than the unweighted average for the 1991–2015 period because CBO places more weight on the relatively slow growth of TFP during the recession and recovery than on the faster growth rates of the 1990s and early 2000s.

CBO also projects that capital services, which contribute to labor productivity and potential output, will grow more quickly than they did from 2008 through 2015. The growth of capital services in the nonfarm business sector has been restrained since 2008 because of weak investment, itself partly a response to the cyclical weakness of aggregate demand for goods and services. And in the long term, the growth of capital services generally depends on increases in TFP and hours worked, both of which have grown slowly since 2008. In CBO's projections, most of the increase in the growth of capital services between the 2008–2015 period and the 2021–2026 period comes from faster growth in potential TFP. Nonetheless, the projections of the potential labor force, capital services, and potential TFP are dampened because of lingering effects of the recession and slow recovery.

Because of those factors, CBO expects potential labor force productivity for the economy as a whole to pick up to 1.4 percent. That growth rate is substantially higher than the 0.9 percent average rate that CBO estimates for the 2008–2015 period.

Growth in Potential Output Compared With Growth in Previous Business Cycles. Even though CBO's projection of the growth of potential output over the 2021–2026 period represents an acceleration, it is a full percentage point slower than the estimated 3.0 percent average annual growth that the economy experienced between 1981 and 2007. Most of that difference reflects the slower growth of the potential labor force, which will result mainly from the ongoing retirement of baby boomers and from a relatively stable labor force participation rate among working-age women. (That rate increased sharply from the 1960s to the mid-1990s.) Federal tax and spending policies set in current law are also projected to cause some people to work less than in earlier decades (see "The Labor Market" below). The rest of the difference between the growth of potential output projected for the 2021–2026 period and the growth seen between 1981 and 2007 results from a slower increase in potential labor force productivity (which averaged 1.7 percent from 1981 to 2007). That slowdown is attributable mainly to two further projections of CBO's: slower growth of capital services and slower potential TFP growth in the nonfarm business sector. Those projections mainly reflect CBO's projection of greater federal borrowing, which would crowd out some private investment, and the agency's expectation that some of the very slow growth of TFP since the 2007–2009 recession will persist.

The Labor Market

In CBO's projections, the unemployment rate follows its long-term relationship with the natural rate of unemployment. Specifically, the unemployment rate falls from 5.0 percent in the first quarter of 2020 to 4.9 percent in the fourth quarter of 2026—roughly a quarter of a percentage point higher than the natural rate of 4.7 percent.[49] The natural rate also declines slightly over that period, reflecting the shift in the composition

49. The projected gap between the unemployment rate and the natural rate corresponds to the projected gap between output and potential output.

of the workforce toward older workers, who tend to have lower unemployment rates, and away from less educated workers, who tend to have higher ones.

CBO projects a potential rate of labor force participation of 60.3 percent in 2026. That rate is about 1 percentage point lower than what the agency projects for 2021 and about 5½ percentage points lower than the estimated rate at the end of 2007. CBO attributes roughly 4½ percentage points of the decline between 2007 and 2026 to the aging of the population (because older people tend to participate less in the labor force than younger ones do) and to the reduced participation of less skilled workers, and one-quarter of a percentage point to the fact that some workers withdrew from the labor force in response to the recent recession and slow recovery. The rest of the projected decline in potential labor force participation stems from the Affordable Care Act and the structure of the tax code, both of which reduce workers' incentive to supply labor. CBO projects that employment as a percentage of the population will fall to 57 percent in 2026, reflecting that decline in the potential labor force participation rate.

Real compensation per hour in the nonfarm business sector, a measure of labor costs that is a useful gauge of longer-term trends, will grow at an average annual rate of 1.9 percent between 2021 and 2026, CBO projects. That projection is consistent with the agency's projection that the annual growth of labor productivity in that sector will average 1.8 percent over that period, reflecting the close historical relationship between productivity growth and real compensation growth. Although that relationship broke down in the early 2000s, when real compensation per hour grew more slowly than productivity, in recent years the two have grown at similar rates, suggesting that the relationship has been largely restored. CBO expects that it will be maintained in the future. Another measure of hourly labor compensation, the ECI for workers in private industry, shows a similar pattern in the agency's projections.

Inflation

In CBO's projections, inflation as measured by the overall PCE and the core PCE price indexes averages 2.0 percent per year over the 2021–2026 period. That rate is consistent with the Federal Reserve's longer-run goal and is broadly in line with widely held expectations. As measured by the CPI-U and the core CPI-U, projected inflation is higher during that period, at 2.4 percent and 2.3 percent per year, respectively. The CPI-U and the core CPI-U have grown at similar rates, on average, over long periods. But from 2021 through 2026, CBO expects energy prices to rise slightly more quickly than other prices, making the CPI-U grow more quickly than the core CPI-U, on average.

Interest Rates

CBO projects that the interest rates on 3-month Treasury bills and 10-year Treasury notes will average 2.8 percent and 3.6 percent, respectively, throughout the 2021–2026 period. The federal funds rate is projected to be 3.1 percent.

The projected *real* interest rate on 10-year Treasury notes—that is, after the effect of expected inflation (as measured by the CPI-U) is removed—equals 1.2 percent between 2021 and 2026. That rate would be well above the current real rate but well below the average real rate of 2.9 percent between 1990 and 2007. CBO uses that period for comparison because it featured fairly stable expectations of inflation and no severe economic downturns or financial crises.

According to CBO's analysis, average real interest rates on Treasury securities will be lower than they used to be for several reasons, including slower growth in the labor force and slightly slower growth of productivity, both of which will reduce the rate of return on capital. Furthermore, a greater share of total income is expected to go to high-income households, which will increase saving and make more funds available for borrowing. The premium on risky assets is expected to be higher than its average from 1990 to 2007—boosting relative demand for Treasury securities, increasing their prices, and thereby lowering their interest rates. And net inflows of capital from other countries, measured as a percentage of GDP, are also expected to be higher, making more funds available for borrowing.

CBO expects the term premium—the extra return paid to bondholders for the added risk associated with holding long-term bonds—to be smaller from 2021 through 2026, on average, than it was before the late 1990s. Over the past two decades, the prices of long-term Treasury securities and of risky assets in the United States have moved in opposite directions. In other words, periods with weaker economic growth and lower returns in the stock market have been associated with increases in the prices of Treasury securities, which was not the case before the early 2000s. As a result, investors trying to protect themselves from adverse economic surprises may demand long-term Treasury securities to a greater degree than they used to. A related factor pushing down the term premium is that investors may have increased their demand for financial assets, such as long-term Treasury securities, that can protect them from unexpectedly low inflation. Altogether, CBO anticipates, that greater demand for long-term Treasury securities will result in a term premium and long-term interest rates that are lower than they were before the late 1990s.

Other factors are projected to push real interest rates up from their earlier average, but not by enough to offset the factors pushing rates down. Federal debt is projected to grow as a percentage of GDP, increasing the supply of Treasury securities. The country's ratio of older people, who will be drawing down their savings, to younger workers in their prime saving years will be higher than it was before; that will decrease saving, thereby making fewer funds available for borrowing. And a larger share of income will come from capital, increasing returns on capital assets with which Treasury securities compete.[50]

50. For a more detailed discussion of the factors affecting future interest rates, see Congressional Budget Office, *The 2016 Long-Term Budget Outlook* (July 2016), pp. 100–103, www.cbo.gov/publication/51580.

In addition to considering those factors, CBO relies on information from financial markets when it projects interest rates over the long term, and incorporating that information has tended to reduce the agency's projections in recent years. For example, the current interest rate on long-term Treasury securities is determined by investors' expectations of interest rates on shorter-term securities several years into the future. Prices in financial markets indicate that investors expect short-term interest rates to rise only gradually over the next several years, possibly because they expect certain forces putting downward pressure on interest rates in the United States to persist over the next decade. One force is weakness in global financial and monetary conditions, which has resulted in a flight to low-risk securities and currencies, especially U.S. Treasury securities. A second force is low interest rates on foreign assets, which push down rates on U.S. assets that can be substituted for them. Finally, investors may have concluded that obstacles to U.S. economic growth will persist, requiring the Federal Reserve to keep short-term interest rates extraordinarily low. As a result, CBO's projections of long-term rates are lower than they would have been otherwise.

Projections of Income From 2016 Through 2026

Economic activity and tax revenues depend on aggregate income—the total amount of income in the economy—and on its distribution among various categories, such as labor income, domestic economic profits, proprietors' income, and interest and dividend income. CBO therefore projects income in those categories over the next 10 years, estimating each category's share of gross domestic income (GDI, the income earned in the production of GDP).[51] The categories of income that affect revenues most strongly are labor income (especially wage and salary payments) and domestic economic profits.[52]

In CBO's projections, labor income grows more quickly than other kinds of income through 2020, increasing its share of GDI from 57.7 percent in 2015 to 59.1 percent in 2020 (see Figure 2-11). That will happen for two reasons, CBO expects: Employment will rise, and compensation per hour will grow more quickly as slack in the labor market dissipates. As a result, the bargaining power of workers will improve, and the share of income that goes to corporate profits will be smaller. Later in the projection period, however, the growth of hourly compensation is projected to slow slightly, which will stem further rises in labor's share of GDI.

51. In principle, GDI equals GDP because each dollar of production yields a dollar of income; in practice, they differ because of difficulties in measuring both quantities.

52. Calculating domestic economic profits involves adjusting estimates of corporations' domestic profits to remove distortions in depreciation allowances caused by tax rules and to exclude the effects of inflation on the value of inventories. Estimates of domestic economic profits exclude certain income of U.S.-based multinational corporations that is derived from foreign sources, most of which does not generate corporate income tax receipts in the United States.

Despite the projected growth of labor's share of GDI, CBO expects some factors that have depressed that share since 2000 to continue during the coming decade. As a result, in CBO's projections, labor's share of GDI does not return to its 1980–2007 average of nearly 60 percent. One such factor is globalization, which has tended to move the production of labor-intensive goods and services to countries with labor costs that are lower than those in the United States. Another factor is technological change, which may have increased returns to capital more than returns to labor.

CBO projects that domestic economic profits, which equaled 9.3 percent of GDI in 2015, will fall to 7.4 percent in 2026. Over the next several years, that decline is expected to occur largely because of a pickup in the growth of labor compensation but also because of an increase in corporate interest payments (the result of rising interest rates) and an increase in the income of sole proprietorships and partnerships. In CBO's projections, while labor's share of GDI rises and domestic economic profits fall as a percentage of GDI, the sum of all categories of income grows less rapidly than output, reversing a trend seen since 2000 and making GDI equal to GDP by the second half of the projection period.

Another measure of overall income, real gross national product (GNP), is projected to grow at an average rate of 1.9 percent per year between 2016 and 2026. Unlike the more commonly cited GDP, GNP includes income that U.S. residents earn abroad and excludes income that foreigners earn in this country. GNP is therefore a better measure than GDP of the resources available to U.S. households.

Some Uncertainties in the Economic Outlook

Even if no significant changes were made to the federal policies specified in current law, economic outcomes would undoubtedly differ from CBO's projections. The agency therefore constructs its projections so that they fall in the middle of the distribution of possible outcomes, given current law and the economic data that are available. The economy will inevitably fluctuate, but CBO expects periods of weak and strong economic growth to balance out, on average, in a way that is consistent with its projections over the next 10 years.

It is possible, however, that periods of weak and strong economic growth will not balance out, particularly in a given 10-year period. If a prolonged period of slower-than-projected growth was not offset by a period of faster-than-projected growth, CBO's projections of growth over the entire 10-year projection period would probably turn out to be too high; so would its projections of interest rates and inflation, in all likelihood. Similarly, if a prolonged period of stronger-than-projected growth was not offset by a period of weaker-than-projected growth, CBO's 10-year projections of growth, interest rates, and inflation would probably turn out to be too low. CBO's projections for 2016 through 2020 and its projections for 2021 through 2026 are uncertain for different reasons.

Uncertainty From 2016 Through 2020

Over the next five years, many developments—such as unforeseen changes in the labor market, the housing market, business confidence, or international conditions—could make economic growth and other variables differ considerably from what CBO has projected. On the one hand, the agency's current forecast of employment and output for the 2016–2020 period may be too pessimistic. For example, firms might respond to the expected increase in aggregate demand for goods and services with more robust hiring and investment than CBO anticipates. If so, the unemployment rate could fall more sharply and inflationary pressures could rise more quickly than CBO projects. In addition, a greater-than-expected easing of borrowing constraints in mortgage markets could support more rapid growth of the number of households and residential investment than CBO anticipates, accelerating the housing market's recovery and further boosting house prices. Households' increased wealth could then buttress consumer spending, raising GDP.

On the other hand, CBO's forecast for 2016 through 2020 may be too optimistic. For example, if the increased tightness of labor markets does not lead to increases in hourly wages and benefits, household income and consumer spending could grow more slowly than CBO anticipates. A decline in the rate of economic growth in China could weaken the U.S. economy by disrupting the international financial system and reducing global economic growth; so could increased uncertainty in the United Kingdom and the European Union as a result of the former's vote to leave the latter.

In addition, there is a possibility that the economy will enter a recession in the next few years because of those developments or others. The current economic expansion has lasted 7 years—longer than the average expansion (about 5 years) in the previous 11 business cycles, a series that began in 1945. Over the past 30 years, expansions that have lasted at least 6 years and that are characterized by a relatively low unemployment rate, as the current expansion is, have tended to fall into recession within 2 years. However, the duration of economic expansions has varied greatly. And although the longest expansion over the previous 11 business cycles has been 10 years, no statistical evidence suggests that the length of an expansion alone causes the economy to enter a recession. Some recent indicators, such as a slowdown in the growth of investment spending and a narrowing of the spread between long-term and short-term interest rates, point to a slightly elevated (but still low) risk of recession, while others, such as the growth of nonfarm payroll employment, suggest that the risk of recession has not increased.

To roughly quantify the degree of uncertainty in its projections for the next five years, CBO analyzed its past forecast errors for the growth rate of real GDP over five-year periods since 1976. Those errors have a standard deviation of 1.3 percentage points.[53]

53. For more on the inherent uncertainty underlying economic forecasts, see Congressional Budget Office, *CBO's Economic Forecasting Record: 2015 Update* (February 2015), www.cbo.gov/publication/49891.

Thus, in CBO's view, there is a two-thirds chance that the average growth rate of real GDP will be between 0.7 percent and 3.2 percent over the next five years (see Figure 2-12). Similarly, CBO's forecast errors for inflation over five-year periods (as measured by the CPI-U) have a standard deviation of 1.5 percentage points, which suggests that there is a two-thirds chance that inflation will average between 0.6 percent and 3.6 percent over the next five years.

Uncertainty From 2021 Through 2026

The factors that will determine the economy's output later in the coming decade are also uncertain. For example, if the labor force grew more quickly than expected—say, because older workers chose to stay in the labor force longer than expected—the economy could grow considerably more quickly than it does in CBO's projections. The natural rate of unemployment could be lower than expected, or productivity could grow more rapidly; those developments would likewise make the economy grow more quickly. By contrast, the economy could grow more slowly than expected—for instance, if the growth rate of labor productivity did not increase from its postrecession level, as it does in CBO's projections.

The recent rise in income inequality adds to uncertainty about output. Economists' findings about how income inequality affects economic growth have been mixed: Some studies conclude that it raises growth, others that it slows growth, and still others that it has no effect. Economists continue to study the issue, and CBO will update its analysis if research yields a more definitive conclusion. In the meantime, CBO's projections include effects of income inequality only implicitly—that is, to whatever extent past changes in inequality have affected economic growth.

Comparison With CBO's January 2016 Projections

In two important respects, CBO's current economic projections differ from those that it issued in January 2016 (see Table 2-4). First, CBO expects real GDP and real potential GDP in 2026 to be 1.6 percent lower than was projected in January. Second, CBO expects interest rates in 2026 to be lower than previously projected—short-term rates by 0.4 percentage points and long-term rates by 0.5 percentage points. Other changes to CBO's projections are modest.

Revisions to Projected Output

CBO's lower estimates of economic output reflect new economic data, analysis, and developments that occurred between late December 2015 (when the agency completed its January forecast) and early July 2016 (when the agency completed its current forecast). The largest revision was to CBO's estimate of potential output during the 2016–2026 period. The agency also lowered its estimate of output growth over the next few years.

Growth in Potential Output. In CBO's current projections, the growth of real potential GDP is about 0.1 percentage point per year lower, on average, than it was in the January projections. The downward revision stemmed from slower projected growth in the potential labor force (which is discussed below in "Revisions to Labor Market Projections"), in potential TFP, and in capital services in the nonfarm business sector.

CBO still expects potential TFP growth in the nonfarm business sector to quicken from its unusually slow pace of 0.8 percent since 2008, but the agency now expects it to reach an average pace of about 1.2 percent per year during the 2021–2026 period, down from the nearly 1.4 percent that was projected in January. Over the entire 2016–2026 period, CBO now projects that potential TFP will grow at an annual average rate of 1.1 percent, down from the previous projection of 1.2 percent.

Most of the revision to potential TFP reflects newly released data that indicate significantly weaker growth during late 2015 and early 2016 than CBO had previously expected. As a result, CBO now projects that TFP growth will begin to recover later, and end up lower, than it projected in January.

In addition, CBO made two changes to its method of estimating potential output that had a modest effect on projected potential TFP. First, to estimate underlying trends in key economic variables—that is, trends excluding the effects of business cycle fluctuations—CBO now uses its primary measure of labor market slack, the employment shortfall, rather than the difference between the actual and natural rates of unemployment. That change suggests slightly slower growth of potential TFP. Second, CBO reassessed the relative contributions of labor and capital services to output to make them more consistent with recent trends and the estimates of other leading researchers. That change likewise suggests that potential TFP will grow less than CBO expected in January.

CBO made several changes that lowered its projection of capital services, on net. One, the slower projected growth in potential TFP, reduced estimated demand for capital goods and hence the growth of capital services. That effect is responsible for much of the decline since January in the projected growth of capital services over the 2021–2026 period. Another change also slightly reduced the projected growth of capital services—modestly lower projected growth in the potential number of hours worked in the nonfarm business sector. Two further changes that affect capital services offset each other. CBO projects more federal borrowing than it did in January, which would crowd out funds available for private investment and thus dampen the growth of capital services; but it also projects less demand for investment overseas, which would lead to more net inflows of foreign financial capital to the United States, offsetting the crowding-out effect on private investment of the increased federal borrowing.

Growth in Output From 2016 to 2020. Surprisingly weak growth in output since late 2015 led CBO to reassess the economy's underlying momentum. As a result, the agency reduced its projections of growth in output over the next few years. CBO currently projects that real GDP will grow by 1.9 percent per year, on average, from

2016 through 2020; in January, the projection was 2.2 percent. That change reflects a downward revision to the average projected growth rate of consumer spending over the period, a revision that was made because CBO now expects income to grow more slowly over the next few years than it did in January. Furthermore, business fixed investment has grown at a surprisingly weak pace in recent quarters, which has contributed to a lower projection for the growth of investment during this year. CBO also revised upward its projections of net exports for the 2016–2020 period, but that revision was not large enough to offset the other reductions; in fact, it was mainly attributable to the downward revision in GDP growth, which slows projected growth in demand for imports.[54] And CBO slightly revised upward the projected growth of government consumption and investment over the 2016–2020 period.

Revisions to Projected Interest Rates

CBO anticipates that interest rates will be significantly lower, on average, over the coming decade than it projected in January. In CBO's projections for 2016 through 2020, the interest rate on 3-month Treasury bills is 0.8 percentage points lower, on average, than it was in January, and the rate on 10-year Treasury notes (which is partly determined by the expected future rates for 3-month bills) is 1 percentage point lower, on average. From 2021 through 2026, the projections of those two rates are 0.4 percentage points lower and 0.5 percentage points lower, on average, than they were in January.

The revisions for the 2016–2020 period reflect recent economic data and events that point to slower domestic and foreign GDP growth than was expected in January. The growth of real U.S. GDP during the first half of 2016 was slower than CBO and many analysts had expected. That slower growth, coupled with uncertainty about the effects of the United Kingdom's vote to leave the European Union, led CBO to expect that the Federal Reserve would raise the federal funds rate more slowly than projected in January. Probably for similar reasons, participants in the market for federal funds futures have substantially reduced their expectations for the rise in the federal funds rate as well (see Figure 2-13). Federal Reserve officials and private-sector forecasters have also lowered their projections of the federal funds rate.

As a result of its revision to the projected federal funds rate, CBO revised downward its projections for the interest rates on 3-month Treasury bills and, to a smaller degree, on 10-year Treasury notes over the next several years. In addition, CBO considered the impact of low foreign interest rates, which have made U.S. Treasury securities an attractive investment to a greater degree than CBO projected in January. CBO expects that added demand to dampen the rise in interest rates through 2020.

54. CBO also accounted for the United Kingdom's vote to leave the European Union, which is expected to affect net exports in the United States through an expected strengthening of the dollar over the next few quarters. The effect is projected to be slight, however.

The revisions for the 2021–2026 period primarily reflect upward revisions to the agency's projections of two of the factors that affect interest rates over the longer run—the added return that investors require for holding risky assets, and net inflows of capital from other countries. In CBO's assessment, a higher-than-expected premium on risky assets has partly accounted for the surprisingly low rate of interest so far this year: When that premium is high, it increases relative demand for Treasury securities, boosting their prices and thereby lowering their interest rates. The agency anticipates that the higher-than-expected premium will persist to some extent through 2026. CBO's higher projection of net inflows of capital from other countries (measured as a percentage of GDP) is the result of the agency's expectation that foreign economies will grow more slowly than was projected in January. Larger net inflows of capital would make more funds available for borrowing and thus reduce interest rates in the United States.

In addition to lowering its projections of short-term and long-term interest rates, CBO lowered its projection of the term premium. The term premium during the 2021–2026 period, calculated as the difference between the 10-year rate and the 3-month rate, fell from 0.9 percentage points in CBO's January forecast to 0.8 percentage points in the current projection. That downward revision was based on an analysis of the relationship over the past two decades between rates of return on Treasury securities and rates of return on equities in the United States, as well as on an analysis of the factors underlying the surprisingly low level of interest rates since January. As in January, CBO expects some of the factors currently suppressing the term premium to dissipate over the 2016–2020 period, but it does not expect the term premium to reach the levels that it achieved before the late 1990s. That is mainly because CBO expects investors to keep wanting Treasury securities as protection against adverse economic outcomes and unexpectedly low inflation. CBO expects those factors to lead to greater demand for long-term securities than it did in January.

