Congressional Budget Office

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An Update to the Budget and Economic Outlook: 2015 to 2025

Provided as a convenience, this "screen-friendly" version is identical in content to the principal, "print-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 and tables may not add up to totals because of rounding. Also, some values are expressed as fractions to indicate numbers rounded to amounts greater than one-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 economic forecast was completed in early July, and, unless otherwise indicated, estimates presented in **Chapter 2** and **Appendix B** of this report are based on information available at that time. In particular, the economic forecast described in this report does not reflect the annual revisions to the national income and product accounts, which were released by the Bureau of Economic Analysis on July 30. In **Chapter 2**, only figures and discussions of recent events are consistent with the revised data. The implications of those revisions for CBO's 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/50724), as is a glossary of common budgetary and economic terms (www.cbo.gov/publication/42904).

Summary

According to the Congressional Budget Office's estimates, this year's deficit will be noticeably smaller than what the agency projected in March, and fiscal year 2015 will mark the sixth consecutive year in which the deficit has declined as a percentage of gross domestic product (GDP) since it peaked in 2009. Over the next 10 years, however, the budget outlook remains much the same as CBO described earlier this year: If current laws generally remain unchanged, within a few years the deficit will begin to rise again relative to GDP, and by 2025, debt held by the public will be higher relative to the size of the economy than it is now.

CBO's economic forecast, which serves as the basis for its budget projections, anticipates that the economy will expand modestly this year, at a solid pace in calendar years 2016 and 2017, and at a more moderate pace in subsequent years. The pace of growth over the next few years is expected to reduce the quantity of underused resources, or "slack," in the economy, lowering the unemployment rate and putting upward pressure on compensation as well as on inflation and interest rates.

The Budget Deficit for 2015 Will Be Smaller Than Last Year's

At $426 billion, CBO estimates, the 2015 deficit will be $59 billion less than the deficit last year (which was $485 billion) and $60 billion less than CBO estimated in March (see Summary Table 1).[1] The expected shortfall for 2015 would constitute the smallest since 2007, and at 2.4 percent of gross domestic product, it would be below the average deficit (relative to the size of the economy) over the past 50 years. Debt held by the public will remain around 74 percent of GDP by the end of 2015, CBO estimates—slightly less than the ratio last year but higher than in any other year since 1950.

Outlays

Federal outlays are projected to rise by 5 percent this year, to $3.7 trillion, or 20.6 percent of GDP. That increase is the net result of a nearly 10 percent jump in mandatory spending, offset by lower net interest payments and discretionary outlays.

CBO anticipates that mandatory outlays will be $199 billion higher in 2015 than they were last year. Federal spending for the major health care programs accounts for a little more than half of that increase: Outlays for Medicare (net of premiums and other offsetting receipts), Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending are expected to be $110 billion (12 percent) higher this year than they were in 2014.

1. For CBO's projections in March, see Congressional Budget Office, *Updated Budget Projections: 2015 to 2025* (March 2015), www.cbo.gov/publication/49973.

In addition, outlays related to the government's transactions with Fannie Mae and Freddie Mac and for higher education programs will be greater than the amounts recorded last year.[2] Those increases will be partially offset by increased receipts from auctions of licenses to use the electromagnetic spectrum and by reduced spending for unemployment compensation.

Even though federal borrowing continues to rise, CBO expects that the government's net interest costs will fall by nearly 5 percent this year—mainly because lower inflation this year has reduced the cost of the Treasury's inflation-protected securities.

CBO anticipates that discretionary spending, which is controlled through annual appropriations, will be about 1 percent less in 2015 than it was in 2014. By the agency's estimates, defense outlays will drop by more than 2 percent, whereas nondefense discretionary outlays will be only slightly below last year's amount.

Revenues

Federal revenues are expected to climb by 8 percent in 2015, to $3.3 trillion, or 18.2 percent of GDP. Revenues from all major sources will rise, including individual income taxes (by 10 percent), corporate income taxes (by 8 percent), and payroll taxes (by 4 percent). Revenues from other sources are estimated to increase, on net, by 5 percent. The largest increase in that category derives from fees and fines, mostly as a result of provisions of the Affordable Care Act.

Changes From the March Projections

Receipts from individual and corporate income taxes have been greater than anticipated, which largely explains the $60 billion reduction in the projected deficit for 2015; revisions to CBO's estimates of outlays had almost no net effect.

Rising Deficits After 2018 Are Projected to Gradually Boost Debt Relative to GDP

In CBO's baseline projections, the budget shortfall declines to $414 billion next year but then rises substantially, to $1.0 trillion in 2025. By those estimates, which incorporate the assumption that current laws will generally remain the same, the combination of significant growth in spending on health care and retirement programs and rising interest payments on federal debt would outpace growth in revenues.

The outlook for the 10-year projection period does not differ substantially from the one CBO described in March. As in the previous projections, deficits as a percentage of GDP are estimated to remain below this year's level for the next three years but then

2. CBO expects that payments from Fannie Mae and Freddie Mac to the Treasury will be smaller this year than they were last year. Because those payments are recorded as offsetting receipts, which reduce outlays, the change boosts outlays.

begin to rise. In CBO's current baseline, the deficit falls to 2.1 percent of GDP in 2017, but in the latter half of the decade, deficits average 3.5 percent of GDP (see Summary Table 2). The cumulative deficit between 2016 and 2025 is $7.0 trillion.

Such deficits would push debt held by the public up to 77 percent by the end of the 10-year projection period, roughly twice the average it has been over the past five decades (see Summary Figure 1). Beyond 2025, if current laws remained in place, the same pressures that contribute to rising deficits during the baseline period would accelerate and push debt up sharply relative to GDP.

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

- When interest rates returned to more typical, higher levels, federal spending on interest payments would increase substantially.
- Because federal borrowing reduces national saving over time, the nation's capital stock would ultimately be smaller, and productivity and total wages would be lower than they would be if the debt was smaller.
- Lawmakers would have less flexibility than otherwise to use tax and spending policies to respond to unexpected challenges.
- Continued growth in the debt might lead investors to doubt the government's willingness or ability to pay its obligations, which would require the government to pay much higher interest rates on its borrowing.

Outlays

In CBO's projections, federal outlays remain near 21 percent of GDP for the next several years. Later in the coming decade, under current law, growth in outlays would outstrip growth in the economy; outlays would rise to 22 percent of GDP in 2022 and remain at that level through 2025. (Over the past 50 years, outlays have averaged about 20 percent of GDP.) That trend reflects significant growth in mandatory spending—particularly in federal spending for health care, Social Security, and interest payments—offset somewhat by a decline (relative to the size of the economy) in spending subject to annual appropriations.

Outlays for mandatory programs are projected to rise from their current level of near 13 percent of GDP to 14 percent by the latter part of the projection period. That increase is mainly attributable to significant growth in spending on health care and retirement programs—caused by the aging of the population and rising per capita health care costs. In CBO's baseline, between 2015 and 2025, federal outlays for the government's major health care programs, measured as a share of GDP, rise by 1 percentage point, whereas outlays for Social Security grow by 0.7 percentage points. All other mandatory spending falls relative to the size of the economy.

The government's interest payments on debt held by the public are projected to rise sharply over the next 10 years because of two factors: rising interest rates and growing federal debt. Because interest rates are now very low by historical standards, net outlays for interest are similar to amounts recorded 15 to 20 years ago, when federal debt was much smaller. As those rates rise, and as debt continues to mount, the government's cost of financing that debt will climb.

By contrast, discretionary spending is projected to drop from 6.5 percent of GDP this year to 5.1 percent in 2025. That projection incorporates the assumption that the caps on budget authority originally set by the Budget Control Act of 2011, as subsequently reduced, will stay in place through 2021.

Revenues

Revenues are projected to rise to almost 19 percent of GDP in 2016, primarily because several provisions of law expired at the end of calendar year 2014. Under provisions of current law, revenues would recede to roughly this year's percentage of GDP by 2019, CBO estimates. That drop stems mostly from an expectation that corporate profits as a share of GDP will decline in the coming years in the wake of rising costs of labor and interest payments on businesses' debt. In addition, in CBO's projections, remittances to the Treasury from the Federal Reserve—which have been unusually high since 2010—return to more typical levels. Those factors are only partially offset by the continued increase (relative to GDP) of receipts from individual income taxes. That increase causes CBO's projections of overall receipts to rise slowly in relation to GDP after 2021, though they still remain close to 18 percent of GDP through 2025.

Changes From CBO's Previous Budget Projections

CBO's current baseline projections of the deficit for the coming decade are somewhat smaller than the amounts the agency estimated in March 2015. Over the 2016–2025 period, the cumulative deficit is about $200 billion lower, the net result of estimates for outlays and revenues that are lower by $372 billion and $170 billion, respectively.

Most of the reduction on the outlay side of the budget ledger stems from lower net interest costs, which occur because CBO's forecast for interest rates is now lower than it was before. Estimates of spending for some mandatory programs are also lower as a result of smaller projected cost-of-living adjustments. Those reductions in spending are partly offset by the estimated increase in outlays resulting from the Medicare Access and CHIP Reauthorization Act of 2015 and various other revisions to the projections.

Technical adjustments account for the largest changes to CBO's revenue projections, reducing them by $236 billion through 2025 from the amounts estimated in March. Higher-than-expected tax collections in recent months caused CBO to increase its revenue projections for the next two years, but other factors, including new information from tax returns, caused the agency to reduce its projections for the later years of the 10-year period. The effects of those technical changes were partially offset by the

revised economic outlook, including a slightly higher projection for wages and salaries and a slightly lower projection for interest rates.

The Economy Is Expected to Grow Modestly This Year and at a Solid Pace for the Next Few Years

Although real (inflation-adjusted) GDP grew weakly early in 2015, recent data indicate that the economy is now on firmer ground, and CBO expects the pace of economic activity to pick up in the second half of this calendar year and over the next few years. After that, the agency anticipates moderate economic growth, constrained by relatively slow growth in the labor force.

The Economic Outlook for 2015 Through 2019

Under the assumption that current laws governing federal taxes and spending will generally remain in place, the agency projects that real GDP will grow by 2.0 percent this calendar year, by 3.1 percent in 2016, and by 2.7 percent in 2017, as measured by the change from the fourth quarter of the previous year (see Summary Figure 2). For 2018 and 2019, the agency projects that the economy will grow at an average annual rate of 2.2 percent. In CBO's estimation, the economic expansion through 2019 will be driven primarily by increases in consumer spending, business investment, and residential investment.

With that faster pace of growth in output, slack in the labor market—which is indicated by such factors as an elevated unemployment rate and a relatively low rate of participation in the labor force—is expected to dissipate over the next few years. According to CBO's projections, the unemployment rate will fall from 5.2 percent in the fourth quarter of 2015 to 5.0 percent in the fourth quarter of 2017. As slack in the labor market diminishes and firms must increasingly compete for a shrinking pool of unemployed or underemployed workers, growth in hourly compensation is expected to pick up. The upward pressure on compensation will encourage some people to enter or stay in the labor force, in CBO's estimation. That development will slow the longer-term decline in labor force participation, which is the result of both underlying demographic trends and federal policies, but it will also slow the fall of the unemployment rate.

Over the next few years, reduced slack in the economy will put upward pressure on inflation and interest rates. Nevertheless, CBO expects the rate of inflation (as measured by the price index for personal consumption expenditures [PCE]) to stay below the Federal Reserve's goal of 2 percent through mid-2017—an outcome that is consistent with some remaining but diminishing slack in the economy and with widely held expectations for low and stable inflation. CBO anticipates that the interest rate on 3-month Treasury bills, which has been near zero since the end of 2009, will begin increasing in the second half of 2015 and rise to 3.4 percent by the end of 2019. The

rate on 10-year Treasury notes, CBO expects, will rise from an average of 2.4 percent in the second half of 2015 to 4.2 percent by the end of 2019.

The Economic Outlook for 2020 Through 2025

CBO's projections for the latter half of the coming decade are not based on forecasts of cyclical developments in the economy, but rather on projections of underlying trends of indicators such as growth in the labor force, the number of hours worked, and productivity. By those projections, both actual output of the economy and potential (maximum sustainable) output will expand at an annual average rate of 2.1 percent, faster than the estimated 1.5 percent average annual growth in potential GDP during the current business cycle so far (that is, between 2008 and 2014). The projected pace is slower than it was in the 1980s, 1990s, and early 2000s, though, primarily because the labor force is expected to grow more slowly than it did then. Real GDP is projected to be about one-half of one percent below real potential GDP from 2020 through 2025, reflecting the historical average over the several business cycles between 1961 and 2009.

Corresponding to that projected gap between output and potential output, in CBO's projections the unemployment rate over the 2020–2025 period—at 5¼ percent—remains slightly above the natural rate (the rate arising from all sources except fluctuations in the overall demand for goods and services). Inflation (as measured by the PCE price index) is expected to average 2.0 percent per year, and interest rates for 3-month Treasury bills and 10-year Treasury notes are projected to average 3.3 percent and 4.3 percent, respectively. Those rates would be well above current rates but below average rates over the 25 years before the most recent recession. Compared with those historical levels, projected interest rates will be dampened by lower inflation as well as by slower growth in the labor force and slightly slower growth of productivity.

Changes From CBO's Previous Economic Projections

CBO's current economic projections differ in certain respects from those the agency released in January 2015.[3] CBO now projects slower growth of real GDP this year and slightly faster growth between 2016 through 2019 than it did in those previous projections. In addition, unemployment rates and long-term interest rates are lower over the 2015–2025 period in CBO's current projections than they were in January's. Inflation is now estimated to be lower this year and next year than was previously expected.

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

Chapter 1: The Budget Outlook

The Congressional Budget Office estimates that the federal budget deficit in fiscal year 2015 will be $426 billion, smaller than the $486 billion shortfall the agency estimated in March 2015.[4] That amount would constitute the smallest deficit since 2007, and at 2.4 percent of gross domestic product (GDP), it would be below the average deficit, relative to the size of the economy, over the past 50 years. Moreover, 2015 will mark the sixth consecutive year in which the deficit has declined as a percentage of GDP since it reached a peak at 9.8 percent in 2009 (see Figure 1-1). Nevertheless, debt held by the public will remain near 74 percent of GDP at the end of 2015, CBO estimates—about the same as last year, when it reached the highest ratio since 1950.

As specified in law, CBO constructs its baseline projections of federal revenues and spending under the assumption that current laws will generally remain unchanged. If that assumption was borne out, the period of shrinking deficits would soon come to an end. In CBO's baseline projections, annual budget shortfalls rise substantially over the 2016–2025 projection period—from a low of $414 billion in 2016 to $1.0 trillion in 2025.[5] That increase is projected mainly because growth in revenues would be outpaced by a combination of significant growth in spending on health care and retirement programs—caused by the aging of the population and rising per capita health care costs—and growing interest payments on federal debt. CBO expects that deficits during the decade would total $7.0 trillion if current laws remained unchanged (see Table 1-1).

Deficits are projected to fall to about 2 percent of GDP between 2016 and 2018 and then to begin rising again, reaching almost 4 percent at the end of the 10-year period. By comparison, the deficit averaged 2.7 percent of GDP between 1965 and 2014. 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 remains about the same relative to the size of the economy over the next several years but eventually begins to grow slowly, reaching 77 percent of GDP by 2025—roughly twice the 38 percent average of the past five decades. Beyond 2025, if current laws remained in place, the same pressures that contribute to rising deficits during the coming decade would accelerate and push debt up sharply relative to GDP.[6]

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4. See Congressional Budget Office, *Updated Budget Projections: 2015 to 2025* (March 2015), www.cbo.gov/publication/49973.

5. CBO's updated baseline projections incorporate the effects of legislation and administrative actions through August 6, 2015.

6. For a more detailed discussion, see Congressional Budget Office, *The 2015 Long-Term Budget Outlook* (June 2015), www.cbo.gov/publication/50250.

Such high and rising debt would have serious negative consequences both for the economy and for the federal budget. When interest rates rise to more typical levels—as CBO expects will be the case in the next few years—federal spending on interest payments will increase considerably. Moreover, federal borrowing boosts the overall demand for funds, and that in turn generally raises the cost of borrowing and reduces the amount of lending in the economy at large. The eventual result would be a smaller stock of capital and lower output and income than would otherwise be the case, all else being equal. In addition, the large amount of debt could restrict policymakers' ability to use tax and spending policies to respond to unexpected challenges, such as economic downturns or financial crises. Finally, continued growth in the debt might lead investors to doubt the government's willingness or ability to pay its obligations, which would require the government to pay much higher interest rates on its borrowing.

CBO's current baseline projections show a smaller deficit in 2015 and in nearly every year of the 2016–2025 period than the agency estimated in March.[7] The projected deficit for this year is now $60 billion below the earlier estimate; higher revenues account for nearly all of that change. The cumulative deficit from 2016 through 2025 is projected to be about $200 billion less than the March estimate. Although revenues are projected to be lower over the 2016–2025 period than the amounts previously reported, the projections for outlays have declined even more, largely because CBO anticipates lower interest rates and thus smaller interest payments than it did in March.

The Budget Outlook for 2015

In the absence of additional legislation that would affect spending or revenues, the deficit in fiscal year 2015 will be $59 billion less than the $485 billion shortfall recorded in 2014, CBO estimates. The deficit will be smaller because revenues, which are expected to increase by nearly 8 percent, are growing more rapidly than are outlays, which CBO anticipates will increase by 5 percent this year. As a percentage of GDP, in 2015, the deficit is projected to drop to 2.4 percent from last year's 2.8 percent.

In most years, debt held by the public increases by an amount that is greater than the deficit, in part because of federal borrowing to finance student loans and in part because of certain other transactions that the government makes. In 2015, however, debt held by the public is projected to increase by $396 billion, an amount that is less than the deficit, as a result of steps taken by the Treasury to keep debt within its statutory limit. All in all, debt held by the public will equal 73.8 percent of GDP at the end of fiscal year 2015, CBO estimates, slightly below the 74.0 percent recorded at the end of 2014. As recently as 2007, debt held by the public was 35 percent of GDP, less than half its current mark.

7. For a discussion of changes in CBO's baseline since March 2015, see Appendix A.

Outlays in 2015

Outlays are expected to increase by $171 billion this year—to total $3.7 trillion. By CBO's calculations, federal spending will equal 20.6 percent of GDP, which is above both last year's 20.3 percent and the 20.1 percent average over the past 50 years. CBO's estimates for the three broad categories of federal spending are as follows for 2015:

- Mandatory spending is estimated to rise by nearly 10 percent in nominal terms, increasing to 12.9 percent of GDP (compared with 12.2 percent in 2014).[8]
- Discretionary spending is anticipated to decline by about 1 percent in nominal terms, falling to 6.5 percent of GDP (compared with 6.8 percent last year).[9]
- Net interest spending is expected to fall by nearly 5 percent in nominal terms, declining to 1.2 percent of GDP (compared with 1.3 percent in 2014).

Mandatory Spending. Outlays for mandatory programs are projected to rise to $2.3 trillion this year, an increase of $199 billion from 2014 (see Table 1-2). Most mandatory spending is for the federal government's major health care programs and Social Security. Those health care programs consist of Medicare (net of premiums and other offsetting receipts); Medicaid; the Children's Health Insurance Program; and federal subsidies for health insurance purchased through exchanges along with related spending.[10] By CBO's estimate, the largest increases in net outlays, compared with spending in 2014, will be for those programs, for the government's transactions with Fannie Mae and Freddie Mac, and for higher education.[11] That set of increases will be partially offset by increased receipts from auctions of licenses to use the electromagnetic spectrum (the proceeds of those auctions are recorded as offsets to mandatory outlays) and by reduced spending for unemployment compensation.

Major Health Care Programs. Federal spending for the major health care programs will jump by $106 billion (or about 13 percent) in 2015, CBO estimates. The largest

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

9. 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.

10. Related spending consists of outlays for certain grants to states, payments for risk adjustment (amounts paid to plans that attract less healthy enrollees), and payments for reinsurance (amounts paid to plans that enroll people who subsequently incur very high health care costs). Outlays for risk adjustment and reinsurance will be offset by associated revenues, resulting in no net budgetary effect.

11. Payments from Fannie Mae and Freddie Mac to the U.S. Treasury are recorded as reductions in outlays. CBO expects that payments from the two entities will be smaller this year than they were last year, thereby boosting outlays.

increase will be for Medicaid outlays, which are projected to increase by $49 billion (or 16 percent) this year, largely because of new enrollees added through the optional expansion of coverage authorized by the Affordable Care Act (ACA). As a result, CBO projects, Medicaid enrollment will rise by between 5 percent and 10 percent in 2015. In addition, the provisions of the ACA that led to the increased enrollment will be in place for all of the current fiscal year; because they took effect in January 2014, they were in place for just nine months of fiscal year 2014.

Similarly, CBO estimates that outlays for subsidies that help eligible people to purchase health insurance through exchanges, as well as related spending, will increase by $22 billion in 2015, to $37 billion. That growth largely reflects a significant increase in the number of people who have purchased coverage through the exchanges as well as the fact that subsidies for that coverage will be available for the entire fiscal year. (Last year the subsidies did not become available until three months into the fiscal year.)

In 2015, spending for Medicare (net of premiums and other offsetting receipts) will rise by $35 billion, or about 7 percent, CBO expects—the fastest rate of growth recorded for the program since 2009 (after adjustments are made for shifts in the timing of certain payments). Part of that increase reflects the fact that certain provisions of the ACA that reduced the rate of growth in Medicare spending have been implemented already. Those provisions will continue to constrain Medicare spending, but to roughly the same extent each year, so they are no longer reducing its growth rate. In addition, the increase in 2015 reflects growth in the number or cost of services furnished to Medicare beneficiaries, although data are not yet available to show how much of that growth is attributable to changes in hospital admissions, physician visits, prescriptions of expensive new drugs, or other health care services.

Social Security. Outlays for Social Security benefits are projected to climb by $37 billion, or 4.4 percent, this year, which is about the same rate of growth as in 2014. That increase includes the effects of the 1.7 percent cost-of-living adjustment that beneficiaries received in January and of an estimated 1.8 percent increase in the number of beneficiaries.

Fannie Mae and Freddie Mac. CBO estimates that payments to the U.S. Treasury from Fannie Mae and Freddie Mac will be $52 billion less than they were in 2014. Such payments, which are recorded as reductions in outlays (rather than as revenues), totaled $74 billion in 2014 but will fall to $23 billion in 2015. That drop is partly attributable to a onetime revaluation of certain tax assets held by Freddie Mac, which boosted its payments to the Treasury by nearly $24 billion in fiscal year 2014. In addition, financial institutions are expected to make fewer payments to Fannie Mae and Freddie Mac in 2015 to settle allegations of fraud in connection with residential mortgages and certain other securities. The result is that the two entities' profits will be smaller this year, as will their remittances to the Treasury.

Higher Education. Mandatory outlays for higher education were –$12 billion in 2014 but are expected to be positive by $21 billion this year. Such outlays include subsidies 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. Outlays for 2014 were negative because the estimated subsidy costs of those loans were negative—that is, over the lifetime of the loans, the amounts the government expects to receive will be greater than the payments the government is expected to make, as measured on a discounted present-value basis.[12] Outlays in 2015 are projected to be positive, mostly because the Department of Education recorded a revision to the subsidy costs for past loans that resulted in an $18 billion increase for 2015 (the 2014 revision totaled $1 billion). In addition, the department is applying subsidy rates in 2015 that are less negative than those used in 2014 to estimate the costs of new loans.

Spectrum Auctions. Under current law, the Federal Communications Commission occasionally auctions licenses for commercial use of the electromagnetic spectrum. The auctions' receipts are recorded as reductions in mandatory outlays rather than as revenues collected by the federal government. In 2014, net receipts totaled $1 billion for a set of licenses that were of value primarily to a single business. By contrast, the 2015 auction awarded licenses for more bandwidth, which also had more desirable characteristics, thus spurring intense competition among several large telecommunications companies. As a result, CBO anticipates, net collections will increase to $36 billion this year.

Unemployment Compensation. Federal expenditures for unemployment compensation are expected to decline for a fifth consecutive year. Such spending totaled $44 billion in 2014 and will fall to $33 billion in 2015, CBO estimates, in part because a falling unemployment rate has led fewer people to claim regular benefits and partly because the authority to pay emergency benefits expired at the end of December 2013, the end of the first quarter of fiscal year 2014.

Discretionary Spending. CBO anticipates that outlays from annual appropriations will total nearly $1.2 trillion in 2015—$17 billion less than last year (see Table 1-3). Most of that difference is attributable to a drop in defense spending: Defense outlays, which amounted to $596 billion in 2014, will fall by $14 billion (or about 2 percent), to $583 billion, according to CBO's calculations, marking the fourth consecutive year in which such spending has declined. Most of that change will result from a decline of

12. Under the Federal Credit Reform Act, a program's subsidy costs are calculated by subtracting the discounted present value of the government's projected receipts from the discounted 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.

roughly $20 billion this year in spending for overseas contingency operations, primarily in Afghanistan, by CBO's estimates. All told, defense outlays this year are expected to be 17 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.

CBO expects that nondefense discretionary outlays will dip by $3 billion in 2015, to $579 billion. That amount would be about 12 percent less than the peak in 2010, when outlays increased substantially because of spending under the American Recovery and Reinvestment Act of 2009 (Public Law 111-5).

Net Interest. Outlays in this category consist of the government's interest payments on debt held by the public minus interest income that the government receives. In 2015, such outlays will fall to $218 billion, from $229 billion last year, CBO estimates. The reduction stems primarily from downward adjustments to the principal of inflation-protected securities. (Those adjustments are made to account for inflation, and they are based on the consumer price index for all urban consumers, a common measure of inflation in the economy.) The effect of the continued accumulation of debt, however, will offset some of that decrease. Because interest rates remain very low by historical standards, total outlays for net interest are similar to amounts recorded 15 to 20 years ago, when federal debt was much smaller.

Revenues in 2015

On the basis of tax collections through July 2015, CBO expects federal revenues to total $3.3 trillion this fiscal year, $230 billion (or 8 percent) more than in 2014. The largest gain, both in dollar terms and on a percentage basis, is expected to be in the form of receipts from individual income taxes. CBO anticipates that total revenues will rise from 17.5 percent of GDP in 2014 to 18.2 percent in 2015, nearly 1 percentage point above the 17.4 percent average over the past 50 years.

Individual Income Taxes. CBO anticipates that collections of individual income taxes will increase by $146 billion (or about 10 percent) in 2015. Nonwithheld and withheld taxes are expected to contribute similar amounts to that increase. Nonwithheld taxes have risen this year because increases in nonwage income in 2014 and 2015 led to higher final tax payments for 2014 (as reflected in amounts paid with tax returns filed this year) and to higher quarterly estimated payments of taxes for 2015. Receipts from withheld taxes also have risen so far this year, primarily because of increases in wages and salaries.

Payroll Taxes. CBO expects that receipts from payroll taxes—which primarily fund Social Security and Medicare's Hospital Insurance program—will increase by $42 billion (or about 4 percent), largely because of rising wages and salaries.

Corporate Income Taxes. Income tax payments by corporations, net of refunds, are expected to increase by $27 billion (or about 8 percent) in 2015. Receipts in the first

10 months of the fiscal year (that is, through July 2015) were higher by $23 billion (or 9 percent) than receipts for the same period last year—an indication that taxable corporate profits increased in 2014 and have continued to do so in recent months. The specific components of income and deductions contributing to the recent movement in profits will become clearer as information from corporate income tax returns becomes available over the next two years.

Revenues From Other Sources. CBO expects that other revenues will increase, on net, by about $15 billion (or 5 percent) in 2015. Most of that increase stems from miscellaneous fees and fines, which are expected to increase by $11 billion (or about 30 percent), largely because of provisions of the ACA that established new collections from health insurers under the reinsurance and risk adjustment programs. (Those revenues will be offset by associated outlays.) In addition, larger receipts from excise taxes, estate and gift taxes, and customs duties will be partially offset by a small decline in remittances from the Federal Reserve.

Tax Expenditures in 2015

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 the corporate income tax systems. Some of those provisions are called tax expenditures because, like government spending programs, they provide financial assistance to particular activities, entities, or groups of people. The tax expenditures with the largest effects on revenues are as follows:

- The exclusion from workers' taxable income of employers' contributions for health care, health insurance premiums, and long-term-care insurance premiums;
- The exclusion of contributions to and earnings of pension funds (minus pension benefits that are included in taxable income);
- Preferential tax rates on dividends and long-term capital gains; and
- The deductions for state and local taxes (on nonbusiness income, sales, real estate, and personal property).

On the basis of estimates prepared by the staff of the Joint Committee on Taxation (JCT), CBO expects that those and other tax expenditures will total about $1.5 trillion in 2015—an amount equal to 8.1 percent of GDP, or equivalent to nearly half of the

revenues projected for the year.[13] That total is similar to the amount CBO estimated for 2014 because the tax rules affecting tax expenditures are largely the same in 2015 as they were in 2014.

CBO's Baseline Budget Projections for 2016 to 2025

CBO's baseline projections are not a forecast of future outcomes. They are constructed in accordance with provisions of the Balanced Budget and Emergency Deficit Control Act of 1985 and the Congressional Budget and Impoundment Control Act of 1974. As those laws specify, CBO constructs its baseline projections under the assumption that current laws will generally remain unchanged; the projections can therefore serve as a benchmark for measuring potential changes in law.

Under that assumption, CBO projects that the budget deficit would fall to slightly more than 2 percent of GDP in 2016 and remain near that mark through 2018. Beginning in 2019, deficits would be on a general upward trend, nearing 4 percent of GDP by the end of the projection period.[14] In CBO's baseline, debt held by the public increases relative to GDP over the same period.

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. Relatively small discrepancies between those economic and technical assumptions and actual outcomes can result in significant deviations from baseline projections of revenues and outlays. For example, if the rate of inflation was higher (or lower) by 1 percentage point each year than CBO projects, baseline deficits over the 10-year period would be about $900 billion larger (or smaller).[15]

Federal Debt From 2016 to 2025

With deficits projected to total $7.0 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 $13.2 trillion at the end of 2015 to $21.0 trillion at the end of

13. For more information on how that total was determined, see Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025* (January 2015), pp. 101–105, www.cbo.gov/publication/49892.

14. Because October 1 falls on a weekend in 2016, 2017, 2022, and 2023, certain payments that are due on those days will instead be made at the end of September, thus shifting them into the previous fiscal year. Without that shift, deficits would reach a low of 2.0 percent of GDP in 2016 and would climb each year thereafter through 2025, CBO estimates.

15. For further discussion, see Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025* (January 2015), Appendix C, www.cbo.gov/publication/49892.

2025 (see Table 1-4). Relative to the size of the economy, federal debt would decline from 73.8 percent of GDP at the end of 2015 to 73.0 percent at the end of 2018, but it would rise steadily thereafter, reaching about 77 percent of GDP at the end of 2025, CBO estimates.

That debt 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 loan and other federal credit programs. CBO projects that such additional borrowing, often called other means of financing, will range between about $50 billion and $100 billion annually in most years between 2016 and 2025.

Another measure of debt that will be the focus of increasing attention in the coming months is the amount that is subject to the statutory limit on federal borrowing. In addition to debt held by the public, that amount also includes debt issued to accounts of various federal agencies, such as the Social Security trust fund. (Debt issued by agencies other than the Treasury and the Federal Financing Bank is excluded from the debt limit.) That limit, which had previously been set at $17.2 trillion, was suspended from February 15, 2014, through March 15, 2015. On March 16, the debt limit was raised to $18.1 trillion (its previous level plus the amount of federal borrowing that occurred while the limit was suspended). At that point, the Treasury could no longer borrow under its standard procedures.

To avoid a breach of the debt ceiling, the Treasury began to use a well-established set of procedures, known as extraordinary measures, to allow continued borrowing. If the debt limit remains unchanged, those measures will be exhausted and the Treasury will run out of cash between mid-November and early December, CBO estimates. Over the next few months, however, the amounts and timing of the government's outlays and revenue collections could vary from CBO's projections, and the debt limit could be reached earlier or later as a result.[16]

Outlays From 2016 Through 2025

Under current law, total outlays are projected to hover around 21 percent of GDP through 2021 and then to rise to 22 percent the following year and to remain at that level through 2025. In nominal terms, outlays would grow, on net, by $2.3 trillion between 2015 and 2025, CBO estimates—an average annual increase of 5.0 percent. Three major components of the budget—the major health care programs, Social Security, and net interest—account for nearly 85 percent of the total increase in outlays.

16. For a more detailed discussion of the statutory debt limit, see Congressional Budget Office, *Federal Debt and the Statutory Limit, August 2015* (August 2015), www.cbo.gov/publication/50739.

Mandatory Spending. In keeping with the requirements of the Deficit Control Act, CBO's projections for most mandatory programs incorporate the assumption that current laws will continue unchanged and reflect anticipated developments in the economy and demographics along with other factors. They 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 $2.3 trillion in 2015 to $3.9 trillion in 2025, an average yearly increase of 5.3 percent. It is projected to range between 12.9 percent of GDP and 13.4 percent of GDP between 2015 and 2021 and then to generally rise through the end of the projection period, reaching 14.1 percent of GDP in 2025. During the past 50 years, mandatory spending has averaged 9.3 percent of GDP (although it has been above that mark every year since 1989—reflecting the significant growth in spending for Social Security and health care programs over the past 25 years).

CBO estimates that spending on the government's major health care programs, net of offsetting receipts, will exceed Social Security outlays in every year of the projection period (see Figure 1-3). Taken together, in CBO's baseline, spending in those two categories increases from 10.2 percent of GDP in 2015 to 10.6 percent in 2019, and then rises to 11.9 percent in 2025.

The population age 65 or over in the United States will grow by about one-third over the next decade, thereby boosting the rolls for Social Security and the major health care programs—in particular, for Social Security's Old-Age and Survivors Insurance program and for Medicare.[17] Some other factors slow the growth of spending in the early years of the projection period, but that demographic factor becomes more prominent in the latter part of the 10-year horizon.

Specifically, in CBO's current baseline:

- Outlays for Social Security total 4.9 percent of GDP in 2016 and remain nearly unchanged over the first few years of the projection period relative to the size of the economy but then rise steadily thereafter to measure 5.7 percent of GDP by 2025 (see Figure 1-4).

- Outlays for Medicare (adjusted for shifts in the timing of certain payments) remain near 3.0 percent of GDP through 2018 and then increase each year through 2025, when they total 3.7 percent.

17. By 2025, about three-fifths of overall spending on the major health care programs will finance care for people ages 65 and older, about one-fifth will provide care for people who are blind or disabled, and about one-fifth will provide care for people in other groups.

- 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 exchanges, along with related spending, increases from 0.2 percent of GDP in 2015 to 0.4 percent in 2017, where it remains through 2025.
- All other mandatory spending, net of offsetting receipts, declines as a share of GDP, from 2.7 percent in 2015 to 2.2 percent in 2025.

That final 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 agriculture programs. The decline in outlays (relative to GDP) is projected because spending for many programs rises roughly with inflation, which is projected to be well below the rate of growth in nominal GDP.

Discretionary Spending. Discretionary spending encompasses an array of federal activities funded or controlled through annual appropriations, including most defense spending and outlays for highway programs, elementary and secondary education, housing assistance, international affairs, and administration of justice. Measured as a share of GDP, discretionary outlays are projected to drop from 6.5 percent in 2015 to 5.1 percent in 2025, 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 8.8 percent of GDP.

CBO's baseline incorporates the caps on budget authority for discretionary programs that were put in place by the Budget Control Act of 2011 (P.L. 112-25), including the reductions in those caps that are scheduled to occur in fiscal years 2016 through 2021 under the law's automatic enforcement procedures.[18] (After 2021, such funding is assumed to grow at the rate of inflation.) Appropriations for activities that are not constrained by the caps—overseas contingency operations (military operations and related activities in Afghanistan and other countries), activities designated as emergency requirements, disaster relief (up to certain limits), and certain efforts to reduce overpayments in benefit programs—are assumed to grow with inflation from the amounts provided in 2015.[19]

For 2016, the caps on discretionary budget authority for defense and nondefense programs are higher than those for 2015 by $2 billion and $1 billion, respectively.

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

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

However, the year-to-year changes projected in the baseline are different:

- Discretionary budget authority for nondefense programs declines by $13 billion in 2016 primarily because, in 2015, 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 2016 does not include such changes to mandatory programs (because no such changes have been enacted for 2016), so adhering to the caps would require providing less discretionary budget authority in that year unless similar changes to mandatory programs are legislated again in the appropriation process.

- Budget authority for defense programs is $3 billion greater in 2016 than in 2015 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.

After 2016, CBO projects, discretionary budget authority 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 the assumption that such budget authority grows with inflation after the caps expire in 2021.

Total discretionary outlays in CBO's baseline grow very slowly over the next few years—at an average rate of nearly 1 percent annually between 2016 and 2018—and then keep pace with the projected 2 percent annual increase in budget authority, reaching $1.4 trillion by the end of the projection period.

Net Interest. Although CBO has reduced its projection of interest outlays over the 10-year projection period from its previous baseline (see Appendix A), rising interest rates and growing federal debt are still anticipated to boost those outlays significantly. In the baseline, they more than triple, rising from $218 billion (or 1.2 percent of GDP) in 2015 to $755 billion (or 2.8 percent of GDP) in 2025—the largest ratio since 1997.

In CBO's projections, debt held by the public grows by almost 60 percent from 2015 to 2025, but rising interest rates are projected to have an even greater impact on the government's borrowing costs. 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 expects that the interest rate on 3-month Treasury bills will rise from 0.1 percent to 3.4 percent between calendar years 2015 and 2019 and that it will remain there through 2025. The rate on 10-year Treasury notes, also reflecting those improved economic conditions, is forecast to rise from 2.3 percent in 2015 to 4.3 percent in 2021 and to remain there through 2025. (For further discussion, see "Monetary Policy and Interest Rates.")

Revenues From 2016 Through 2025

In CBO's baseline, total revenues rise from 18.2 percent of GDP this year to 18.9 percent of GDP in 2016, largely because the end of calendar year 2014 saw the expiration of several provisions of law that had reduced corporate and individual income tax liabilities. Among those provisions was one that allowed businesses to immediately deduct significant portions of their investments in equipment. Although most of the expired tax provisions have routinely been extended in the past, future extensions cannot be assumed because the baseline follows current law. Therefore, in CBO's baseline, those provisions' expiration boosts corporate and individual income tax payments substantially in fiscal year 2016. (Tax payments in 2015 will still reflect many effects of the provisions prior to their expiration.)

After 2016, total revenues as a share of GDP are projected to decline modestly for several years, falling to 18.0 percent in 2021 and then rising slowly to 18.3 percent of GDP by 2025. That pattern stems from several sources of offsetting movements in revenues in CBO's baseline projections:

- Individual income tax receipts continue to increase relative to GDP—largely a result of real bracket creep, with smaller effects from recent changes in tax law and other factors.
- Payroll tax receipts decline relative to GDP, especially over the next several years, reflecting several factors, such as declines to more typical levels in states' deposits to unemployment trust funds.
- Corporate income tax receipts decline relative to the size of the economy after 2016, mostly because of an anticipated drop in domestic economic profits as a percentage of GDP and the waning effect of recently expired tax provisions.
- 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.

All told, CBO estimates, under current law revenues would grow over the projection period by $1.7 trillion—an average annual increase of 4.4 percent, which is slower than the 5.0 percent rate of increase CBO projects for spending.

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 8.6 percent in 2015 to 9.5 percent by 2025, which is a greater share of GDP than has been recorded in all but one of the past 50 years (see Figure 1-5). That increase would result from structural features of the tax system (such as real bracket creep), recent changes in tax provisions, and other factors.

Real Bracket Creep. In CBO's projections, the largest factor pushing up taxes relative to income is the phenomenon known as real bracket creep, which occurs because income tax brackets and exemptions under both the regular income tax and the alternative minimum tax are indexed only to inflation.[20] If income grows faster than the rate of inflation, as generally occurs when the economy is growing, more of it is pushed into higher tax brackets. That in turn causes projected revenues measured as a share of GDP to rise relative to GDP by 0.6 percentage points from 2015 to 2025 in CBO's baseline.

Recent Changes in Tax Provisions. Several revenue-reducing tax provisions expired at the end of December 2014, including one that allowed corporate and noncorporate businesses to immediately deduct a portion of their investments in equipment. (Income of noncorporate business owners is subject to the individual income tax.) Among the other significant tax provisions that expired recently was one that allowed filers to deduct state and local sales taxes rather than income taxes and one that allowed filers to exclude forgiven mortgage debt from their taxable income. If those expired provisions are not extended, starting in calendar year 2015, individual income tax liabilities will increase, and starting mostly in fiscal year 2016, income tax payments will be affected as a result. Those expiring provisions and other changes in tax rules cause a 0.2 percentage-point increase in individual income tax revenues in CBO's baseline between 2015 and 2016. About half of that increase persists through 2025.

Other Factors. Individual income tax receipts are projected to rise by 0.2 percentage points as a share of GDP between this year and 2025 as a result of other factors. Most significant among the causes is a gradual increase in withdrawals from tax-deferred retirement accounts as more members of the baby-boom generation retire. In addition, earnings are expected to increase faster for higher-income people than for others during the next decade—as has been the case for the past several decades—causing a larger share of income to be subject to higher income tax rates.[21]

Payroll Taxes. In CBO's baseline projections, receipts from payroll taxes decline from 6.0 percent of GDP this year to 5.8 percent of GDP by 2018 and continue to decline very gradually relative to GDP thereafter. Much of that decline through 2018 reflects a reduction in receipts from states' deposits to unemployment trust funds.[22] Such receipts increased rapidly from 2010 through 2012 as states boosted their tax rates and tax

20. 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.

21. That increase in individual income tax receipts is partially offset in CBO's baseline by a decrease in payroll tax receipts. Faster growth in earnings for higher-income people would reduce the average payroll tax rate because a greater share of earnings would be above the taxable maximum amount for Social Security ($118,500 in 2015, indexed to growth in average earnings for all workers).

22. Deposits by states to unemployment trust funds are considered federal revenues. Although typically they are funded by taxes that states levy on employers' wage payments, they also can include lump-sum amounts from other sources, including the proceeds of bond sales by states.

bases to replenish unemployment insurance trust funds that had been depleted because of high unemployment. Those receipts have declined each year since 2012, and CBO expects them to continue to fall to more typical amounts in the next few years.

Payroll tax receipts as a percentage of GDP also decline very gradually through 2025 in CBO's baseline because, over the next decade, the faster earnings growth for higher-income people than for others will place a greater share of earnings above the taxable maximum amount for Social Security.

Corporate Income Taxes. Under current law, CBO projects, corporate income tax receipts will rise sharply from 1.9 percent of GDP in 2015 to 2.4 percent of GDP in 2016. That jump reflects the expiration of several tax provisions. CBO projects that receipts will fall relative to GDP starting in 2017—down to 1.8 percent by 2025—largely because profits are projected to decline relative to GDP.

Expiring tax provisions contribute significantly to the increase in 2015 and 2016 in the projections of corporate receipts, but that effect is temporary—it mostly disappears after 2017 in CBO's baseline. In particular, the expiration of the provisions that allowed businesses to expense 50 percent of their investments in equipment is expected to boost receipts substantially in 2016.[23] The more favorable rules for investment deductions were extended at the end of December 2014—retroactively through that calendar year—and reduced corporate tax receipts in fiscal year 2015 because affected businesses received refunds or made smaller final payments when filing their 2014 tax returns. That legislation will not reduce receipts in 2016, and the result will be more growth in receipts between 2015 and 2016.

After 2016, corporate income tax receipts are projected to decline steadily as a share of the economy—and then to remain at 1.8 percent of GDP from 2021 through 2025. The decline through 2021 is mostly attributable to a projected drop in corporations' domestic economic profits as a share of GDP, mainly because of increases in labor compensation and rising interest payments on businesses' debt relative to GDP. The rest of the decline stems largely from the diminishing effects after 2016 of the expiration of the partial-expensing provision described above. That expiration boosts projected receipts substantially in 2016, but the effects wane immediately in CBO's baseline because the provision affected the timing rather than the overall amount of the deductions.

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,

23. By contrast, since 1982 businesses that invest relatively small amounts in new equipment have been able to fully deduct those costs in the year in which the equipment is placed in service. Although that provision remains in effect today, the maximum amount of those deductions has changed over time.

revenues from all of those sources would decline from 1.7 percent of GDP this year to 1.3 percent of GDP in 2025.

By 2025, CBO projects, remittances of the Federal Reserve will have fallen from 0.5 percent of GDP this year, the sixth consecutive year at roughly that percentage, to 0.2 percent of GDP, about 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.

Receipts from excise taxes also are projected to decrease relative to GDP over the next decade, from 0.6 percent in 2015 to 0.4 percent in 2025, largely because collections from gasoline and tobacco taxes are projected to decline in nominal dollars, implying significant reductions relative to the size of the economy.

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 1-5). The discussion here focuses on the policies' direct effects on revenues and outlays, but the changes also would affect the costs of paying interest on federal debt (those costs are shown separately in the table).

Military and Diplomatic Operations in Afghanistan and Other War-Related Activities

The first alternative path concerns spending for overseas contingency operations. The outlays projected in the baseline come from budget authority provided for those purposes in 2014 and prior years, the $74 billion in budget authority provided for 2015, and the roughly $820 billion that is projected to be appropriated over the 2016–2025 period (under the assumption that annual funding is set at $74 billion, with adjustments for anticipated inflation, in accordance with the rules governing CBO's baseline projections).[24]

In coming years, the funding designated for overseas contingency operations might be less than the amounts projected in the baseline if the number of deployed service personnel and the pace of operations diminished over that time. CBO has thus formulated a budget scenario that reflects a reduction in troops deployed abroad for military action and a concomitant reduction in related diplomatic operations and foreign aid. Many other scenarios—some costing more and some less—are possible.

24. Funding for overseas contingency operations in 2015 includes $64 billion for military operations and indigenous security forces and $9 billion for diplomatic operations and foreign aid.

Over the course of 2014, the number of active-duty, reserve, and National Guard personnel deployed for war-related activities averaged about 110,000. That number has declined to about 90,000 in 2015, CBO estimates. In the agency's alternative scenario, the average number of military personnel deployed for such purposes would decline to 50,000 in 2016 and to 30,000 in 2017 and thereafter. (Those levels could represent various allocations of forces around the world.) Under that scenario, and in keeping with an assumption that extraordinary funding for diplomatic operations and foreign aid would decline at a similar rate, total discretionary outlays over the 2016–2025 period would be $456 billion less than the amount in CBO's current baseline.

Other Discretionary Spending

Policymakers could vary discretionary funding in many ways from CBO's baseline amounts. For example, if caps on discretionary funding were eliminated or modified and appropriations were set to grow each year through 2025 at the same rate as inflation after 2015, discretionary spending would be $498 billion above the baseline amount for that period. If, by contrast, lawmakers kept appropriations other than those for overseas contingency operations for the 2016–2025 period at the nominal 2015 amount, total discretionary outlays would be $890 billion lower over that period. Under that scenario (sometimes called a freeze in regular appropriations), total discretionary spending would fall from 6.5 percent of GDP in fiscal year 2015 to 4.3 percent in 2025.

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. Subsequent legislation extended the required reductions to mandatory spending (by means of a process called sequestration) through 2024. If lawmakers chose to prevent those automatic cuts each year—starting in 2016—without making other changes that reduced spending, total outlays over the 2016–2025 period would be $979 billion (or about 2 percent) higher than the amounts in CBO's baseline. Total discretionary outlays would be $847 billion (or 7 percent) higher, and outlays for mandatory programs—most of which are not subject to sequestration—would be $132 billion (or 0.4 percent) higher.[25]

Revenues

A host of tax provisions, many of them extended repeatedly in recent years, either have expired or are scheduled to do so over the next decade. Most of them, including one that allowed businesses to immediately deduct 50 percent of new investments in equipment,

25. 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 any of the alternatives that affect discretionary spending other than the one to reduce the number of troops deployed for overseas contingency operations.

expired at the end of December 2014. If all of those provisions were extended permanently, CBO and JCT estimate, revenues would be lower—and outlays for refundable tax credits would be higher (although by a much smaller amount)—by a total of $979 billion over the 2016–2025 period. Of that total, JCT estimates, about $246 billion in budgetary effects would be attributable to the partial-expensing provision.

Under CBO's alternative assumptions, the largest budgetary cost of extending all of the tax provisions occurs in 2016; in that case, retroactive extension of the provisions would come too late for any budgetary effect in 2015. The effects that would have occurred in 2015 would instead affect tax collections in 2016. The estimated budgetary cost increases in 2019 because certain provisions affecting refundable tax credits are scheduled to expire at the end of December 2017. Extending those provisions would boost outlays for refundable credits and reduce revenues by a combined amount of about $193 billion over the 2019–2025 period. (Payments for refundable credits typically are made a year after the applicable tax year.)

Changes in CBO's Baseline Projections Since March 2015

Since CBO completed its previous set of baseline projections in March 2015, the agency has reduced by $60 billion the estimated deficit in 2015, mostly because receipts from individual income taxes and corporate income taxes have been larger than anticipated (see Appendix A). The agency also has made a $203 billion reduction in its baseline projection of the cumulative deficit for the 2016–2025 period: Revenue projections have been reduced by $170 billion (or by less than one-half of a percent), but outlay projections have declined even more—by $372 billion (or nearly 1 percent) since March.

Revisions to the economic outlook account for the largest changes on the spending side of the budget, reducing projected outlays by $706 billion through 2025. That 10-year change is dominated by a $441 billion reduction in estimated net interest costs, primarily the result of lower projected interest rates throughout the period (see "Interest Rates"). In addition, revisions to the economic forecast—primarily lower measures of inflation through 2016—reduced mandatory outlays in the baseline by $262 billion; Social Security benefits account for about half of that reduction.

Recently enacted legislation, primarily the Medicare Access and CHIP Reauthorization Act of 2015 (P.L. 114-10), which raised the rates Medicare pays to physicians, led CBO to increase its projections of outlays by $159 billion for the 2016–2025 period.

Technical changes—that is, changes other than those that are attributable to economic factors or to legislation—increased CBO's baseline projections of spending by another $175 billion. Upward adjustments for Medicare spending account for roughly three-quarters of that change, primarily because of higher-than-expected spending for Part A (Hospital Insurance) and Part B (Medical Insurance).