Revisions to Labor Market Projections

Since January, CBO has lowered its projections of the labor force participation rate, and consequently of the size of the labor force, for most of the years through 2026. For the next two years, however, CBO projects that the labor force participation rate will be about two-tenths of a percentage point higher than was projected in January. That upward revision reflects recently released data showing that participation was slightly higher than CBO projected earlier in the year; CBO expects the recent uptick to persist for the next two years. After 2018, however, CBO's projection of the labor force participation rate is roughly one-third of a percentage point lower than it was in January. That change is due to a downward revision to the estimated potential labor force participation rate over that period: After reassessing trends, CBO revised downward the expected long-term participation of less educated workers and young workers.

CBO's current projection of the unemployment rate between 2021 and 2026 is slightly lower than it was in January, the result of a downward revision to the natural rate of

unemployment from 2015 through 2026. That revision, in turn, was made after CBO more carefully assessed how demographic trends have affected that rate. The share of younger workers in the working-age population has declined over the past two decades; less educated workers have been participating in the labor market at lower rates; and younger workers and less educated workers are more likely to be unemployed than older workers and workers with more education. CBO expects those trends to persist over the next decade. Consequently, the agency has reduced its estimate of the economywide natural rate of unemployment by one-tenth of a percentage point from 2015 through 2026, so that the rate reaches 4.7 percent in 2026. That revision led CBO to lower its estimate of the unemployment rate in 2026 from 5.0 percent to 4.9 percent.

CBO's current projection of growth in nonfarm payroll employment during most of the 2016–2026 period is lower than it was in January. That revision results in modestly lower projected growth in the potential number of hours worked in the nonfarm business sector. The revision stems from the downward revision in projected GDP growth, because slower growth in GDP implies slower growth in demand for labor and employment.

Revisions to Projected Inflation

CBO projects that consumer price inflation through 2026 will be very similar to what was projected in January. Core inflation is expected to be slightly higher in 2016 than it was in CBO's January projection, largely because of faster expected growth in housing costs throughout the year. However, the current projection of overall inflation in consumer prices in 2016 is roughly the same as the one in the January forecast, because lower projections of food and energy prices offset the higher projection of housing costs. Inflation as measured by the GDP price index is expected to be slightly lower in the second half of 2016, in 2017, and in 2018 than CBO expected in January, largely because of lower-than-expected growth in the price of U.S. exports. CBO's projections of inflation in later years have changed little since January.

Comparison With Other Economic Projections

The agency's projections of the growth of real GDP, the unemployment rate, inflation, and interest rates in 2016 and 2017 are generally similar to the *Blue Chip* consensus—the average of roughly 50 forecasts by private-sector economists that was published in the August 2016 *Blue Chip Economic Indicators*. CBO anticipates a slightly stronger economy in the short run, projecting real GDP growth that is higher than the middle two-thirds of *Blue Chip* forecasts for 2016 and that is at the top of that two-thirds span for 2017 (see Figure 2-14). The agency also expects a slightly stronger labor market, projecting an unemployment rate in both years that is lower than the *Blue Chip* consensus but within the middle two-thirds of the forecasts. CBO's projections of the interest rates on 3-month Treasury bills and on 10-year Treasury notes also fall within the middle two-thirds of the *Blue Chip* forecasts.

CBO projects faster growth of real output over the coming year than do most of the Federal Reserve officials whose forecasts were reported at the June 2016 meeting of the Federal Open Market Committee (see Figure 2-15). The Federal Reserve reports three sets of forecasts: a median, a range, and a central tendency. The median is calculated from forecasts made by the members of the Board of Governors of the Federal Reserve System and the presidents of the Federal Reserve Banks. The range is based on the highest and lowest of those forecasts. The central tendency is the range without the three highest and three lowest projections. CBO's projections of the growth of real GDP are within the central tendency in 2016 and 2018 and slightly above it in 2017. CBO's projections of the unemployment rate and inflation are within the central tendency in all three years.

CBO's projections probably differ from those of the other forecasters at least partly because of differences in the economic news available when the forecasts were completed and differences in the economic and statistical models used. In addition, other forecasters may be assuming changes in federal policies that are not included in CBO's projections, which are based on current law.

Appendix A: Changes to CBO's Baseline Since March 2016

If no new laws affecting this year's spending and revenues are enacted, the budget deficit for fiscal year 2016 will total $590 billion, the Congressional Budget Office estimates. That amount is $56 billion higher than CBO projected in March 2016, when the agency last updated its baseline (see Table A-1).[55] CBO now estimates that both revenues and outlays for the year will be lower than it projected in March—revenues by $87 billion (or 3 percent) and outlays by $31 billion (or 1 percent).

The cumulative deficit in CBO's baseline for the 2017–2026 period is now $8.6 trillion, or $712 billion less than the $9.3 trillion the agency projected previously. CBO estimates that, under current law, outlays for the period will be lower than the amount projected in March by $1,143 billion (or 2 percent) and revenues will be lower by $431 billion (or 1 percent).

Projected deficits for 2016 and 2017 are now larger than previously estimated—each by 0.3 percent of gross domestic product (GDP). But the projected deficits for 2018 through 2026 are smaller—by 0.3 percent or 0.4 percent of GDP in most years. All told, projected deficits in the new baseline average 3.8 percent of GDP from 2017 through 2026; in the March baseline, they averaged 4.0 percent of GDP.

55. See Congressional Budget Office, *Updated Budget Projections: 2016 to 2026* (March 2016), www.cbo.gov/publication/51384.

Updates to CBO's economic forecast (most notably, reductions in the projections of interest rates and GDP) produced the largest changes over the 2017–2026 period, reducing both projected outlays and revenues. However, technical changes to revenue and outlay projections (changes attributable to neither newly enacted legislation nor a revised economic forecast) offset a small portion of those economic changes.

Since CBO prepared its March baseline projections, a number of pieces of legislation that affect the budget have been enacted, but the budgetary effects of those new laws are expected to be very small—less than $1 billion over the 2017–2026 period.

Economic Changes

CBO's revised economic forecast incorporates updated projections of interest rates, inflation, GDP, the un-employment rate, and other economic variables that affect federal outlays and revenues (see "Comparison With CBO's January 2016 Projections" in Chapter 2). In light of those updates, CBO boosted its estimate of the deficit for 2016 by $20 billion and decreased its projection of the cumulative deficit for the 2017–2026 period by $736 billion, primarily because a significant reduction in projected interest rates led the agency to project lower outlays over that period. (The effect on the deficit of the lower interest rates was partially offset by a reduction in CBO's revenue projections that stemmed from the slower economic growth that the agency now anticipates.)

Changes to Projections of Outlays

On the basis of its updated economic projections, CBO reduced its estimate of outlays for 2016 by $4 billion and its projection for the 2017–2026 period by $1.2 trillion. A $998 billion reduction in estimated net interest costs—primarily the result of the agency's expectation of lower interest rates throughout the period—accounts for most of that 10-year change.

Net Interest. As a result of the marked reduction in interest rates in CBO's updated forecast, the agency decreased its estimate of net interest costs for 2016 by $4 billion and its projection of those costs for the 2017–2026 period by $905 billion.[56]

For every year of the baseline period, CBO expects the interest rates on all Treasury securities to be significantly lower than those used in the March baseline. The decrease is more pronounced in the near term. In CBO's August baseline, the interest rate on 3-month Treasury bills grows from an average of 0.6 percent in fiscal year 2017 to 2.8 percent in 2026; in the March baseline, the 3-month rate averaged 1.4 percent in 2017 and 3.2 percent in 2026. Similarly, CBO significantly lowered its estimates of the interest rate on 10-year Treasury notes. Whereas in March the 10-year rate was

56. Although nearly all of that $905 billion decrease in net interest costs is attributable to the reduction in interest rates, a very small portion arises from a reduction in CBO's forecast of inflation over the baseline period and a corresponding decrease in its estimate of interest costs associated with Treasury inflation-protected securities and savings bonds, which are tied to the rate of inflation.

projected to average 3.3 percent in fiscal year 2017 and 4.1 percent in 2026, it is now projected to average 2.2 percent in 2017 and 3.6 percent in 2026.

Because the updated economic forecast reduced federal deficits and thus federal borrowing in CBO's baseline, the agency lowered its projections of debt-service costs accordingly. Those lower debt-service costs account for an additional $93 billion reduction in interest costs.

Mandatory Spending. CBO's projections of mandatory spending for 2017 to 2026 are now $161 billion lower than reported in March because of revisions to the economic forecast. The largest revisions were made to estimates of outlays for Social Security, Medicare, and higher education.

Social Security. Because projections of inflation and wage growth were lowered, outlays in the baseline for Social Security over the 2017–2026 period decreased by $50 billion (or 0.4 percent). Whereas CBO had projected that Social Security beneficiaries would receive a 0.7 percent cost-of-living adjustment (COLA) in January 2017, the agency now expects that the COLA will be 0.6 percent. CBO lowered its projection of COLAs for several other years in the 2017–2026 period by 0.1 percentage point.

Medicare. Under current law, payment rates for much of the fee-for-service portion of Medicare (including, for example, rates for hospital care and services provided by home health agencies and skilled nursing facilities) are updated automatically. Those updates are tied to changes in the prices of the labor, goods, and services that health care providers purchase after those prices have been adjusted to remove the effects of economywide gains in productivity over a 10-year period. (Gains in productivity represent the ability to produce the same output using fewer inputs, such as hours of labor, than before.) In general, CBO projects that input prices will not increase as much over the period as it had previously estimated. Consequently, the agency now anticipates lower payment rates for Medicare services than it did in March—a change that decreases outlays in CBO's baseline by $38 billion (or 0.5 percent) over the 2017–2026 period.

Higher Education. Changes in CBO's economic forecast led to a downward revision of $33 billion in projected outlays for higher education over the 2017–2026 period. Within that category, the largest changes were to student loans: Net outlays for student loans over the 10-year period are $36 billion lower in CBO's current baseline than in the March baseline. Consistent with the procedures set forth in the Federal Credit Reform Act of 1990, CBO's estimates of outlays for the student loan program in a given year represent the costs of all federal loans disbursed in that year. Those costs are measured as the present value of the future cash flows associated with the loans, calculated using the Treasury's borrowing rates to discount those cash flows.[57] Because

57. The present value of a flow of revenues or outlays over time is a single number that expresses that flow in terms of an equivalent lump sum received or paid at a specific time. The present value of a given set of cash flows depends on the rate of interest (known as the discount rate) that is used to translate them into current dollars.

CBO significantly lowered its estimate of those rates for the 2017–2026 period, its estimate of the present value of future receipts to the government associated with student loans (in the form of loan repayments, interest payments, and default recoveries) increased, lowering the projected subsidy costs of those loans. (Using the Federal Credit Reform Act's present-value method, CBO estimates that, on balance, the student loan program produces net negative subsidies—that is, net gains to the government. The lower discount rates result in estimates that indicate even greater net negative subsidies.)

Other Mandatory Spending. Changes in the economic outlook led CBO to reduce its projections of outlays for other mandatory programs for the 2017–2026 period by $40 billion. The largest downward revisions were for the Supplemental Nutrition Assistance Program ($16 billion) and unemployment compensation ($10 billion).

Discretionary Spending. To project discretionary spending, CBO assumes that most annual appropriations through 2021 will adhere to the caps and automatic spending reductions established in the Budget Control Act of 2011 (Public Law 112-25), as amended, and that appropriations for 2022 to 2026 will grow from the 2021 amounts at the rate of inflation. (Certain discretionary appropriations, such as those for overseas contingency operations, are not constrained by the caps. In CBO's baseline, those appropriations grow in future years at the rate of inflation.) As a result, CBO's downward revision to its projection of inflation rates reduced discretionary budget authority and outlays primarily in those years after the caps are set to expire. In total, discretionary spending in the current baseline is $5 billion less over the 2017–2026 period than in the March baseline.

Changes to Projections of Revenues

Revisions to economic projections since January led the agency to reduce its revenue estimates for 2016 by $24 billion (or 0.7 percent) and its projections for 2017 through 2026 by $428 billion (or 1.0 percent). The reduction for 2016 stems primarily from CBO's lower projection of business fixed investment, which brought down the agency's projections of taxable realizations of capital gains by individuals and corporations. In addition, CBO reduced its estimate of corporate tax receipts for the year mainly because profits were smaller in 2015 than expected and because the agency lowered its projection of profits for 2016.

The $428 billion reduction in projected revenues for 2017 through 2026 stems mostly from CBO's expectation that GDP and the associated taxable incomes—mainly wages and salaries and corporate profits—will grow more slowly than previously anticipated. That change in expectations resulted largely from newly released data and changes in projection methods regarding productivity growth. CBO lowered its projections of domestic corporate profits for the 2017–2026 period by $748 billion (or about 4 percent); that revision was the primary cause of the $247 billion (or 6 percent)

reduction in projected revenues from corporate income taxes.[58] In addition, CBO reduced its projections of wages and salaries for the next 10 years by $937 billion (or about 1 percent); that change was the primary cause of the reduction in projected revenues from individual income and payroll taxes.[59] Overall, CBO lowered its projections of individual income tax revenues by $206 billion (or 1 percent) and of payroll taxes by $104 billion (or 1 percent). In addition, changes in the economic outlook caused CBO to lower its projection of receipts from certain other sources by $23 billion. That decline largely reflects lower projections of customs duties that result from the downward revision to projected imports.

Partially offsetting those reductions, CBO has increased its projections of remittances by the Federal Reserve over the next 10 years by $151 billion, largely as a result of the agency's lower forecast of interest rates. Those lower rates reduce the amount of interest that the Federal Reserve is expected to pay on the reserves that depository institutions hold on deposit with it, thereby increasing its expected profits and corresponding remittances to the Treasury. (The changes in projected interest rates also affect taxable personal and business income, but the resulting effects on revenues are smaller than the effect on remittances by the Federal Reserve.)

Over the next decade, the overall reduction in the revenue projections that is attributable to economic factors (1.0 percent) is smaller than the reduction in the projections of GDP (1.8 percent). That difference is the main reason why the new projections for revenues as a percentage of GDP after 2018 are slightly higher than those CBO released in March.[60] For example, in CBO's new baseline projections, revenues in 2026 are 18.5 percent of GDP, whereas they were 18.2 percent in the March projections. Technical factors, which are discussed in the next section, also contributed to the upward revisions to the projections of revenues relative to GDP over the 2021–2026 period.

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58. As defined by the national income and product accounts, domestic corporate profits include the profits of the Federal Reserve System, which are remitted to the Treasury and are not subject to the corporate income tax. CBO has increased its projections of the Federal Reserve's profits as a result of lowering its projections of interest rates. Excluding those profits, CBO's projections of domestic corporate profits over the 2017–2026 period are now about 5 percent lower, which is more consistent with the 6 percent reduction in the projections of corporate income tax revenues than is the change indicated by the 4 percent reduction in the measure that includes the Federal Reserve's profits.

59. Partially offsetting the effect of lower wages and salaries on projections of revenues from individual income taxes was a much smaller increase in projected revenues from that source resulting from lower projections of interest rates. Although the lower interest rates reduced CBO's estimates of personal interest income, they also had the more significant effect of reducing projected mortgage interest deductions from individual income taxes, which would boost payments of individual income taxes.

60. The increase in revenues relative to GDP after 2018 in CBO's baseline stems partly from higher projections of combined wages and profits relative to GDP, which in turn results in part from data from the beginning of calendar year 2016 showing a greater percentage drop (relative to the previous economic forecast) in GDP than in the sum of wages and profits. Also, lower projected interest rates tend to boost projections of Federal Reserve remittances relative to GDP.

Technical Changes

Technical updates to CBO's estimates of revenues and outlays—that is, revisions that stem from something other than new legislation or changes in economic projections—resulted in a net increase in the projected deficit for both the current year and for the 2017–2026 period. Lower estimates of revenues—partially offset by lower estimates of outlays—drive the $36 billion increase in the deficit estimated for the current year. For technical reasons, CBO's current projections of outlays over the 10-year period are higher in almost all years than they were in the March baseline, whereas its projections of revenues are now lower each year through 2020 and then higher from 2021 through 2026. Together, those changes increase projected deficits for the 2017–2026 period by a total of $25 billion.

Changes to Projections of Outlays

Because of technical changes, CBO lowered its projections of outlays for 2016 by $27 billion. That downward revision results from lower estimates of outlays for both mandatory and discretionary spending. But for the 2017–2026 period, projected outlays increased by $21 billion, mainly because of higher projections of debt-service costs that were partially offset by lower projected mandatory spending.

Mandatory Spending. Technical revisions related to mandatory programs decreased estimated outlays for the current year by $13 billion. For the 2017–2026 period, technical updates lowered projected mandatory spending by $15 billion.

Medicare. On the basis of actual outlays through early July, CBO now estimates that net Medicare spending for Part A (hospital insurance) and Part D (prescription drugs) in fiscal year 2016 will exceed its previous projections. In addition, this baseline incorporates final administrative actions taken by the Department of Health and Human Services regarding systems that operate on a fiscal year basis (such as setting hospital inpatient payments for the coming year) and improvements to CBO's modeling of Part A spending. In total, CBO increased its estimate of net spending for Medicare for 2016 by less than $1 billion (or 0.1 percent) and its projections for the 2017–2026 period by $27 billion (or 0.3 percent).

Earned Income and Child Tax Credits. CBO decreased its projection of outlays for two refundable tax credits—the earned income and child tax credits—for the 2017–2026 period by a total of $27 billion. (Projected outlays for the earned income tax credit are lower than they were in the March baseline by about $20 billion, and projected outlays for the child tax credit are down by about $8 billion.) The portions of those credits that exceed taxpayers' income tax liabilities are classified as outlays, and the portions that reduce filers' tax payments are classified as reductions in revenues. Outlays for those credits have been lower this year than CBO expected. That development is responsible for much of the downward revision to projected outlays in subsequent years.

Other Mandatory Spending. Technical changes lowered estimated outlays for other mandatory programs for 2016 by $11 billion. The largest contributors to that net change were reduced estimates of payments to the Treasury from Fannie Mae and Freddie Mac and of outlays for Medicaid and for health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.

For 2017 through 2026, technical changes caused CBO to decrease its projection of outlays for other mandatory programs by a net amount of $15 billion, most of which is related to updated projections for Social Security's Disability Insurance program.

Discretionary Spending. Technical adjustments to CBO's projections for several discretionary programs reduced estimated outlays for the current year by $15 billion but had little effect on projections for later years, increasing projected outlays for the 2017–2026 period by $2 billion. The biggest changes to estimates for 2016 stem from an $8 billion decrease in projected outlays for certain defense programs (primarily in the areas of operations, procurement, and military personnel) and from a $2 billion decrease in estimated outlays for veterans' programs (mostly for medical services).

Net Interest. Because of technical updates, CBO's estimate of net interest outlays over the 2017–2026 period is $34 billion higher than it was in March. That upward revision stems from an increase in CBO's projections of debt-service costs that is partially offset by other factors.

CBO raised projected debt-service costs for the next 10 years by a total of $47 billion. Most of that revision is the result of two factors that increased projected borrowing but do not contribute directly to the budget deficit:

- CBO increased its estimate of the Treasury's end-of-year cash balance for 2016 to nearly $305 billion on the basis of an expectation that the department will maintain a higher balance than in previous years. With projected deficits, larger cash balances can be maintained only by borrowing more. Therefore, CBO added $70 billion to the amount of borrowing that it estimated in March.

- CBO also increased its estimate of the amount that will need to be borrowed to finance student loans and other credit programs over the 2017–2026 period by $35 billion.

Smaller downward revisions, largely stemming from reduced estimates of interest payments to certain intragovernmental accounts, lowered projected net interest outlays by $13 billion. (However, because such payments are intragovernmental, those revisions have no net effect on projected deficits.)

Changes to Projections of Revenues

For various technical reasons, CBO lowered its projections of revenues for 2016 by $63 billion (or almost 2 percent). Tax collections from individual and corporate income taxes have been lower in recent months than CBO expected in March—and by much

more than is explained by currently available economic data. The main factors responsible for the shortfall will be clearer when additional data from tax returns and other sources become available.

All told, technical changes caused CBO to lower its revenue projections for 2017 through 2020 and to increase its projections for 2021 through 2026—for a net reduction of $4 billion over the 2017–2026 period. The reductions for 2017 through 2020 occurred because the agency expects that the effects of low collections in 2016 will continue but gradually dissipate: Taxable income and effective tax rates (total taxes as a percentage of total income) can fluctuate significantly from year to year, but they tend to return to more typical levels when adjusted for changes in tax law and for longer-term trends in income components and demographics. Other technical factors, in isolation, caused CBO to raise its revenue projections for all years between 2017 and 2026. The most significant factors contributing to those increases—the effects of which CBO expects to persist—arise from new data from the Social Security Administration that indicate a higher payroll tax base in 2015 than was anticipated and new data from corporate income tax returns on certain deductions and income. For 2017 through 2020, however, those increases were more than offset by the reductions in projected revenues stemming from the lingering effects of tax collections that have been weaker than expected.

Appendix B: CBO's Economic Projections for 2016 Through 2026

The tables in this appendix expand on the information in Chapter 2 by showing the Congressional Budget Office's economic projections for each year from 2016 through 2026 (by calendar year in Table B-1 and by fiscal year in Table B-2). For years after 2020, CBO did not attempt to forecast the frequency or size of fluctuations in the business cycle. Instead, the values shown in these tables for 2021 through 2026 mainly reflect CBO's projections of underlying trends in key variables, such as the size of the labor force, the number of hours worked, capital investment, and productivity. CBO also considers the effects on those variables of the federal tax and spending policies specified in current law.

About This Document

This volume is one of a series of reports on the state of the budget and the economy that the Congressional Budget Office issues each year. It satisfies the requirement of section 202(e) of the Congressional Budget Act of 1974 for CBO to submit to the Committees on the Budget periodic reports about fiscal policy and to provide baseline projections of the federal budget. In keeping with CBO's mandate to provide objective, impartial analysis, this report makes no recommendations.

CBO's Panel of Economic Advisers commented on an early version of the economic forecast underlying this report. Members of the panel are Katharine Abraham, Alan Auerbach, Olivier Blanchard, Markus Brunnermeier, Mary Daly, Steven Davis, Robert Hall, Jan Hatzius, Anil Kashyap, Donald Kohn, Nellie Liang, Gregory Mankiw, Emi Nakamura, Jonathan Parker, Adam Posen, James Poterba, Valerie Ramey, Brian Sack, Robert Shimer, Justin Wolfers, and Mark Zandi. Howard Gruenspecht, Simon Johnson, Kevin Logan, and Peter Petri attended the panel's meeting as guests. Although CBO's outside advisers provided considerable assistance, they are not responsible for the contents of this report.

The CBO staff members who contributed to this report—by preparing the economic, revenue, and spending projections; writing the report; reviewing, editing, fact-checking, and publishing it; compiling the supplemental materials posted along with it on CBO's website (www.cbo.gov/publication/51908); and providing other support—are listed on the following pages.

Keith Hall
Director

August 2016

Economic Projections

The economic projections were prepared by the Macroeconomic Analysis Division, with contributions from analysts in other divisions. That work was supervised by Jeffrey Werling, Robert Arnold, and Kim Kowalewski.

Robert Arnold	Inflation, house prices
Daniel Fried	Net exports, exchange rates, energy prices
Edward Gamber	Interest rates, monetary policy, current-quarter analysis
Ronald Gecan	Energy prices
Mark Lasky	Business investment, housing
Jason Levine	Financial markets
Joshua Montes	Labor markets
Jeffrey Perry	Financial markets
John Seliski	Federal, state, and local government spending and revenues
Robert Shackleton	Potential output, productivity
Adam Staveski	Housing, model and data management
Christopher Williams	Consumer spending, incomes

Revenue Projections

The revenue projections were prepared by the Tax Analysis Division, supervised by Mark Booth, Ed Harris, and Janet Holtzblatt. In addition, the staff of the Joint Committee on Taxation provided valuable assistance.

Paul Burnham	Retirement income
Nathaniel Frentz	Federal Reserve System earnings, customs duties, miscellaneous fees and fines
Pamela Greene	Corporate income taxes
Peter Huether	Excise taxes
Shannon Mok	Estate and gift taxes, refundable tax credits
Kevin Perese	Tax modeling, Federal Reserve System earnings
Molly Saunders-Scott	International taxation, business taxation
Kurt Seibert	Payroll taxes, depreciation, tax modeling
Joshua Shakin	Individual income taxes, refundable tax credits
Naveen Singhal	Capital gains realizations, tax modeling

Spending Projections

The spending projections were prepared by the Budget Analysis Division, with contributions from analysts in other divisions; that work was supervised by Theresa Gullo, Holly Harvey, Sam Papenfuss, Tom Bradley, Kim Cawley, Chad Chirico, Sheila Dacey, Jeffrey Holland, Sarah Jennings, and Adam Wilson of the Budget Analysis Division, as well as by Jessica Banthin of the Health, Retirement, and Long-Term Analysis Division and Damien Moore of the Financial Analysis Division.

Defense, International Affairs, and Veterans' Affairs

Kent Christensen	Defense (projections, working capital funds, operation and maintenance, procurement, scorekeeping)
Sunita D'Monte	International affairs
Ann Futrell	Veterans' health care and employment training services, international food assistance
Raymond Hall	Defense (research and development, stockpile sales, atomic energy, Navy procurement)
William Ma	Defense (operation and maintenance, procurement, compensation for radiation exposure and energy employees' occupational illness, other defense programs)
David Newman	Defense (military construction and family housing, military activities in Afghanistan), veterans' housing and education benefits, reservists' education benefits
David Rafferty	Military retirement
Dawn Sauter Regan	Defense (military personnel)
Matthew Schmit	Military health care
Dwayne Wright	Veterans' compensation and pensions, other benefits for disabled veterans

Health

Susan Yeh Beyer	Health insurance coverage
Julia Christensen	Food and Drug Administration, prescription drugs
Kate Fritzsche	Health insurance marketplaces, other programs

Health (Continued)

Daniel Hoople	Medicaid, Children's Health Insurance Program
Lori Housman	Medicare
Jamease Kowalczyk	Medicare
Sean Lyons	Health insurance coverage
Paul Masi	Medicare, Federal Employees Health Benefits program
Sarah Masi	Health insurance marketplaces, other programs
Kevin McNellis	Medicare
Alexandra Minicozzi	Health insurance coverage
Eamon Molloy	Health insurance coverage
Andrea Noda	Medicaid prescription drugs, long-term care, Public Health Service
Romain Parsad	Health insurance coverage
Allison Percy	Health insurance coverage
Lisa Ramirez-Branum	Medicaid, health insurance coverage, Health Resources and Services Administration
Lara Robillard	Medicare
Robert Stewart	Medicaid, Children's Health Insurance Program, Indian Health Service
Ellen Werble	Prescription drugs, Public Health Service, National Institutes of Health
Zoe Williams	Medicare
Rebecca Yip	Medicare Part D, prescription drugs, Public Health Service

Income Security and Education

Christina Hawley Anthony	Unemployment insurance, training programs, Administration on Aging, Smithsonian Institution, arts and humanities
Elizabeth Cove Delisle	Housing assistance
Kathleen FitzGerald	Supplemental Nutrition Assistance Program and other nutrition programs
Jennifer Gray	Social Services Block Grant, support programs for children and families, child nutrition and other nutrition programs

Income Security and Education (Continued)

Justin Humphrey	Student loans, higher education
Leah Koestner	Elementary and secondary education, Pell grants
Alec MacMillen	Child Care and Development Block Grant, refugee assistance
Susanne Mehlman	Temporary Assistance for Needy Families, Child Support Enforcement program, foster care, child care programs, Low Income Home Energy Assistance Program
Noah Meyerson	Old-Age and Survivors Insurance, Social Security trust funds, Pension Benefit Guaranty Corporation
Emily Stern	Disability Insurance, Supplemental Security Income

Natural and Physical Resources

Tiffany Arthur	Agriculture
Marin Burnett	Administration of justice, science and space exploration, recreational resources
Megan Carroll	Energy, air and water transportation
Mark Grabowicz	Administration of justice, Postal Service
Kathleen Gramp	Energy, Outer Continental Shelf receipts, spectrum auction receipts, Orderly Liquidation Fund
Jeff LaFave	Conservation and land management, other natural resources, Federal Housing Administration and other housing credit programs
James Langley	Agriculture
Matthew Pickford	General government, legislative branch
Sarah Puro	Highways, mass transit, Amtrak, deposit insurance, credit unions
Stephen Rabent	Commerce, Small Business Administration, Universal Service Fund
Robert Reese	Community and regional development, Federal Emergency Management Agency, Bureau of Indian Affairs
Jon Sperl	Pollution control and abatement
Aurora Swanson	Water resources, Fannie Mae and Freddie Mac

Other Areas and Functions

Shane Beaulieu	Computer support
Barry Blom	Federal pay, monthly Treasury data
Joanna Capps	Appropriation bills (Labor, Health and Human Services, and Education; Legislative Branch; State and Foreign Operations)
Meredith Decker	Other interest, debt limit
Karen Dinh	Computer support
Avi Lerner	Troubled Asset Relief Program, automatic budget enforcement and sequestration, interest on the public debt
Amber Marcellino	Federal civilian retirement, historical data
Virginia Myers	Appropriation bills (Commerce, Justice, and Science; Financial Services and General Government)
Jeffrey Perry	Fannie Mae and Freddie Mac, Federal Housing Administration
Dan Ready	Various federal retirement programs, national income and product accounts, federal pay
Mitchell Remy	Fannie Mae and Freddie Mac, Federal Housing Administration
Mark Sanford	Appropriation bills (Agriculture and Food and Drug Administration; Defense)
Esther Steinbock	Appropriation bills (Energy and Water Development; Military Construction and Veterans Affairs; Transportation and Housing and Urban Development)
J'nell Blanco Suchy	Appropriation bill (Interior), authorization bills
Patrice Watson	Database system administrator
Adam Wilson	Appropriation bill (Homeland Security)

Writing

Christina Hawley Anthony wrote the summary. Barry Blom wrote Chapter 1, with assistance from Nathaniel Frentz and Joshua Shakin. Edward Gamber and Charles Whalen wrote Chapter 2. Amber Marcellino wrote Appendix A, with assistance from Pamela Greene. Claire Sleigh compiled Appendix B.

Reviewing, Editing, Fact-Checking, and Publishing

Wendy Edelberg, Jeffrey Kling, and Robert Sunshine reviewed the report. The editing and publishing were handled by CBO's editing and publishing group, supervised by John Skeen, and the agency's web team, supervised by Deborah Kilroe.

Christine Bogusz, Loretta Lettner, Bo Peery, and Benjamin Plotinsky edited the report; Maureen Costantino and Jeanine Rees prepared it for publication; and Robert Dean, Annette Kalicki, Adam Russell, and Simone Thomas published it on CBO's website.

Zachary Byrum, Meredith Decker, Ann Futrell, Peter Huether, Alec MacMillen, David Newman, Robert Reese, Claire Sleigh, Adam Staveski, and Zoe Williams fact-checked the report.

Peter Huether, Dan Ready, Claire Sleigh, and Adam Staveski compiled supplemental data, which are posted with this report on the agency's website. Jeanine Rees and Simone Thomas coordinated the presentation of those materials.

Summary Table 1. Return to Reference

CBO's Baseline Budget Projections

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
							In Billions of Dollars							
Revenues	3,250	3,276	3,421	3,600	3,745	3,900	4,048	4,212	4,385	4,574	4,779	4,993	18,714	41,658
Outlays	3,688	3,866	4,015	4,120	4,370	4,614	4,853	5,166	5,373	5,574	5,908	6,235	21,973	50,229
Deficit	-438	-590	-594	-520	-625	-714	-806	-954	-988	-1,000	-1,128	-1,243	-3,258	-8,571
Debt Held by the Public at the End of the Year	13,117	14,073	14,743	15,325	16,001	16,758	17,597	18,584	19,608	20,649	21,824	23,118	n.a.	n.a.
							As a Percentage of Gross Domestic Product							
Revenues	18.2	17.8	17.9	18.1	18.1	18.2	18.2	18.3	18.3	18.3	18.4	18.5	18.1	18.3
Outlays	20.7	21.1	21.0	20.7	21.2	21.6	21.9	22.4	22.4	22.3	22.7	23.1	21.3	22.0
Deficit	-2.5	-3.2	-3.1	-2.6	-3.0	-3.3	-3.6	-4.1	-4.1	-4.0	-4.3	-4.6	-3.2	-3.8
Debt Held by the Public at the End of the Year	73.6	76.6	77.2	77.0	77.5	78.4	79.3	80.5	81.7	82.7	84.0	85.5	n.a.	n.a.

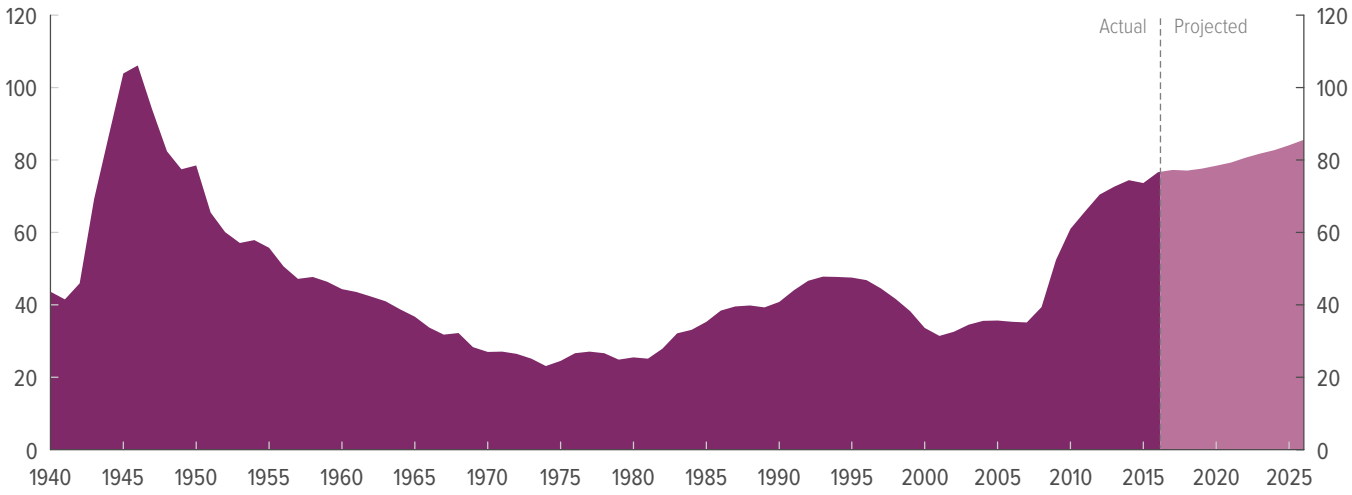
Source: Congressional Budget Office.

n.a. = not applicable.

Summary Figure 1. Return to Reference

Federal Debt Held by the Public

Percentage of Gross Domestic Product

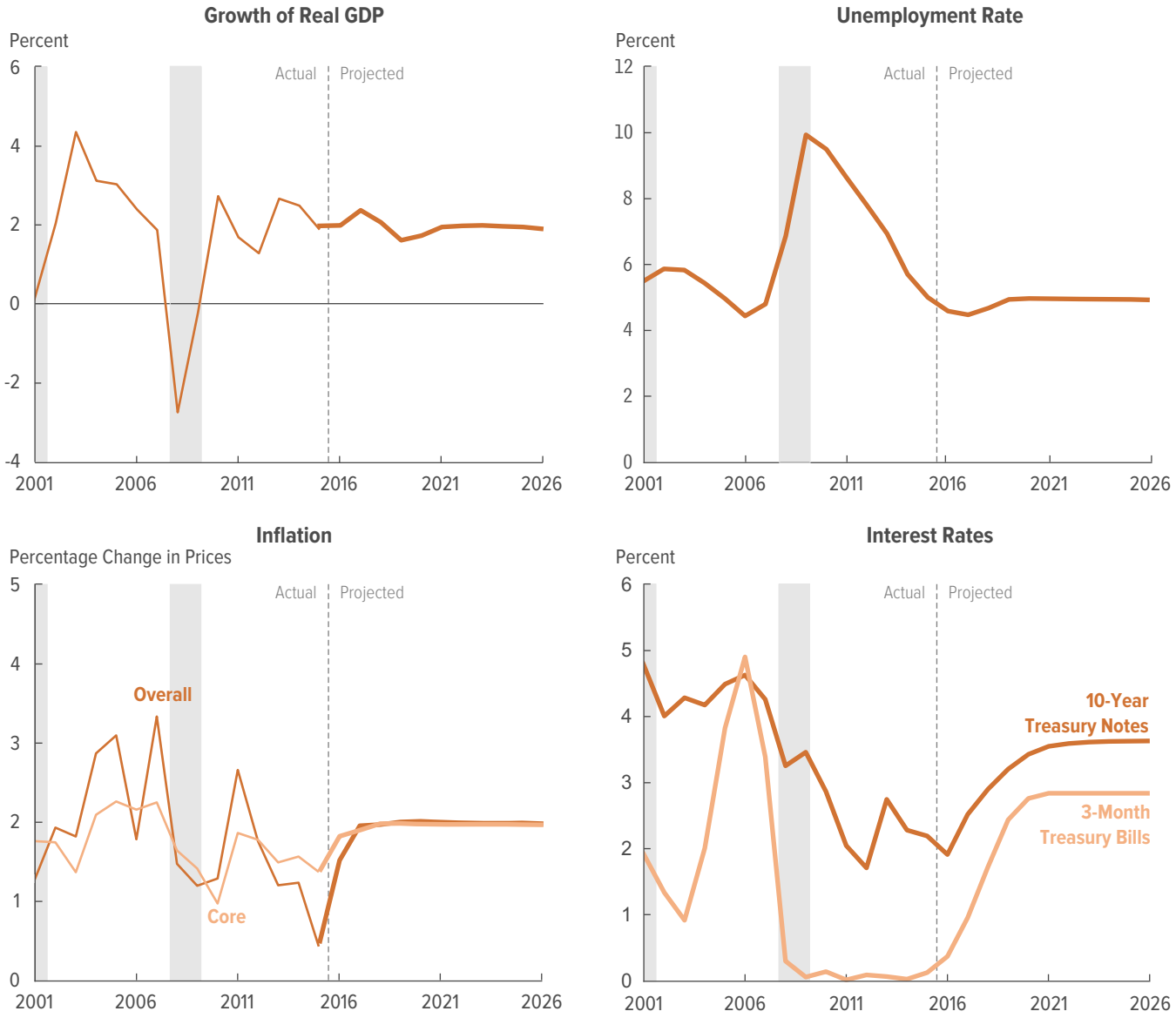


Source: Congressional Budget Office.

Summary Figure 2. Return to Reference

Actual Values and CBO's Projections of Key Economic Indicators

CBO projects that economic activity will expand at a modest pace this year and next, lowering the unemployment rate and putting upward pressure on inflation and interest rates.



Source: Congressional Budget Office, using data from the Bureau of Economic Analysis, the Bureau of Labor Statistics, and the Federal Reserve.

Real gross domestic product is the output of the economy adjusted to remove the effects of inflation. The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force. The overall inflation rate is based on the price index for personal consumption expenditures; the core rate excludes prices for food and energy.

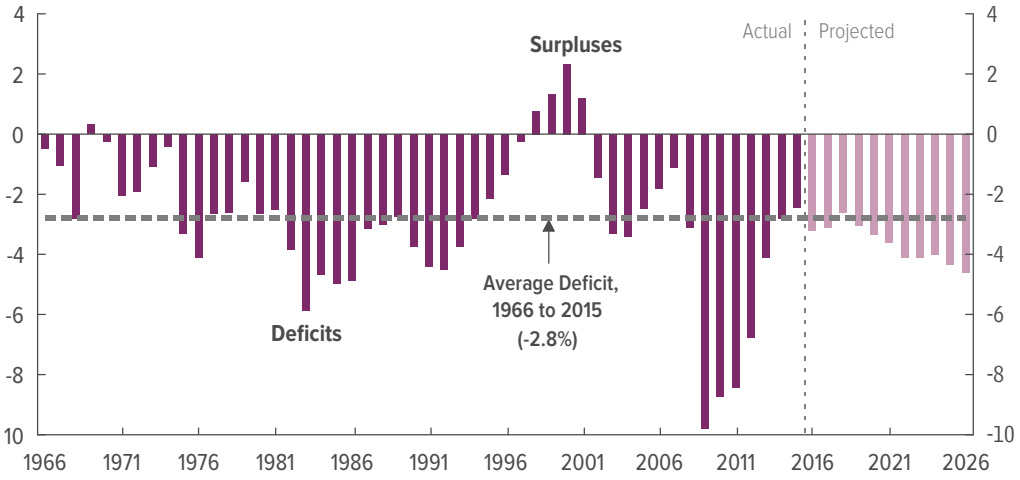
Data are annual. For real GDP and inflation, values from 2001 through 2015 (the thin lines) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 29, 2016. Values from 2015 through 2026 (the thick lines) reflect the data available and projections made before July 29. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year. For the unemployment and interest rates, actual data are plotted through 2015, and all data are fourth-quarter values.

GDP = gross domestic product.

Figure 1-1. Return to Reference

Total Deficits and Surpluses

Percentage of Gross Domestic Product



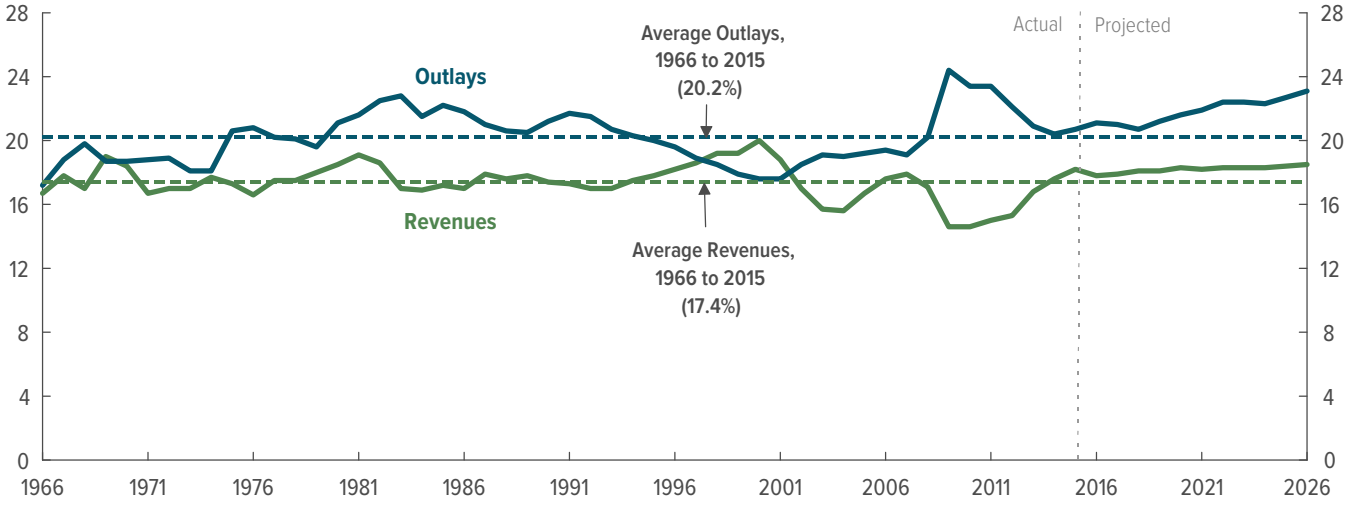
As a percentage of gross domestic product, deficits exceed the 50-year average for most of the 2016–2026 projection period as mandatory spending and interest payments rise faster than revenues.

Source: Congressional Budget Office.