Technical adjustments account for the largest changes to CBO's revenue projections, reducing them below the March estimate by $236 billion through 2025. Higher-than-expected tax collections in recent months caused the agency to increase its revenue projections for the next two years, but other factors, including new information from tax returns, caused CBO to reduce its projections for the later years of the 10-year period. The effects of those technical changes were partially offset by the revised economic outlook, including a slightly higher projection for wages and salaries and a slightly lower projection for interest rates, which led to a $63 billion increase in projected revenues; recently enacted legislation added $3 billion over the 2016–2025 period.

Chapter 2: The Economic Outlook

Under the assumption that current laws governing federal taxes and spending will generally remain in place, the Congressional Budget Office anticipates that economic activity will expand modestly this year, grow at a more solid pace in 2016 and 2017, and then moderate in subsequent years. As the result of a very weak first quarter in 2015, real (inflation-adjusted) gross domestic product (GDP) rose at an average annual rate of only 1.5 percent in the first half of the year. Recent data indicate that the economy is now on firmer ground, however, and CBO expects stronger growth in the second half. As measured by the change from the fourth quarter of the previous year, CBO projects, real GDP will increase by 2.0 percent this year and by 3.1 percent in 2016.

In CBO's estimation, the economic expansion that will occur this year and over the next few years will be driven by increases in consumer spending, business investment, and residential investment. Government purchases are expected to have a positive but modest effect on growth from 2016 through 2019. By contrast, net exports (exports minus imports) will restrain growth in 2015 and 2016 but contribute to growth in 2018 and beyond.

The faster pace of growth in output is expected to reduce the quantity of underused resources, or "slack," in the economy over the next few years. The difference between actual GDP and CBO's estimate of potential (that is, maximum sustainable) GDP was about 3.4 percent at the end of 2014. CBO expects that gap to narrow to its historical average by the end of 2017. CBO also expects slack in the labor market—which is indicated by such factors as the elevated unemployment rate and a relatively low rate of labor force participation—to dissipate over the next few years. In particular, the agency projects that further hiring will reduce the unemployment rate from 5.2 percent in the fourth quarter of 2015 to 5.0 percent in the fourth quarter of 2017. The upward pressure on compensation brought about by that hiring will encourage some people to enter or stay in the labor force, in CBO's estimation. That development will slow the longer-term decline in labor force participation, which is attributable both to underlying

demographic trends and to federal policies, but it will also slow the fall of the unemployment rate.

Over the next few years, reduced slack in the economy will put upward pressure on inflation and interest rates. Nevertheless, CBO expects the rate of inflation—as measured by the price index for personal consumption expenditures (PCE)—to stay below the Federal Reserve's goal of 2 percent during the next few years. CBO anticipates that the interest rate on 3-month Treasury bills, which has been near zero since the end of 2009, will begin increasing in the second half of 2015 and rise to 3.4 percent by the end of 2019. The agency further expects that the rate on 10-year Treasury notes will rise from an average of 2.4 percent in the second half of 2015 to 4.2 percent by the end of 2019.

CBO's projections for the period from 2020 through 2025 exclude possible cyclical developments in the economy because the agency does not attempt to predict the timing or magnitude of fluctuations in the economy so far into the future. CBO projects that real GDP will grow by an average of 2.1 percent per year from 2020 through 2025—a rate that matches the agency's estimate of the growth of potential output in those years but that is higher than the rate of growth of real GDP over the previous 10 years. CBO anticipates that output will grow more slowly than it did in the 1980s, 1990s, and early 2000s, primarily because the labor force is expected to grow more slowly than it did then. CBO projects that the unemployment rate between 2020 and 2025 will average 5.2 percent and that inflation, as measured by the PCE price index, will average 2.0 percent. Over the same period, the interest rates on 3-month Treasury bills and 10-year Treasury notes are projected to be 3.4 percent and 4.3 percent, respectively.

Recognizing that economic forecasts are always uncertain, CBO constructs its forecasts to fall in the middle of the distribution of possible outcomes for the economy, given current law. Nevertheless, many developments—such as a quicker tightening of the labor market, slower-than-anticipated growth in consumption, or slower growth of foreign economic activity—could cause outcomes to differ substantially from those CBO has projected.

CBO's current economic projections differ in some respects from those the agency issued in January 2015. For instance, CBO now projects slower growth of real GDP this year—largely because of the weak performance of the U.S. economy during the first half of the year—and slightly faster growth between 2016 and 2019 than it did in January. In addition, CBO now projects lower unemployment rates and lower long-term interest rates over the 2015–2025 period; inflation is projected to be lower in 2015 and 2016 than estimated in January.

CBO's current economic projections do not differ much from those of most other forecasters. They generally are similar to those reported in the *Blue Chip* consensus

forecast (published in August) and the forecasts developed by the Federal Reserve and presented at the June 2015 meeting of the Federal Open Market Committee.

The Economic Outlook for 2015 Through 2019

CBO expects economic activity to expand modestly this year, at a more solid pace in 2016 and 2017, and then at a moderate pace in subsequent years (see Figure 2-1 and Table 2-1). Real GDP grew slowly in the first half of this year, on average, increasing at an annual rate of 0.6 percent in the first quarter and 2.3 percent during the second quarter. (Those estimates reflect the July 30 revisions to the national income and product accounts; see Box 2-1.) The agency expects output to grow more rapidly in the second half of 2015. The outlook for the next few years reflects CBO's view that, under current law, federal fiscal policy (the government's tax and spending policies) will have only a modest effect on aggregate demand through 2019.[26] CBO also expects that monetary policy (the policies of the Federal Reserve that affect interest rates and the availability of credit) will support the growth of aggregate demand this year and over the next few years, but by smaller degrees over time.

CBO expects that GDP will grow faster than potential GDP through 2017 and that, by the end of 2017, the gap between actual and potential output will narrow to its average of one-half of one percent. The faster growth of output will bolster the demand for labor, slowing the longer-term decline in labor force participation and lowering the unemployment rate to the natural rate of unemployment (the rate that arises from all sources except fluctuations in the overall demand for goods and services) of 5.0 percent in 2017. By the fourth quarter of 2019, the unemployment rate in CBO's forecast is about one-quarter of a percentage point above the natural rate, a difference that is consistent with the gap between actual and potential output. Reduced slack in the economy will remove the downward pressure on the rate of inflation seen in recent years.

Federal Fiscal Policy

CBO anticipates that federal fiscal policy under current law will have little net effect on aggregate demand this year, after having reduced demand over the past several years.[27] As a result of reduced defense outlays, stemming largely from lower spending for military operations overseas, CBO expects the amount of federal purchases to decline somewhat in 2015 relative to the size of the economy, thus slowing growth in aggregate demand and GDP slightly. However, offsetting the effect of that factor are a number of other changes to fiscal policy that are expected to increase aggregate

26. Aggregate demand is total purchases by consumers, businesses, governments, and foreigners of a country's output of final goods and services during a given period.

27. For a discussion of why federal fiscal policy reduced aggregate demand and output over the past several years, see Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025* (January 2015), www.cbo.gov/publication/49892.

demand and make a small contribution to the growth of GDP. For example, CBO expects federal grants to states and localities, payments to health care providers arising from the expansion of Medicaid, and payments to individuals resulting from the health care subsidies provided under the Affordable Care Act (ACA) to increase relative to GDP, thus boosting overall spending. In addition, various tax provisions (mainly bonus depreciation allowances) that expired at the end of 2013 were extended retroactively in December 2014, thus reducing businesses' tax payments more this year than in 2014 and helping boost investment by some businesses.

From 2016 through 2019, various changes in the federal budget and in fiscal policy will reduce aggregate demand. The economic stimulus provided by the automatic stabilizers in the federal budget (the automatic reductions in revenues and increases in outlays that occur when the economy weakens) will continue to wane somewhat as the economy improves and therefore will provide a smaller boost to aggregate demand.[28] Beginning in 2016, collections of corporate and individual income taxes are projected to rise relative to GDP largely because of the expiration, at the end of 2014, of bonus depreciation and certain other tax provisions, which reduces investment. (For its current-law projections, CBO assumes that those expired provisions are not extended.) In addition, rising income will push some taxpayers into higher tax brackets over time, which will modestly reduce their spending as well as their incentive to work, thus reducing the supply of labor.

The ACA will also affect the labor market in the coming years and thereby affect output.[29] The largest impact of the ACA on the labor market, especially as overall employment conditions improve, will be that some provisions of the act raise effective tax rates on earnings and thus reduce the amount of labor that some workers choose to supply. That effect occurs partly because the health insurance subsidies that the act provides through the expansion of Medicaid and the exchanges are phased out for people with higher income, creating an implicit tax on the additional earnings of some people, and partly because the act directly imposes higher taxes on the labor income of other people.

28. All else being equal, automatic stabilizers affect aggregate demand because they are changes in the amount of taxes that households and businesses pay and the transfer payments that households receive. The change in aggregate demand, in turn, affects businesses' decisions about whether to increase production and hire workers, further affecting income and demand. For additional discussion of the automatic stabilizers, see Frank Russek and Kim Kowalewski, *How CBO Estimates the Automatic Stabilizers* (Congressional Budget Office, forthcoming).

29. For more information on the effects of the ACA, see Congressional Budget Office, *The Budget and Economic Outlook: 2014 to 2024* (February 2014), Appendix C, www.cbo.gov/publication/45010. A more recent analysis of the effects of repealing the ACA includes updated information; see Congressional Budget Office, *Budgetary and Economic Effects of Repealing the Affordable Care Act* (June 2015), www.cbo.gov/publication/50252.

Monetary Policy and Interest Rates

CBO expects that, over the next few years, the Federal Reserve will gradually reduce the extent to which monetary policy supports the growth of aggregate demand as the economy improves and as the rate of inflation approaches the Federal Reserve's goal of 2 percent. In CBO's forecast, the federal funds rate—the interest rate that financial institutions charge each other for overnight loans, which has been near zero since the end of 2008—rises to about 0.2 percent in the fourth quarter of 2015 and to 2.4 percent in the fourth quarter of 2017, before settling at 3.7 percent in the second quarter of 2019. CBO's forecast for the federal funds rate is roughly consistent with the forecasts by Federal Reserve officials but also takes into account the path for interest rates implied by prices in the futures market for federal funds, which points to lower rates (see Figure 2-2, top panel).[30] CBO projects that the interest rate on 3-month Treasury bills will begin to rise from nearly zero in the fourth quarter of 2015 and then increase to 2.2 percent by the end of 2017 before settling at 3.4 percent by the second quarter of 2019 (see Figure 2-2, bottom panel).

According to CBO's projections, the interest rate on 10-year Treasury notes will rise from 2.5 percent in the fourth quarter of 2015 to 3.9 percent at the end of 2017 and then to 4.2 percent by the end of 2019 (before settling at 4.3 percent at the end of 2020). That increase will reflect continued improvement in economic conditions as well as the expected rise of short-term interest rates. Although long-term rates are expected to rise, several factors, which are detailed below, will keep real interest rates from rising to levels that prevailed before the 2007–2009 recession (see "The Economic Outlook for 2020 Through 2025").

In CBO's projections, the interest rate on 10-year Treasury notes stabilizes a year later than the rate on 3-month Treasury bills because of the influence of the Federal Reserve's large portfolio of long-term assets. The Federal Reserve has indicated it will begin to gradually reduce its holdings of long-term assets after it starts raising the federal funds rate; the exact timing will depend on economic and financial conditions and the economic outlook. CBO projects that those holdings will start to decline in 2016, but they will take many years to fall to historical levels.

Contributions to the Growth of Real GDP

CBO expects the growth of real GDP from 2015 through 2019 to be driven largely by consumer spending and by both business and residential investment (see Figure 2-3). On net, purchases by the federal government and state and local governments are projected to have a small positive effect on the growth of GDP through 2019. In contrast, net exports will restrain growth in 2015 and 2016, although they will contribute slightly to growth thereafter, CBO projects.

30. As of August 19, prices in the futures market indicate that market participants expect the federal funds rate for 2017 to be 0.2 percentage points lower than they did when CBO completed the forecast on July 7.

Consumer Spending. In CBO's estimation, consumer spending on goods and services will be an important contributor to the growth of output through 2019. In real terms, spending on consumer goods and services is projected to grow at an average annual rate of 2.8 percent both this year and next year, as measured from the fourth quarter of one calendar year to the fourth quarter of the next. Because consumer spending accounts for about two-thirds of GDP, that projection means consumer spending will contribute 1.9 percentage points to the projected growth rate of real GDP this year and in 2016 (see Figure 2-3). CBO estimates that consumer spending will grow more slowly in later years and contribute about 1½ percentage points to the growth rate of output each year from 2017 through 2019.

CBO anticipates that consumer spending in the next few years will be bolstered largely by faster growth in income and wealth. The agency estimates that real disposable (after-tax) personal income will grow at an average annual rate of 2.8 percent between 2015 and 2019 after averaging 1.6 percent since the end of the recession. That faster growth largely reflects faster projected growth in real labor compensation, which results from an improving labor market (see Figure 2-4). The expected growth of real disposable personal income through 2017 also reflects CBO's projection of continued growth in transfer payments to households by federal, state, and local governments.[31] In addition, a sharp drop in energy prices since mid-2014 boosted consumers' purchasing power and should support consumer spending later in 2015 and in 2016, as households appear to have delayed spending some of the windfall from lower energy prices. Also, CBO expects that household wealth will be bolstered by continuing growth in house prices.

Another set of factors supporting consumer spending in the next few years, in CBO's view, will be continued improvements in households' creditworthiness and in the availability of credit. Delinquency rates on consumer loans continue to fall and by some measures are at historically low values. The number of households with home mortgages that are underwater (that is, the outstanding loan balance is greater than the market value of the mortgaged property) also continues to fall. The Federal Reserve's survey of senior loan officers indicates that, over time, banks are becoming more willing to extend consumer credit and on slightly more favorable terms. The strengthening labor market and healing real estate market are expected to continue to improve the creditworthiness of households.

Business Investment. CBO expects investment by businesses—which consists of fixed investment (investment in equipment, nonresidential structures, and intellectual property products) and investment in inventories—to be a key contributor to the growth of real

31. Transfer payments by governments are those payments for which no goods or services are required in return. Federal transfer payments include Social Security and unemployment benefits, as well as payments for health care programs, such as Medicaid. Expanding enrollments in Medicaid and in subsidized individual insurance policies purchased through exchanges contribute to the projected increases in transfer payments.

GDP over the next few years. In the first half of 2015, overall fixed investment by businesses grew slowly in real terms because falling energy prices prompted a reduction of investment in mining structures and equipment. However, CBO estimates that the reduction in mining investment will end later this year, so that real business investment will grow by 1.5 percent in 2015 as a whole and by 6.3 percent in 2016, before slowing in subsequent years. Real business investment, as a consequence, is expected to contribute only 0.2 percentage points to the growth rate of real GDP in 2015, but 0.8 percentage points in 2016, and 0.7 percentage points in 2017 (see Figure 2-3).

Business investment is still in the midst of a cyclical recovery and expansion. Overall investment is currently close to the amount needed to replace depreciating capital and provide for the growth of potential GDP, although some categories still appear low relative to that amount. However, across all categories, businesses also will seek to make up for investments that they did not undertake during the recession; that effort will push up business investment over the next few years (see Figure 2-4). In addition, CBO expects mining investment to begin growing again by the end of 2015 as oil prices begin to rise. Although investment in inventories falls during recessions and rises during economic recoveries, it has already rebounded from the recession; therefore, CBO expects that it will not be a source of further growth. In addition, in CBO's forecast, rising interest rates will exert some downward pressure on investment, but not enough to offset the influence of the ongoing economic expansion.

Growth of investment in the near term will be concentrated in categories that have historically responded in a strong but delayed manner during an economic recovery and expansion—investment in structures and equipment. Growth is expected to be strongest in investment in nonmining structures because such investment is still low relative to its historical relationship to potential GDP. Moreover, national measures of vacancy rates for offices and industrial space have fallen to relatively low levels. Investment in equipment is also expected to be strong as businesses attempt to make up for investment that was not carried out or that was postponed over the past six years.

Residential Investment. CBO expects all major components of residential investment—single-family construction, multifamily construction, residential improvements, and Irs' commissions and other ownership transfer costs—to grow rapidly in real terms over the next few years, even as mortgage rates begin to rise. However, the small size of the sector will limit its contribution to the growth of real GDP. In CBO's forecast, residential investment grows at an annual average rate of 11 percent in the second half of 2015, after growing by 8 percent in the first half. Such investment will grow by 13 percent in 2016 and by 11 percent in 2017, in CBO's estimation, before slowing in subsequent years. Given that outlook, residential investment will contribute 0.3 percentage points to the growth rate of real GDP in 2015, 0.5 percentage points in 2016, and 0.4 percentage points in 2017 (see Figure 2-3).

CBO anticipates that three factors will contribute to the solid growth in residential investment—household formation, the demand for replacement housing units, and mortgage lending standards:

- More than 1.6 million new households were formed in the 12 months that ended in June, compared with fewer than 600,000 per year over the previous eight years. CBO expects that an average of 1.2 million new households will be formed per year over the 2015–2019 period (see Figure 2-4).

- CBO expects that nearly 300,000 starts per year are needed to replace obsolete housing units. Together, CBO's estimates of future household formation and replacement demand are consistent with housing starts of 1.6 million per year over the 2015–2019 period, many more than the current 1.2 million.

- Mortgage lending standards are loosening, although they remain tighter than they were before the recession.

Evidence that those factors will translate into increased investment in the second half of 2015 can be seen in sales of new single-family homes and permits for multifamily units, which have both increased substantially this year.

CBO anticipates that stronger growth in the demand for housing will put upward pressure on house prices. CBO projects that house prices—as measured by the Federal Housing Finance Agency's price index for home purchases—will increase by 3.6 percent (on a fourth-quarter-to-fourth-quarter basis) in 2015 and by about 2.3 percent per year, on average, over the 2016–2019 period, after rising by 5.0 percent in 2014. That outlook accounts for the projected increase in the supply of housing units, which is expected to temper the price gains from stronger housing demand.

Government Purchases. CBO projects that, in real terms, purchases of goods and services by governments at the federal, state, and local levels (the portion of government spending directly included in GDP) will contribute a small positive amount to the growth rate of output over the next few years—about 0.1 percentage point per year (see Figure 2-3). For 2015, CBO estimates that such purchases will rise by about one-half of one percent, on a fourth-quarter-to-fourth-quarter basis, compared with a slightly smaller increase in 2014 and decreases in each of the four years before 2014. The projected growth of the real value of overall government purchases in 2015 is attributable to an increase of 1.2 percent in state and local purchases, which offsets an estimated decline of roughly 1 percent in federal purchases. From 2016 through 2019, real federal purchases are projected to continue to decline, but at a slower rate than in 2015, and real state and local purchases, on average, are expected to grow at roughly the same pace as in 2015.

The relatively strong growth of real state and local purchases that CBO projects reflects the agency's view that the finances of those jurisdictions will continue to improve. The recession, the subsequent slow recovery, and falling house prices strained state and local finances, resulting in four years of real declines in state and local purchases before 2014. With improving finances, real state and local purchases grew by about 1 percent in 2014 and are expected to grow from 2015 to 2019. By contrast, CBO projects that, under current law, purchases by the federal government will fall over the next four years in real terms, constrained by the statutory caps on funding for discretionary programs.

Net Exports. CBO expects that, in real terms, net exports will continue to impose a drag on the growth of GDP in the second half of 2015 and in 2016 before contributing positively to growth in 2018 and 2019.[32] Real net exports are projected to decline by about $89 billion between the fourth quarter of 2014 and the fourth quarter of 2015; 80 percent of that decline occurred in the first half of 2015.[33] Real net exports are projected to decline by $50 billion in 2016. After 2016, however, CBO expects net exports to rise in real terms. According to CBO's projections, net exports will reduce the growth rate of GDP by 0.5 percentage points in 2015 and by 0.3 percentage points in 2016 before rebounding and adding 0.3 percentage points to GDP growth by 2019 (see Figure 2-3).

CBO's projection of net exports is based partly on important differences in the expected pace of economic activity in the United States and among the nation's leading trading partners (see Figure 2-4). CBO forecasts that economic growth in the United States during the second half of 2015 and in 2016 will exceed that of its major trading partners, on average, but will fall below the growth of those foreign economies in ensuing years.[34] Consequently, over the next year and a half, imports will rise more than the nation's exports, reducing net exports. Beginning in 2017, however, faster economic growth among the nation's major trading partners is expected to reverse that trend, increasing net exports in 2018 and 2019.

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

33. The dockworkers' strike at West Coast ports disrupted trade flows during the first quarter of 2015. The strike delayed the processing of imports to the United States, thereby understating the U.S. trade deficit over the first two months of the year. However, once the strike ended, backlogged imports were finally processed and trade flows slowly normalized. Most analysts estimate that, on net, the dock strike had a minimal effect on the U.S. net export position by the time the effects of the strike dissipated (toward the end of the first half of 2015).

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

The projected weak growth of foreign economies over the next year and a half is attributable to expected developments in the economies of three of the United States' largest trading partners. In 2015 and 2016, the growth of real GDP in both Canada and Mexico, two of the country's most important trading partners (by volume of trade), is projected to be slow because lower energy prices will weigh on their relatively large energy sectors. At the same time, growth in China's economy is expected to continue to weaken as that country adjusts to slower growth in investment spending.[35] But CBO expects that the modest rebound in the growth of output of countries in the euro zone, which began in early 2015, will continue, partially offsetting the relatively slow economic growth in Canada, Mexico, and China. CBO anticipates that, once the economic recovery in the euro zone strengthens and the Canadian and Mexican economies improve (as energy prices rise), the average rate of foreign economic growth will rise relative to that in the United States, eventually exceeding domestic growth beginning in 2017.

CBO's projection of net exports is also based on the significant increase in the exchange value of the dollar in 2014 and in the first quarter of 2015 and on the agency's forecast of a stable exchange value through mid-2016, followed by a decrease in subsequent years. In the past year, the trade-weighted U.S. dollar has appreciated by approximately 12 percent. That appreciation was partly caused by a decline in long-term interest rates among the United States' leading trading partners, particularly in Europe and Asia, and by a deteriorating outlook for foreign growth. Those developments increased the exchange value of the dollar by boosting the relative demand for dollar-denominated assets. Over the second half of 2015 and 2016, CBO expects the rise in growth in the United States relative to that among the nation's trading partners to continue to contribute to rising interest rates in the United States relative to those abroad. That widening divergence in interest rates is projected to support a strong and stable value of the dollar and contribute to weaker net exports through 2016. As growth in foreign economies strengthens over time, however, CBO expects foreign central banks to tighten their monetary policies gradually, which will lower the exchange value of the dollar and contribute to stronger net exports in 2017 and beyond.

The Labor Market

The labor market improved significantly in 2014 and continued to improve in the first half of 2015. Several developments reflected that improvement: From the fourth quarter of 2014 to the second quarter of 2015, the unemployment rate continued to decline; growth of nonfarm jobs continued at a pace that exceeded its average from

35. Recent volatility in Chinese equity markets should not have a substantial effect on the U.S. economy because U.S. investors have little exposure to Chinese equity markets (both because those markets are a small part of the global financial system and because capital controls limit outside investment in China).

the previous five years; and the labor force participation rate remained stable despite downward pressure on that rate from the aging of the population.

Although labor market conditions have improved notably over the past year, CBO estimates that slack in the labor market still remains but will diminish over the next few years. Nevertheless, the strengthening economy will lead to continued labor market improvements, and CBO estimates that the slack will largely be eliminated by 2017.

Slack in the Labor Market. Slack in the labor market refers to underused labor resources arising from weak demand for labor during periods when output is below its potential. Assessing the amount of slack is difficult, but in CBO's view, the key measures of slack in the labor market include the following:

- The extent to which the labor force participation rate (the percentage of people in the civilian non-institutionalized population who are at least 16 years old and are either working or actively seeking work) is below the *potential* labor force participation rate;
- The extent to which the unemployment rate is higher than the current natural rate of unemployment; and
- The extent to which the share of part-time workers who would prefer full-time work is unusually high.

A direct consequence of persistent slack in the labor market is that wages continue to grow more slowly than they did before the recession. As slack diminishes, CBO expects that increased competition for fewer available workers will lead firms to begin increasing wages more rapidly in order to attract workers.

Even if some elements of labor market slack return to their potential or natural values, a certain amount of slack could still remain. Currently, the unemployment rate is close to CBO's estimate of the natural rate; however, the labor force participation rate remains notably below CBO's estimate of its potential level, and the share of part-time workers who would prefer full-time work remains high. If the unemployment rate were to reach or fall below its natural rate but the labor force participation rate remained below its potential and the amount of involuntary part-time work remained high, for example, some slack would still be present in the labor market.

Labor Force Participation. The labor force participation rate fell from 65.9 percent in the fourth quarter of 2007, at the beginning of the recession, to 62.8 percent in the second quarter of 2014. It has since stabilized and remains 0.9 percentage points below CBO's estimate of the potential rate.

Three factors account for the roughly 3 percentage-point decline in the labor force participation rate from the end of 2007 to 2015. By CBO's estimate, roughly 1 percentage point of the fall stems from cyclical weakness in employment prospects

and wages, which historically has long-lasting effects on participation. That weakness is one component of slack in the labor market, and it should diminish over time as the economy continues to move toward its potential. Another roughly one and one-half percentage points stems from the aging of the population. Finally, a set of longer-term trends within cohorts accounts for the roughly one-half percentage point of the remaining difference. Those longer-term trends include, for example, the decline in labor force participation of young workers since 2001, a reduction in participation by workers who became discouraged by the persistent weakness in the labor market and permanently dropped out of the labor force, and a reduction in participation by some workers as a result of the ACA.