Figure 1-2. Return to Reference

Total Revenues and Outlays

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

Table 1-1. Return to Reference

CBO's Baseline Budget Projections, by Category

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
							In Billions of Dollars							
Revenues														
Individual income taxes	1,541	1,553	1,667	1,780	1,877	1,968	2,069	2,172	2,277	2,390	2,511	2,637	9,362	21,348
Payroll taxes	1,065	1,114	1,149	1,188	1,228	1,267	1,315	1,364	1,414	1,465	1,521	1,579	6,147	13,490
Corporate income taxes	344	300	321	337	352	381	374	378	385	396	410	427	1,765	3,761
Other	300	309	284	295	289	284	289	299	310	323	336	350	1,442	3,059
Total	**3,250**	**3,276**	**3,421**	**3,600**	**3,745**	**3,900**	**4,048**	**4,212**	**4,385**	**4,574**	**4,779**	**4,993**	**18,714**	**41,658**
On-budget	2,480	2,466	2,587	2,735	2,854	2,982	3,099	3,230	3,368	3,521	3,689	3,863	14,257	31,928
Off-budget[a]	770	810	835	864	891	918	949	983	1,017	1,053	1,090	1,129	4,457	9,730
Outlays														
Mandatory	2,297	2,437	2,538	2,614	2,798	2,961	3,123	3,353	3,479	3,604	3,851	4,095	14,033	32,415
Discretionary	1,168	1,181	1,207	1,205	1,223	1,248	1,275	1,306	1,332	1,358	1,396	1,428	6,157	12,977
Net interest	223	248	270	301	350	405	456	507	562	612	661	712	1,783	4,838
Total	**3,688**	**3,866**	**4,015**	**4,120**	**4,370**	**4,614**	**4,853**	**5,166**	**5,373**	**5,574**	**5,908**	**6,235**	**21,973**	**50,229**
On-budget	2,945	3,087	3,203	3,253	3,442	3,620	3,789	4,027	4,155	4,274	4,520	4,755	17,306	39,038
Off-budget[a]	743	779	813	866	928	994	1,065	1,139	1,218	1,301	1,387	1,480	4,666	11,192
Deficit (-) or Surplus	-438	-590	-594	-520	-625	-714	-806	-954	-988	-1,000	-1,128	-1,243	-3,258	-8,571
On-budget	-466	-621	-616	-518	-588	-637	-690	-797	-787	-753	-831	-892	-3,049	-7,109
Off-budget[a]	27	31	22	-2	-37	-77	-116	-156	-201	-247	-297	-351	-209	-1,462
Debt Held by the Public	13,117	14,073	14,743	15,325	16,001	16,758	17,597	18,584	19,608	20,649	21,824	23,118	n.a.	n.a.
Memorandum:														
Gross Domestic Product	17,810	18,367	19,102	19,895	20,637	21,372	22,193	23,075	24,001	24,967	25,977	27,027	103,198	228,245
							As a Percentage of Gross Domestic Product							
Revenues														
Individual income taxes	8.7	8.5	8.7	8.9	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.1	9.4
Payroll taxes	6.0	6.1	6.0	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.8	6.0	5.9
Corporate income taxes	1.9	1.6	1.7	1.7	1.7	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.6
Other	1.7	1.7	1.5	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.3
Total	**18.2**	**17.8**	**17.9**	**18.1**	**18.1**	**18.2**	**18.2**	**18.3**	**18.3**	**18.3**	**18.4**	**18.5**	**18.1**	**18.3**
On-budget	13.9	13.4	13.5	13.7	13.8	14.0	14.0	14.0	14.0	14.1	14.2	14.3	13.8	14.0
Off-budget[a]	4.3	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.3	4.3
Outlays														
Mandatory	12.9	13.3	13.3	13.1	13.6	13.9	14.1	14.5	14.5	14.4	14.8	15.2	13.6	14.2
Discretionary	6.6	6.4	6.3	6.1	5.9	5.8	5.7	5.7	5.5	5.4	5.4	5.3	6.0	5.7
Net interest	1.3	1.4	1.4	1.5	1.7	1.9	2.1	2.2	2.3	2.5	2.5	2.6	1.7	2.1
Total	**20.7**	**21.1**	**21.0**	**20.7**	**21.2**	**21.6**	**21.9**	**22.4**	**22.4**	**22.3**	**22.7**	**23.1**	**21.3**	**22.0**
On-budget	16.5	16.8	16.8	16.4	16.7	16.9	17.1	17.5	17.3	17.1	17.4	17.6	16.8	17.1
Off-budget[a]	4.2	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.3	5.5	4.5	4.9
Deficit (-) or Surplus	**-2.5**	**-3.2**	**-3.1**	**-2.6**	**-3.0**	**-3.3**	**-3.6**	**-4.1**	**-4.1**	**-4.0**	**-4.3**	**-4.6**	**-3.2**	**-3.8**
On-budget	-2.6	-3.4	-3.2	-2.6	-2.8	-3.0	-3.1	-3.5	-3.3	-3.0	-3.2	-3.3	-3.0	-3.1
Off-budget[a]	0.2	0.2	0.1	*	-0.2	-0.4	-0.5	-0.7	-0.8	-1.0	-1.1	-1.3	-0.2	-0.6
Debt Held by the Public	73.6	76.6	77.2	77.0	77.5	78.4	79.3	80.5	81.7	82.7	84.0	85.5	n.a.	n.a.

Source: Congressional Budget Office.

n.a. = not applicable; * = between -0.05 percent and zero.

a. The revenues and outlays of the Social Security trust funds and the net cash flow of the Postal Service are classified as off-budget.

Box 1-1. Return to Reference

Shifts in the Timing of Certain Payments in CBO's Baseline

The pattern of deficits projected in the Congressional Budget Office's baseline is significantly affected by shifts in the timing of certain payments. When October 1 (the first day of the fiscal year) falls on a weekend, a number of payments that are due on that day are instead made at the end of September, thus shifting into the previous fiscal year. Because October 1 falls on a weekend in calendar years 2016, 2017, 2022, and 2023, those shifts noticeably boost projected outlays—and thus the deficit—in fiscal years 2016 and 2022 but reduce them in fiscal years 2018 and 2024 (see the table). If not for those timing shifts—as well as two other shifts unrelated to those October 1 payments—the deficit would be smaller by $41 billion this year, smaller by $4 billion in 2017, and larger by $45 billion in 2018.[1] The magnitude of the shifts is greater over the 2022–2024 period as projected spending for the affected programs rises.

Mandatory Spending

All told, shifts in the timing of payments will boost mandatory outlays by $37 billion in 2016 and reduce them by $41 billion in 2018. The largest shift involves payments to private insurance plans that deliver medical benefits and outpatient prescription drugs for beneficiaries enrolled in the Medicare Advantage and Part D programs. The shift in those payments will increase Medicare outlays by $22 billion in 2016 and decrease them by $24 billion in 2018.

Similar shifts in the timing of payments for certain veterans' benefits, military retirement, and Supplemental Security Income will increase mandatory outlays by an additional $15 billion this year and reduce them by $16 billion in 2018.

Lastly, royalty payments owed to the federal government stemming from the extraction of minerals from federally owned lands are due on the last day of each month. (Such payments are recorded as offsetting receipts in the budget.) When September 30 falls on a weekend—as it will in 2017 and 2023—those payments are instead made at the beginning of October, thus shifting into the following fiscal year. As a result, outlays will be boosted by $0.3 billion in 2017 and reduced by the same amount in 2018.

Discretionary Spending

As with the mandatory benefit programs described above, pay for active-duty and reserve military personnel is shifted into the prior fiscal year when October 1 falls on a weekend. As a result, defense outlays will be boosted by $4 billion in 2016 and reduced by a similar amount in 2018.

Revenues

CBO's projections of corporate income taxes are also affected by shifts in the timing of payments. Corporate payments of estimated taxes are due four times per year. However, for corporations with assets exceeding $1 billion, two laws enacted in recent years related to trade preference programs (Public Laws 112-163 and 114-27) required a small portion of their estimated payments that would otherwise have been due in the fourth quarter of calendar years 2017 and 2020 to instead be made one quarter early, thereby shifting them into the previous fiscal year. As a result of those shifts, revenues under current law will be higher in 2017 (by an estimated $0.2 billion) and 2020 (by an estimated $6 billion), and lower by those amounts in 2018 and 2021.

1. Although 12 benefit checks will be issued in fiscal year 2017, total outlays in that year will still be affected by shifts in the timing of those payments. The payments due on October 1, 2016, will be shifted from fiscal year 2017 into 2016, and the payments due on October 1, 2017, will be shifted from fiscal year 2018 into 2017. Because the payments shifted into 2017 will be larger than the payments shifted out of that year, outlays in 2017 will be boosted, on net, by $4 billion.

Continued

Box 1-1. Continued

Payments That Are Shifted in CBO's Baseline

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Revenues	**0**	*	*	**0**	**6**	**-6**	**0**	**0**	**0**	**0**	**0**
Outlays											
Mandatory											
Medicare	22	3	-24	0	0	0	41	3	-44	0	0
Veterans' benefits	7	1	-8	0	0	0	9	1	-9	0	0
Military retirement	4	*	-4	0	0	0	5	*	-5	0	0
Supplemental Security Income	4	*	-5	0	0	0	5	*	-5	0	0
Outer Continental Shelf	0	*	*	0	0	0	0	*	*	0	0
Subtotal	37	4	-41	0	0	0	60	5	-65	0	0
Discretionary	4	*	-4	0	0	0	5	*	-5	0	0
Total	**41**	**4**	**-45**	**0**	**0**	**0**	**64**	**5**	**-70**	**0**	**0**
Increase (-) or Decrease in the Deficit	-41	-4	45	0	6	-6	-64	-5	70	0	0
Memorandum:											
Deficit											
In billions of dollars											
Baseline	-590	-594	-520	-625	-714	-806	-954	-988	-1,000	-1,128	-1,243
Baseline adjusted for timing shifts	-549	-590	-565	-625	-720	-800	-889	-983	-1,070	-1,128	-1,243
As a percentage of GDP											
Baseline	-3.2	-3.1	-2.6	-3.0	-3.3	-3.6	-4.1	-4.1	-4.0	-4.3	-4.6
Baseline adjusted for timing shifts	-3.0	-3.1	-2.8	-3.0	-3.4	-3.6	-3.9	-4.1	-4.3	-4.3	-4.6

Source: Congressional Budget Office.

GDP = gross domestic product; * = between -$500 million and $500 million.

Table 1-2. Return to Reference

Mandatory Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Social Security														
Old-Age and Survivors Insurance	738	766	799	849	906	967	1,030	1,097	1,167	1,240	1,317	1,397	4,552	10,769
Disability Insurance	144	144	145	150	155	161	169	177	185	194	202	212	781	1,752
Subtotal	882	910	944	999	1,061	1,128	1,199	1,274	1,352	1,434	1,520	1,609	5,333	12,521
Major Health Care Programs														
Medicare[a]	634	696	708	716	790	848	910	1,017	1,048	1,076	1,194	1,289	3,972	9,596
Medicaid	350	365	393	415	437	459	483	508	534	562	591	621	2,186	5,001
Health insurance subsidies and related spending[b]	38	43	54	67	76	81	86	89	93	97	100	103	365	847
Children's Health Insurance Program	9	14	14	12	6	6	6	6	6	6	6	6	43	71
Subtotal[a]	1,031	1,118	1,169	1,210	1,309	1,394	1,484	1,619	1,681	1,740	1,890	2,019	6,565	15,515
Income Security Programs														
Earned income, child, and other tax credits[c]	85	84	86	87	89	89	89	91	93	96	98	100	440	918
Supplemental Nutrition Assistance Program	76	74	71	70	70	69	69	69	69	69	70	71	349	697
Supplemental Security Income	55	59	56	53	59	61	62	69	66	63	70	72	290	629
Unemployment compensation	32	34	32	34	38	43	45	47	49	51	53	56	193	448
Family support and foster care[d]	31	31	32	32	33	33	33	34	34	35	35	35	164	337
Child nutrition	22	23	24	25	26	27	28	29	30	32	33	34	129	287
Subtotal	300	304	300	301	314	321	327	339	342	345	359	368	1,564	3,317
Federal Civilian and Military Retirement														
Civilian[e]	97	98	100	104	107	110	114	118	122	126	130	134	535	1,165
Military	57	62	58	55	61	63	64	71	68	64	72	73	301	650
Other	7	4	5	5	5	5	6	7	8	9	5	11	27	66
Subtotal	161	164	164	164	173	179	185	196	197	199	206	219	864	1,881
Veterans' Programs														
Income security[f]	76	89	87	84	95	98	102	114	110	104	117	121	466	1,032
Other[g]	16	20	21	18	17	18	18	20	21	21	23	24	92	201
Subtotal	92	109	108	102	112	116	120	134	130	125	140	145	558	1,233
Other Programs														
Agriculture	13	14	19	19	16	15	15	15	15	15	15	15	84	160
Deposit Insurance	-13	-12	-11	-13	-10	-11	-11	-11	-12	-13	-14	-15	-56	-121
MERHCF	10	10	10	11	11	12	13	13	14	14	15	16	57	130
Fannie Mae and Freddie Mac[h]	0	0	3	2	1	1	*	1	1	1	1	2	7	12
Higher education	22	5	-7	-4	-2	*	1	1	1	1	1	*	-13	-9
Other	56	51	73	75	73	72	69	67	67	66	65	69	362	695
Subtotal	88	67	86	90	89	89	87	86	85	84	84	87	441	867

Continued

Table 1-2. Continued

Mandatory Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Offsetting Receipts														
Medicare[i]	-94	-104	-115	-124	-131	-142	-151	-164	-173	-182	-198	-215	-662	-1,595
Federal share of federal employees' retirement														
Social Security	-16	-16	-17	-17	-18	-19	-19	-20	-20	-21	-22	-22	-90	-195
Military retirement	-20	-19	-18	-18	-18	-18	-19	-19	-20	-20	-20	-21	-91	-191
Civil service retirement and other	-32	-34	-34	-35	-36	-37	-38	-39	-41	-42	-43	-44	-181	-390
Subtotal	-68	-69	-69	-70	-72	-74	-76	-78	-80	-83	-85	-87	-362	-775
Fannie Mae and Freddie Mac[h]	-23	-14	0	0	0	0	0	0	0	0	0	0	0	0
Receipts related to natural resources	-11	-8	-9	-12	-12	-12	-12	-12	-13	-14	-14	-15	-57	-125
MERHCF	-7	-7	-7	-8	-8	-9	-9	-10	-10	-11	-11	-12	-41	-94
Other	-55	-33	-34	-38	-38	-30	-30	-31	-32	-33	-40	-25	-169	-330
Subtotal	-258	-235	-234	-251	-261	-266	-279	-296	-308	-323	-347	-353	-1,292	-2,918
Total Mandatory Outlays	**2,297**	**2,437**	**2,538**	**2,614**	**2,798**	**2,961**	**3,123**	**3,353**	**3,479**	**3,604**	**3,851**	**4,095**	**14,033**	**32,415**
Memorandum:														
Mandatory Spending Excluding the Effects of Offsetting Receipts	2,555	2,672	2,772	2,865	3,059	3,227	3,402	3,648	3,787	3,927	4,198	4,448	15,325	35,333
Spending for Medicare Net of Offsetting Receipts	540	592	593	592	659	707	759	852	875	894	996	1,074	3,310	8,001
Spending for Major Health Care Programs Net of Offsetting Receipts[j]	937	1,013	1,054	1,086	1,178	1,252	1,332	1,455	1,508	1,558	1,692	1,805	5,903	13,921

Source: Congressional Budget Office.

Data on spending for benefit programs in this table generally exclude administrative costs, which are discretionary.

MERHCF = The Department of Defense's Medicare-Eligible Retiree Health Care Fund (including TRICARE for Life); * = between -$500 million and $500 million.

a. Gross spending, excluding the effects of Medicare premiums and other offsetting receipts. (Net Medicare spending is included in the memorandum section of the table.)

b. Spending to subsidize health insurance purchased in the marketplaces established by the Affordable Care Act and provided through the Basic Health Program and spending to stabilize premiums for health insurance purchased by individuals and small employers.

c. Includes outlays for the American Opportunity Tax Credit and other credits.

d. Includes the Temporary Assistance for Needy Families program, the Child Support Enforcement program, the Child Care Entitlement program, and other programs that benefit children.

e. Includes benefits for retirement programs in the civil service, foreign service, and Coast Guard; benefits for smaller retirement programs; and annuitants' health care benefits.

f. Includes veterans' compensation, pensions, and life insurance programs.

g. Primarily education subsidies; the costs of veterans' health care are classified as discretionary spending and thus are not shown in this table.

h. The cash payments from Fannie Mae and Freddie Mac to the U.S. Treasury are recorded as offsetting receipts in 2015 and 2016. Beginning in 2017, CBO's estimates reflect the net lifetime costs—that is, the subsidy costs adjusted for market risk—of the guarantees that those entities will issue and of the loans that they will hold. CBO counts those costs as federal outlays in the year of issuance.

i. Includes premium payments, recoveries of overpayments made to providers, and amounts paid by states from savings on Medicaid's prescription drug costs.

j. Consists of spending on Medicare (net of premiums and other offsetting receipts), 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 and related spending.

Table 1-3. Return to Reference

Discretionary Spending Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015[a]	2016[a]	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Budget Authority														
Defense	586	607	611	610	624	639	655	671	687	704	721	739	3,139	6,661
Nondefense	530	560	543	540	554	568	581	595	610	625	641	657	2,787	5,916
Total	**1,116**	**1,167**	**1,154**	**1,150**	**1,178**	**1,208**	**1,236**	**1,266**	**1,297**	**1,329**	**1,362**	**1,396**	**5,926**	**12,577**
Outlays														
Defense	583	579	592	593	609	623	637	657	668	680	701	719	3,055	6,480
Nondefense	585	602	615	612	614	625	637	649	663	678	694	710	3,102	6,497
Total	**1,168**	**1,181**	**1,207**	**1,205**	**1,223**	**1,248**	**1,275**	**1,306**	**1,332**	**1,358**	**1,396**	**1,428**	**6,157**	**12,977**
Memorandum:														
Caps in the Budget Control Act (As Amended), Including Automatic Reductions to the Caps														
Defense	521	548	551	549	562	576	590	n.a.	n.a.	n.a.	n.a.	n.a.	2,828	n.a.
Nondefense	492	518	519	515	529	542	555	n.a.	n.a.	n.a.	n.a.	n.a.	2,660	n.a.
Total	1,014	1,067	1,070	1,064	1,091	1,118	1,145	n.a.	n.a.	n.a.	n.a.	n.a.	5,489	n.a.
Adjustments to the Caps[b]														
Defense	65	59	60	61	62	63	65	n.a.	n.a.	n.a.	n.a.	n.a.	311	n.a.
Nondefense	23	24	25	25	25	26	26	n.a.	n.a.	n.a.	n.a.	n.a.	127	n.a.
Total	87	83	85	86	87	89	91	n.a.	n.a.	n.a.	n.a.	n.a.	437	n.a.

Source: Congressional Budget Office.

CBO's baseline projections incorporate the assumption that the caps on discretionary budget authority and the automatic enforcement procedures specified in the Budget Control Act of 2011 (as amended) remain in effect through 2021.

Nondefense discretionary outlays are usually higher than budget authority because of spending from the Highway Trust Fund and the Airport and Airway Trust Fund that is subject to obligation limitations set in appropriation acts. The budget authority for such programs is provided in authorizing legislation and is not considered discretionary.

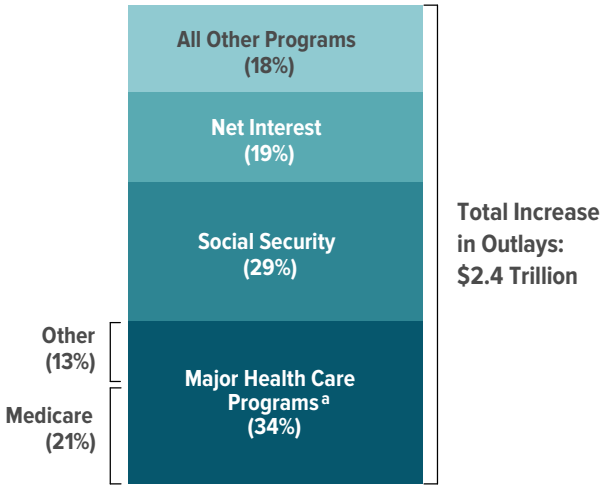
n.a. = not applicable.

a. The amount of budget authority for 2015 and 2016 in CBO's baseline does not match the sum of the spending caps plus adjustments to the caps mostly because changes to mandatory programs included in the appropriation acts for those years were credited against the caps. In CBO's baseline, those changes (which reduced mandatory budget authority) appear in their normal mandatory accounts.

b. Funding for overseas contingency operations, emergencies, disaster relief, and certain program integrity initiatives (which identify and reduce overpayments in some benefit programs) is generally not constrained by the statutory caps established by the Budget Control Act.

Figure 1-3. Return to Reference

Components of the Total Increase in Outlays in CBO's Baseline Between 2016 and 2026



Source: Congressional Budget Office.

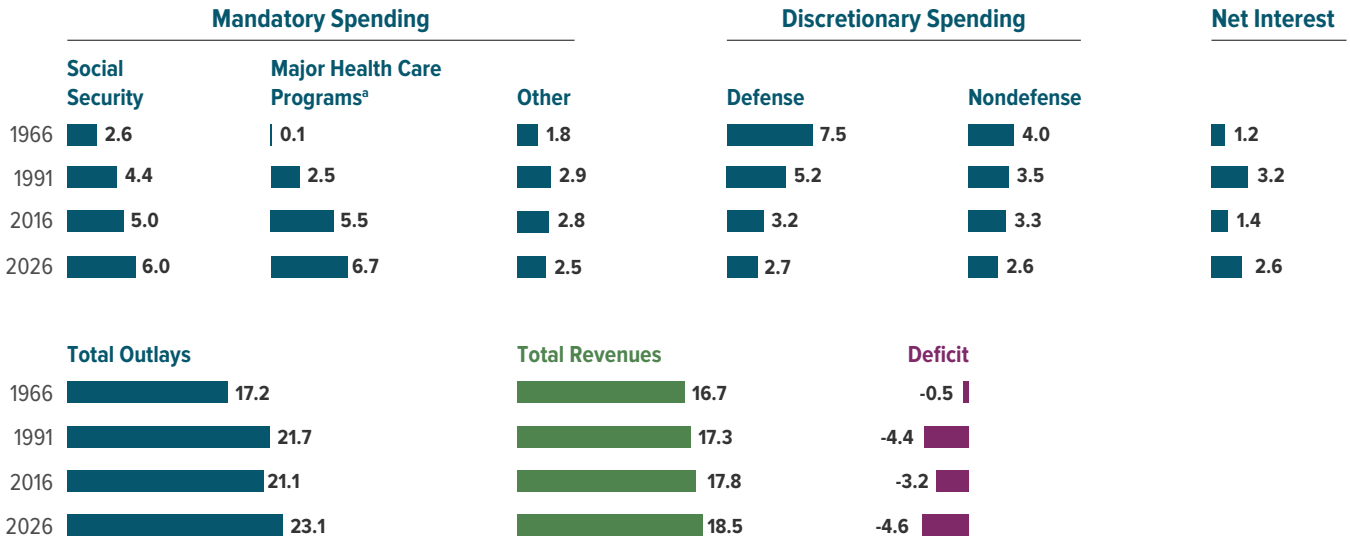
Because October 1, 2016, falls on a weekend, certain payments that are due on that day will instead be made at the end of September, thus shifting into fiscal year 2016. The data shown here are adjusted for the effects of those shifts.

a. Consists of spending on Medicare (net of premiums and other offsetting receipts), 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 and related spending.

Figure 1-4. Return to Reference

Spending and Revenues Projected in CBO's Baseline, Compared With Actual Values in 1966 and 1991

Percentage of Gross Domestic Product



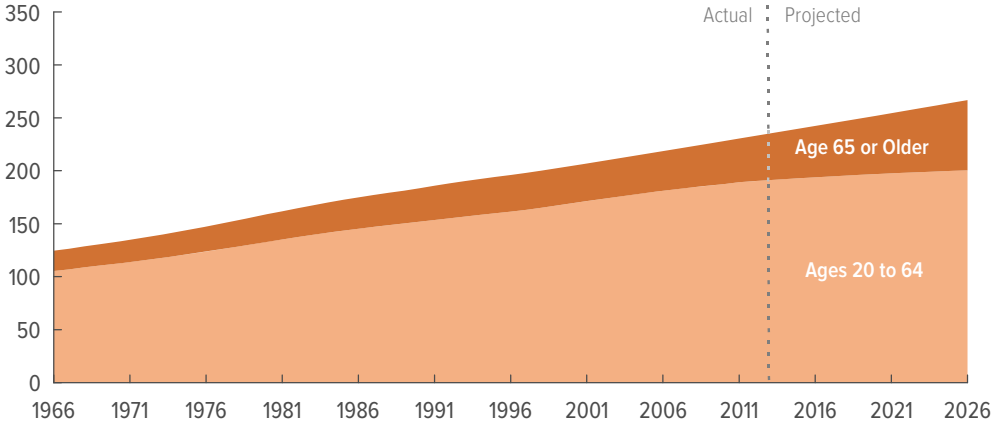
Source: Congressional Budget Office.

a. Consists of spending on Medicare (net of premiums and other offsetting receipts), 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 and related spending.

Figure 1-5. Return to Reference

Population, by Age Group

Millions of People



The number of people age 65 or older in the United States—now more than twice what it was 50 years ago—is expected to grow by more than a third over the next 10 years. Thus, enrollment in Social Security's Old-Age and Survivors Insurance program and Medicare will continue to rise in the future.

Source: Congressional Budget Office.

This figure shows actual data through calendar year 2013, the most recent year for which such data are available.

Table 1-4. Return to Reference

Key Projections in CBO's Baseline

Percentage of Gross Domestic Product

			Projected Annual Average	
	2016	2017	2018–2021	2022–2026
Revenues				
Individual income taxes	8.5	8.7	9.1	9.6
Payroll taxes	6.1	6.0	5.9	5.9
Corporate income taxes	1.6	1.7	1.7	1.6
Other	1.7	1.5	1.4	1.3
Total Revenues	17.8	17.9	18.2	18.3
Outlays				
Mandatory				
Social Security	5.0	4.9	5.2	5.7
Major health care programs[a]	5.5	5.5	5.8	6.4
Other	2.8	2.8	2.7	2.5
Subtotal	13.3	13.3	13.7	14.7
Discretionary	6.4	6.3	5.9	5.5
Net interest	1.4	1.4	1.8	2.4
Total Outlays	21.1	21.0	21.4	22.6
Deficit	-3.2	-3.1	-3.2	-4.2
Debt Held by the Public at the End of the Period	76.6	77.2	79.3	85.5
Memorandum:				
Social Security				
Revenues[b]	4.6	4.6	4.5	4.5
Outlays[c]	5.0	4.9	5.2	5.7
Contribution to the Federal Deficit[d]	-0.4	-0.4	-0.7	-1.3
Medicare				
Revenues[b]	1.5	1.5	1.5	1.5
Outlays[c]	3.8	3.7	3.9	4.5
Offsetting receipts	-0.6	-0.6	-0.7	-0.7
Contribution to the Federal Deficit[d]	-1.8	-1.6	-1.7	-2.2

Source: Congressional Budget Office.

This table satisfies a requirement specified in section 3111 of S. Con. Res. 11, the Concurrent Resolution on the Budget for Fiscal Year 2016.

a. Consists of spending on Medicare (net of premiums and other offsetting receipts), 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 and related spending.

b. Includes payroll taxes other than those paid by the federal government (which are intergovernmental transactions). Also includes income taxes paid on Social Security benefits, which are credited to the trust funds.

c. Does not include outlays related to administration of the program, which are discretionary. For Social Security, outlays do not include intergovernmental offsetting receipts stemming from payroll taxes paid by federal government employers to the Social Security trust funds.

d. The net increase in the deficit shown in this table differs from the changes in the trust fund balance for the associated programs. It does not include intergovernmental transactions, interest earned on balances, and outlays related to administration of the programs.

Figure 1-6. Return to Reference

Major Changes in Projected Revenues From 2016 to 2026

	Revenues as a Percentage of GDP		Percentage-Point Change	Major Reasons for Change
	2016	2026	-1.5 0 1.5	
Individual Income Taxes	8.5	9.8	1.3	• Real bracket creep[a] • Increased distributions from retirement accounts, relative to GDP • Rising income inequality
Payroll Taxes	6.1	5.8	-0.2	Rising income inequality
Corporate Income Taxes	1.6	1.6	-0.1	Net effect of four different changes
Federal Reserve Remittances	0.6	0.3	-0.4	Return to historical averages

Source: Congressional Budget Office.

GDP = gross domestic product.

a. Real bracket creep occurs when more income is pushed into higher tax brackets because people's income is rising faster than inflation.

Table 1-5. Return to Reference

Federal Debt Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Debt Held by the Public at the Beginning of the Year	12,780	13,117	14,073	14,743	15,325	16,001	16,758	17,597	18,584	19,608	20,649	21,824
Changes in Debt Held by the Public												
Deficit	438	590	594	520	625	714	806	954	988	1,000	1,128	1,243
Other means of financing	-102	366	76	63	51	43	34	33	36	41	46	52
Total	337	956	670	582	676	757	840	987	1,024	1,041	1,174	1,294
Debt Held by the Public at the End of the Year	**13,117**	**14,073**	**14,743**	**15,325**	**16,001**	**16,758**	**17,597**	**18,584**	**19,608**	**20,649**	**21,824**	**23,118**
Debt Held by the Public at the End of the Year (As a percentage of GDP)	**73.6**	**76.6**	**77.2**	**77.0**	**77.5**	**78.4**	**79.3**	**80.5**	**81.7**	**82.7**	**84.0**	**85.5**
Memorandum:												
Debt Held by the Public Minus Financial Assets[a]												
In billions of dollars	11,755	12,543	13,123	13,627	14,234	14,929	15,714	16,646	17,610	18,587	19,692	20,911
As a percentage of GDP	66.0	68.3	68.7	68.5	69.0	69.9	70.8	72.1	73.4	74.4	75.8	77.4
Gross Federal Debt[b]	18,120	19,383	20,162	20,868	21,601	22,368	23,191	24,134	25,095	26,053	27,075	28,207
Debt Subject to Limit[c]	18,113	19,376	20,154	20,860	21,592	22,360	23,183	24,126	25,085	26,043	27,064	28,197
Average Interest Rate on Debt Held by the Public (Percent)	1.9	2.0	2.1	2.2	2.4	2.7	2.8	3.0	3.1	3.2	3.3	3.3

Source: Congressional Budget Office.

GDP = gross domestic product.

a. Debt held by the public minus the value of outstanding student loans and other credit transactions, cash balances, and other financial instruments.

b. Federal debt held by the public plus Treasury securities held by federal trust funds and other government accounts.

c. The amount of federal debt that is subject to the overall limit set in law. Debt subject to limit differs from gross federal debt mainly because most debt issued by agencies other than the Treasury and the Federal Financing Bank is excluded from the debt limit. That limit was most recently set at $18.4 trillion but has been suspended through March 15, 2017. On March 16, 2017, the debt limit will be raised to its previous level plus the amount of federal borrowing that occurred while the limit was suspended.

Table 1-6. Return to Reference

Budgetary Effects of Selected Policy Alternatives Not Included in CBO's Baseline

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Policy Alternatives That Affect Discretionary Outlays													
Increase Discretionary Appropriations at the Rate of Inflation After 2016[a]													
Increase (-) in the deficit[b]	0	-23	-53	-66	-72	-77	-81	-83	-85	-88	-89	-292	-717
Debt service	0	*	-1	-2	-5	-7	-10	-13	-16	-20	-23	-15	-98
Freeze Discretionary Appropriations at the 2016 Amount[c]													
Increase (-) or decrease in the deficit[b]	0	-8	-16	-2	22	47	76	106	137	170	205	43	738
Debt service	0	*	*	*	*	1	3	6	10	15	21	*	54
Policy Alternative That Affects Both Discretionary and Mandatory Outlays													
Prevent the Automatic Spending Reductions Specified in the Budget Control Act[d]													
Increase (-) in the deficit[b]	n.a.	-3	-67	-88	-97	-100	-104	-107	-110	-121	-100	-355	-897
Debt service	n.a.	*	-1	-3	-5	-9	-13	-17	-21	-25	-30	-18	-122
Policy Alternatives That Affect the Tax Code[e]													
Extend Partial Expensing of Equipment and Property[f]													
At 50 percent rate													
Increase (-) in the deficit[b]	n.a.	n.a.	-9	-22	-50	-56	-38	-26	-19	-15	-10	-137	-245
Debt service	n.a.	n.a.	*	*	-2	-3	-5	-6	-7	-8	-9	-5	-40
At 30 percent rate													
Increase (-) in the deficit[b]	n.a.	n.a.	n.a.	n.a.	-29	-42	-27	-18	-13	-10	-7	-71	-145
Debt service	n.a.	n.a.	n.a.	n.a.	*	-2	-3	-3	-4	-5	-5	-2	-22
Extend Other Expiring Tax Provisions[g]													
Increase (-) in the deficit[b]	n.a.	-5	-12	-12	-14	-16	-17	-20	-23	-26	-29	-59	-173
Debt service	n.a.	*	*	*	-1	-1	-2	-3	-4	-4	-6	-3	-21

Continued

Table 1-6. Continued

Budgetary Effects of Selected Policy Alternatives Not Included in CBO's Baseline

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Policy Alternatives That Affect the Tax Code[e] (Continued)													
Repeal Certain Postponed or Suspended Health Taxes[h]													
Increase (-) in the deficit[b]	n.a.	n.a.	-14	-16	-20	-24	-27	-30	-34	-38	-43	-74	-246
Debt service	n.a.	n.a.	*	*	-1	-2	-3	-4	-5	-6	-8	-3	-29
Memorandum:													
Deficit in CBO's Baseline	-590	-594	-520	-625	-714	-806	-954	-988	-1,000	-1,128	-1,243	-3,258	-8,571

Sources: Congressional Budget Office; staff of the Joint Committee on Taxation.

n.a. = not applicable; * = between -$500 million and zero.

a. These estimates reflect the assumption that appropriations will not be constrained by caps set by the Budget Control Act of 2011 as amended and will instead grow at the rate of inflation from their 2016 level. Discretionary funding related to federal personnel is inflated using the employment cost index for wages and salaries; other discretionary funding is inflated using the gross domestic product price index.

b. Excludes debt service.

c. This option reflects the assumption that appropriations would generally be frozen at the 2016 level through 2026.

d. The Budget Control Act of 2011 specified that if lawmakers did not enact legislation originating from the Joint Select Committee on Deficit Reduction that would reduce projected deficits by at least $1.2 trillion, automatic procedures would go into effect to reduce both discretionary and mandatory spending during the 2013–2021 period. Those procedures are now in effect and take the form of equal cuts (in dollar terms) in funding for defense and nondefense programs. For the 2018–2021 period, the automatic procedures lower the caps on discretionary budget authority specified in the Budget Control Act (caps for 2016 and 2017 were revised by the Bipartisan Budget Act of 2015); for the 2022–2026 period, CBO has extrapolated the reductions estimated for 2021. Nonexempt mandatory programs will be reduced through sequestration; those provisions have been extended through 2025. The budgetary effects of this option cannot be combined with those of either of the other alternatives that affect discretionary spending.

e. The estimates are from CBO and the staff of the Joint Committee on Taxation and are preliminary.

f. This alternative would extend the provisions that allow businesses with large amounts of investment to expense (immediately deduct from their taxable income) a portion of the cost of their investment in equipment and certain other property. Under current law, the portion that can be expensed is 50 percent through 2017, 40 percent in 2018, and 30 percent in 2019, after which the provisions expire. One option would extend the 50 percent allowance permanently beyond 2017, and the other option would extend the 30 percent allowance permanently beyond 2019. In both cases, the alternative would include provisions that allow businesses to accelerate alternative minimum tax credits in lieu of the partial-expensing provisions. Policymakers could choose to extend the partial-expensing provisions at a percentage of either 30 percent or 50 percent, but not both; that is, the options could not be applied together and the separate budgetary estimates added together.

g. This option would extend about 50 tax provisions that are scheduled under current law to expire before 2027. It does not include an extension of the partial-expensing provisions or a repeal of certain health provisions; those effects are shown separately.

h. This option would repeal the health insurance provider tax, the medical device excise tax, and the excise tax on certain health insurance plans with high premiums. All were postponed or suspended for either one or two years in the Consolidated Appropriations Act, 2016. The component of the estimate from repealing the high-premium excise tax does not include largely offsetting effects that would result because some people who would otherwise have been enrolled in insurance through Medicaid and the exchanges would instead enroll in employment-based coverage.

Table 1-7. Return to Reference

Changes in CBO's Baseline Projections of the Deficit Since March 2016

Billions of Dollars

	2016	2017–2026
Deficit in CBO's March 2016 Baseline	-534	-9,283
Changes		
Economic		
Revenues	-24	-428
Outlays	-4	-1,164
Increase (-) or Decrease in the Deficit From Economic Changes	-20	736
Technical		
Revenues	-63	-4
Outlays	-27	21
Increase (-) or Decrease in the Deficit From Technical Changes	-36	-25
Total Increase (-) or Decrease in the Deficit	**-56**	**712** [a]
Deficit in CBO's August 2016 Baseline	-590	-8,571
Memorandum:		
Changes in Revenues	-87	-431
Changes in Outlays	-31	-1,143

Source: Congressional Budget Office.

a. Includes the budgetary effects of legislation that has been enacted since March. Those changes are very small in each year and total less than $1 billion over the 2017–2026 period.

Table 2-1. Return to Reference

CBO's Economic Projections for Calendar Years 2016 Through 2026

				Annual Average	
	2016	2017	2018	2019–2020	2021–2026
	Percentage Change From Fourth Quarter to Fourth Quarter				
Gross Domestic Product					
Real[a]	2.0	2.4	2.1	1.7	2.0
Nominal	3.5	4.3	3.9	3.6	4.0
Inflation					
PCE price index	1.5	2.0	2.0	2.0	2.0
Core PCE price index[b]	1.8	1.9	2.0	2.0	2.0
Consumer price index[c]	1.8	2.3	2.3	2.4	2.4
Core consumer price index[b]	2.3	2.2	2.3	2.3	2.3
GDP price index	1.5	1.8	1.8	1.9	2.0
Employment Cost Index[d]	2.8	3.1	3.3	3.1	3.1
	Fourth-Quarter Level (Percent)				
Unemployment Rate	4.6	4.5	4.7	5.0 [e]	4.9 [f]
	Percentage Change From Year to Year				
Gross Domestic Product					
Real[a]	1.9	2.4	2.2	1.7	1.9
Nominal	3.2	4.2	4.0	3.6	4.0
Inflation					
PCE price index	1.2	1.9	2.0	2.0	2.0
Core PCE price index[b]	1.7	1.8	2.0	2.0	2.0
Consumer price index[c]	1.4	2.4	2.3	2.3	2.4
Core consumer price index[b]	2.3	2.2	2.3	2.3	2.3
GDP price index	1.3	1.8	1.8	1.9	2.0
Employment Cost Index[d]	2.6	3.0	3.3	3.2	3.1
			Annual Average		
Unemployment Rate (Percent)	4.8	4.5	4.6	4.9	4.9
Payroll Employment (Monthly change, in thousands)[g]	175	123	24	25	64
Interest Rates (Percent)					
Three-month Treasury bills	0.3	0.7	1.4	2.4	2.8
Ten-year Treasury notes	1.8	2.3	2.8	3.2	3.6
Tax Bases (Percentage of GDP)					
Wages and salaries	44.3	44.4	44.4	44.4	44.3
Domestic economic profits	8.7	8.4	8.2	7.8	7.3

Source: Congressional Budget Office.

Economic projections for each year from 2016 to 2026 appear in Appendix B.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Nominal GDP adjusted to remove the effects of inflation.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industries.

e. Value for the fourth quarter of 2020.

f. Value for the fourth quarter of 2026.

g. Calculated as the monthly average of the fourth-quarter-to-fourth-quarter change in payroll employment.

Box 2-1. Return to Reference 1, 2

Recently Released Economic Data

In late July, the Bureau of Economic Analysis (BEA) released its annual revision of the national income and product accounts, as well as new data about economic growth during the first half of 2016. The revision incorporates new data from various sources, as well as some changes in methods and definitions.[1] The Congressional Budget Office completed its forecast before BEA released that new information, but an initial review of the revised and newly released data does not suggest any substantial change to CBO's economic or budget projections.

Revisions to Historical Data

BEA slightly increased its estimate of the growth of real output (that is, output adjusted to remove the effects of inflation) between 2013 and 2015. It now estimates that real output grew by 2.2 percent, rather than 2.1 percent, during that period. It also estimates that national income grew 0.3 percentage points faster than it estimated previously. Two components of that income are important for forecasting revenues: corporate profits, which BEA revised downward by $4.5 billion in 2013, upward by roughly $80 billion in 2014, and upward again by roughly $80 billion in 2015; and wage and salary disbursements, which were revised upward by about $7 billion for the whole 2013–2015 period. (Most of the upward revision to income over the past three years reflected higher corporate profits, so although wages were also revised upward, their share of total income fell.) The revision left most measures of inflation—including the price index for personal consumption expenditures, the core version of that price index, and the gross domestic product (GDP) price index—largely unchanged. (The revision does not affect another measure of inflation, the consumer price index for all urban consumers or CPI-U.)

Growth in 2016

BEA also revised its estimate of GDP for the first quarter of 2016 and released its initial estimate for the second quarter. The new data indicate that real GDP grew at an average annual rate of 1.0 percent in the first half of 2016—well below the 1.7 percent rate that CBO used in constructing its economic forecast. Most of that difference resulted from unexpected weakness in business fixed investment (that is, investment in non-residential structures, equipment, and intellectual property products) and from a sharp drop in private inventory investment.

An initial review of the new data for the first half of 2016 indicates that economic growth for the year may prove to be slightly slower than CBO projected in early July. However, because a number of factors suggest that the underlying momentum in economic activity may be stronger than the recent growth of real GDP suggests, output growth in 2016 may in fact be close to CBO's projection. For one, consumer spending during the first half of the year was slightly stronger than CBO had anticipated. Also, the latest data about the labor market suggest continued growth in employment and labor income. And inventory investment will swing back if firms find that they need to replenish their inventories to meet future demand.

Implications for Future Years

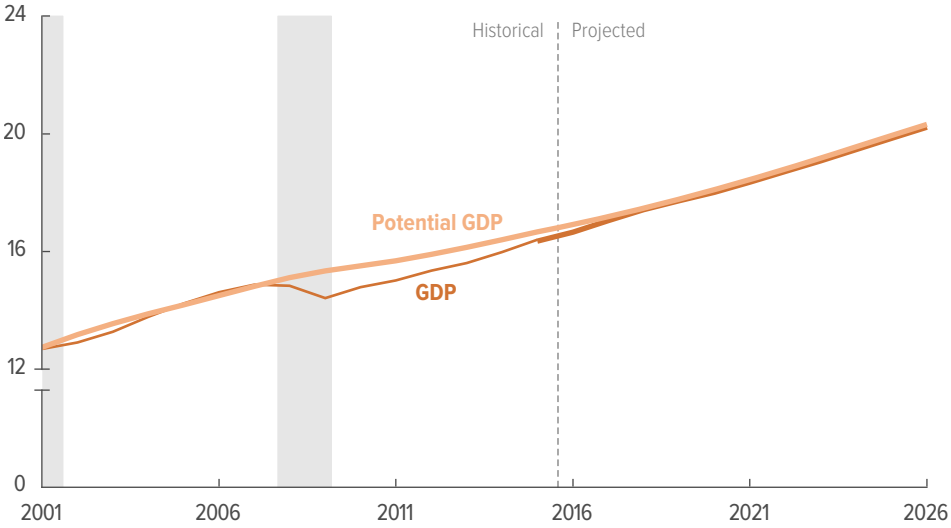
Beyond 2016, the general contours of CBO's projections are unaffected by the revised and newly released data. For example, though the data indicate slightly faster growth in real GDP and slightly weaker growth in business investment in fixed capital during the past three years, they do not call for a significant change to CBO's estimates of potential GDP in the recent past or in the future. More will be known about how CBO might adjust those estimates when BEA releases its revised estimates of capital stock later this year.

1. See Bureau of Economic Analysis, "National Income and Product Accounts—Gross Domestic Product: Second Quarter 2016 (Advance Estimate)—Annual Update: 2013 Through First Quarter 2016" (press release, July 29, 2016), http://go.usa.gov/xTcJH (PDF, 1.9 MB).