Unemployment. The unemployment rate was 5.4 percent in the second quarter of 2015, roughly one-half of a percentage point above the unemployment rate at the beginning of the recession (at the end of 2007). That difference, in CBO's view, stems from both cyclical and structural factors. CBO estimates that most of that difference reflects cyclical weakness in the economy because the unemployment rate is about one-third of a percentage point above the natural rate of unemployment. The remainder of the difference (which has raised CBO's estimate of the natural rate of unemployment) is attributable to structural factors associated with the erosion of skills and stigma that can stem from long-term unemployment (that is, unemployment that lasts for at least 27 consecutive weeks). Much of the effect of those structural factors on the unemployment rate has dissipated. Nevertheless, the long-term unemployment rate remains nearly three-quarters of a percentage point above the prerecession rate of 0.9 percent (see Figure 2-5). CBO expects that some of the long-term unemployed will continue to have a hard time finding stable employment. However, the effect of long-term unemployment on the natural rate will diminish over time as affected people reach retirement age or have more opportunity to find stable employment.

The still-elevated unemployment rate and cyclically low labor force participation rate have resulted in substantially lower employment in 2015 than would have been the case if the economy was at its potential. If the unemployment rate had returned to the level recorded in December 2007, and if the labor force participation rate had equaled its potential rate, there would have been roughly 2¾ million more people employed in the second quarter of 2015, CBO estimates. The depressed labor force participation rate accounts for roughly three-fourths of the shortfall, and the elevated unemployment rate accounts for roughly one-fourth (see Figure 2-6). The equivalent shortfall in employment in the second quarter of 2014 amounted to about 4¾ million people, nearly equally reflecting both elevated unemployment and cyclically low labor force participation. At its peak in 2009, the shortfall was 9½ million people, by CBO's estimate.

Part-Time Employment. Another component of labor market slack is the number of people employed but not working as many hours as they would like. The incidence of part-time employment for economic reasons (that is, part-time employment among

workers who would prefer full-time employment) remains significantly higher than it was before the recession (see Figure 2-7). About 4.5 percent of all workers were employed part time for economic reasons in the second quarter of 2015, 1 percentage point above the rate in the fourth quarter of 2007. The continued large share of part-time workers is one reason that the Bureau of Labor Statistics' U-6 measure of underused labor stood at 10.7 percent in the second quarter of 2015, down from a peak of 17.1 in the fourth quarter of 2009 but still more than 2 percentage points above its level before the recession.[36]

Indicators of Labor Market Slack. Continued weak growth in hourly rates of labor compensation (that is, wages, salaries, and benefits) is one important indicator that notable slack remains in the labor market. Firms have less incentive to increase compensation when there is a large pool of underemployed labor resources.

Labor compensation continues to grow considerably more slowly than it did before the recession, according to most measures. As indicated by the employment cost index for workers in private industry (which measures the change in the cost of labor, holding employment shifts across occupations and industries fixed), hourly rates of labor compensation grew at an average annual rate of 1.9 percent in the year ending in the second quarter of 2015. That rate was 3.1 percent in 2007, near the beginning of the last recession (see Figure 2-8). Another measure of labor compensation—the average hourly earnings of production workers and nonsupervisory workers on private nonfarm payrolls, which include only wages—grew at an average annual rate of 2.0 percent in the 12 months ending in the second quarter of 2015, about the same rate recorded in 2014 but less than the rate in 2007.

Two other indicators of slack in the labor market—the rate at which job seekers are hired and the rate at which workers are quitting their jobs (as a fraction of total employment)—have improved considerably and are approaching their levels recorded before the recession. The increase in both rates suggests that employers are gaining confidence in the strength of the economy and that workers are more confident about finding new jobs after quitting previous jobs.

Difficulties in Measuring Slack in the Labor Market. Considerable difficulties arise when assessing the amount of slack in the labor market, especially under current circumstances. For example, in projecting potential labor force participation, CBO estimated how many people permanently dropped out of the labor force because of

36. The U-6 measure combines the number of unemployed people, the number of people who are employed part time for economic reasons, and the number of people who are "marginally attached" to the labor force (that is, who are not currently looking for work but have looked for work in the past 12 months). It divides the total by the number of people in the labor force and the number of marginally attached workers. The number of workers who are marginally attached to the labor force is also larger than it was before the recession—about 2.0 million people in the second quarter of 2015, up from about 1.4 million in the fourth quarter of 2007.

such factors as long-term unemployment. However, CBO may have underestimated or overestimated that number, and therefore potential labor force participation could be lower or higher than the agency has concluded.

Similarly, CBO's estimate of the natural rate of unemployment may be too high or too low. Currently, CBO's estimate of the increase in the natural rate since before the recession incorporates the agency's estimate of the effect that stigma associated with long-term unemployment has on that rate. That stigma effect has dissipated over the past year, in CBO's judgment, as the long-term unemployment rate continues to fall and the people who have been unemployed for a long time find jobs. CBO may have overstated the effect of that decrease in stigma on the natural rate. Conversely, CBO may have understated the downward pressure that demographics (specifically, the aging of the population) have on the natural rate. A higher natural rate would suggest more upward pressure on wages for any given unemployment rate; a lower natural rate would suggest less upward pressure on wages and more slack in the labor market at the current unemployment rate.

The Labor Market Outlook Through 2019. The growth of output this year will increase the demand for labor, leading to solid employment gains and a further reduction in labor market slack, according to CBO's estimates. The unemployment rate is projected to fall to 5.2 percent in the fourth quarter of 2015 and to edge down to 5.0 percent by 2017. CBO projects that the decline in the unemployment rate will be tempered somewhat because the agency expects the stronger labor market will draw more workers into the labor force. CBO also expects diminished slack in the labor market to raise the growth of hourly labor compensation.

CBO's labor market projections for 2018 and 2019 are largely based on a transition between the agency's projections for the next few years and projections for later years, when the relationship between the unemployment rate and the natural rate of unemployment is generally expected to match its historical average. Therefore, CBO projects a slightly higher unemployment rate—5.2 percent—in the fourth quarter of 2019.

Employment. CBO expects nonfarm payroll employment to rise by an average of about 225,000 jobs per month in 2015. The average increase is projected to slow in 2016 and 2017 to 140,000 jobs per month, as the labor market tightens. That projection is also consistent with expected improvement in productivity growth.

According to CBO's estimates, the number of people employed as a percentage of the population will increase over the coming year and then will decrease slightly through the end of 2019, leaving it close to its current level of about 59 percent (see Figure 2-9). That percentage is well below the levels seen in the two decades before the recent recession, a difference that primarily reflects long-term trends pushing down labor force participation—above all the aging of baby boomers and their transition to retirement.

Labor Force Participation. The rate of labor force participation has stabilized over the past year at 62.8 percent, and CBO expects it to remain at that rate into 2016 (see Figure 2-10). That projection is the net result of a number of offsetting factors.

Among the factors that will raise participation is the cyclical improvement in the labor market. Some workers who left the labor force temporarily, or who stayed out of the labor force because of weak employment prospects, will enter it in the next few years as demand for labor continues to strengthen. Indeed, recent data show a willingness on the part of individuals to enter the labor force as employment prospects have improved. CBO estimates that other workers will choose to stay in the labor force as a result of the improving economy and rising compensation rather than drop out.

A number of factors, however, will dampen participation. Lingering effects of the recession and ensuing weak recovery continue to push down participation. Although many workers who experienced long-term unemployment as a result of the deep recession have subsequently become employed, a notable fraction also left the labor force and remain categorized as not participating in the labor force. Federal tax and spending policies—in particular, certain aspects of the ACA and also the structure of the tax code, wherein rising income pushes some people into higher tax brackets—will also tend to lower the participation rate over the next several years. Additionally, downward trends in the participation rates of younger workers have slightly pushed down the overall participation rate.

The most important factor pushing down labor force participation is the aging of the baby-boom generation, which is moving a cumulatively greater fraction of the population out of their prime working-age years and into retirement. By 2017, CBO expects the downward pressure on the participation rate that is attributable to the aging of the population will prevail, steadily pushing down the overall participation rate. However, that effect will be slightly offset by the baby-boom generation's unusually strong attachment to the labor force in traditional retirement years, which will push up the participation rate among older workers. As a result of those factors, CBO expects the labor force participation rate to fall by roughly one-quarter of one percentage point during 2017 (to 62.6 percent) and an additional one-half of one percentage point by 2019.

The Unemployment Rate. For two reasons, CBO expects the unemployment rate to decline from an average of 5.4 percent in the second quarter of 2015 to 5.0 percent in 2017. First, stronger demand for labor will boost employment and close the gap between the unemployment rate and the natural rate. Second, CBO expects the natural rate to fall slightly with the continued fading of the effects of stigma and erosion of skills among the long-term unemployed as increasing demand for labor creates jobs for those people and they eventually gain more stable employment.

Labor Compensation. Although labor compensation has grown slowly in recent years, CBO projects that growth over the next several years will be stronger than in 2014, as the demand for workers continues to rise and slack in the labor market diminishes.

Historically, growth in labor compensation has been among the last of the labor market indicators to recover following a recession, picking up only when little slack was left in the labor market. As slack in the labor market diminishes and firms must increasingly compete for a shrinking pool of unemployed or underemployed workers, the growth in hourly compensation will pick up, CBO projects. That increase in compensation will boost labor force participation and thus the number of available workers, thereby moderating the overall increase in the rate of growth of compensation.

CBO expects the employment cost index for the compensation of workers in private industries to increase at an average annual rate of 3.4 percent from 2015 through 2019, compared with an average of 2.1 percent from 2010 through 2014. The growth of other measures of hourly compensation, such as the average hourly earnings of production and nonsupervisory workers in private industries, is similarly expected to increase.

Inflation

CBO anticipates that prices will rise at a modest pace over the next few years, consistent with its projection of the remaining—but diminishing—slack in the economy and with widely held expectations for low and stable inflation. In the first half of this year, consumer price inflation fluctuated dramatically because of changes in the price of crude oil and hence in consumer energy prices. In particular, the price of a major variety of crude oil, West Texas Intermediate, fell from $73 per barrel in the fourth quarter of 2014 to $49 per barrel in the first quarter of 2015 and then rose to $58 per barrel in the second quarter. Similarly, consumer energy prices fell early in the year and then partially rebounded. CBO expects crude oil prices to rise gradually later this year, largely in response to rising global demand for oil, which will lead to gradual increases in consumer energy prices.[37] The overall PCE price index is projected to rise by 0.6 percent in 2015 as a whole and by 1.8 percent in 2016 (see Figure 2-11). By contrast, the core PCE price index, which excludes food and energy prices, is projected to increase by 1.4 percent in 2015 and by 1.7 percent in 2016.

With slack in the economy diminishing, the rate of inflation as measured by the overall PCE price index is projected to increase to 2.0 percent in 2017 and to remain at that rate through 2025. That rate, which is equal to the Federal Reserve's longer-term goal, reflects CBO's judgment that consumers and businesses expect inflation to stay at 2.0 make changes in monetary policy to prevent inflation from exceeding or falling short of that goal for a prolonged period. The agency has a similar projection for the core PCE price index, but that index does not reach 2.0 percent until 2018.

37. Since CBO's economic projection was completed in early July, the price of West Texas Intermediate has fallen to $41 per barrel (as of August 19). That decline and the prices implied by futures markets point to lower oil prices in the near term than CBO projects.

The consumer price index for all urban consumers (CPI-U) and its core version, which excludes food and energy prices, are expected to increase a little more rapidly than their PCE counterparts because of the different methods used to calculate them and because housing rents play a larger role in the consumer price indexes. CBO projects that the difference between inflation as measured by the CPI-U and inflation in 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 2020 Through 2025

CBO's economic projections for 2020 through 2025, unlike its projections for the next several years, are not based on forecasts of cyclical developments. Rather, they are based on projections of underlying trends in variables such as the growth of the labor force, of hours worked, and of productivity. The projections take into account a variety of factors, including historical patterns in the nonfarm business sector and the rest of the economy; historical and projected changes in demographic patterns; the response of investment to those and other trends; CBO's estimates of the persistent effects of the 2007–2009 recession and subsequent weak recovery; and federal tax and spending policies under current law. Future developments will undoubtedly differ from what those underlying trends imply, so CBO's projections should be interpreted as the average of likely outcomes, given currently available information.

CBO projects that real GDP will be about one-half of one percent below its estimate of real potential GDP, on average, during the 2020–2025 period (see Figure 2-12). That projection reflects CBO's estimate that output has been roughly that much lower, on average, over the seven complete business cycles (measured trough-to-trough) that occurred between 1961 and 2009.[38] Consistent with the average gap between actual and potential GDP, CBO projects that the unemployment rate will be slightly higher than its natural rate, on average, during the 2020–2025 period, as well.

In CBO's projections for the 2020–2025 period:

- Both actual and potential real GDP grow at an annual average of 2.1 percent per year.
- The unemployment rate remains stable at 5¼ percent, slightly above the natural rate of 5.0 percent.

38. CBO estimates that, over the course of each of the five complete business cycles that have occurred since 1975, real GDP was more than one-half of one percent below potential GDP, on average. The term "business cycle" describes fluctuations in overall economic activity accompanied by fluctuations in the unemployment rate, interest rates, income, and other variables. Over a business cycle, economic activity rises to a peak and then falls until it reaches a trough, whereupon it starts to rise again, defining a new cycle. Business cycles are irregular, varying in frequency, magnitude, and duration.

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

- The interest rates for 3-month Treasury bills and 10-year Treasury notes average 3.4 percent and 4.3 percent, respectively.

Potential Output

CBO projects that real potential output over the 2020–2025 period will grow by 2.1 percent per year, on average. That figure is substantially lower than the agency's estimate of the rate of growth that occurred during the business cycles from 1981 to 2007—3.1 percent per year, on average (measured from peak to peak). However, that projected rate of growth is substantially higher than the growth in potential output during the current business cycle so far (that is, from 2008 through the end of 2014)—1.5 percent per year, on average. Those differences reflect changes in the growth of potential hours worked, the growth of capital services, and the growth of potential productivity—primarily in the nonfarm business sector, which represents roughly three-quarters of total output. In addition, CBO's projection of potential output over the 2020–2025 period is lower than it would have been if the 2007–2009 recession had not occurred. According to CBO's estimates, the recession and the ensuing slow recovery have weakened the factors that determine potential output (labor supply, capital services, and productivity) for an extended period.

Overall Growth in Output. The main reason that potential output is projected to grow more slowly than it did in the earlier business cycles is that CBO expects growth in the potential labor force (the labor force adjusted for variations caused by the business cycle) to be much slower than it was earlier (see Table 2-2). Growth in the potential labor force will be held down by the ongoing retirement of the baby boomers; by a relatively stable labor force participation rate among working-age women, after sharp increases from the 1960s to the mid-1990s; and by federal tax and spending policies set in current law, which will reduce some people's incentives to work.

The primary reason that CBO expects potential output to grow more quickly than it has over the past half-dozen years is that the agency expects the potential productivity of the labor force to grow more quickly. In CBO's projections, potential productivity grows at an annual average rate of 1.6 percent from 2020 through 2025, which would be close to its average rate of growth during the business cycles that occurred between 1981 and 2007 and substantially higher than the 1.0 percent average rate that CBO estimates for the period from 2008 through 2014. That projected increase, in turn, mostly reflects CBO's assessment of potential total factor productivity, or TFP—which is the average real output per unit of combined labor and capital services—in the nonfarm business sector. That measure has grown unusually slowly since the onset of the recession in 2007, but CBO estimates that it will accelerate during the next few years, returning to its average rate of growth during the years before the recession.

The Nonfarm Business Sector. In the nonfarm business sector, CBO projects, potential output will grow at an average rate of 2.6 percent per year over the 2020–2025 period. Like the projected growth rate of overall potential output, that growth rate would be lower than it was during the business cycles from 1981 through 2007 but faster than it has been since the beginning of 2008.

Potential hours worked in the nonfarm business sector are projected to grow at an average annual rate of 0.6 percent from 2020 through 2025—more slowly than they did in earlier periods (particularly from 1982 through 2001) but more quickly than they did from 2008 through 2014. The growth in hours projected for that sector is expected to be faster than it was during the most recent period despite the projected slow growth of the overall potential labor force. CBO expects faster growth in hours worked because other sectors—including owner-occupied housing, nonprofit institutions serving households, and state and local governments—are expected to become a smaller share of the economy.[39]

Capital services in the nonfarm business sector are also projected to grow more slowly from 2020 through 2025—at an average annual rate of 2.5 percent—than they did during the business cycles from 1981 through 2007, primarily because of the slower growth of potential hours worked. But the projected growth of capital services from 2020 through 2025 is somewhat faster than such growth has been since 2007, reflecting projected increases in investment. The growth of capital services has been restrained since 2007 because of weak investment, which itself was a response to the cyclical weakness of demand; in the long run, however, the growth of capital services depends mostly on the growth of hours worked and on the rate of increase in productivity.

CBO projects that the growth of potential TFP in the nonfarm business sector between 2020 and 2025 will be slightly below its average of 1.5 percent between 2002 and 2007 (after the effects of a temporary surge in the early 2000s are excluded). That is, CBO projects the growth rate of potential TFP to be essentially what recent history, before the recession, suggests. That approach is similar to the one that CBO uses to project trends in other factors that determine the growth of potential output. The projected growth rate is also close to the average observed during the business cycles from 1981 through 2007, a longer period that witnessed marked swings in the growth of TFP.[40] However, the projected rate is more rapid than the estimated average annual rate of growth of 1.0 percent from 2008 to 2014, as this chapter discusses below.

39. The output of the state and local government sector includes only the compensation of state and local employees and the depreciation of equipment, structures, and intellectual property products owned by state and local governments. Other purchases by state and local governments—such as new capital investments, goods that are not capital investments, and contracted services—are part of the output of other sectors of the economy, primarily the nonfarm business sector.

40. During that period, potential TFP grew at an average annual rate of 1.5 percent if the surge in the early 2000s is taken into account and at a rate of 1.4 percent if it is not, CBO estimates.

Lingering Effects of the Recession and Slow Recovery. Incorporated in the projection of growth in potential output is CBO's expectation that each of the factors that determine potential output—potential labor hours, capital services, and potential TFP—will be somewhat lower through 2025 than they would have been if not for the recession and slow recovery.

Potential labor hours will be lower because persistently weak demand for workers has led some people to weaken their attachment to the labor force permanently. For example, some people who left the labor force after experiencing long-term unemployment are not expected to return to full-time, stable employment over the next decade. As a result, the labor force participation rate will be slightly lower—and hence the labor force slightly smaller—than it would have been otherwise.

Capital services will also be lower than they would have been if not for the recession and slow recovery for several reasons. Fewer workers require proportionately less capital, all else being equal, and lower TFP tends to reduce investment as well. The economic weakness has also affected capital services because of the plunge in investment during the recession, although that effect is expected to dissipate by 2025. In addition, CBO estimates that the sharp increase in federal debt—which resulted not only from the automatic stabilizers but also from changes in fiscal policies that were implemented in response to the weak economy—will crowd out additional capital investment in the long term. (CBO has not quantified the individual effect of each of those developments on capital formation in its current projection.)

Finally, in CBO's judgment, the protracted weakness in aggregate demand and the large amount of slack in the labor market have lowered—and will continue to lower—growth in potential TFP by reducing the speed and efficiency with which resources are allocated to their most productive uses, slowing the rate at which workers gain new skills, and restraining businesses' spending on research and development.

The effects of the recession and slow recovery on those three factors are difficult to quantify with any precision. For instance, significant uncertainty surrounds estimates of how much of the recent weakness in TFP can be traced to the effects of the recession and slow recovery on potential TFP and how much reflects other developments in the economy. (The rate of improvement in information technology may have begun to slow a few years before the recession began.) In addition, the effects of the recession and slow recovery on the labor force, capital services, and productivity are interrelated; for example, a smaller potential labor force implies a smaller need for firms to invest in capital services.

The Labor Market

CBO projects that the unemployment rate will reach its long-run relationship with the natural rate and remain steady at 5.2 percent from the fourth quarter of 2019 through the fourth quarter of 2025, roughly one-quarter of a percentage point above CBO's

estimate of the natural rate of 5.0 percent. The labor force participation rate is expected to fall from about 62 percent in 2020 to about 61 percent in 2025 (see Figure 2-10).

The projected difference between the unemployment rate and the natural rate during the 2020–2025 period is not based on a forecast of particular cyclical movements in the economy. Rather, it is based on the observation that, on average, the unemployment rate has been roughly one-quarter of one percentage point higher than the natural rate over the 50-year period ending in 2009. The difference between the projections of the unemployment rate and the natural rate over the 2020–2025 period corresponds to the projected gap between output and potential output, as discussed above.

CBO's projection of the labor force participation rate in 2025—approximately 61 percent—is about 1 percentage point lower than the rate that the agency projects for 2020 and 5¼ percentage points lower than the rate recorded at the end of 2007. CBO estimates that roughly 4½ percentage points of the decline since 2007 is attributable to the aging of the population, as older workers tend to work less than younger workers. Roughly one-quarter of a percentage point of that decline reflects the withdrawal of some workers from the labor force in response to the most recent recession and slow recovery. The remainder of the projected fall in labor force participation stems from the reduction in some people's incentive to work as a result of the ACA and the structure of the tax code, whereby rising income pushes some people into higher tax brackets, thus reducing their incentive to supply labor.

CBO projects that labor compensation will grow at an average annual rate of 3.6 percent between 2020 and 2025. Growth in labor compensation in private industry is largely driven by developments in the nonfarm business sector; CBO's forecast of compensation in that sector is consistent with historical patterns, which are closely linked to labor productivity in that sector. Compensation per hour (as adjusted for inflation) in that sector has grown at the same rate as productivity over long periods. In the early 2000s, that relationship broke down when compensation grew more slowly; but in recent years, real compensation per hour and productivity have grown at similar rates, suggesting that the relationship has been restored. CBO expects average historical patterns to be maintained in the future—with compensation growing at about the same rate as productivity over the 2020–2025 period, after adjusting for inflation.

Inflation

In CBO's projections, inflation as measured by the PCE price index and the core PCE price index averages 2.0 percent annually over the 2020–2025 period. That rate is consistent with the Federal Reserve's longer-term goal. 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, respectively. (Differences in the ways that the two price indexes are calculated make the CPI-U grow faster than the PCE price index, on average.)

Interest Rates

CBO projects that, under fiscal policies embodied in current law, the interest rates on 3-month Treasury bills and 10-year Treasury notes will be 3.4 percent and 4.3 percent, respectively, from 2020 through 2025. CBO expects the federal funds rate to be 3.7 percent during that period.

Reflecting adjustments for inflation, as measured by the CPI-U, the projected real interest rate on 10-year Treasury notes equals 1.9 percent between 2020 and 2025. That would be well above the current real rate but more than a percentage point below the average real rate between 1990 and 2007, a period that CBO uses for comparison because it featured fairly stable expectations for inflation and no severe economic downturns or financial crises.

According to CBO's analysis, a number of factors will act to push down real interest rates on Treasury securities relative to their earlier average: slower growth in the labor force (which reduces the return on capital), slightly slower growth of productivity (which also reduces the return on capital), a greater share of total income going to high-income households (which tends to increase saving), and a higher risk premium on risky assets (which increases the relative demand for risk-free Treasury securities, boosting their prices and thereby lowering their interest rates). CBO also foresees a greater demand for long-term bonds as a hedge against possible adverse economic outcomes (such as unexpectedly low inflation), which will push long-term interest rates down relative to the period from 1990 to 2007.

Other factors will act to raise real interest rates relative to their earlier average, but not by enough to offset the factors pushing rates down: a larger amount of federal debt as a percentage of GDP (which increases the supply of Treasury securities), smaller net inflows of capital from other countries as a percentage of GDP (which reduces the supply of funds available for borrowing), a smaller number of workers in their prime saving years relative to the number of older people drawing down their savings (which tends to decrease saving and thus also reduces the supply of funds available for borrowing), and a larger share of income going to capital (which increases the return on capital assets with which Treasury securities compete).[41]

CBO also relies on information from financial markets in projecting interest rates over the long term. For example, the current interest rate on 30-year Treasury bonds implies a forecast of interest rates on shorter-term securities 30 years into the future.

41. For a more detailed discussion of the factors affecting interest rates in the future, see Congressional Budget Office, *The 2014 Long-Term Budget Outlook* (July 2014), pp. 108–109, www.cbo.gov/publication/45471.

Incorporating that information tends to reduce the interest rates that CBO projects when compared with rates implied by the analysis of factors described above.

Projections of Income

Economic activity and federal tax revenues depend not only on the amount of total income in the economy but also on how that income is divided among its constituent parts: labor income, domestic economic profits, proprietors' income, interest and dividend income, and other categories.[42] CBO projects various categories of income by estimating their shares of gross domestic income (GDI).[43] Of the categories of income, the most important components for the tax base are labor income, especially wage and salary payments, and domestic profits.