Figure 2-1. Return to Reference

GDP and Potential GDP

Trillions of 2009 Dollars



In CBO's projections, the gap between the economy's actual and potential output is largely eliminated by the end of 2017 and then returns to its historical average—about one-half of one percent of potential GDP—by 2020.

Sources: Congressional Budget Office; Bureau of Economic Analysis.

Potential GDP is CBO's estimate of the maximum sustainable output of the economy.

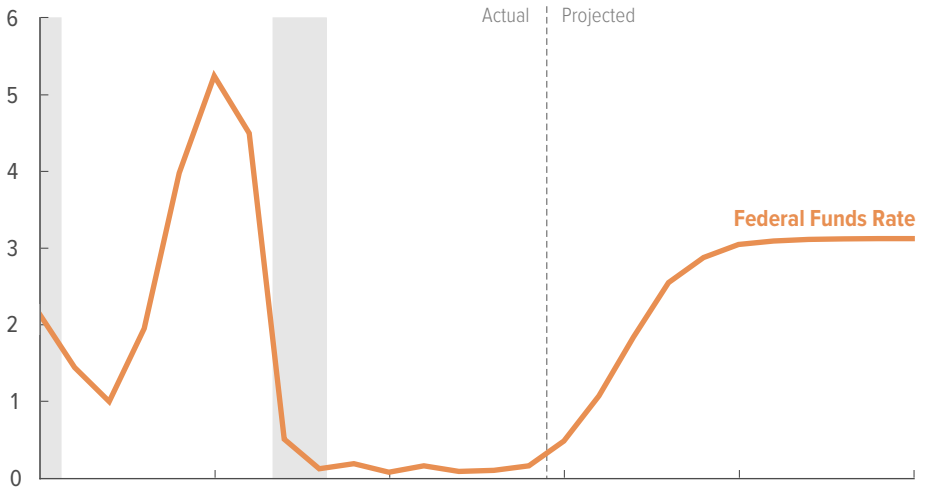
Data are annual. Values for GDP from 2001 through 2015 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 29, 2016. Values for GDP from 2015 through 2026 (the thick line) and all values for potential GDP reflect the data available and projections made before July 29.

GDP = gross domestic product.

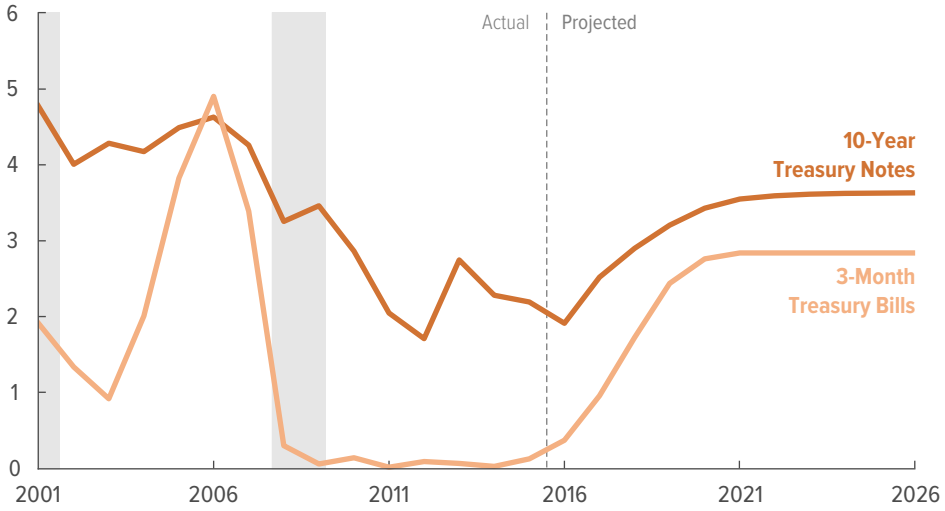
Figure 2-2. Return to Reference

Interest Rates

Percent



CBO expects the Federal Reserve to start increasing the federal funds rate on a sustained basis in December 2016.



In CBO's projections, interest rates on Treasury securities rise steadily over the next few years, reflecting continued economic improvement and increases in the federal funds rate.

Sources: Congressional Budget Office; Federal Reserve.

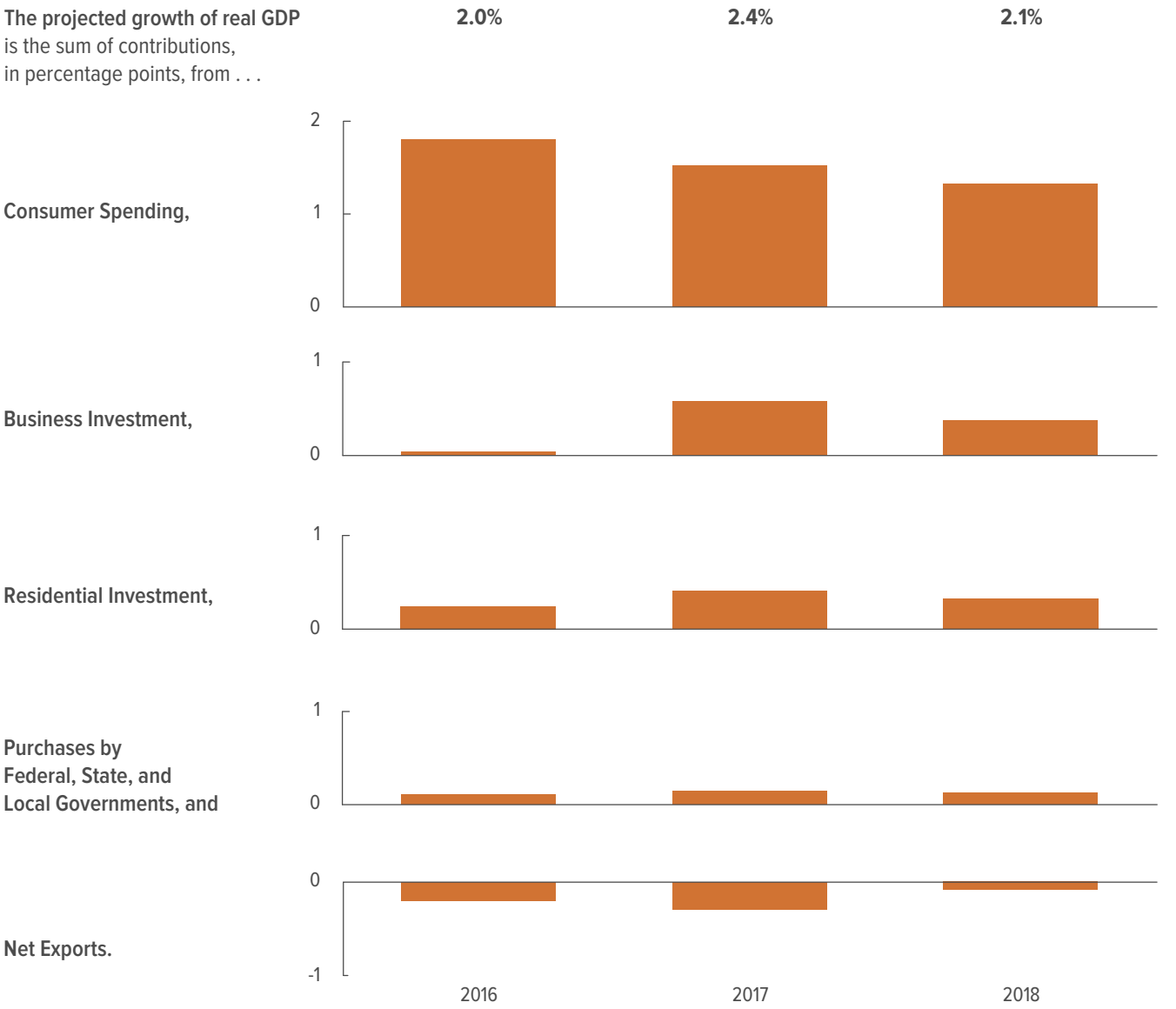
The federal funds rate is the interest rate that financial institutions charge each other for overnight loans of their monetary reserves.

Data are annual and are fourth-quarter values. Actual data are plotted through 2015.

Figure 2-3.

Return to Reference

Projected Contributions to the Growth of Real GDP



Source: Congressional Budget Office.

The values show the contribution of the major components of GDP to the projected growth rate of real GDP (that is, GDP adjusted to remove the effects of inflation). Consumer spending consists of personal consumption expenditures. Business investment comprises purchases of equipment, nonresidential structures, and intellectual property products, as well as the change in inventories. Residential investment comprises the construction of single-family and multifamily structures, manufactured homes, and dormitories; spending on home improvements; and brokers' commissions and other ownership-transfer costs. Purchases by federal, state, and local governments are taken from the national income and product accounts. Net exports are exports minus imports.

Data are annual. Changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next.

GDP = gross domestic product.

Table 2-2. Return to Reference

Projected Growth in Real GDP and Its Components

Percent

	2016	2017	2018
Real GDP	2.0	2.4	2.1
Consumer Spending	2.6	2.2	1.9
Business Investment	0.4	4.6	2.9
Business fixed investment	1.4	4.9	3.3
Residential Investment	6.7	10.9	8.0
Purchases by Federal, State, and Local Governments	0.6	0.8	0.7
Federal	-0.8	-0.4	-0.7
State and local	1.5	1.6	1.5
Exports	2.2	3.7	3.0
Imports	3.2	4.9	3.0
Memorandum:			
Net Exports (Change in billions of 2009 dollars)	-38.5	-56.3	-17.3

Source: Congressional Budget Office.

Real GDP is the output of the economy adjusted to remove the effects of inflation. Consumer spending consists of personal consumption expenditures. Business investment comprises business fixed investment—purchases of equipment, nonresidential structures, and intellectual property products—and the change in inventories. Residential investment comprises the construction of single-family and multifamily structures, manufactured homes, and dormitories; spending on home improvements; and brokers' commissions and other ownership-transfer costs. Purchases by federal, state, and local governments are taken from the national income and product accounts. Net exports are exports minus imports.

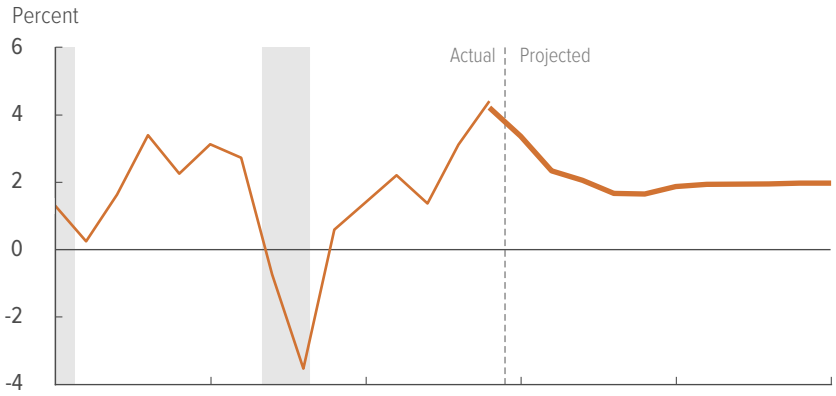
Data are annual. Changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

GDP = gross domestic product.

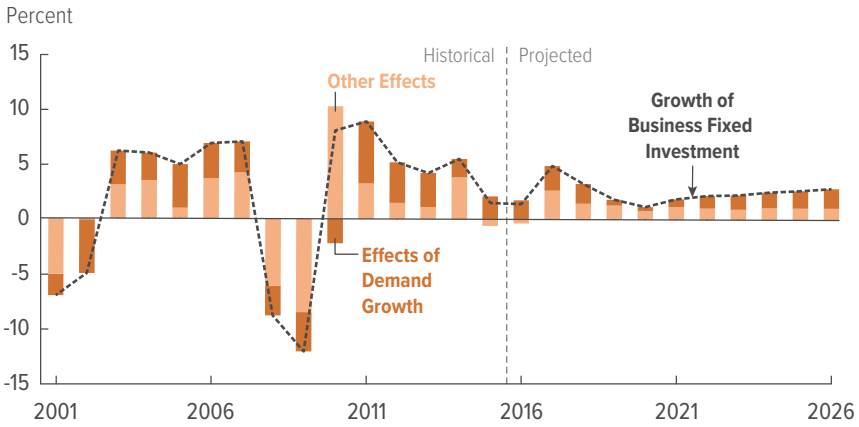
Figure 2-4. Return to Reference 1, 2, 3, 4

Factors Underlying the Projected Contributions to the Growth of Real GDP

Slowing growth in the total amount of **employees' real compensation** is projected to slow the growth of consumer spending in the next few years.



Over the next few years, in CBO's assessment, businesses' response to the **past and expected growth of demand** will drive the growth of their real fixed investment. However, the faster growth of investment projected for 2017 is due to **other effects**, such as the end of a prolonged drop in the price of crude oil.



Source: Congressional Budget Office, using data from the Bureau of Economic Analysis, the Census Bureau, and the Federal Reserve.

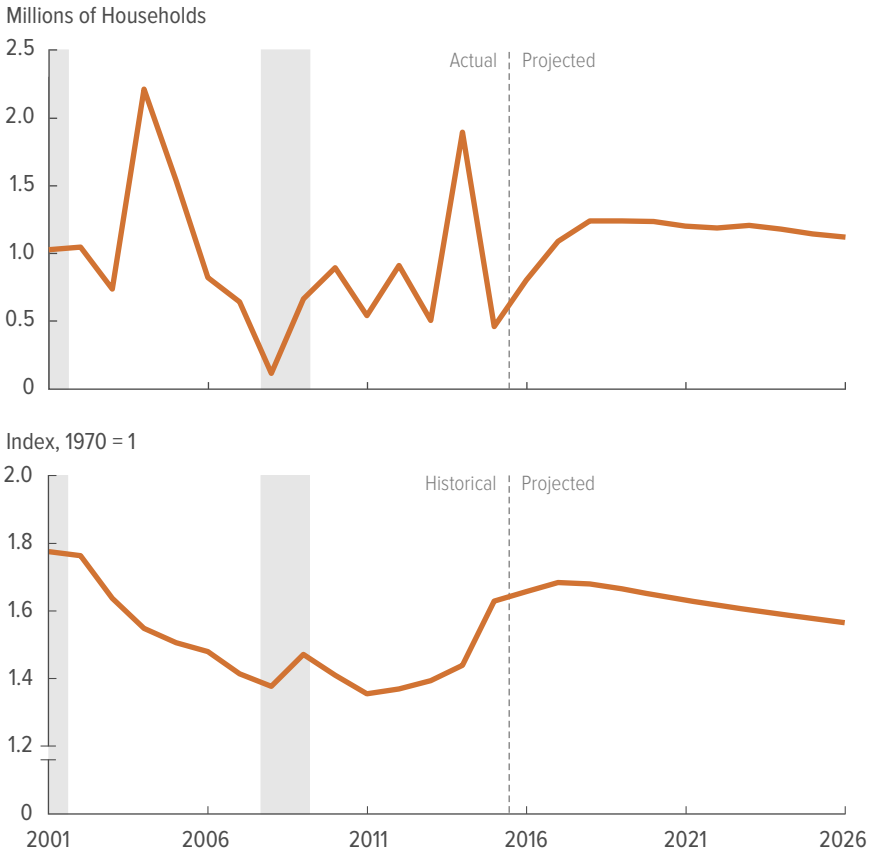
The total amount of employees' real compensation is the sum of wages, salaries, and supplements divided by the price index for personal consumption expenditures. Percentage changes in employees' real compensation are measured from the average of one calendar year to the next. Values from 2001 through 2015 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 29, 2016. Values from 2015 through 2026 (the thick line) reflect the data available and projections made before July 29.

The effects of demand growth are the estimated effects of the past and expected growth of demand for businesses' output on the growth of real business fixed investment (purchases of equipment, nonresidential structures, and intellectual property products, adjusted to remove the effects of inflation). That is, businesses buy new capital both to meet the growth of demand for their goods and services since the last time they purchased capital and to meet the expected future growth of demand. (They also replace worn-out or obsolete capital.) The other effects on business fixed investment include such factors as taxes and the cost of financing investments. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next. Values reflect the data available before the Bureau of Economic Analysis released its revisions to the national income and product accounts on July 29, 2016.

Continued

Figure 2-4. Continued

Factors Underlying the Projected Contributions to the Growth of Real GDP



A projected increase in **household formation** will contribute to faster growth in residential investment during the next two years.

The continued appreciation of the **exchange rate of the U.S. dollar** this year is projected to contribute to lower net exports this year and next.

Household formation is the change in the number of occupied housing units from the fourth quarter of the previous year to the fourth quarter of the year indicated.

The measure of the exchange rate of the dollar is an export-weighted average of exchange rates between the dollar and the currencies of the United States' leading trading partners. Data are calendar year averages.

Actual and historical data are plotted through 2015.

GDP = gross domestic product.

Box 2-2. Return to Reference

Current Slack in the Labor Market

Underused resources, or "slack," remains in the labor market. The Congressional Budget Office bases that assessment on its analysis of the employment shortfall, on various other measures of underused labor, and on such indicators as the growth of compensation and rates of hiring and quitting.

The employment shortfall, CBO's primary measure of slack in the labor market, is the difference between actual employment and the agency's estimate of potential (maximum sustainable) employment. Potential employment is what would exist if the unemployment rate equaled its natural rate—that is, the rate that arises from all sources except fluctuations in aggregate demand for goods and services—and if the labor force participation rate equaled its potential rate. Consequently, the employment shortfall has two components: an unemployment component and a participation component. The unemployment component is the difference between the number of jobless people seeking work at the current rate of unemployment and the number who would be jobless at the natural rate of unemployment. The participation component is the difference between the number of people in the current labor force and the number who would be in the labor force at the potential labor force participation rate. CBO estimates that the employment shortfall was about 1.4 million people in the second quarter of 2016; nearly the entire shortfall (about 1.3 million people) stemmed from a depressed labor force participation rate.

The employment shortfall accounts for the most important sources of slack in the current labor market, but it does not account for all of them. One source of slack that is not accounted for in the employment shortfall is an unusually large percentage of part-time workers who would prefer to work full time. In the second quarter of 2016, about 6 million workers, or about 4 percent of all workers, were employed part time for economic reasons—that is, because employers were offering them part-time jobs, even though they would have preferred full-time jobs. That 4 percent rate was still about 1 percentage point higher than the rate in the fourth quarter of 2007. But it is hard to determine how much of that 1 percentage-point difference represented slack, because part of the increase since 2007 might have been related to structural factors. One such factor is that employment has been shifting to industries that employ a larger fraction of part-time workers, such as service industries. That development may be increasing the share of employees who work fewer hours than they would like.[1]

Another source of slack is the number of people who are marginally attached to the labor force—that is, who are not looking for work now but have looked for it in the past 12 months. That number is larger than it was before the recession—about 1.7 million people in the second quarter of 2016, up from about 1.4 million in the fourth quarter of 2007. Because the elevated number of marginally attached workers is closely related to the depressed rate of labor force participation, it is largely reflected in CBO's measure of the employment shortfall. Marginally attached workers are also included in the U-6 measure of underused labor computed by the Bureau of Labor Statistics, along with the number of unemployed people and the number of people employed part time for economic reasons.[2] In the second quarter of this year, the U-6 measure stood at 9.7 percent, down slightly from 9.9 percent in the fourth quarter of last year but higher than the 8.5 percent observed before the recession.

Some measures of the number of hours worked, such as the average number of hours worked per week, could also indicate slack in the labor market. CBO does not use hours to measure slack because the agency forecasts average hours worked per week for only a portion of the economy (the nonfarm business sector). Nonetheless, by the end of 2015, the average number of hours worked per week had returned to its prerecession level, and in the nonfarm business sector, it had returned to its usual relationship with potential average hours worked per week. That fact suggests that any cyclical influence on the average number of hours worked per week is not currently a significant source of labor market slack.[3]

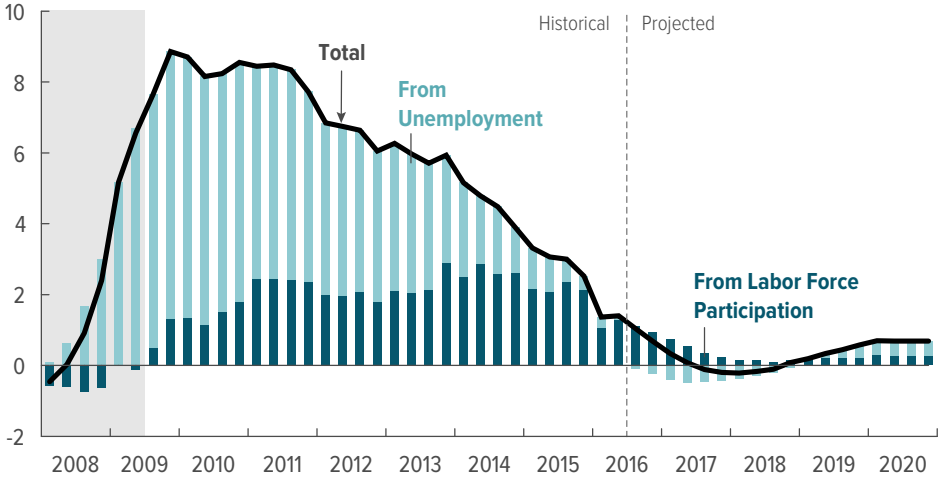
Other economic indicators offer mixed signals about the amount of slack remaining in the labor market. Hourly labor compensation continued to grow more slowly than labor productivity and inflation in the first half of 2016, indicating slack. But two indicators—the rate at which job seekers are hired and the rate at which workers are quitting their jobs, both measured as a fraction of total employment—show little evidence of slack: Both are currently near their prerecession levels.

1. See Rob Valletta and Catherine van der List, "Involuntary Part-Time Work: Here to Stay?" Economic Letter 2015-19 (Federal Reserve Bank of San Francisco, June 8, 2015), http://tinyurl.com/pbywpck.
2. The U-6 measure is the number of unemployed workers, marginally attached workers, and workers employed part time for economic reasons as a percentage of the labor force plus all marginally attached workers. By contrast, the unemployment rate that is generally reported in the news—the U-3 unemployment rate—is the number of unemployed workers as a percentage of the labor force.
3. The percentage of workers who are working part time for economic reasons is above its prerecession level. Yet the average number of weekly hours worked per job has returned to its prerecession level. The apparent contradiction can be reconciled by noting two developments. First, the number of workers who hold multiple jobs is depressed, so the average number of hours worked per worker is lower than it would be otherwise. Second, the increase in the average number of weekly hours worked per job partly reflects an increase in overtime hours, which may have been concentrated in some jobs even as workers in other jobs would have preferred more hours.

Figure 2-5. Return to Reference

The Employment Shortfall

Millions of People



CBO expects the employment shortfall to disappear by the middle of next year.

Source: Congressional Budget Office, using data from the Bureau of Labor Statistics.

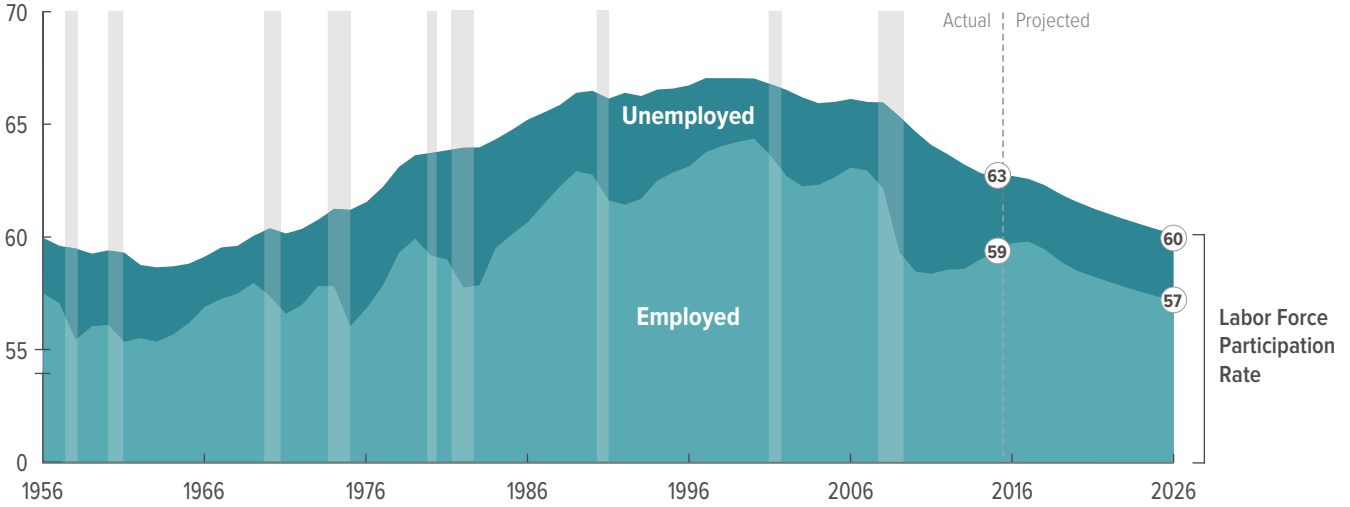
The employment shortfall is the sum of two components. The first, the employment shortfall from unemployment, is the number of people who are not employed but would be if the unemployment rate equaled its natural rate (the rate that arises from all sources except fluctuations in aggregate demand for goods and services). That component is projected to fall below zero this year through 2018, reflecting CBO's estimate that the unemployment rate will be below its natural rate during that period. The second component, the employment shortfall from labor force participation, is the number of people who are not employed but would be if the rate of labor force participation equaled its potential.

Data are quarterly.

Figure 2-6. Return to Reference

The Labor Force, Employment, and Unemployment

The percentage of the population that is employed is projected to remain roughly unchanged over the next two years and then to decrease through 2026, mainly because baby boomers will be retiring and leaving the labor force.



Source: Congressional Budget Office, using data from the Bureau of Labor Statistics.

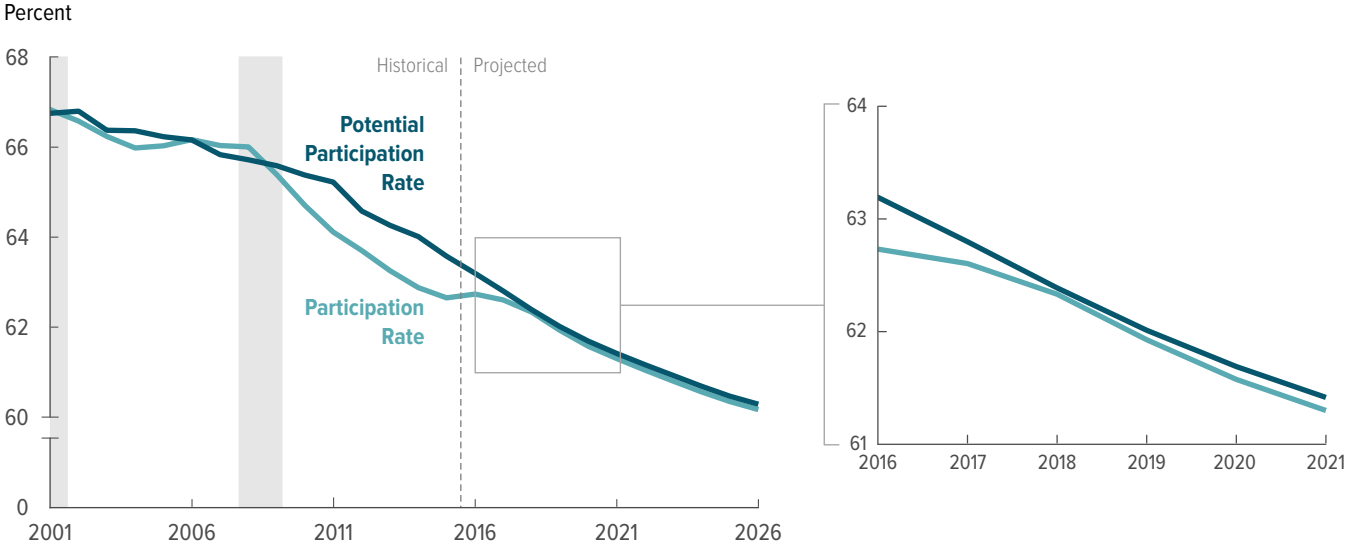
The labor force consists of people who are employed and people who are unemployed but who are available for work and are actively seeking jobs. Unemployment as a percentage of the population is not the same as the official unemployment rate, which is expressed as a percentage of the labor force. Here, the population is the civilian noninstitutionalized population age 16 or older.

Data are annual. Actual data are plotted through 2015.

Figure 2-7. Return to Reference

Labor Force Participation Rates

CBO expects the rate of labor force participation to decline slightly next year and more quickly through 2026.



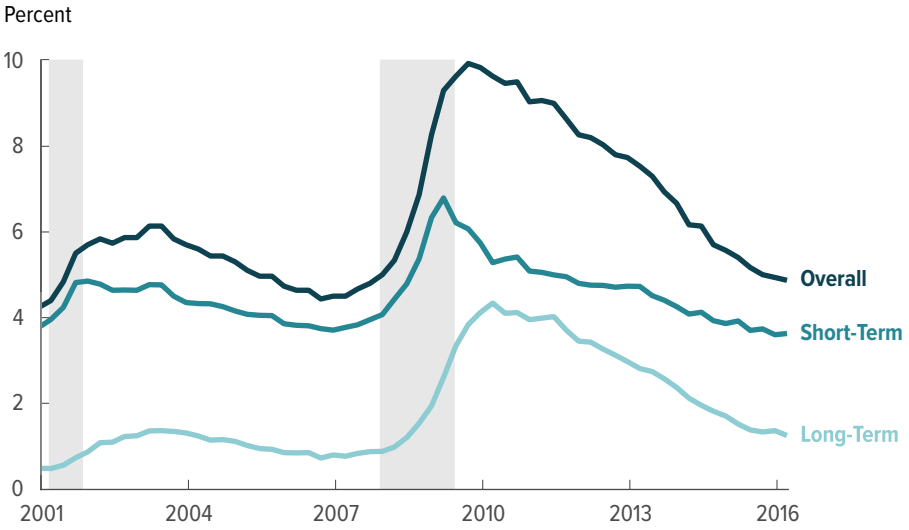
Source: Congressional Budget Office, using data from the Bureau of Labor Statistics.

The participation rate is the percentage of people in the civilian noninstitutionalized population who are at least 16 years old and in the labor force. The labor force consists of people who are employed and people who are unemployed but who are available for work and are actively seeking jobs. The potential participation rate is what the participation rate would be if not for the effects of the business cycle.

Data are annual. Historical data are plotted through 2015.

Figure 2-8. Return to Reference

Unemployment Rates



Most of the decline in the overall unemployment rate in the past few years reflected a drop in long-term unemployment, suggesting that the effects of stigma and the erosion of skills that can stem from long-term unemployment have diminished.

Source: Congressional Budget Office, using data from the Bureau of Labor Statistics.

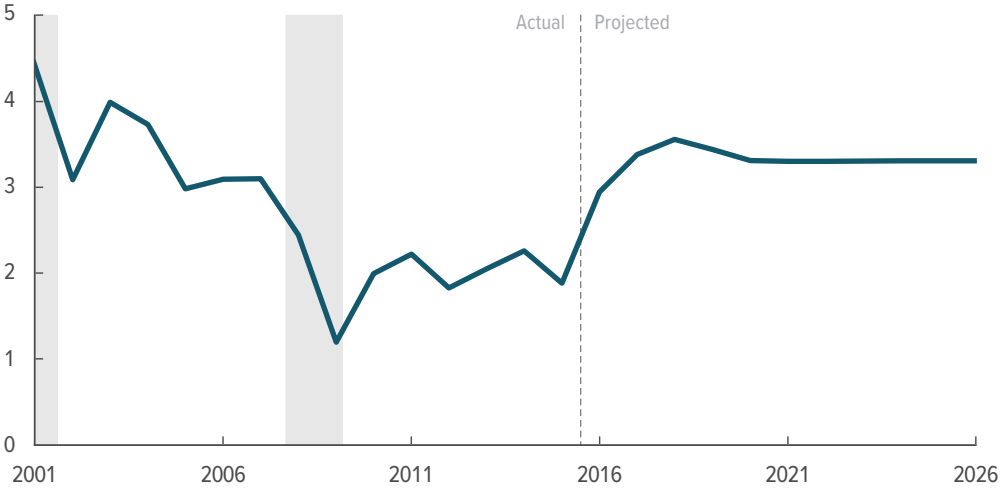
The overall unemployment rate is the sum of the short-term unemployment rate and the long-term unemployment rate. The short-term unemployment rate is the percentage of the labor force that has been out of work for 26 weeks or less. The long-term unemployment rate is the percentage of the labor force that has been out of work for at least 27 consecutive weeks. The labor force consists of people who are employed and people who are unemployed but who are available for work and are actively seeking jobs.

Data are quarterly and are plotted through the second quarter of 2016.

Figure 2-9. Return to Reference

Hourly Labor Compensation

Percentage Change



CBO projects that reduced slack in the labor market, along with faster growth in productivity and prices, will boost the growth of hourly labor compensation.

Source: Congressional Budget Office, using data from the Bureau of Labor Statistics.

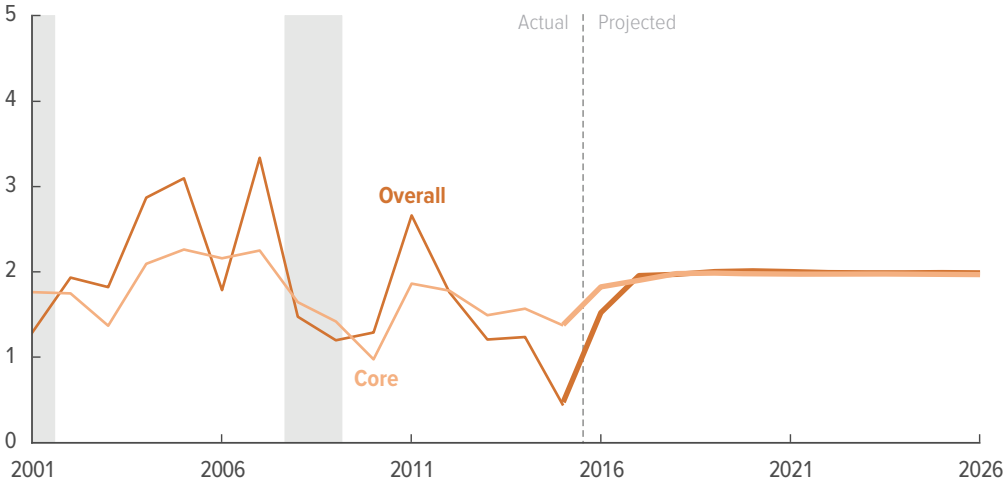
Hourly labor compensation is measured by the employment cost index for the total compensation—wages, salaries, and employers' costs for employees' benefits—of workers in private industry.

Data are annual. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next. Actual data are plotted through 2015.

Figure 2-10. Return to Reference

Inflation

Percentage Change in Prices



CBO expects inflation to rise to the Federal Reserve's goal of 2 percent next year—an expectation that is consistent with CBO's projection of diminishing slack in the economy.

Source: Congressional Budget Office, using data from the Bureau of Economic Analysis.

The overall inflation rate is based on the price index for personal consumption expenditures; the core rate excludes prices for food and energy.

Data are annual. Values from 2001 through 2015 (the thin lines) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 29, 2016. Values from 2015 through 2026 (the thick lines) reflect the data available and projections made before July 29. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next.

Table 2-3. Return to Reference

Key Inputs in CBO's Projections of Potential GDP

Percent

	Average Annual Growth							Projected Average Annual Growth		
	1950-1973	1974-1981	1982-1990	1991-2001	2002-2007	2008-2015	Total, 1950-2015	2016-2020	2021-2026	Total, 2016-2026
Overall Economy										
Potential GDP	4.0	3.2	3.2	3.2	2.5	1.5	3.2	1.7	2.0	1.8
Potential Labor Force	1.6	2.5	1.6	1.2	1.0	0.5	1.5	0.4	0.5	0.5
Potential Labor Force Productivity[a]	2.4	0.7	1.6	2.0	1.5	0.9	1.7	1.3	1.4	1.4
Nonfarm Business Sector										
Potential Output	4.1	3.6	3.4	3.7	2.8	1.7	3.4	1.9	2.3	2.1
Potential Hours Worked	1.4	2.3	1.6	1.4	0.3	0.5	1.3	0.3	0.5	0.4
Capital Services	3.8	3.8	3.5	3.8	2.8	1.7	3.4	2.3	2.1	2.2
Potential TFP	1.9	1.0	1.1	1.4	1.7	0.8	1.4	0.9	1.2	1.1
Potential TFP excluding adjustments	1.9	1.0	1.1	1.4	1.3	0.8	1.4	0.9	1.2	1.1
Adjustments to TFP (Percentage points)[b]	0	0	0	0.1	0.4	0	0.1	*	*	*
Contributions to the Growth of Potential Output (Percentage points)										
Potential hours worked	0.9	1.5	1.0	0.9	0.2	0.3	0.9	0.2	0.3	0.3
Capital services	1.2	1.2	1.2	1.3	1.0	0.6	1.1	0.8	0.7	0.8
Potential TFP	1.9	1.0	1.1	1.4	1.7	0.8	1.4	0.9	1.2	1.1
Total Contributions	4.0	3.7	3.4	3.6	2.9	1.7	3.4	1.9	2.3	2.1
Potential Labor Productivity[c]	2.6	1.3	1.8	2.3	2.6	1.2	2.1	1.6	1.8	1.7

Source: Congressional Budget Office.

Potential GDP is CBO's estimate of the maximum sustainable output of the economy.

GDP = gross domestic product; TFP = total factor productivity; * = between -0.05 percentage points and zero.

a. The ratio of potential GDP to the potential labor force.

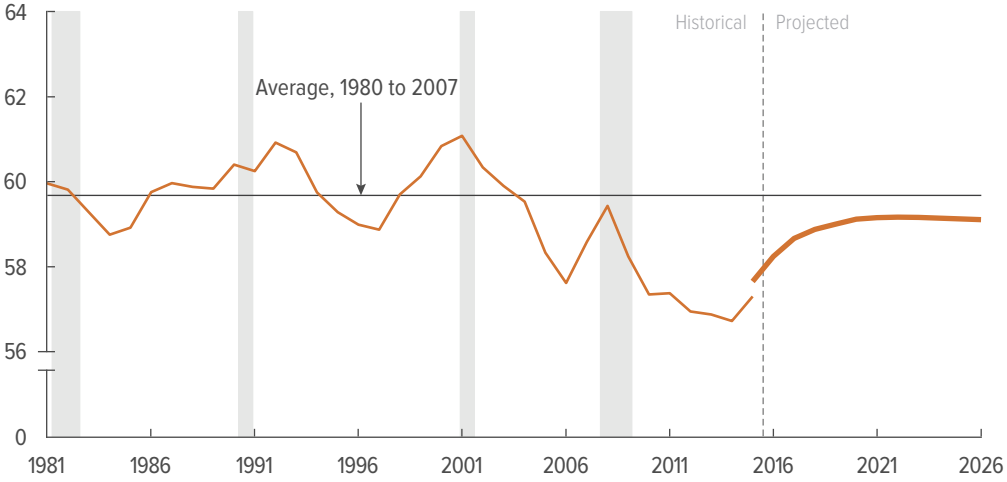
b. The adjustments reflect CBO's estimate of the unusually rapid growth of TFP between 2001 and 2003, as well as changes in the labor force's average level of education and experience.

c. The ratio of potential output to potential hours worked in the nonfarm business sector.

Figure 2-11. Return to Reference

Labor Income

Percentage of Gross Domestic Income



CBO expects labor's share of income to rise but remain below its 1980–2007 average.

Source: Congressional Budget Office, using data from the Bureau of Economic Analysis.

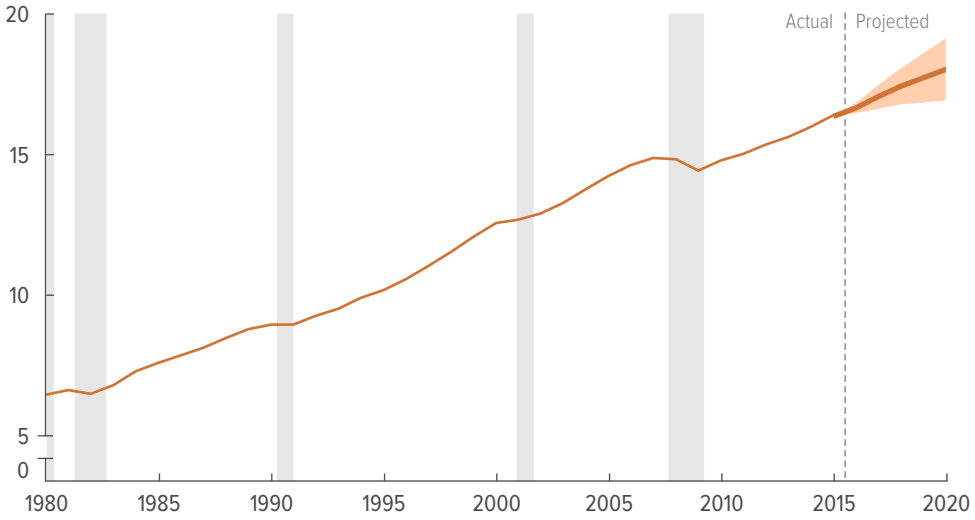
Labor income is the sum of employees' compensation and CBO's estimate of proprietors' income that is attributable to labor. Gross domestic income is all income earned in the production of gross domestic product. For further discussion of labor's share of income, see Congressional Budget Office, *How CBO Projects Income* (July 2013), www.cbo.gov/publication/44433.

Data are annual. Values from 1981 through 2015 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 29, 2016. Values from 2015 through 2026 (the thick line) reflect the data available and projections made before July 29.

Figure 2-12. Return to Reference

The Uncertainty of CBO's Projection of Real GDP

Trillions of 2009 Dollars



In CBO's baseline projections, **real GDP** grows at an average annual rate of 2.0 percent over the 2016–2020 period—but there is a two-thirds chance that the growth will be between 0.7 percent and 3.2 percent.

Sources: Congressional Budget Office; Bureau of Economic Analysis.

The shaded area around CBO's baseline projection of real GDP (that is, nominal GDP adjusted to remove the effects of inflation) is one way of illustrating the uncertainty of that projection. The area is based on the errors in CBO's one-year through five-year projections from 1976 through 2015. To construct the area, CBO used values that were one standard deviation above and below its baseline projection for each of the years from 2016 through 2020. In other words, there is a two-thirds chance that real GDP will turn out to be within that area in each year.

Data are annual. Values from 1980 through 2015 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 29, 2016. Values from 2015 through 2020 (the thick line) reflect the data available and projections made before July 29.

GDP = gross domestic product.

Table 2-4. Return to Reference

Comparison of CBO's Current and Previous Economic Projections for Calendar Years 2016 Through 2026

	2016	2017	2018	Annual Average 2016–2020	Annual Average 2021–2026	Annual Average 2016–2026
	Percentage Change From Fourth Quarter to Fourth Quarter					
Real GDP[a]						
August 2016	2.0	2.4	2.1	1.9	2.0	2.0
January 2016	2.7	2.5	2.1	2.2	2.0	2.1
Nominal GDP						
August 2016	3.5	4.3	3.9	3.8	4.0	3.9
January 2016	4.3	4.4	4.0	4.1	4.1	4.1
PCE Price Index						
August 2016	1.5	2.0	2.0	1.9	2.0	1.9
January 2016	1.5	2.0	2.0	1.9	2.0	1.9
Core PCE Price Index[b]						
August 2016	1.8	1.9	2.0	1.9	2.0	2.0
January 2016	1.6	1.9	2.0	1.9	2.0	1.9
Consumer Price Index[c]						
August 2016	1.8	2.3	2.3	2.2	2.4	2.3
January 2016	1.7	2.4	2.4	2.3	2.4	2.3
Core Consumer Price Index[b]						
August 2016	2.3	2.2	2.3	2.3	2.3	2.3
January 2016	2.0	2.2	2.3	2.2	2.3	2.3
GDP Price Index						
August 2016	1.5	1.8	1.8	1.8	2.0	1.9
January 2016	1.6	1.9	1.9	1.9	2.0	2.0
Employment Cost Index[d]						
August 2016	2.8	3.1	3.3	3.1	3.1	3.1
January 2016	2.9	3.3	3.4	3.2	3.2	3.2
Real Potential GDP						
August 2016	1.5	1.6	1.7	1.7	2.0	1.8
January 2016	1.6	1.7	1.9	1.9	2.0	2.0
	Annual Average					
Unemployment Rate (Percent)						
August 2016	4.8	4.5	4.6	4.7	4.9	4.8
January 2016	4.7	4.4	4.6	4.7	5.0	4.9
Interest Rates (Percent)						
Three-month Treasury bills						
August 2016	0.3	0.7	1.4	1.5	2.8	2.2
January 2016	0.7	1.6	2.5	2.3	3.2	2.8
Ten-year Treasury notes						
August 2016	1.8	2.3	2.8	2.7	3.6	3.2
January 2016	2.8	3.5	3.8	3.7	4.1	3.9
Tax Bases (Percentage of GDP)						
Wages and salaries						
August 2016	44.3	44.4	44.4	44.3	44.3	44.3
January 2016	43.9	43.9	43.9	43.9	43.9	43.9
Domestic economic profits						
August 2016	8.7	8.4	8.2	8.1	7.3	7.7
January 2016	8.7	8.6	8.3	8.3	7.5	7.8

Source: Congressional Budget Office.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Nominal GDP adjusted to remove the effects of inflation.