In CBO's projections, labor income grows faster than other components of GDI over the next decade, increasing its share from a revised 57 percent in 2014 to 58.5 percent in 2025 (see Figure 2-13). The projected increase in labor income's share of GDI stems primarily from an expected pickup in the growth of real hourly labor compensation, which will result both from strengthening demand for labor and from rising labor productivity.

However, CBO expects that some of the factors that have depressed labor's share of GDI since 2000 will continue during the coming decade, preventing that share from returning to its 1980–2007 average of nearly 60 percent. One factor is globalization, which has tended to move the production of labor-intensive goods and services to countries where labor costs are lower. Another factor is technological change, which may have increased returns to capital more than returns to labor.

In CBO's projection, domestic economic profits fall from 9.7 percent of GDI (as published in the national income and product accounts) in the second half of 2014 to 7.6 percent in 2025. That decline occurs largely because of two factors: the pickup in the growth of labor compensation and a projected increase in corporate interest payments, the result of rising interest rates.

Another measure of overall income, real gross national product (GNP), is projected to grow at an annual average of 2.3 percent per year between 2015 and 2025. Unlike the more commonly cited GDP, GNP includes the income that U.S. residents earn

42. To calculate domestic economic profits, estimates of corporations' domestic profits are adjusted 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.

43. 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. GDP was about 1 percent smaller than GDI in 2014, but CBO projects that GDP will grow slightly faster than GDI over the next decade, which will leave the gap between the two in 2025 close to its average of the past 30 years.

abroad and excludes the income that foreigners earn in this country. It is therefore a better measure than GDP of the resources available to U.S. households.

Some Uncertainties in the Economic Outlook

Significant uncertainty surrounds CBO's economic forecast, which the agency constructed to be in the middle of the distribution of possible outcomes, given the federal policies that are embodied in current law. Even if no significant changes are made to those fiscal policies, economic outcomes will undoubtedly differ from CBO's projections. Many developments—such as unforeseen changes in the housing market, labor market, business confidence, and international conditions—could cause economic growth and other variables to differ substantially from what CBO has projected.[44]

The agency's current forecast for employment and output from 2015 through 2019 may be too pessimistic. For example, if households spend their savings from lower energy prices more quickly than CBO has projected, consumer spending could increase faster than CBO projects. More consumer expenditures could lead to stronger growth in business investment, faster hiring, and greater income gains. Similarly, if household formation continues at the rapid pace of the past year or if mortgage lenders loosen lending standards faster than expected, housing investment could be stronger than CBO has forecast. Faster-than-expected economic growth abroad also could spur stronger demand for U.S. exports and lead to faster domestic growth.

Alternatively, CBO's forecast for 2015 through 2019 may be too optimistic. For example, if businesses do not respond to tighter labor markets by increasing wages and benefits, then household income and consumer spending could grow more slowly than CBO anticipates. Also, a large shift in housing demand from single-family to multifamily units would slow residential investment because multifamily units generally require less investment than single-family units. In addition, an unexpected worsening in international political or economic conditions could likewise weaken the U.S. economy by disrupting the international financial system, interfering with international trade, and reducing business and consumer confidence.

A number of factors that will determine the economy's output later in the coming decade are also uncertain. For example, the economy could grow considerably faster than CBO forecasts if the labor force grew more quickly than expected (say, because

44. For a further discussion of the inherent uncertainty underlying economic forecasts, see Congressional Budget Office, *CBO's Economic Forecasting Record: 2015 Update* (February 2015), www.cbo.gov/publication/49891. CBO regularly evaluates the quality of its economic forecasts by comparing them with the economy's actual performance and with forecasts by the Administration and the *Blue Chip* consensus. Such comparisons indicate the extent to which imperfect information and analysis—factors that affect all forecasters—might have caused CBO to misread patterns and turning points in the economy.

older workers chose to stay in the labor force longer than expected) or if productivity grew more rapidly. Similarly, lower-than-expected growth would occur if the stigma and erosion of skills that stem from elevated long-term unemployment dissipated more slowly than expected or if improving labor market conditions did not draw significant numbers of workers back into the labor force. In that case, future hours worked could be substantially fewer than CBO expects, and slower growth of the labor force would, in turn, imply less need for business investment.

The effect of income inequality on the economy is also uncertain. Economists have found mixed theoretical and empirical results on this question—some studies conclude that income inequality leads to faster growth, others suggest that it slows growth, and still others find that it has no effect on growth. As a consequence, CBO does not explicitly include the impact of changes in income inequality in its projection of economic growth. However, CBO's economic projections implicitly include some effects of income inequality to the extent that past changes in inequality have affected underlying trends in the economy. Economists continue to study the issue, and CBO will update its analysis if the research in this area provides a more definitive conclusion.

Comparison With CBO's January 2015 Projections

CBO's current economic projections differ modestly from those issued in January 2015 (see Table 2-3). Growth in real GDP is projected to be considerably slower in 2015 and slightly faster over the 2016–2025 period than CBO previously indicated, leaving real GDP in 2025 roughly unchanged. In CBO's projection, the unemployment rate is lower throughout the 2015–2025 period. In addition, CBO now expects more workers to reenter the labor force in the next few years as demand for labor continues to strengthen, boosting the rate of labor force participation in the near term relative to CBO's January projection. CBO expects inflation to be lower in 2015 and 2016 and unchanged during the years after 2016, relative to its January forecast. CBO has also lowered its projection of interest rates—through 2018 for short-term rates and throughout the projection period for long-term rates.

Output

CBO's current forecast for growth in output is only slightly different from its January forecast. Growth is projected to be slower in 2015 largely because of the weak performance of the U.S. economy during the first half of the year. That weakness resulted largely from factors that did not alter CBO's view of the underlying (or long-run) levels of consumer spending, business investment, and residential investment. Those factors include severe weather during the first quarter and a sharp drop in mining investment caused by lower oil prices. CBO expects faster growth in real labor compensation to increase consumer spending and, hence, growth in GDP slightly during the 2016–2018 period, relative to the agency's January forecast. CBO's projection of the growth of real GDP over the 2019–2025 period is almost unchanged

since January because projected growth in potential output during that period is almost unchanged (see the discussion of potential output below).

The Labor Market

Compared with January's estimates, CBO's current projection of the unemployment rate is lower, and the projection of employment growth is higher, until the end of 2017. CBO expects the unemployment rate will be about 0.2 percentage points lower at the end of 2015 than was forecast in January and about 0.3 percentage points lower at the end of 2017. CBO now expects the growth of nonfarm payroll to be greater this year by about 40,000 jobs (per month, on average) and next year by about 20,000 jobs. Those changes reflect the fact that the unemployment rate fell more than CBO had anticipated during the first half of 2015 because of stronger-than-expected gains in employment.

CBO also estimates a higher rate of potential labor force participation in the near term than it did in January. The potential labor force participation rate is projected to be nearly one-half of one percentage point higher during the first half of 2015 than was previously forecast. That revision stems from recent evidence of a greater willingness on the part of individuals to enter or reenter the labor force and better employment prospects for people currently outside of the labor force. With higher potential participation, CBO estimates, the gap between the current level of labor force participation and its full potential is currently about one-half of one percentage point larger than the previously estimated gap.

In addition, CBO revised its projection of the natural rate of unemployment in the near term—lowering it by about one-third of a percentage point from 2015 through 2017—on the basis of recent evidence about the propensity of the long-term unemployed to find jobs. That evidence suggests that spells of unemployment cause less permanent stigma and erosion of skills than CBO previously estimated.

Together, the revisions to CBO's forecast of the rate of potential labor force participation and the natural rate of unemployment suggest that more slack exists in the labor market than CBO previously estimated. That increased degree of slack helps explain why recent growth in labor compensation has been slower than CBO had previously expected, despite the fact that the improvement in labor market conditions during late 2014 and early 2015 was faster than expected.

CBO has also lowered its estimate of the natural rate of unemployment during the latter years of the projection. The revision to the natural rate of unemployment, averaging 0.2 percentage points from 2018 through 2025, reflects CBO's assessment that the rate of long-term unemployment will decline further during the next 10 years than CBO previously anticipated. CBO's projection of the potential labor force participation rate during the 2018–2025 period is largely unchanged since January.

Inflation

CBO's current forecast includes a lower rate of inflation for 2015 and 2016, as measured by the CPI-U and the PCE price index. That lower rate is mostly attributable to two unexpected developments since late last year: a large increase in the value of the dollar and a significant drop in energy prices. In the first half of the year, the trade-weighted value of the dollar appreciated by about 6 percentage points more than CBO had anticipated. At the same time, energy prices fell more than CBO had expected. For example, the price of West Texas Intermediate crude oil fell by about eight dollars more than CBO had forecast in January.[45] Beyond 2016, rates of core and overall inflation are almost identical to those in CBO's previous forecast.

Interest Rates

CBO anticipates that interest rates over the 2015–2019 period will be lower than it projected in January. Short-term interest rates are, on average, expected to be about 0.5 percentage points lower; and long-term interest rates are, on average, expected to be about 0.3 percentage points lower. CBO projects lower rates over that period because the Federal Reserve is expected to begin raising the federal funds rate later than CBO previously anticipated. Additionally, other forecasters and participants in financial markets have lowered their forecasts of interest rates since January, and CBO places some weight on those forecasts in preparing its forecast of interest rates.

Over the 2020–2025 period, short-term interest rates in CBO's projections are unchanged from the agency's January forecast, but long-term interest rates are 0.3 percentage points lower, implying a narrowing of the spread between long-term and short-term rates. The downward revision in long-term rates stems from revised forecasts of the factors that influence real interest rates, as well as changed expectations of future long-term rates on the part of participants in financial markets.

Potential Output

CBO has raised its estimate of potential output for recent quarters—by about 0.6 percent for 2014—mainly because the agency revised its estimates of the potential labor force and the natural rate of unemployment (discussed above). CBO's estimate of the output gap in 2014 has risen somewhat less than that, by about 0.4 percentage points, because growth of actual output during the second half of 2014 was stronger than CBO had anticipated.

For the projection period, however, CBO has lowered the annual rate of growth in potential output by about 0.05 percentage points, almost entirely because of slower projected growth of the potential labor force, owing to revisions in CBO's projection

45. As noted earlier, since CBO completed its forecast in early July, the price of crude oil has fallen more than CBO had previously anticipated. That development points to a somewhat lower rate of inflation in the near term than CBO has projected.

for the rate of potential labor force participation. As a result of higher estimates of the potential labor force during recent quarters and slower projected growth, the agency's projections of the potential labor force and of potential output in 2025 are both very similar to the levels projected in January.

At the same time, CBO has lowered its estimates of historical and projected growth of capital services in the nonfarm business sector, even though the historical data that the agency uses to estimate capital services are unchanged. That revision stems from improvements in CBO's method for estimating the productive services that flow from the different types of assets that compose the capital stock.[46] The revision to projections of capital services also affects CBO's estimate of potential TFP: Because TFP reflects the portion of economic growth not attributable to changes in hours worked or capital services, the downward revision to projected capital services results in a corresponding increase in estimated TFP. Stronger growth in actual and potential TFP over the historical period, in turn, implies stronger growth in potential TFP in the future than CBO previously projected.

Comparison With Other Economic Projections

CBO's projections of the growth of real GDP, the unemployment rate, inflation, and interest rates in 2015 and 2016 are generally similar to the projections of the *Blue Chip* consensus, which were published in August 2015 (see Figure 2-14).

Similarly, CBO's projections differ modestly from the forecasts produced by the Federal Reserve and presented at the June 2015 meeting of the Federal Open Market Committee (see Figure 2-15). The Federal Reserve reports two sets of forecasts: a range (which reflects the highest and lowest forecasts of the members of the Board of Governors of the Federal Reserve System and of the presidents of the Federal Reserve Banks) and a central tendency (which excludes the range's three highest and three lowest projections). CBO's projections of the growth of real GDP, unemployment, and PCE inflation are all within the Federal Reserve's central tendencies for 2015. CBO's projections for the growth of real GDP in 2016 and 2017 are somewhat above the values forecast by the Federal Reserve; CBO's projections of the unemployment rate and PCE inflation are within the Federal Reserve's central tendencies for those years.

CBO's projections probably differ from those of the other forecasters at least partly because of varying assumptions about the government's future tax and spending policies. Also, CBO's projections might differ from those of the other forecasters because of differences in the economic news available when the forecasts were completed and differences in the economic and statistical models used.

46. Those adjustments bring CBO's estimates of historical growth rates in capital services more closely in line with those of the Bureau of Labor Statistics.

Appendix A: Changes to CBO's Baseline Since March 2015

If no new laws affecting this year's spending and revenues are enacted in the next month, the budget deficit for fiscal year 2015 will total $426 billion, the Congressional Budget Office expects. That amount is $60 billion less than CBO estimated in its March 2015 baseline projections (see Table A-1).[47] For 2015, CBO now estimates that revenues will be $60 billion (or about 2 percent) greater than it projected in March and outlays will be nearly unchanged, on net.

The cumulative deficit in CBO's baseline for the 2016–2025 period is now $7.0 trillion, or $203 billion less than the $7.2 trillion the agency projected previously. For that period, CBO estimates that under current law, both revenues and outlays will be lower—by $170 billion (or 0.4 percent) and $372 billion (or 0.8 percent), respectively.

Updates to CBO's economic forecast (most notably, lower projected interest rates) produced the largest changes over the 2016–2025 period, reducing the 10-year cumulative deficit by $769 billion—mostly by lowering projected outlays. However, technical changes to revenue and outlay projections (changes not stemming from newly enacted legislation or revisions to the economic forecast) increased projected deficits by $411 billion.

Also, since CBO prepared its March baseline projections, a few pieces of legislation affecting the budget have been enacted. Nearly all legislative changes to the baseline stem from enacting the Medicare Access and CHIP Reauthorization Act of 2015 (Public Law 114-10). On balance, changes resulting from legislation increased the deficit projected for 2015 by $9 billion and the cumulative deficit projected for the 2016–2025 period by $156 billion.

47. See Congressional Budget Office, *Updated Budget Projections: 2015 to 2025* (March 2015), www.cbo.gov/publication/49973. CBO constructs its baseline projections in accordance with provisions of the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177) and the Congressional Budget and Impoundment Control Act of 1974. To project revenues and mandatory spending, CBO assumes that current laws, with only a few exceptions, will remain unchanged throughout the 10-year projection period. To project discretionary spending, CBO assumes that most annual appropriations through 2021 will adhere to the caps and automatic spending reductions established in the Budget Control Act of 2011 (P.L. 112-25), as amended, and that appropriations for 2022–2025 will grow from 2021 amounts at the rate of inflation. Certain discretionary appropriations are not constrained by the caps, such as those for overseas contingency operations. In CBO's baseline, those appropriations grow in future years at the rate of inflation. Not intended to predict budgetary outcomes, the baseline projections instead serve as a benchmark against which to measure the potential effects of changes in laws governing taxes and spending.

Changes to Projections of Outlays

CBO's estimate of total outlays in 2015 is nearly the same as the agency's March estimate. That outcome results from a variety of offsetting changes—higher estimated spending for mandatory programs (an increase of $23 billion) and lower estimates for discretionary spending and net interest costs (decreases of $13 billion and $11 billion, respectively). For the 2016–2025 period, CBO reduced its projections of outlays by $372 billion, driven largely by how CBO's revised economic forecast affects projections of net interest costs and certain mandatory outlays. Technical updates and recently enacted legislation boosted projected outlays, offsetting roughly half the reduction stemming from updated economic factors.

Economic Changes

Because of its updated economic projections, CBO reduced its estimates of outlays by $10 billion for 2015 and by an additional $706 billion for the 2016–2025 period. A $441 billion reduction in estimated net interest costs—primarily the result of lower projected interest rates throughout the period—accounts for much of that 10-year change (see Chapter 2).

Net Interest. The revised economic forecast had two types of effects on CBO's projections of the government's net interest costs:

- Effects of changes in the agency's projections of interest rates and inflation, and
- Effects of changes in the government's borrowing brought about by how the revised forecast affects projected revenues and outlays (labeled in Table A-1 as debt service).

A decline of $8 billion in interest costs for 2015 stems mainly from lower inflation, which decreased the interest accrued on Treasury inflation-protected securities. CBO reduced its projection of net interest costs for the 2016–2025 period by $324 billion, almost entirely because of changes to projected interest rates. In CBO's current forecast, interest rates for certain Treasury securities are significantly lower—for every year of the baseline period—than those used in the March baseline. In particular, rates for securities issued for five years or longer are roughly 30 basis points lower than the previous projections. (A basis point is one one-hundredth of a percentage point.)

Debt service costs are also now lower in CBO's baseline, by $118 billion, because the updated economic forecast reduced projected federal deficits and thus the amount of federal debt.

Mandatory Spending. Because of revisions to the economic forecast, CBO's projections of mandatory spending are now $262 billion lower between 2016 and 2025 than reported in March. Projected spending for Social Security and unemployment compensation showed the largest changes.

Social Security. Outlays in the baseline for Social Security over the 2016–2025 period have decreased by $133 billion (or 1 percent). The agency now expects that Social Security beneficiaries will receive no cost-of-living adjustment (COLA) for the upcoming year. (CBO projected previously that the COLA would be 0.9 percent.) CBO also now expects that the COLA for calendar year 2017 will be 0.7 percentage points lower than projected in March.

Unemployment Compensation. CBO lowered its estimate of the unemployment rate by an average of 0.3 percentage points in each year from 2016 to 2025. Therefore, CBO projects that outlays for unemployment compensation will be $1 billion lower in 2015 and $21 billion lower over the 10-year period.

Other Mandatory Spending. For other mandatory programs, CBO reduced projected outlays by a total of $108 billion for the 2016–2025 period. The largest reductions for that period include the refundable portion of the earned income and child tax credits ($18 billion), Medicaid ($16 billion), veterans' compensation and pensions ($14 billion), student loans ($13 billion), and Medicare ($13 billion). Smaller changes in other mandatory programs lowered projected outlays, on net, by an additional $34 billion from 2016 through 2025.

Technical Changes

Because of technical updates, CBO raised its projections of outlays for 2015 and for the 2016–2025 period by $1 billion and $175 billion, respectively—mostly reflecting increases to estimated mandatory spending.

Mandatory Spending. Technical revisions related to mandatory programs increased estimated outlays for the current year by $17 billion. For the 2016–2025 period, technical updates boosted projected mandatory spending by $138 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 B (Medical Insurance) in fiscal year 2015 will exceed previous projections. CBO therefore increased its projection of net spending for Medicare by $7 billion for 2015 and by $130 billion (or 2 percent) for the 2016–2025 period.

Veterans' Compensation and Pensions. CBO raised its estimate of outlays for veterans' compensation and pensions by $2 billion for 2015. That increase mostly reflects higher enrollment and higher average benefit payments than previously estimated. Those adjustments also increase projected outlays for the next 10 years by $32 billion (or 4 percent).

Social Security. CBO decreased its projection of outlays for Social Security from 2016 through 2025 by $31 billion (or 0.3 percent). That reduction primarily reflects updated information about participation in the Disability Insurance program. CBO now

estimates that about 1 percent fewer people will receive benefits from that program than estimated in March.

Earned Income and Child Tax Credits. CBO decreased its projection of outlays for two refundable tax credits—the earned income and child tax credits—by a total of $28 billion over the 2016–2025 period. (Projected outlays for the earned income tax credit are down by about $20 billion and projected outlays for the child tax credit are lower by about $7 billion.) The portions of those credits that exceed taxpayers' income tax liabilities are classified as outlays, and the portions that reduce tax payments are classified as reductions in revenues. Outlays for those credits have been lower this year than CBO expected, causing much of the downward revision to projections for subsequent years.

Medicaid. Largely because of higher-than-estimated outlays to date this year, CBO increased its estimates of Medicaid spending by $7 billion for 2015 and by $27 billion for the 2016–2025 period.

Other Mandatory Spending. Technical changes boosted CBO's projections of outlays for other mandatory programs by $5 billion for 2015 and by $8 billion for 2016 through 2025. Increases and decreases in several areas of the budget account for the updated current-year estimate. The largest change for 2015 was a $16 billion increase in outlays for the federal student loan program. That increase stems from higher estimated costs of loans made both before and during fiscal year 2015. Smaller reductions in estimated outlays for 2015 for other programs offset $11 billion of that increase. A $7 billion rise in projected outlays for the student loan program dominates the changes for the 2016–2025 period; other revisions add $1 billion to that increase, on net.

Discretionary Spending. Technical adjustments to CBO's projections for several discretionary programs reduced estimated outlays by $13 billion for 2015 but had almost no net effect on projections for later years. The largest change to current-year estimates stems from a $6 billion increase in projected receipts (which reduce outlays) related to mortgages insured by the Federal Housing Administration, reflecting the program's activity to date. Various smaller changes across the budget further decreased estimated outlays for 2015 by a net amount of $7 billion.

Net Interest. Because of technical updates, CBO's estimate of net interest outlays is $3 billion lower for 2015 but $37 billion higher over the 2016–2025 period.

Technical changes in other areas of the budget increase the amount of debt projected under current law by $374 billion by 2025. Therefore, CBO raised projected debt service costs for the next 10 years by a total of $49 billion. Smaller downward revisions, largely because of reduced estimates of interest payments for securities held by the Thrift Savings Plan, offset $12 billion of that increase.

Legislative Changes

Recent legislation boosted the projected spending in CBO's baseline, increasing estimated outlays by $8 billion for 2015 and by $159 billion for the 2016–2025 period. Enactment of the Medicare Access and CHIP Reauthorization Act of 2015 had the largest effect on CBO's baseline projections. That law, enacted in April 2015, made many changes, almost entirely to health care programs. Those changes altered projected outlays over the 2016–2025 period for Medicare, Medicaid, the Children's Health Insurance Program (CHIP), and subsidies for health insurance coverage purchased through exchanges as follows:

- Net outlays for Medicare are $124 billion higher. The law set new rules for updating Medicare's payment rates for services provided by physicians, extended other expiring Medicare provisions, and raised premiums for relatively high-income Medicare enrollees.

- Outlays for CHIP are $15 billion higher because the law provided funding for the program for fiscal years 2016 and 2017 above the amount already assumed in CBO's baseline.

- Outlays for Medicaid are $3 billion higher, on net. That outcome is largely the result of higher projected enrollment stemming from the permanent extension of the Transitional Medical Assistance program. Two effects partially offset the increase in outlays related to enrollment: reduced federal allotments to states for Medicaid disproportionate share hospital payments and decreased Medicaid enrollment (because some children who will gain coverage through CHIP under the law would otherwise have enrolled in Medicaid).

- Outlays for subsidies for health insurance purchased through exchanges are $16 billion lower. Some people who will gain coverage through the changes to CHIP and the Transitional Medical Assistance program would otherwise have received subsidies for coverage purchased through the exchanges.

The Surface Transportation and Veterans Health Care Choice Improvement Act of 2015 (P.L. 114-41), enacted in July 2015, had no net effect on CBO's projections of outlays over the 2015–2025 period, although it shifted the timing and classification of certain payments.

Overall, CBO's updated projections of revenues and outlays stemming from recently enacted legislation led to a $126 billion increase in projected deficits over the 2016–2025 period. As a result, the agency's projections of debt service costs over that period are now higher, by $30 billion.

Changes to Projections of Revenues

Since releasing its baseline projections in March, CBO increased its estimates of revenues by $60 billion for 2015 and lowered them by $170 billion between 2016 and 2025.

Two types of revisions to the baseline accounted for almost all the change in estimated revenues for the current fiscal year:

- Technical factors caused CBO to increase its estimate of 2015 revenues by $70 billion, reflecting higher tax collections so far this year.
- Changes to CBO's economic forecast lowered the 2015 revenue estimate by $10 billion, partly offsetting that increase.

Changes for the 2016–2025 period reflect a variety of technical factors, such as new information from tax returns, that lowered the revenue projections. In contrast, economic factors—such as higher wages and salaries as well as changes in interest rates that result in higher profits of the Federal Reserve System—raised them. Those factors' effects on tax revenues are only partially offset by the effect on tax revenues of lower corporate profits. Recently enacted legislation has relatively minor effects on projected revenues.

Technical Changes

For various technical reasons, CBO raised its projections of revenues by $70 billion (or 2.2 percent) in 2015 but lowered them on net by $236 billion (or 0.6 percent) over the 2016–2025 period. Tax collections have been greater in recent months than CBO expected in March, causing the agency to increase its revenue projections for 2015 as well as the next two years. Other factors, including new information from 2013 tax returns, caused CBO to lower its projections from 2018 through 2025.

Most of the greater-than-expected revenues this year stem from collections of individual and corporate income taxes and have the largest effect on CBO's projections of revenues for 2015 and 2016. The main factors responsible will be clearer when additional data from tax returns and other sources become available; but CBO expects that, in ensuing years, the effects will dissipate: Taxable income will tend to revert to its historical relationship to gross domestic product, and effective tax rates (total taxes as a percentage of total income) will tend to return to more typical levels.

For the 2016–2025 period, the lower revenue projections ascribed to technical factors reflect several effects. The single largest factor is simply a reallocation of about $200 billion in revenues that CBO classified as a technical change in its updated baseline projections in March. The agency considered that a technical change then because it was not made as part of a general update of CBO's economic forecast, but rather in response to its analysis of spending for private health insurance. CBO has

recategorized the change for this report as a $200 billion increase in revenues for economic reasons because the agency has incorporated that change into its updated economic forecast. A corresponding reduction in revenues for technical factors fully offsets the increase. That reallocation between economic and technical changes has no overall effect on the revenue projections.

Excluding that reclassification, CBO lowered the revenue projections as a result of technical factors by $37 billion, on net, between 2016 and 2025. A decrease of $112 billion over the 2018–2025 period more than offsets a combined increase of $75 billion for 2016 and 2017. The largest reason for the decrease is that tax liabilities from the surtax on investment income of higher-income taxpayers were less than expected (as shown in newly available data from income tax returns for 2013, the year that surtax went into effect).

Economic Changes

Because of revisions to economic projections since January (when CBO published its previous forecast), the agency reduced its revenue estimates by $10 billion (or 0.3 percent) for 2015 but raised them by $63 billion (or 0.2 percent) for 2016 through 2025. (The latter amount includes the $200 billion upward adjustment discussed above.) The effect on revenue projections for 2015 stems mostly from the expectation that corporate profits will be lower than previously projected. (As described above, technical changes more than offset those downward revisions for revenues in 2015.) The lower projection for profits largely reflects information from the national income and product accounts of the Bureau of Economic Analysis, showing that profits fell sharply in the first quarter of calendar year 2015.

The modest net change to projected revenues for the 2016–2025 period reflects two factors:

- Lower projected domestic corporate profits and higher projected wages and salaries, which generated roughly offsetting effects on revenues, and
- Lower projected interest rates, which raised projections of Federal Reserve remittances.

CBO lowered its projections of domestic profits by more than it raised its projections of wages and salaries. However, the effects were largely offsetting for the agency's overall revenue projections because the marginal tax rate on wages and salaries, which affects the amount the government collects in individual income taxes and payroll taxes, is greater than the rate on corporate profits, which mostly affects receipts of corporate income taxes.

CBO increased its projections of wages and salaries by an average of 0.7 percent for the next 10 years. That increase is the main reason that projected individual income taxes are higher by $79 billion (or 0.4 percent) and payroll taxes are higher by

$76 billion (or 0.6 percent) over the 10-year period. That change in part reflects recent information from the national income and product accounts about the amount of wages and salaries in recent quarters, which have been higher than expected. Also, spending by private health insurers for health care and plan administration continues to grow slowly. CBO therefore raised the share of overall labor compensation expected to be paid over the coming decade as wages and salaries and lowered the share to be paid as employment-based health insurance.[48]

CBO reduced projected domestic corporate profits by an average of 5 percent over the 2016–2025 period, which drives the $178 billion (or 4 percent) reduction in projected revenues from corporate income taxes. The lower projected profits reflect the lower profits recorded in recent quarters, the increase in CBO's projections of wages and salaries, and an increase in projected business interest payments in the later years of the projection period.

CBO also raised its projections of receipts from other revenue sources by $85 billion over the next decade as a result of economic factors—mainly a slightly lower projection for short-term interest rates over the next few years. Those lower rates reduce the interest that the Federal Reserve is expected to pay on reserves held on deposit with it by depository institutions, thereby increasing its expected 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 and partially offsetting.)

Legislative Changes

Because of recently enacted legislation, CBO reduced its projection of revenues by about $1 billion in 2015 but increased them, on net, by about $3 billion over the 2016–2025 period. Those effects stem almost entirely from three new laws, two of which are expected to increase revenues and the other to reduce them:

- CBO increased its revenue projections by a small amount in 2015 and about $4 billion over the 2016–2025 period to reflect the enactment of the Surface Transportation and Veterans Health Care Choice Improvement Act of 2015. The provision with the largest revenue effect requires additional information about mortgages to be reported to the Internal Revenue Service and to borrowers. The staff of the Joint Committee on Taxation (JCT) estimates that this provision will increase revenues by about $2 billion over the 2016–2025 period.

48. CBO's March update of baseline revenue projections incorporated much of the effect of the higher projection for wages and salaries since January and the resulting increase in revenues from individual income and payroll taxes. The agency did not update its economic forecast at that time and thus classified the increase in revenues as a technical change. CBO has recategorized that change for this summer update as an increase in revenues of about $200 billion from economic factors because the agency has now incorporated the higher projection of wages and salaries in the updated economic forecast; a corresponding $200 billion reduction in revenues for technical factors fully offsets that $200 billion increase for economic reasons.

- CBO increased its revenue projections by a small amount in 2015 and by about $4 billion over the next 10 years to incorporate the effects of the Medicare Access and CHIP Reauthorization Act of 2015. The largest portion of those effects stems from making permanent the Transitional Medical Assistance program under Medicaid. That change will increase enrollment in Medicaid, which will reduce the number of families receiving tax credits for purchasing insurance offered through exchanges and also reduce the number of families with employment-based coverage. That reduction in employment-based coverage will lower employers' costs for such coverage, thereby leading to higher wages, which are taxable.

- CBO reduced its projections of revenues by about $1 billion in 2015 and by $4 billion over the next 10 years to reflect enactment of the Trade Preferences Extension Act of 2015 (P.L. 114-27). Most of the effect on revenues stems from extending expired or expiring preferential tariff rates for developing countries (extended through December 2017) and for sub-Saharan African countries (extended through September 2025). The change in law will also accelerate the payment of some corporate income taxes, raising revenues by about $6 billion in 2020 and reducing them by an equal amount in 2021, according to JCT's estimates.

Appendix B: CBO's Economic Projections for 2015 to 2025

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 2015 to 2025 (by calendar year in Table B-1 and by fiscal year in Table B-2). For years after 2019, CBO did not attempt to forecast the frequency or size of fluctuations in the business cycle. Instead, the values shown in these tables for 2020 to 2025 reflect CBO's assessment of the effects in the medium term of economic and demographic trends, federal tax and spending policies under current law, the 2007–2009 recession, and the slow economic recovery since then.

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 G. Abraham, Alan J. Auerbach, Markus K. Brunnermeier, Mary C. Daly, Steven J. Davis, Claudia Goldin, Robert E. Hall, Jan Hatzius, Anil Kashyap, Lawrence F. Katz, Donald L. Kohn, N. Gregory Mankiw, Jonathan A. Parker, Adam S. Posen, James M. Poterba, Valerie A. Ramey, Carmen M. Reinhart, Brian Sack, Robert Shimer, Justin Wolfers, and Mark Zandi. Richard Peach and Mickey Levy 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, and publishing it; compiling the supplemental materials posted along with it on CBO's website (www.cbo.gov/publication/50724); and providing other support—are listed on the following pages.

Keith Hall
Director

August 2015

Economic Projections

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

Lauren Bresnahan	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
Leah Loversky	Motor vehicle sector, model and data management
Joshua Montes	Labor markets
Frank Russek	Federal, state, and local government spending and revenues
Robert Shackleton	Potential output, productivity
Christopher Williams	Consumer spending, incomes
Shiqi Zheng	Housing, research assistance

Revenue Projections

The revenue projections were prepared by the Tax Analysis Division, supervised by David Weiner, 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
Jennifer Gravelle	International taxation, depreciation
Pamela Greene	Corporate income taxes
Peter Huether	Excise taxes
Robert McClelland	Capital gains realizations
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	Tax modeling
Logan Timmerhoff	Excise taxes
Marvin Ward	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, Janet Airis, Tom Bradley, Kim Cawley, Chad Chirico, Sheila Dacey, Jeffrey Holland, and Sarah Jennings 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, other programs)
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
Dawn Sauter Regan	Defense (military personnel)
Matthew Schmit	Military retirement, military health care
Dwayne Wright	Veterans' compensation and pensions, vocational and adaptive benefits

Health

Julia Christensen	Food and Drug Administration, prescription drugs
Kate Fritzsche	Health insurance exchanges, other programs
Daniel Hoople	Medicaid, Children's Health Insurance Program
Lori Housman	Medicare
Sean Lyons	Health insurance coverage
Paul Masi	Medicare, Federal Employees Health Benefits program
Sarah Masi	Health insurance exchanges, other programs
Jamease Miles	Medicare
Alexandra Minicozzi	Health insurance coverage
Eamon Molloy	Health insurance coverage

Health (Continued)

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
Sheila Dacey	Old-Age and Survivors Insurance, Social Security trust funds, Pension Benefit Guaranty Corporation
Elizabeth Cove Delisle	Housing assistance
Kathleen FitzGerald	Supplemental Nutrition Assistance Program and other nutrition programs
Jennifer Gray	Social Services Block Grant, children and families services programs, child nutrition and other nutrition programs
Justin Humphrey	Elementary and secondary education, Pell grants, student loans, higher education
David Rafferty	Temporary Assistance for Needy Families, Child Support Enforcement program, foster care, child care programs, Low Income Home Energy Assistance Program, refugee assistance, military retirement
Emily Stern	Disability Insurance, Supplemental Security Income

Natural and Physical Resources

Marin Burnett	Administration of justice, science and space exploration, recreational resources
Megan Carroll	Energy, air transportation

Natural and Physical Resources (Continued)

Martin von Gnechten	Community and regional development, Federal Emergency Management Agency, Bureau of Indian Affairs, credit unions, water transportation
Mark Grabowicz	Administration of justice, Postal Service
Kathleen Gramp	Energy, Outer Continental Shelf receipts, spectrum auction receipts, Orderly Liquidation Fund
David Hull	Agriculture
Jeff LaFave	Conservation and land management, other natural resources
James Langley	Agriculture
Susanne Mehlman	Pollution control and abatement, Federal Housing Administration and other housing credit programs
Matthew Pickford	General government, legislative branch
Sarah Puro	Highways, mass transit, Amtrak, deposit insurance
Aurora Swanson	Water resources, Fannie Mae and Freddie Mac
Susan Willie	Commerce, Small Business Administration, Universal Service Fund, agricultural trade and credit

Other Areas and Functions

Janet Airis	Appropriation bill (Legislative Branch)
Shane Beaulieu	Computer support
Barry Blom	Federal pay, monthly Treasury data
Joanna Capps	Appropriation bills (Labor, Health and Human Services, and Education; State and Foreign Operations)
Meredith Decker	Other interest, debt limit
Mary Froehlich	Computer support
Avi Lerner	Troubled Asset Relief Program, automatic budget enforcement and sequestration, interest on the public debt, other interest
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

Other Areas and Functions (Continued)

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 (Transportation and Housing and Urban Development; Military Construction and Veterans Affairs; Energy and Water Development)
J'nell Blanco Suchy	Authorization bills
Patrice Watson	Database system administrator
Adam Wilson	Appropriation bills (Homeland Security; Interior)

Writing

Christina Hawley Anthony wrote the summary. Barry Blom wrote Chapter 1 with assistance from Nathaniel Frentz and Joshua Shakin. Daniel Fried and Charles Whalen wrote Chapter 2. Amber Marcellino wrote Appendix A with assistance from Pamela Greene. Leah Loversky compiled Appendix B.

Review, Editing, and Publishing

Jeffrey Kling and Robert Sunshine reviewed the report. The editing and publishing of the report 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, Kate Kelly, Loretta Lettner, John Skeen, and Gabe Waggoner 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.

Peter Huether, Leah Loversky, Dan Ready, and Shiqi Zheng compiled supplemental economic and tax 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, 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
	In Billions of Dollars													
Revenues	3,021	3,251	3,514	3,628	3,730	3,847	4,004	4,164	4,359	4,560	4,772	4,999	18,723	41,577
Outlays	3,506	3,677	3,928	4,044	4,184	4,443	4,690	4,931	5,244	5,455	5,657	6,007	21,289	48,584
Deficit	**-485**	**-426**	**-414**	**-416**	**-454**	**-596**	**-687**	**-767**	**-885**	**-895**	**-886**	**-1,008**	**-2,566**	**-7,007**
Debt Held by the Public at the End of the Year	12,780	13,175	13,821	14,338	14,864	15,528	16,277	17,102	18,044	18,993	19,933	21,001	n.a.	n.a.
	As a Percentage of Gross Domestic Product													
Revenues	17.5	18.2	18.9	18.6	18.3	18.1	18.1	18.0	18.1	18.1	18.2	18.3	18.4	18.3
Outlays	20.3	20.6	21.1	20.8	20.6	20.9	21.2	21.3	21.7	21.7	21.6	22.0	20.9	21.3
Deficit	**-2.8**	**-2.4**	**-2.2**	**-2.1**	**-2.2**	**-2.8**	**-3.1**	**-3.3**	**-3.7**	**-3.6**	**-3.4**	**-3.7**	**-2.5**	**-3.1**
Debt Held by the Public at the End of the Year	74.0	73.8	74.4	73.6	73.0	73.1	73.5	74.0	74.8	75.5	76.1	76.9	n.a.	n.a.

Source: Congressional Budget Office.

Note: n.a. = not applicable.

Summary Table 2. Return to Reference

Key Projections in CBO's Baseline

Percentage of Gross Domestic Product

	2015	2016	Projected Annual Average 2017–2020	Projected Annual Average 2021–2025
Revenues				
Individual income taxes	8.6	9.0	9.1	9.3
Payroll taxes	6.0	5.9	5.8	5.8
Corporate income taxes	1.9	2.4	2.0	1.8
Other	1.7	1.6	1.3	1.2
Total Revenues	**18.2**	**18.9**	**18.3**	**18.2**
Outlays				
Mandatory				
Major health care programs[a]	5.2	5.5	5.5	6.0
Social Security	4.9	4.9	5.0	5.5
Other mandatory programs	2.7	3.0	2.6	2.3
Subtotal	12.9	13.4	13.1	13.8
Discretionary	6.5	6.3	5.8	5.3
Net interest	1.2	1.4	1.9	2.6
Total Outlays	**20.6**	**21.1**	**20.9**	**21.7**
Deficit	**-2.4**	**-2.2**	**-2.6**	**-3.5**
Debt Held by the Public at the End of the Period	73.8	74.4	73.5	76.9
Memorandum:				
Social Security				
Revenues[b]	4.5	4.5	4.4	4.4
Outlays[c]	4.9	4.9	5.0	5.5
Contribution to the Federal Deficit[d]	-0.4	-0.4	-0.6	-1.1
Medicare				
Revenues	1.3	1.3	1.3	1.3
Outlays[c]	3.6	3.7	3.7	4.2
Offsetting receipts	-0.6	-0.6	-0.6	-0.7
Contribution to the Federal Deficit[d]	-1.7	-1.8	-1.7	-2.2

Source: Congressional Budget Office.

a. Includes Medicare (net of premiums and other offsetting receipts), Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending.

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

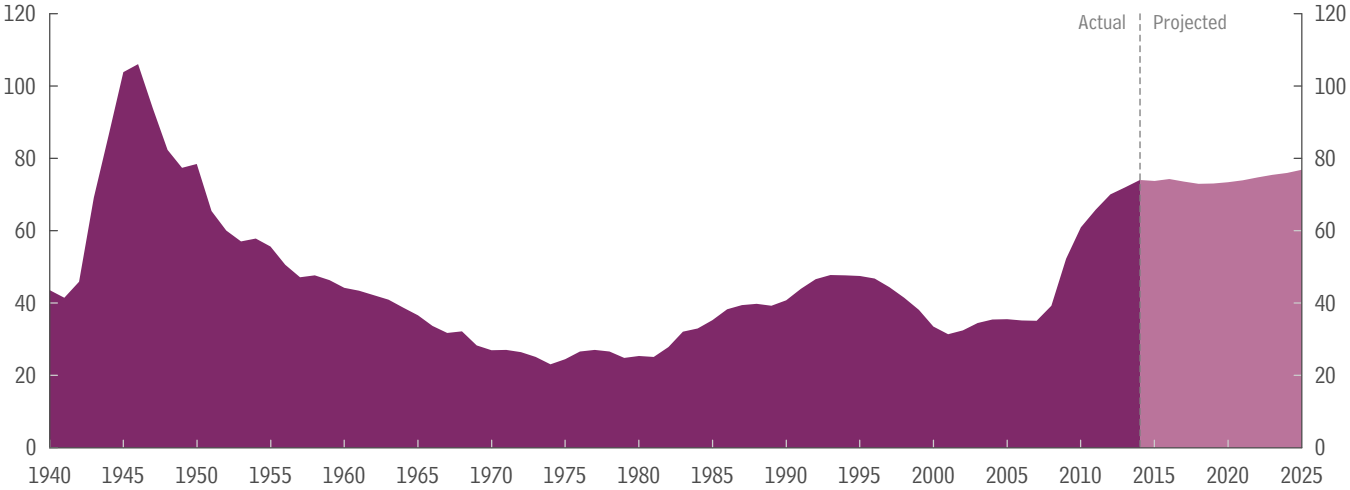
c. Does not include outlays related to administration of the program, which are discretionary. For Social Security, outlays do not include intragovernmental offsetting receipts stemming from payroll taxes paid by federal government employers to the Social Security trust fund.

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

Summary Figure 1. Return to Reference

Federal Debt Held by the Public

Percentage of Gross Domestic Product

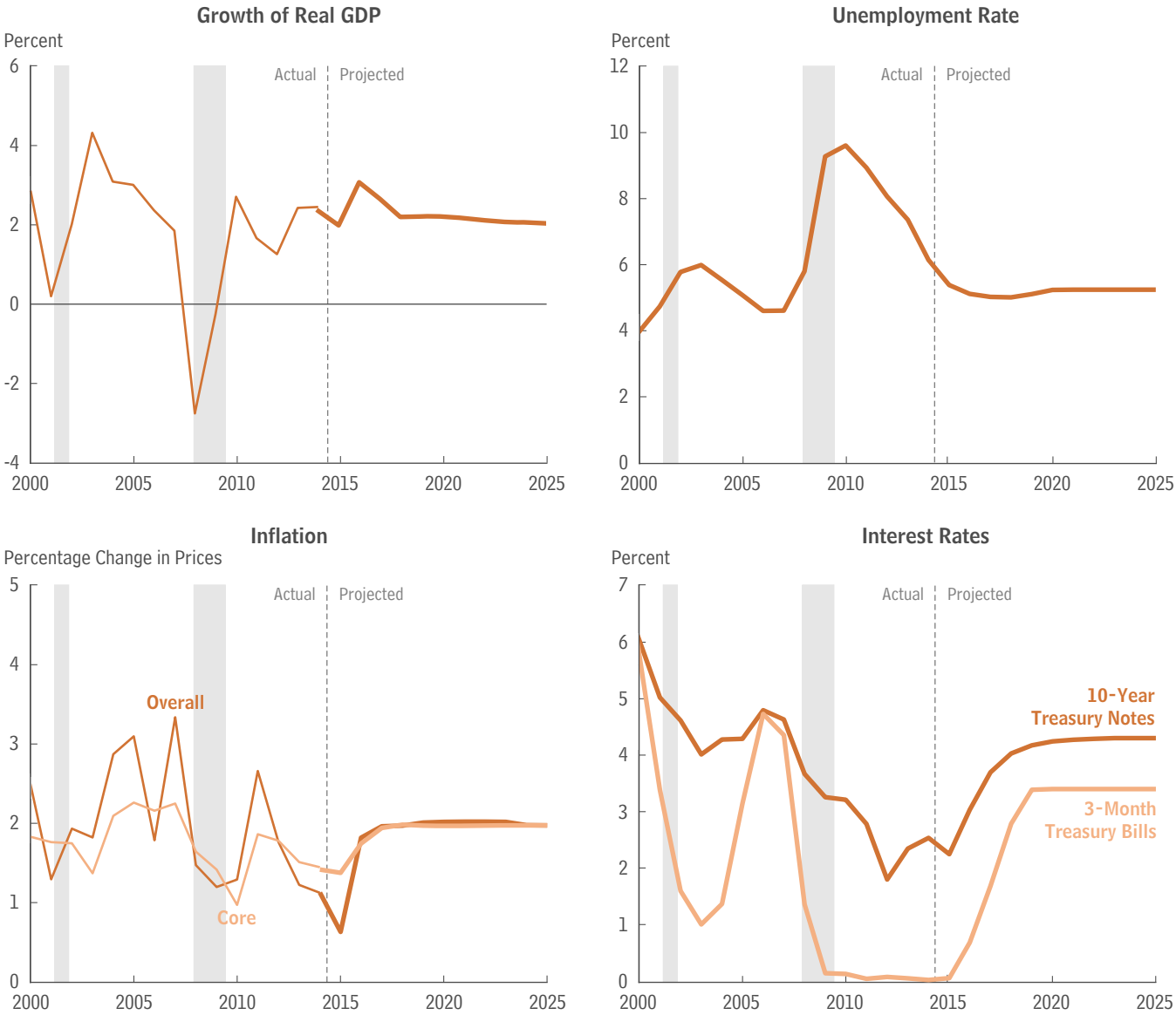


Source: Congressional Budget Office.

Summary Figure 2. Return to Reference

Actual Values and CBO's Projections of Key Economic Indicators

CBO anticipates that the economy will expand modestly this year, at a solid pace in calendar years 2016 and 2017, and at a more moderate pace in subsequent years, lowering the unemployment rate and putting upward pressure on inflation and interest rates.



Sources: Congressional Budget Office; Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve.

Notes: 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 2000 through 2014 (the thin lines) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 30, 2015. Values from 2014 through 2025 (the thick lines) reflect the data available and projections made before July 30. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

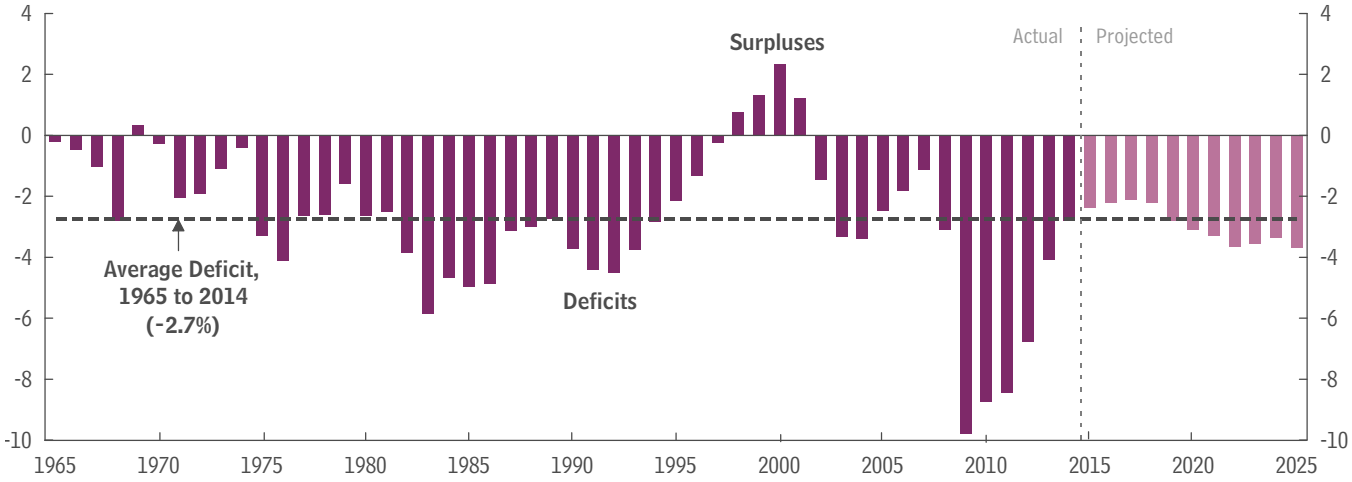
GDP = gross domestic product.

Figure 1-1. Return to Reference

Total Deficits or Surpluses

Because outlays are projected to grow faster than revenues after 2018, projected deficits increase to almost 4 percent of gross domestic product from 2022 through 2025.