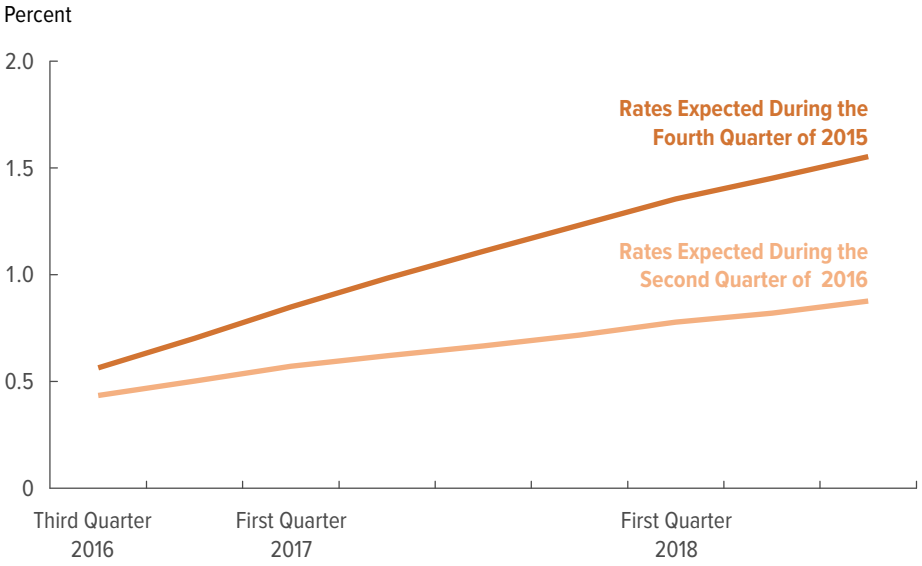
b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industries.

Figure 2-13. Return to Reference

Expectations in the Futures Market for the Federal Funds Rate



Participants in the futures market for the federal funds rate have reduced their expectations for that rate since the fourth quarter of 2015.

Source: Congressional Budget Office, using data from Bloomberg.

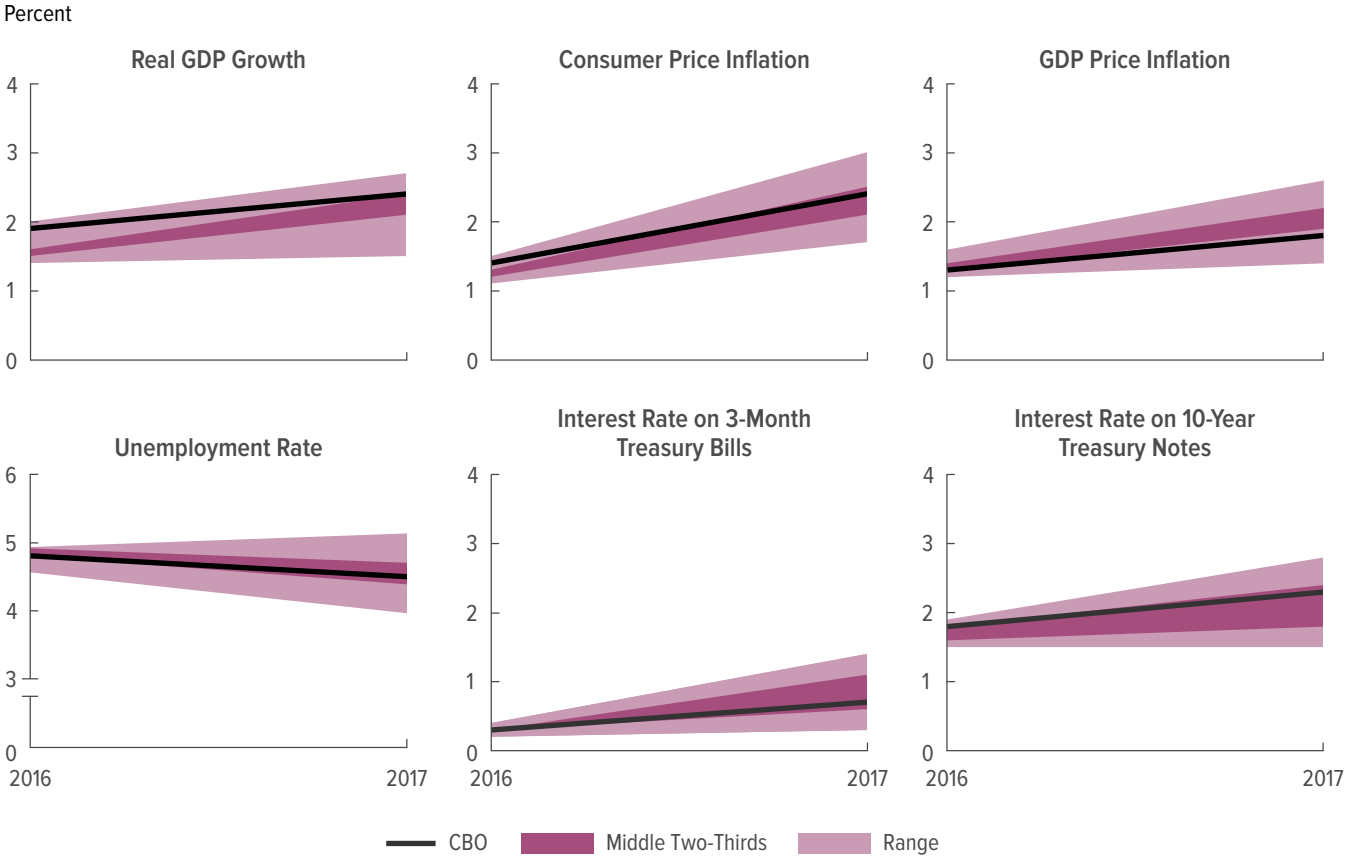
The federal funds rate is the interest rate that financial institutions charge each other for overnight loans of their monetary reserves.

Data are quarterly averages derived from monthly futures prices.

Figure 2-14. Return to Reference

Comparison of Economic Projections by CBO and *Blue Chip* Forecasters

CBO's projections are generally similar to those by *Blue Chip* forecasters, although CBO projects faster growth of real GDP this year and next.



Sources: Congressional Budget Office; Wolters Kluwer, *Blue Chip Economic Indicators* (August 10, 2016).

The full range of forecasts from the *Blue Chip* is based on the highest and lowest of the roughly 50 forecasts. The middle two-thirds of that range omits the top one-sixth of the forecasts and the bottom one-sixth.

Real GDP is the output of the economy adjusted to remove the effects of inflation. Consumer price inflation is calculated with the consumer price index for all urban consumers. Real GDP growth and inflation rates are measured from the average of one calendar year to the next.

The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force. The unemployment rate and interest rates are calendar year averages.

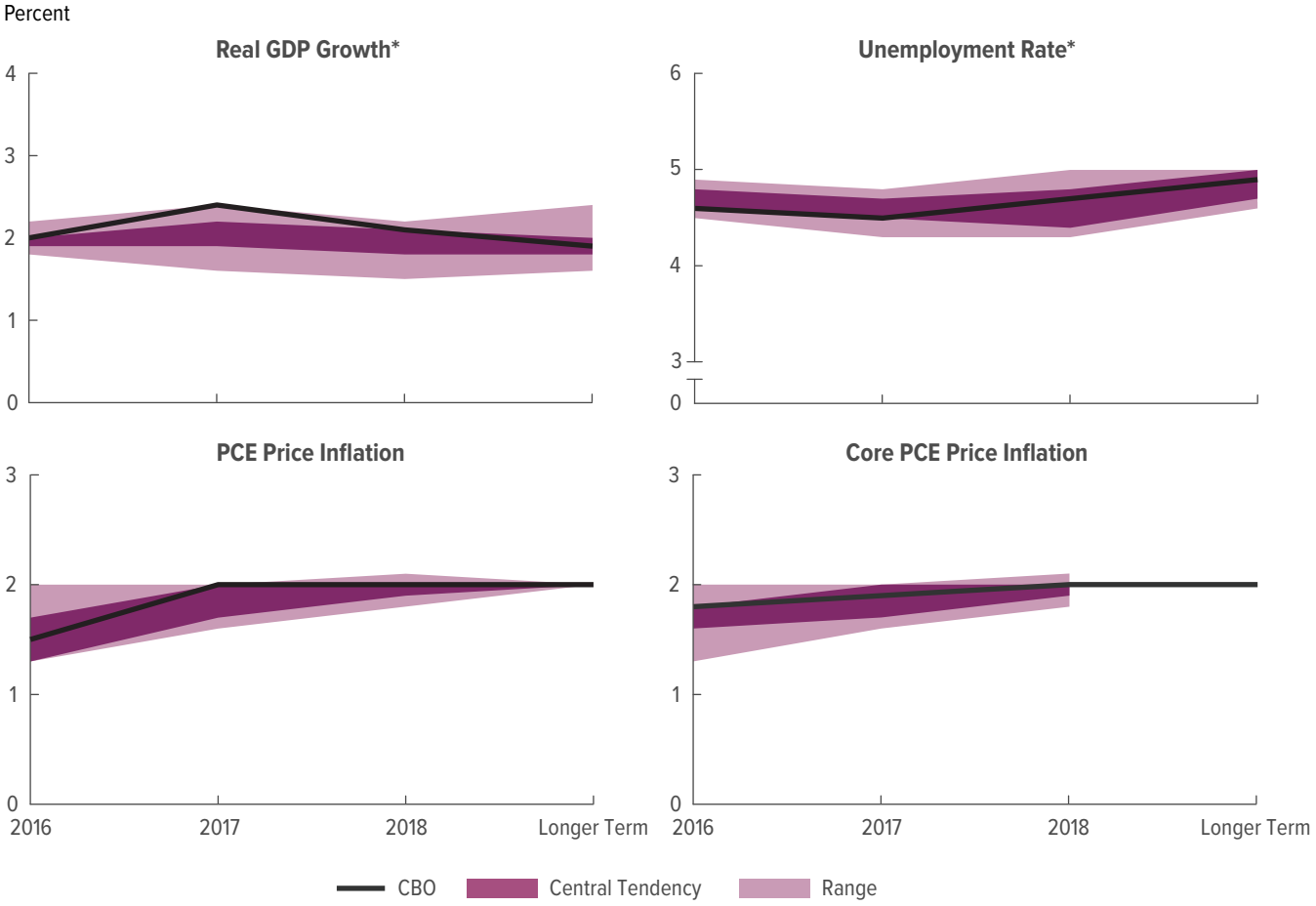
Data are annual.

GDP = gross domestic product.

Figure 2-15. Return to Reference

Comparison of Economic Projections by CBO and Federal Reserve Officials

CBO's projections of real GDP growth, the unemployment rate, and inflation are generally within the central tendency of forecasts by Federal Reserve officials.



Sources: Congressional Budget Office; Board of Governors of the Federal Reserve System, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents, June 2016" (June 15, 2016), http://go.usa.gov/xTWAW (PDF, 165 KB).

The full range of forecasts from the Federal Reserve is based on the highest and lowest of the 17 projections by the Board of Governors and the president of each Federal Reserve Bank. The central tendency is that range without the 3 highest and 3 lowest projections—roughly speaking, the middle two-thirds of the range.

For CBO, longer-term projections are values for 2026. For the Federal Reserve, longer-term projections are described as the value at which each variable would settle under appropriate monetary policy and in the absence of further shocks to the economy.

Real GDP is the output of the economy adjusted to remove the effects of inflation.

The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force.

The core PCE price index excludes prices for food and energy.

Data are annual. Real GDP growth and inflation rates are measured from the fourth quarter of one calendar year to the fourth quarter of the next. The unemployment rate is a fourth-quarter value.

GDP = gross domestic product; PCE = personal consumption expenditures.

[*Data for longer-term values corrected on August 24, 2016]

Table A-1. Return to Reference

Changes in CBO's Baseline Projections of the Deficit Since March 2016

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Deficit in CBO's March 2016 Baseline	-534	-550	-549	-710	-798	-890	-1,043	-1,080	-1,094	-1,226	-1,343	-3,497	-9,283
Legislative Changes													
Changes in Revenues	0	*	*	*	*	*	*	*	*	*	*	*	1
Changes in Outlays	0	*	*	*	*	*	*	*	*	*	*	*	*
Increase (-) or Decrease in the Deficit From Legislative Changes	**0**	*	*	*	*	*	*	*	*	*	*	*	**1**
Economic Changes													
Changes in Revenues													
Individual income taxes	-16	-31	-22	-13	-10	-12	-15	-19	-24	-28	-32	-88	-206
Corporate income taxes	-12	-17	-21	-22	-25	-28	-30	-29	-27	-25	-23	-112	-247
Payroll taxes	-1	-1	-2	-4	-6	-8	-10	-12	-16	-20	-24	-22	-104
Federal Reserve remittances	5	22	32	27	17	11	9	9	8	8	8	109	151
Other	-1	-2	-2	-2	-2	-2	-2	-2	-2	-3	-3	-11	-23
All Changes in Revenues	-24	-29	-17	-14	-25	-39	-47	-54	-61	-68	-74	-124	-428
Changes in Outlays													
Mandatory outlays													
Social Security	0	-1	-2	-3	-5	-5	-6	-6	-6	-8	-9	-16	-50
Medicare	0	-1	-2	-2	-4	-3	-4	-5	-4	-6	-6	-12	-38
Higher education	2	-5	-5	-4	-4	-3	-3	-2	-2	-2	-2	-21	-33
Other	-1	-1	-1	-2	-3	-4	-5	-5	-6	-6	-6	-12	-40
Subtotal, mandatory	1	-9	-11	-12	-15	-15	-17	-18	-18	-22	-24	-62	-161
Discretionary outlays	0	*	*	*	*	-1	-1	-1	-1	-1	-1	-2	-5
Net interest outlays													
Effect of rates and inflation	-4	-36	-65	-88	-95	-98	-100	-102	-104	-106	-110	-383	-905
Debt service	*	*	*	-2	-5	-8	-10	-13	-16	-18	-21	-15	-93
Subtotal, net interest	-4	-36	-66	-91	-100	-106	-110	-115	-119	-124	-131	-398	-998
All Changes in Outlays	-4	-45	-77	-102	-116	-122	-128	-134	-138	-147	-156	-461	-1,164
Increase (-) or Decrease in the Deficit From Economic Changes	**-20**	**16**	**60**	**88**	**90**	**82**	**80**	**80**	**77**	**79**	**82**	**337**	**736**

Continued

Table A-1. Continued

Changes in CBO's Baseline Projections of the Deficit Since March 2016

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Technical Changes													
Changes in Revenues													
Individual income taxes	-57	-46	-33	-23	-20	-11	-4	-1	3	3	4	-133	-128
Corporate income taxes	-17	-19	-8	1	6	7	6	6	7	7	7	-13	20
Payroll taxes	16	10	10	9	7	7	7	8	8	9	11	43	86
Other	-5	-3	2	1	2	2	3	3	3	3	3	4	18
All Changes in Revenues	-63	-58	-29	-12	-5	5	12	16	20	22	25	-99	-4
Changes in Outlays													
Mandatory outlays													
Medicare	*	*	1	1	2	2	3	3	4	5	6	6	27
Earned income and child tax credits	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-3	-12	-27
Other	-11	2	1	-11	-2	-1	-1	-1	-1	-1	-1	-10	-15
Subtotal, mandatory	-13	*	*	-13	-3	-2	-1	-1	*	1	2	-16	-15
Discretionary outlays	-15	1	*	*	*	*	*	*	*	*	*	2	2
Net interest outlays													
Debt service	*	1	3	4	5	6	6	6	6	6	6	18	47
Other	*	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-4	-13
Subtotal, net interest	*	*	2	3	4	4	5	4	4	3	4	14	34
All Changes in Outlays	-27	2	2	-9	2	3	4	4	4	4	6	*	21
Increase (-) or Decrease in the Deficit From Technical Changes	**-36**	**-61**	**-31**	**-3**	**-6**	**3**	**9**	**13**	**16**	**18**	**19**	**-99**	**-25**
All Changes													
Increase (-) or Decrease in the Deficit	**-56**	**-44**	**29**	**85**	**84**	**85**	**89**	**93**	**94**	**97**	**101**	**239**	**712**
Deficit in CBO's August 2016 Baseline	-590	-594	-520	-625	-714	-806	-954	-988	-1,000	-1,128	-1,243	-3,258	-8,571
Memorandum:													
Changes in Revenues	-87	-87	-45	-26	-30	-34	-35	-38	-41	-46	-49	-223	-431
Changes in Outlays	-31	-42	-74	-112	-114	-119	-124	-131	-134	-143	-150	-461	-1,143

Source: Congressional Budget Office.

* = between -$500 million and $500 million.

Table B-1. Return to Reference

CBO's Economic Projections, by Calendar Year

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
					Percentage Change From Year to Year						
Gross Domestic Product											
Real[a]	1.9	2.4	2.2	1.7	1.6	1.9	2.0	2.0	2.0	2.0	1.9
Nominal	3.2	4.2	4.0	3.7	3.6	3.9	4.0	4.0	4.0	4.0	4.0
Inflation											
PCE price index	1.2	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE price index[b]	1.7	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index[c]	1.4	2.4	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Core consumer price index[b]	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
GDP price index	1.3	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.1
Employment Cost Index[d]	2.6	3.0	3.3	3.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1
					Annual Average						
Unemployment Rate (Percent)	4.8	4.5	4.6	4.8	5.0	5.0	5.0	5.0	4.9	4.9	4.9
Payroll Employment (Monthly change, in thousands)[e]	175	123	24	14	37	61	64	66	65	65	65
Interest Rates (Percent)											
Three-month Treasury bills	0.3	0.7	1.4	2.2	2.7	2.8	2.8	2.8	2.8	2.8	2.8
Ten-year Treasury notes	1.8	2.3	2.8	3.1	3.3	3.5	3.6	3.6	3.6	3.6	3.6
Tax Bases (Percentage of GDP)											
Wages and salaries	44.3	44.4	44.4	44.4	44.4	44.3	44.3	44.3	44.3	44.2	44.2
Domestic economic profits	8.7	8.4	8.2	7.9	7.6	7.4	7.3	7.3	7.3	7.4	7.4
Tax Bases (Billions of dollars)											
Wages and salaries	8,204	8,562	8,911	9,235	9,569	9,938	10,329	10,737	11,160	11,599	12,056
Domestic economic profits	1,610	1,621	1,644	1,654	1,642	1,658	1,696	1,760	1,838	1,929	2,031
Nominal GDP (Billions of dollars)	18,528	19,302	20,083	20,819	21,567	22,410	23,302	24,239	25,215	26,236	27,295

Source: Congressional Budget Office.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Nominal GDP adjusted to remove the effects of inflation.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industries.

e. Calculated as the monthly average of the fourth-quarter-to-fourth-quarter change in payroll employment.

Table B-2. Return to Reference

CBO's Economic Projections, by Fiscal Year

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
					Percentage Change From Year to Year						
Gross Domestic Product											
Real[a]	1.9	2.3	2.3	1.9	1.6	1.8	2.0	2.0	2.0	2.0	1.9
Nominal	3.1	4.0	4.1	3.7	3.6	3.8	4.0	4.0	4.0	4.0	4.0
Inflation											
PCE price index	0.9	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE price index[b]	1.6	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index[c]	1.0	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Core consumer price index[b]	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
GDP price index	1.2	1.7	1.8	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.1
Employment Cost Index[d]	2.4	2.9	3.2	3.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1
					Annual Average						
Unemployment Rate (Percent)	4.9	4.5	4.5	4.8	5.0	5.0	5.0	5.0	4.9	4.9	4.9
Payroll Employment (Monthly change, in thousands)[e]	192	144	44	11	29	58	63	66	66	65	65
Interest Rates (Percent)											
Three-month Treasury bills	*	0.6	1.2	2.0	2.6	2.8	2.8	2.8	2.8	2.8	2.8
Ten-year Treasury notes	1.9	2.2	2.7	3.0	3.3	3.5	3.6	3.6	3.6	3.6	3.6
Tax Bases (Percentage of GDP)											
Wages and salaries	44.2	44.3	44.4	44.4	44.4	44.4	44.3	44.3	44.3	44.2	44.2
Domestic economic profits	8.6	8.5	8.2	8.0	7.7	7.4	7.3	7.3	7.3	7.3	7.4
Tax Bases (Billions of dollars)											
Wages and salaries	8,121	8,470	8,828	9,154	9,482	9,843	10,230	10,634	11,053	11,488	11,940
Domestic economic profits	1,586	1,617	1,638	1,653	1,645	1,652	1,684	1,743	1,819	1,904	2,005
Nominal GDP (Billions of dollars)	18,367	19,102	19,895	20,637	21,372	22,193	23,075	24,001	24,967	25,977	27,027

Source: Congressional Budget Office.

GDP = gross domestic product; PCE = personal consumption expenditures; * = between zero and 0.05 percent.

a. Nominal GDP adjusted to remove the effects of inflation.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industries.

e. Calculated as the monthly average of the fourth-quarter-to-fourth-quarter change in payroll employment.