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

Table 1-1. Return to Reference

CBO's Baseline Budget Projections

	Actual, 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
	In Billions of Dollars													
Revenues														
Individual income taxes	1,395	1,540	1,665	1,768	1,850	1,927	2,014	2,115	2,226	2,341	2,463	2,593	9,224	20,961
Payroll taxes	1,023	1,066	1,100	1,143	1,188	1,236	1,287	1,342	1,396	1,453	1,511	1,574	5,953	13,229
Corporate income taxes	321	348	445	430	427	419	425	419	435	452	471	491	2,145	4,413
Other	283	297	305	288	265	265	277	289	302	314	327	342	1,400	2,973
Total	**3,021**	**3,251**	**3,514**	**3,628**	**3,730**	**3,847**	**4,004**	**4,164**	**4,359**	**4,560**	**4,772**	**4,999**	**18,723**	**41,577**
On-budget	2,286	2,480	2,719	2,798	2,865	2,948	3,070	3,194	3,351	3,514	3,685	3,871	14,400	32,016
Off-budget[a]	736	771	796	831	865	898	933	970	1,007	1,046	1,086	1,128	4,323	9,561
Outlays														
Mandatory	2,099	2,297	2,491	2,554	2,623	2,783	2,939	3,101	3,328	3,459	3,586	3,852	13,390	30,716
Discretionary	1,179	1,162	1,176	1,186	1,195	1,222	1,249	1,276	1,310	1,336	1,362	1,400	6,028	12,712
Net interest	229	218	261	304	367	437	503	553	606	660	710	755	1,872	5,156
Total	**3,506**	**3,677**	**3,928**	**4,044**	**4,184**	**4,443**	**4,690**	**4,931**	**5,244**	**5,455**	**5,657**	**6,007**	**21,289**	**48,584**
On-budget	2,800	2,936	3,153	3,228	3,313	3,513	3,694	3,866	4,105	4,237	4,356	4,618	16,900	38,083
Off-budget[a]	706	741	775	816	871	930	996	1,065	1,139	1,218	1,301	1,389	4,388	10,501
Deficit (-) or Surplus	**-485**	**-426**	**-414**	**-416**	**-454**	**-596**	**-687**	**-767**	**-885**	**-895**	**-886**	**-1,008**	**-2,566**	**-7,007**
On-budget	-514	-456	-434	-430	-448	-564	-624	-671	-754	-724	-671	-747	-2,500	-6,067
Off-budget[a]	30	30	21	14	-6	-32	-63	-95	-131	-172	-215	-261	-66	-940
Debt Held by the Public	12,780	13,175	13,821	14,338	14,864	15,528	16,277	17,102	18,044	18,993	19,933	21,001	n.a.	n.a.
Memorandum:														
Gross Domestic Product	17,263	17,847	18,587	19,482	20,359	21,234	22,158	23,121	24,115	25,144	26,210	27,317	101,820	227,727
	As a Percentage of Gross Domestic Product													
Revenues														
Individual income taxes	8.1	8.6	9.0	9.1	9.1	9.1	9.1	9.1	9.2	9.3	9.4	9.5	9.1	9.2
Payroll taxes	5.9	6.0	5.9	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Corporate income taxes	1.9	1.9	2.4	2.2	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	2.1	1.9
Other	1.6	1.7	1.6	1.5	1.3	1.3	1.2	1.2	1.3	1.3	1.2	1.3	1.4	1.3
Total	**17.5**	**18.2**	**18.9**	**18.6**	**18.3**	**18.1**	**18.1**	**18.0**	**18.1**	**18.1**	**18.2**	**18.3**	**18.4**	**18.3**
On-budget	13.2	13.9	14.6	14.4	14.1	13.9	13.9	13.8	13.9	14.0	14.1	14.2	14.1	14.1
Off-budget[a]	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.2	4.2
Outlays														
Mandatory	12.2	12.9	13.4	13.1	12.9	13.1	13.3	13.4	13.8	13.8	13.7	14.1	13.2	13.5
Discretionary	6.8	6.5	6.3	6.1	5.9	5.8	5.6	5.5	5.4	5.3	5.2	5.1	5.9	5.6
Net interest	1.3	1.2	1.4	1.6	1.8	2.1	2.3	2.4	2.5	2.6	2.7	2.8	1.8	2.3
Total	**20.3**	**20.6**	**21.1**	**20.8**	**20.6**	**20.9**	**21.2**	**21.3**	**21.7**	**21.7**	**21.6**	**22.0**	**20.9**	**21.3**
On-budget	16.2	16.5	17.0	16.6	16.3	16.5	16.7	16.7	17.0	16.9	16.6	16.9	16.6	16.7
Off-budget[a]	4.1	4.2	4.2	4.2	4.3	4.4	4.5	4.6	4.7	4.8	5.0	5.1	4.3	4.6
Deficit (-) or Surplus	**-2.8**	**-2.4**	**-2.2**	**-2.1**	**-2.2**	**-2.8**	**-3.1**	**-3.3**	**-3.7**	**-3.6**	**-3.4**	**-3.7**	**-2.5**	**-3.1**
On-budget	-3.0	-2.6	-2.3	-2.2	-2.2	-2.7	-2.8	-2.9	-3.1	-2.9	-2.6	-2.7	-2.5	-2.7
Off-budget[a]	0.2	0.2	0.1	0.1	*	-0.1	-0.3	-0.4	-0.5	-0.7	-0.8	-1.0	-0.1	-0.4
Debt Held by the Public	74.0	73.8	74.4	73.6	73.0	73.1	73.5	74.0	74.8	75.5	76.1	76.9	n.a.	n.a.

Source: Congressional Budget Office.

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

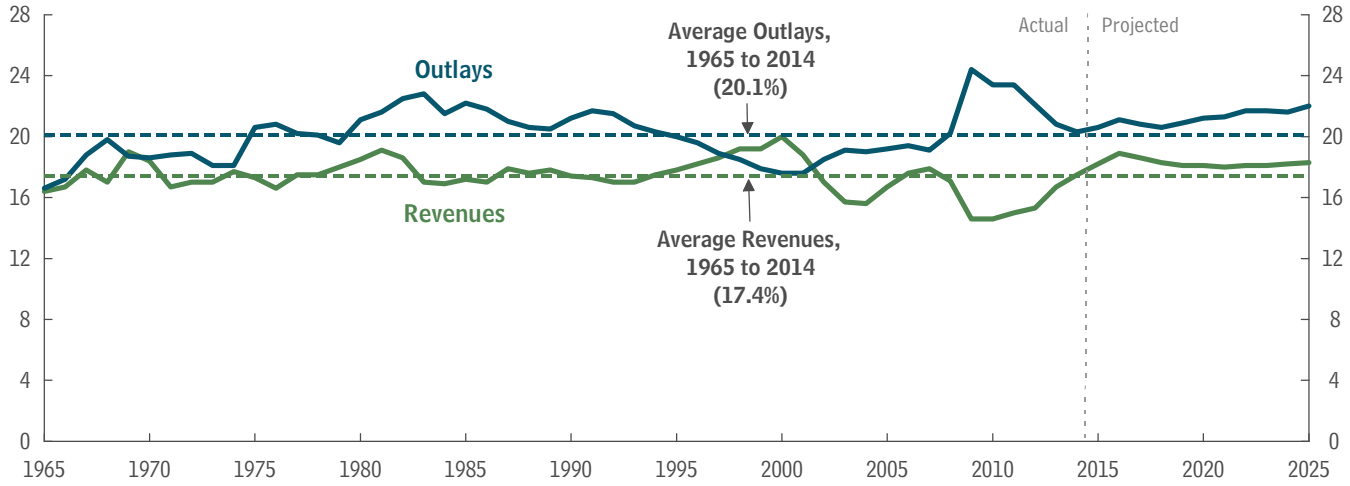
a. The revenues and outlays of the Social Security trust funds and the net cash flow of the Postal Service are classified as off-budget.

Figure 1-2. Return to Reference

Total Revenues and Outlays

Projected deficits in CBO's baseline remain about the same for the next several years but then increase as mandatory spending and interest payments rise while revenues remain essentially steady relative to gross domestic product.

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

Table 1-2. Return to Reference

Mandatory Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
Major Health Care Programs														
Medicare[a]	600	639	695	704	715	793	852	915	1,024	1,058	1,086	1,218	3,758	9,057
Medicaid	301	350	376	394	410	427	446	467	491	516	543	571	2,053	4,641
Health insurance subsidies and related spending[b]	15	37	60	76	81	85	87	91	95	98	102	105	389	880
Children's Health Insurance Program	9	9	13	14	11	6	6	6	6	6	6	6	49	78
Subtotal[a]	925	1,035	1,144	1,187	1,216	1,311	1,391	1,478	1,616	1,678	1,736	1,899	6,249	14,656
Social Security														
Old-Age and Survivors Insurance	703	738	766	804	857	915	979	1,043	1,111	1,183	1,258	1,336	4,322	10,254
Disability Insurance	142	144	145	149	155	160	167	175	184	193	203	212	776	1,745
Subtotal	845	882	912	953	1,012	1,076	1,146	1,219	1,296	1,377	1,461	1,548	5,098	11,999
Income Security Programs														
Earned income, child, and other tax credits[c]	86	85	87	85	85	70	71	72	73	74	75	77	397	769
Supplemental Nutrition Assistance Program	76	76	75	74	73	72	72	72	71	72	72	73	367	726
Supplemental Security Income	54	55	59	56	53	59	61	63	70	67	63	71	289	622
Unemployment compensation	44	33	34	36	38	41	44	48	50	53	56	59	193	458
Family support and foster care[d]	31	31	32	32	32	32	33	33	33	34	34	34	161	329
Child nutrition	20	22	22	23	24	25	26	27	28	30	31	32	121	269
Subtotal	311	302	310	306	305	299	307	314	326	329	331	345	1,527	3,173
Federal Civilian and Military Retirement														
Civilian[e]	94	97	98	101	103	106	110	114	117	121	125	129	518	1,125
Military	55	57	62	58	55	61	63	65	72	69	66	73	300	645
Other	8	7	6	7	7	7	8	9	10	10	10	10	35	82
Subtotal	158	160	165	165	165	175	181	188	199	201	201	212	853	1,853
Veterans' Programs[f]														
Income security	71	76	84	80	76	84	86	87	95	89	84	93	409	857
Other	16	16	25	20	16	18	18	19	21	21	21	23	97	202
Subtotal	87	92	108	99	92	102	104	106	116	110	105	116	505	1,059
Other Programs														
Agriculture	19	13	17	17	17	15	14	14	14	15	15	15	81	153
MERHCF	9	10	10	10	11	12	12	13	14	15	16	17	55	129
Deposit insurance	-14	-10	-9	-10	-13	-15	-13	-10	-12	-13	-14	-15	-61	-124
Fannie Mae and Freddie Mac[g]	n.a.	n.a.	3	3	3	2	1	1	2	2	2	2	13	21
Higher education	-12	21	-7	-2	2	2	3	3	3	3	3	3	-3	11
Other	52	60	65	71	70	69	67	66	64	64	64	68	342	668
Subtotal	54	94	79	90	90	84	85	86	84	85	85	89	427	858

Continued

Table 1-2. **Continued**

Mandatory Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
Offsetting Receipts														
Medicare[h]	-95	-98	-113	-118	-123	-132	-142	-153	-169	-178	-186	-206	-628	-1,520
Federal share of federal employees' retirement														
Social Security	-16	-16	-17	-17	-18	-18	-19	-20	-20	-21	-22	-22	-89	-194
Military retirement	-21	-20	-19	-20	-20	-21	-22	-22	-23	-24	-25	-26	-102	-222
Civil service retirement and other	-29	-32	-32	-34	-35	-36	-37	-38	-39	-40	-41	-42	-174	-373
Subtotal	-65	-68	-68	-71	-73	-75	-78	-80	-82	-85	-87	-90	-365	-789
Receipts related to natural resources	-14	-11	-12	-12	-16	-15	-15	-16	-16	-16	-18	-18	-70	-154
MERHCF	-8	-7	-7	-7	-8	-8	-9	-9	-10	-10	-11	-11	-39	-90
Fannie Mae and Freddie Mac[g]	-74	-23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Other	-25	-61	-27	-38	-38	-34	-31	-31	-32	-32	-32	-33	-168	-328
Subtotal	-281	-268	-227	-246	-258	-264	-274	-290	-309	-320	-334	-358	-1,270	-2,881
Total Mandatory Outlays	**2,099**	**2,297**	**2,491**	**2,554**	**2,623**	**2,783**	**2,939**	**3,101**	**3,328**	**3,459**	**3,586**	**3,852**	**13,390**	**30,716**
Memorandum:														
Mandatory Spending Excluding the Effects of Offsetting Receipts	2,380	2,565	2,718	2,800	2,881	3,047	3,213	3,391	3,637	3,780	3,919	4,210	14,659	33,597
Spending for Medicare Net of Offsetting Receipts	505	541	582	586	591	661	709	761	855	880	900	1,011	3,130	7,537
Spending for Major Health Care Programs Net of Offsetting Receipts[i]	831	937	1,031	1,069	1,093	1,179	1,248	1,325	1,447	1,500	1,550	1,693	5,620	13,136

Source: Congressional Budget Office.

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

MERHCF = Department of Defense Medicare-Eligible Retiree Health Care Fund (including TRICARE for Life); n.a. = not applicable.

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

b. Subsidies for health insurance purchased through the exchanges established under the Affordable Care Act. Related spending consists of outlays for certain grants to states, payments for risk adjustments (amounts paid to plans that attract less healthy enrollees), and payments for reinsurance (amounts paid to plans that enroll individuals who subsequently incur very high health costs). Outlays for risk adjustment and reinsurance will be offset by associated revenues, resulting in no net budgetary effect.

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 Civil Service, Foreign Service, Coast Guard, and smaller retirement programs as well as annuitants' health care benefits.

f. "Income security" includes veterans' compensation, pensions, and life insurance programs. "Other" benefits are primarily education subsidies. The costs of veterans' health care are classified as discretionary spending and thus are not shown in this table.

g. The cash payments from Fannie Mae and Freddie Mac to the U.S. Treasury are recorded as offsetting receipts in 2014 and 2015. Beginning in 2016, 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.

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

i. Consists of outlays for Medicare (net of offsetting receipts), Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending.

Table 1-3. Return to Reference

Discretionary Spending Projected in CBO's Baseline

Billions of Dollars

	Actual, 2014	2015[a]	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
Budget Authority														
Defense	606	586	589	603	617	632	647	663	679	696	713	730	3,087	6,567
Nondefense	527	530	516	527	539	553	567	580	595	610	625	640	2,704	5,754
Total	**1,134**	**1,116**	**1,105**	**1,130**	**1,156**	**1,185**	**1,215**	**1,243**	**1,274**	**1,305**	**1,338**	**1,371**	**5,791**	**12,321**
Outlays														
Defense	596	583	587	592	599	616	631	645	666	677	689	711	3,025	6,413
Nondefense	582	579	590	593	596	606	618	631	644	658	673	689	3,003	6,299
Total	**1,179**	**1,162**	**1,176**	**1,186**	**1,195**	**1,222**	**1,249**	**1,276**	**1,310**	**1,336**	**1,362**	**1,400**	**6,028**	**12,712**
Memorandum:														
Caps in the Budget Control Act (As Amended), Including Automatic Reductions to the Caps														
Defense	520	521	523	536	549	562	576	590	n.a.	n.a.	n.a.	n.a.	2,746	n.a.
Nondefense	492	492	493	504	515	529	543	555	n.a.	n.a.	n.a.	n.a.	2,585	n.a.
Total	1,012	1,014	1,017	1,040	1,064	1,091	1,119	1,145	n.a.	n.a.	n.a.	n.a.	5,331	n.a.
Adjustments to the Caps[b]														
Defense	86	65	65	67	68	69	71	72	n.a.	n.a.	n.a.	n.a.	341	n.a.
Nondefense	13	23	23	23	24	24	25	25	n.a.	n.a.	n.a.	n.a.	119	n.a.
Total	99	87	88	90	92	94	96	98	n.a.	n.a.	n.a.	n.a.	460	n.a.

Source: Congressional Budget Office.

Notes: CBO's baseline projections incorporate the assumption that the caps on discretionary budget authority and the automatic spending reductions 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 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 Consolidated and Further Continuing Appropriations Act of 2015 were credited against the caps; in CBO's baseline, those changes (which reduced mandatory budget authority) appear in their normal mandatory accounts.

b. Such adjustments include funding for overseas contingency operations, activities designated as emergency requirements, disaster relief (up to certain limits), and certain efforts to reduce overpayments in benefit programs.

Table 1-4. Return to Reference

Federal Debt Projected in CBO's Baseline

Billions of Dollars

	Actual, 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Debt Held by the Public at the Beginning of the Year	11,983	12,780	13,175	13,821	14,338	14,864	15,528	16,277	17,102	18,044	18,993	19,933
Changes in Debt Held by the Public												
Deficit	485	426	414	416	454	596	687	767	885	895	886	1,008
Other means of financing	313	-30	232	101	71	68	63	58	56	54	54	60
Total	797	396	646	517	525	664	749	825	942	950	940	1,068
Debt Held by the Public at the End of the Year	**12,780**	**13,175**	**13,821**	**14,338**	**14,864**	**15,528**	**16,277**	**17,102**	**18,044**	**18,993**	**19,933**	**21,001**
Debt Held by the Public at the End of the Year (As a percentage of GDP)	74.0	73.8	74.4	73.6	73.0	73.1	73.5	74.0	74.8	75.5	76.1	76.9
Memorandum:												
Debt Held by the Public Minus Financial Assets[a]												
In billions of dollars	11,545	11,831	12,343	12,729	13,153	13,721	14,379	15,118	15,973	16,838	17,692	18,671
As a percentage of GDP	66.9	66.3	66.4	65.3	64.6	64.6	64.9	65.4	66.2	67.0	67.5	68.3
Gross Federal Debt[b]	17,794	18,191	19,056	19,742	20,456	21,261	22,123	23,033	24,010	24,971	25,904	26,906
Debt Subject to Limit[c]	17,781	18,179	19,043	19,729	20,442	21,247	22,109	23,018	23,994	24,956	25,888	26,890
Average Interest Rate on Debt Held by the Public (Percent)[d]	1.8	1.7	1.9	2.1	2.5	2.8	3.1	3.2	3.4	3.5	3.6	3.6

Source: Congressional Budget Office.

Note: 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 U.S. Treasury and the Federal Financing Bank is excluded from the debt limit. That limit, which had previously been set at $17.2 trillion, was suspended from February 15, 2014, through March 15, 2015. On March 16, the debt limit was raised to $18.1 trillion (its previous level plus the amount of federal borrowing that occurred while the limit was suspended). At that point, the Treasury no longer had room to borrow under standard operating procedures. Therefore, to avoid a breach of the ceiling, the Treasury began employing its well-established toolbox of so-called extraordinary measures to allow continued borrowing. If the debt limit remains unchanged, those measures will be exhausted and the Treasury will run out of cash between mid-November and early December, CBO estimates. Over the next few months, however, the amount and timing of the government's outlays and revenue collections could vary from CBO's projections, and the debt limit could be reached earlier or later as a result.

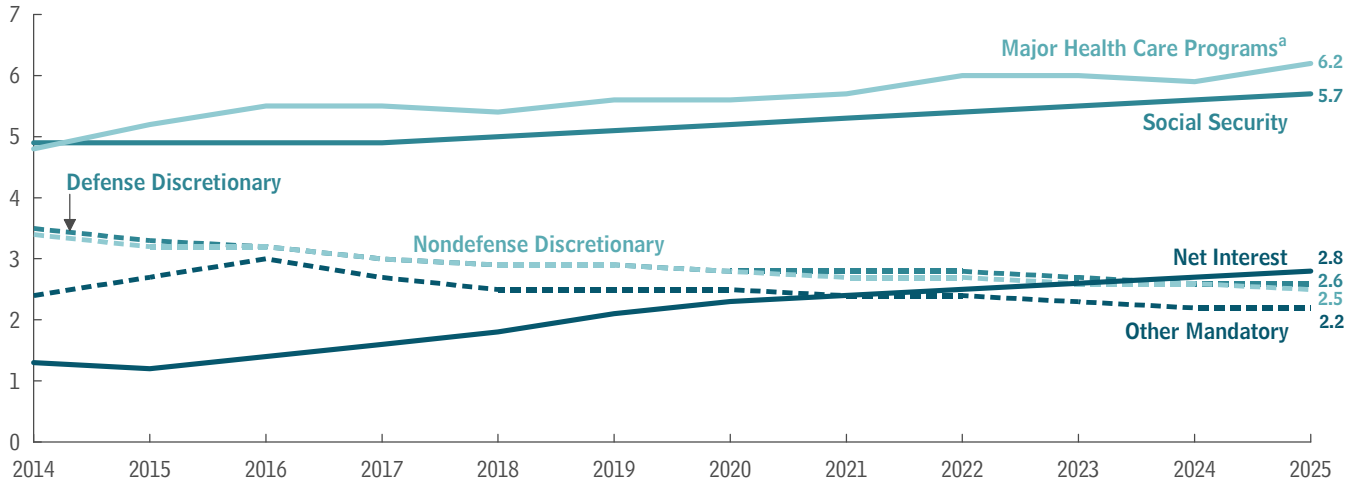
d. The average interest rate is calculated as net interest divided by debt held by the public.

Figure 1-3. Return to Reference

Projected Outlays for Major Budget Categories

Spending for the federal government's major health care programs and Social Security is projected to rise from 10.2 percent of gross domestic product in 2015 to 11.9 percent in 2025.

Percentage of Gross Domestic Product



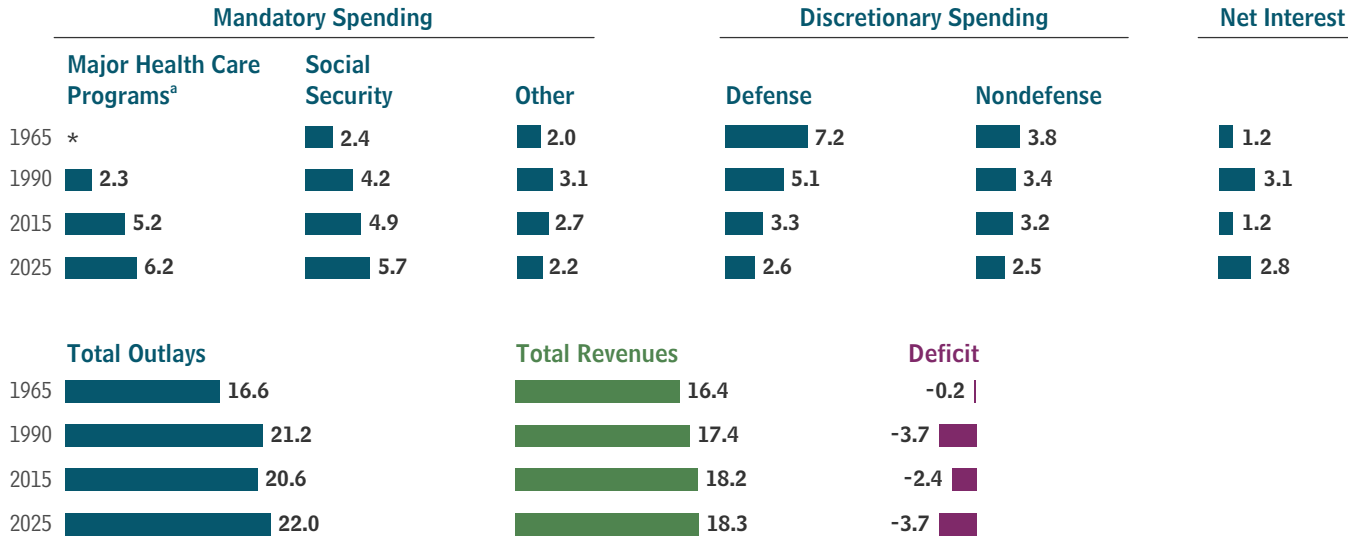
Source: Congressional Budget Office.

a. Medicare, Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending. (Medicare spending is net of premiums paid by beneficiaries and other offsetting receipts.) Other mandatory spending is all mandatory spending other than that for major health care programs and Social Security.

Figure 1-4. Return to Reference

Spending and Revenues Projected in CBO's Baseline, Compared With Actual Values in 1965 and 1990

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

Note: * = between zero and 0.05 percent.

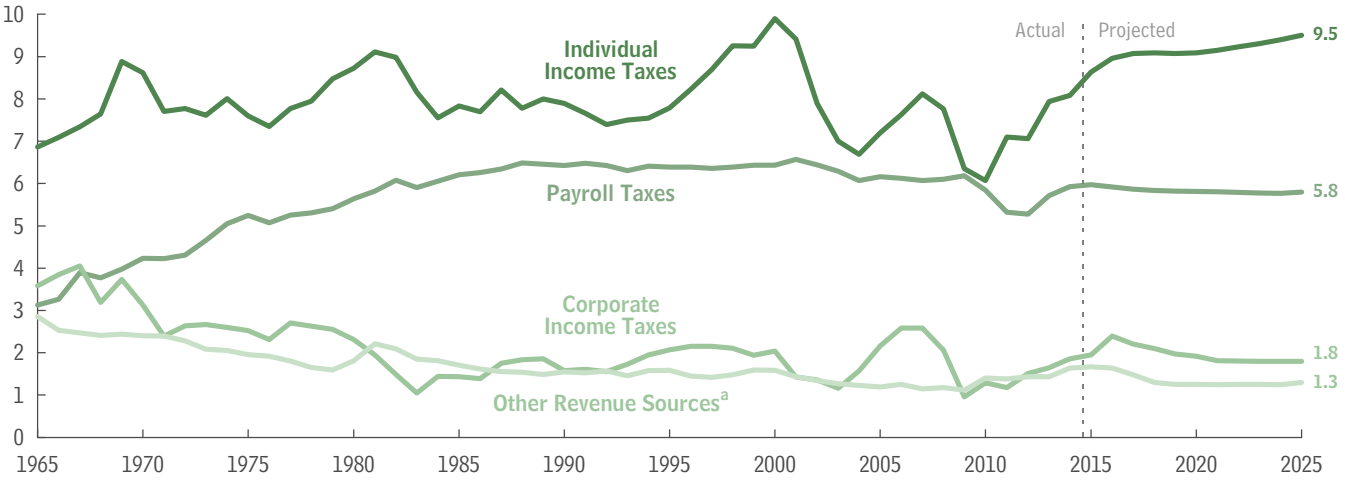
a. Medicare, Medicaid, the Children's Health Insurance Program, and subsidies for health insurance purchased through exchanges and related spending. (Medicare spending is net of premiums paid by beneficiaries and other offsetting receipts.)

Figure 1-5. Return to Reference

Revenues, by Major Source

Over the next decade, individual income taxes will increase at a faster rate than other taxes primarily because of real bracket creep, which occurs when income grows faster than inflation and more income is pushed into higher tax brackets.

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

a. Excise taxes, remittances from the Federal Reserve to the Treasury, customs duties, estate and gift taxes, and miscellaneous fees and fines.

Table 1-5. Return to Reference

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

Billions of Dollars

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
Policy Alternatives That Affect Discretionary Outlays													
Reduce the Number of Troops Deployed for Overseas Contingency Operations to 30,000 by 2017[a]													
Effect on the deficit[b]	0	12	28	39	46	51	53	55	56	57	58	176	456
Debt service	0	*	1	2	3	6	8	10	13	15	18	12	76
Increase Discretionary Appropriations at the Rate of Inflation After 2015[c]													
Effect on the deficit[b]	0	-22	-33	-39	-44	-49	-54	-58	-62	-66	-70	-188	-498
Debt service	0	*	-1	-2	-4	-6	-8	-11	-13	-16	-20	-13	-82
Freeze Most Discretionary Appropriations at the 2015 Amount[d]													
Effect on the deficit[b]	0	-9	*	20	44	69	95	124	152	181	213	124	890
Debt service	0	*	*	*	1	3	7	11	17	24	32	5	95
Policy Alternative That Affects Both Discretionary and Mandatory Outlays													
Prevent the Automatic Spending Reductions Specified in the Budget Control Act[e]													
Effect on the deficit[b]	n.a.	-61	-88	-97	-100	-103	-103	-105	-110	-113	-99	-449	-979
Debt service	n.a.	-1	-2	-5	-10	-14	-19	-24	-29	-35	-40	-33	-179

Continued

Table 1-5. **Continued**

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

Billions of Dollars

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
	Policy Alternative That Affects the Tax Code												
Extend Expiring Tax Provisions[f]													
Effect on the deficit[b]	0	-152	-81	-76	-95	-91	-92	-93	-96	-100	-103	-495	-979
Debt service	0	-2	-4	-7	-12	-16	-20	-25	-30	-35	-40	-41	-190
Memorandum:													
Outlays for Overseas Contingency Operations in CBO's Baseline	83	78	76	75	76	78	79	81	83	84	86	383	797
Deficit in CBO's Baseline	-426	-414	-416	-454	-596	-687	-767	-885	-895	-886	-1,008	-2,566	-7,007

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

Notes: Negative numbers indicate an increase in the deficit; positive numbers indicate a decrease in the deficit.

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

a. For this alternative, CBO does not extrapolate the $74 billion in budget authority for military operations, diplomatic activities, and aid in Afghanistan and other countries provided for 2015. Rather, the alternative incorporates the assumption that funding for overseas contingency operations declines from $50 billion in 2016 to a low of $25 billion in 2019. Thereafter, such funding would slowly increase, reaching about $30 billion per year by the end of the projection period—for a total of $300 billion over the 2016–2025 period.

b. Excludes debt service.

c. 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 2015 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.

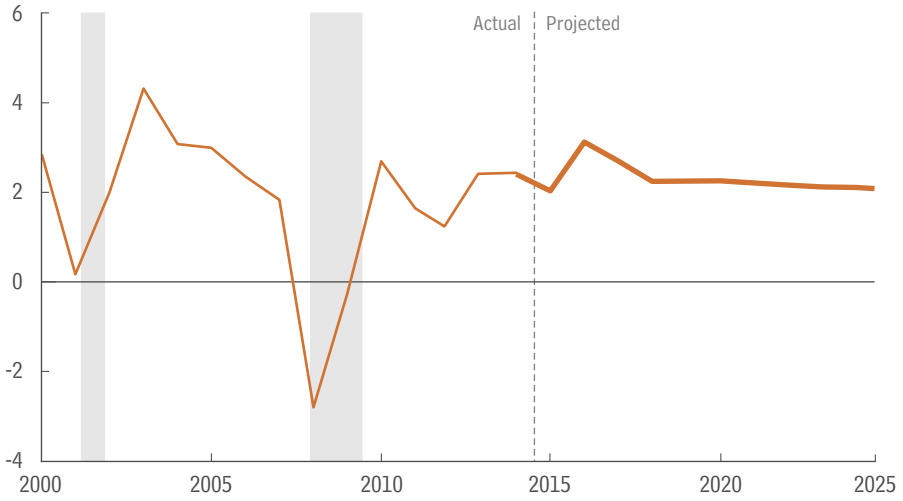
d. This option reflects the assumption that appropriations other than those for overseas contingency operations would generally be frozen at the 2015 level through 2025.

e. 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 2016–2021 period, the automatic procedures lower the caps on discretionary budget authority specified in the Budget Control Act (caps for 2014 and 2015 were revised by the Bipartisan Budget Act of 2013); for the 2022–2025 period, CBO has extrapolated the reductions estimated for 2021. Nonexempt mandatory programs will be reduced through sequestration; those provisions have been extended through 2024. The budgetary effects of this option cannot be combined with those of any of the other alternatives that affect discretionary spending, except for the one to reduce the number of troops deployed for overseas contingency operations.

f. These estimates are mainly from the staff of the Joint Committee on Taxation and are preliminary. They reflect the impact of extending about 60 tax provisions. Nearly all of those provisions have been extended previously; some, such as the research and experimentation tax credit, have been extended multiple times.

Figure 2-1. Return to Reference

Growth of Real GDP



CBO expects output to grow more rapidly in 2016 and 2017 than in 2015 and at a more moderate pace in subsequent years.

Sources: Congressional Budget Office; Bureau of Economic Analysis.

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

Data are annual. Values from 2000 through 2014 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 30, 2015. Values from 2014 through 2025 (the thick line) reflect the data available and projections made before July 30. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

GDP = gross domestic product.

Table 2-1. Return to Reference

CBO's Economic Projections for Calendar Years 2015 to 2025

	Forecast			Projected Annual Average	
	2015	2016	2017	2018–2019	2020–2025
	Percentage Change From Fourth Quarter to Fourth Quarter				
Gross Domestic Product					
Real (Inflation-adjusted)	2.0	3.1	2.7	2.2	2.1
Nominal	3.2	4.7	4.7	4.3	4.3
Inflation					
PCE price index	0.6	1.8	2.0	2.0	2.0
Core PCE price index[a]	1.4	1.7	1.9	2.0	2.0
Consumer price index[b]	0.7	2.3	2.3	2.4	2.4
Core consumer price index[a]	2.0	2.1	2.3	2.3	2.3
GDP price index	1.1	1.6	2.0	2.0	2.1
Employment Cost Index[c]	2.8	3.3	3.5	3.5	3.3
	Fourth-Quarter Level (Percent)				
Unemployment Rate	5.2	5.1	5.0	5.2 [d]	5.2 [e]
	Percentage Change From Year to Year				
Gross Domestic Product					
Real	2.3	3.0	2.9	2.3	2.1
Nominal	3.3	4.5	4.8	4.4	4.3
Inflation					
PCE price index	0.3	1.7	1.9	2.0	2.0
Core PCE price index[a]	1.3	1.7	1.9	2.0	2.0
Consumer price index[b]	0.1	2.1	2.3	2.3	2.4
Core consumer price index[a]	1.8	2.1	2.2	2.3	2.3
GDP price index	1.0	1.5	1.9	2.0	2.1
Employment Cost Index[c]	2.6	3.0	3.4	3.5	3.3
	Calendar Year Average				
Unemployment Rate (Percent)	5.4	5.1	5.0	5.1	5.2
Payroll Employment (Monthly change, in thousands)[f]	225	167	113	62	72
Interest Rates (Percent)					
Three-month Treasury bills	0.1	0.7	1.7	3.1	3.4
Ten-year Treasury notes	2.3	3.0	3.7	4.1	4.3
Tax Bases (Percentage of GDP)					
Wages and salaries	43.4	43.5	43.5	43.6	43.5
Domestic economic profits	9.7	9.3	8.9	8.3	7.7

Source: Congressional Budget Office.

Notes: Economic projections for each year from 2015 to 2025 appear in Appendix B.

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

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

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

d. Value for 2019.

e. Value for 2025.

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

Box 2-1. Return to Reference

Recent Revisions to the National Income and Product Accounts

The Bureau of Economic Analysis (BEA) released its annual revisions to the national income and product accounts on July 30, 2015, after the Congressional Budget Office had completed its economic forecast in early July. That revision to previously published estimates incorporates new data from a variety of sources and some changes in methodology and definitions.[49] Revisions to estimates of output and income (and their components) were limited to the period from the first quarter of 2012 to the first quarter of 2015.

The revisions indicate that, in real (inflation-adjusted) terms, output and income grew more slowly in recent years than previously estimated. BEA now estimates that real gross domestic product (GDP) grew at an average annual rate of 2.1 percent from 2012 to 2014, compared with its previous estimate of 2.3 percent. Most of the downward revisions affect estimates for 2012 and 2013. BEA also lowered its estimates of real gross domestic income (the income earned in the production of gross domestic product) for the 2012–2014 period, with notable downward revisions to corporate profits.

This revision reflects BEA's first comprehensive effort to improve the way it accounts for seasonal effects when adjusting its estimates. That effort responds to concerns that BEA was failing to eliminate seasonal patterns in its estimate of GDP, concerns raised primarily because of the persistently slow growth of output in the first quarters of recent years. Partly because of improvements in its seasonal adjustment procedures, BEA raised its estimate of the growth of real GDP in the first quarter of 2015 to 0.6 percent from the previously reported −0.2 percent. The data still reflect seasonal patterns, however, so BEA plans further work to address remaining problems related to seasonal adjustment, including collaborative efforts with the agencies that provide the data on which BEA's estimates are based.

An initial review of the revisions indicates that accounting for them would not cause CBO to make any significant revisions to its near-term projections for the economy or for the budget. Both the revised data and newly available data suggest that the growth of GDP in the first half of 2015 was stronger than in CBO's forecast, which suggests that growth will be slightly stronger for the year as a whole. Similarly, the revised data on income do not suggest that major revisions to CBO's revenue projections would be necessary because the revisions to BEA's estimates of wages and salaries were minor. In addition, CBO's projections already incorporate the data on corporate tax receipts that prompted BEA's downward revisions to corporate profits.

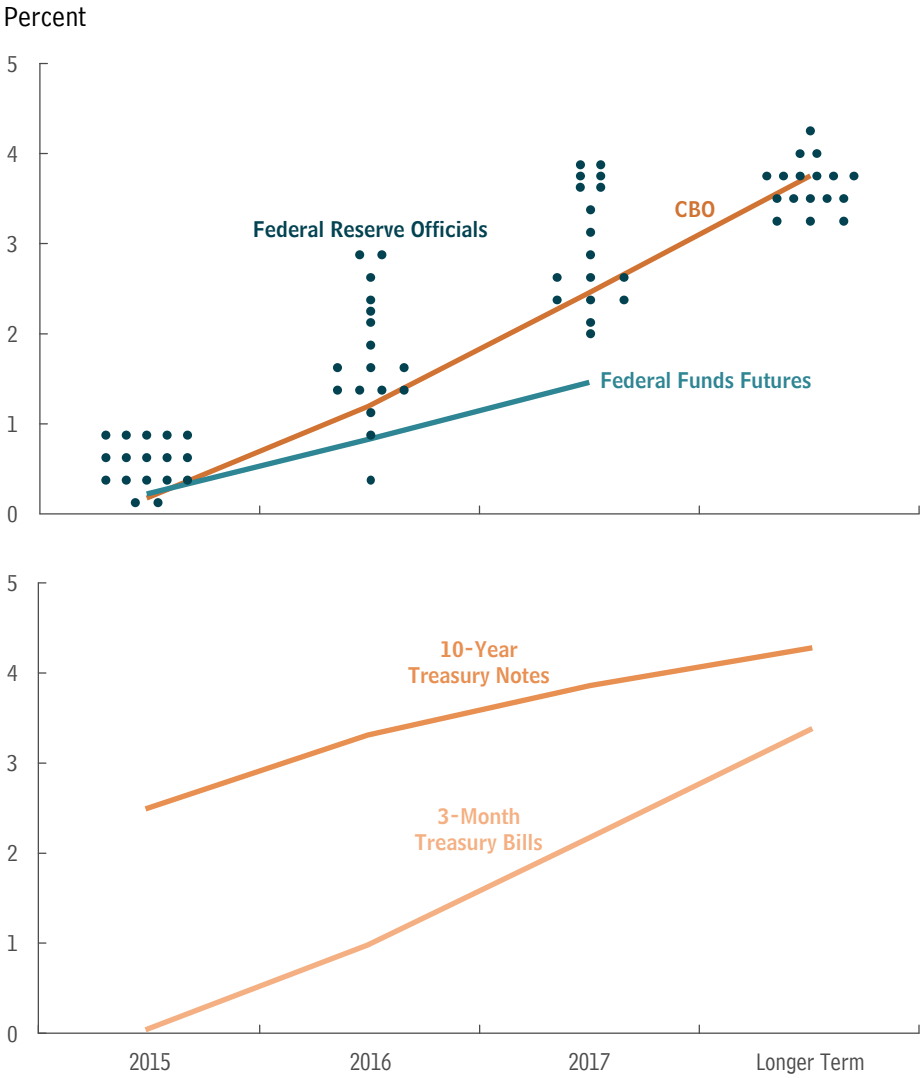
49. See Bureau of Economic Analysis, "National Income and Product Accounts, Gross Domestic Product: Second Quarter 2015 (Advance Estimate); Includes Historical Revisions" (News Release BEA 15-35, July 30, 2015), www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm.

In contrast to those near-term considerations, the revised data suggest that growth in potential (maximum sustainable) output over the medium term will be slightly weaker, although the magnitude of that reduction cannot yet be calculated with any precision. BEA's revision incorporates both lower real GDP and higher estimates of business investment in fixed capital, suggesting slower growth of total factor productivity and faster growth in capital services in recent years.[50] Those developments imply a slightly lower historical estimate of potential output and slightly slower projected growth in potential output, but it is impossible to determine the magnitude of those effects until BEA releases the revised estimates of capital stock later this year.

50. The growth of total factor productivity is defined as the growth of real output that is not explained by the growth of labor and capital services.

Figure 2-2. Return to Reference 1, 2

Forecasts of Interest Rates by CBO, the Federal Reserve, and Federal Funds Futures



CBO's forecast for the **federal funds rate** is roughly consistent with the economic projections by Federal Reserve officials, but it also takes into account the path for interest rates implied by prices in the futures market for federal funds.

CBO projects that **interest rates on Treasury securities** will rise with the anticipated increase in the federal funds rate and with expectations of continued improvement in economic conditions.

Sources: Congressional Budget Office; Federal Reserve; Bloomberg.

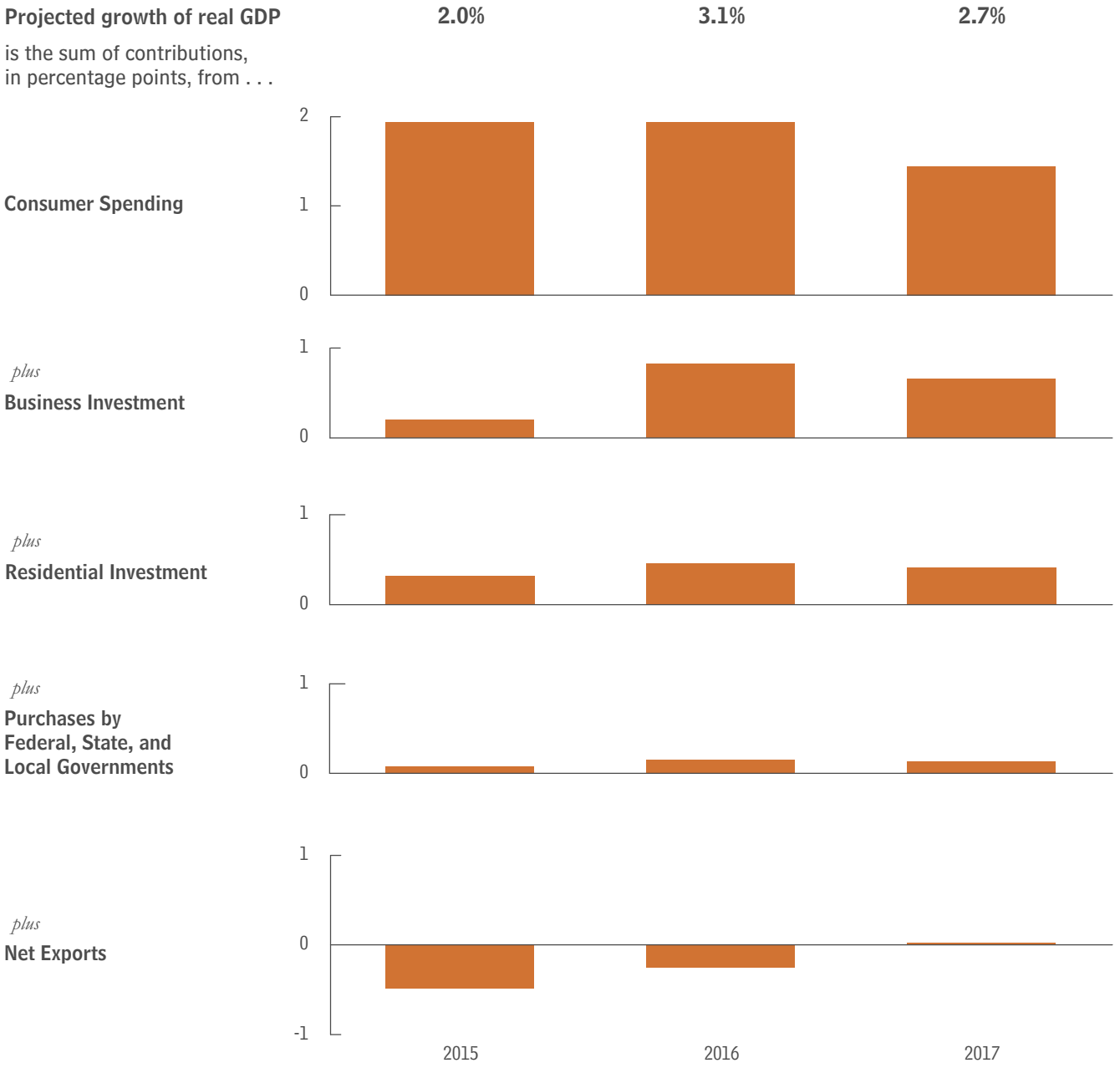
Notes: The 17 data points for each year in the top panel represent forecasts made by Federal Reserve Board members and Federal Reserve Bank presidents in June 2015. They are available at http://go.usa.gov/3sQnA. Forecasts are expected values at the end of the year. For the Federal Reserve, longer-term 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.

The forecast from the futures market for federal funds is dated July 7, 2015, when CBO's economic forecast was completed. Values are averages for the fourth quarter of the year shown. The value for 2017 is the average of futures prices for October and November.

CBO's forecast values are for the fourth quarter of the year shown. CBO's forecast for the longer term is the value for 2025.

Figure 2-3. Return to Reference 1, 2, 3, 4, 5, 6

Projected Contributions to the Growth of Real GDP



Source: Congressional Budget Office.

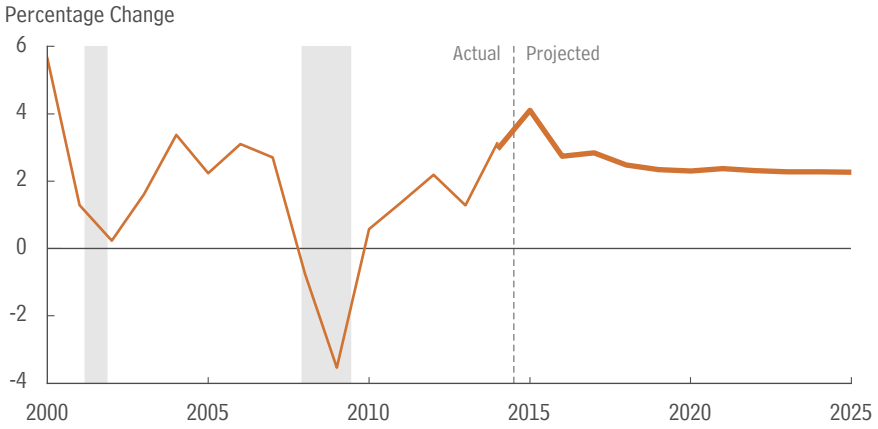
Notes: Data are annual. The values show the projected contribution of the major components of GDP to the projected growth rate of real (inflation-adjusted) GDP. Changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year. Consumer spending consists of personal consumption expenditures. Business investment includes purchases of equipment, nonresidential structures, and intellectual property products, and the change in inventories. Residential investment includes 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.

GDP = gross domestic product.

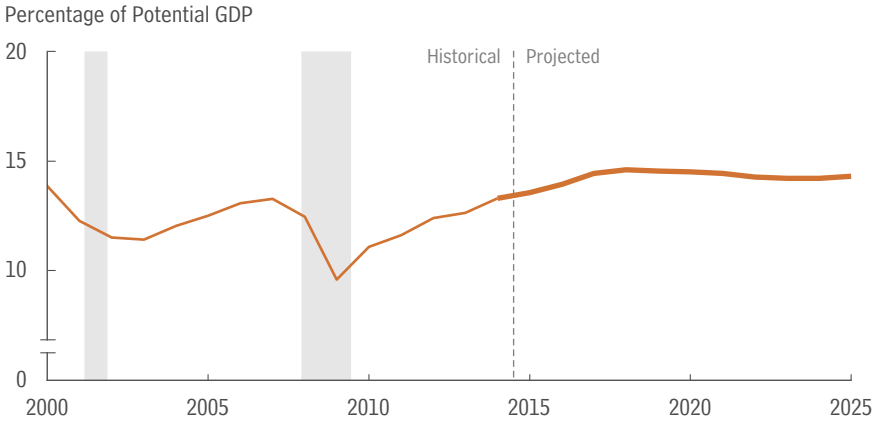
Figure 2-4. **Return to Reference 1, 2, 3, 4**

Factors Underlying the Projected Contributions to the Growth of Real GDP

Solid growth in the total amount of **inflation-adjusted compensation of employees** is projected to support faster growth in consumer spending in the next few years.



Business investment will rise above current levels in the next few years as businesses make up for investments that they did not undertake during the recession.



Sources: Congressional Budget Office; Bureau of Economic Analysis; Bureau of the Census; Consensus Economics.

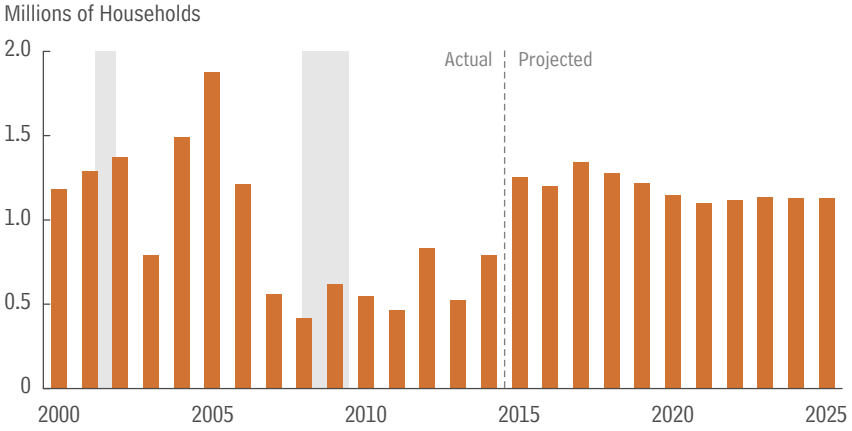
Notes: Data are annual. Values from 2000 through 2014 (the thin lines) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 30, 2015. Values from 2014 through 2025 (the thick lines) reflect the data available and projections made before July 30.

The total amount of inflation-adjusted compensation of employees is the sum of total wages, salaries, and supplements divided by the price index for personal consumption expenditures. Percentage changes are measured from the average of one calendar year to the next.

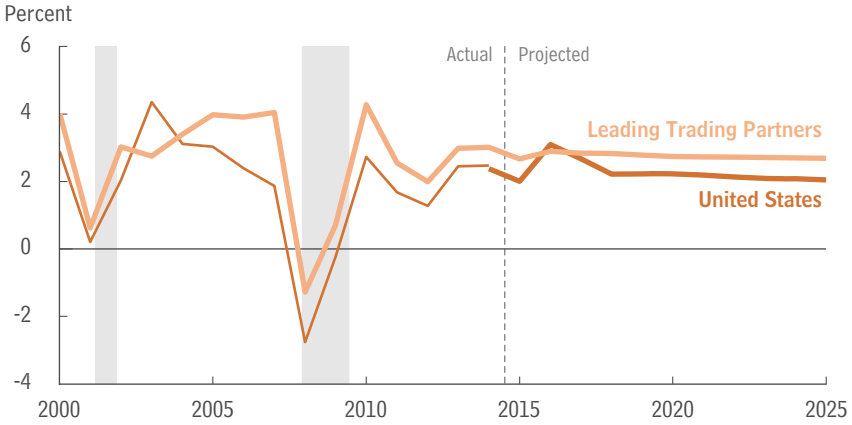
Continued

Figure 2-4. **Continued**

Factors Underlying the Projected Contributions to the Growth of Real GDP



An increase in **household formation** is projected to boost the demand for housing and spur residential investment for the next few years.



The rise in **growth of real GDP in the United States relative to that of its leading trading partners** is projected to contribute to lower net exports this year and next.

Notes: Business investment includes purchases of equipment, nonresidential structures, and intellectual property products, and the change in inventories. It is measured as a percentage of real (inflation-adjusted) potential GDP.

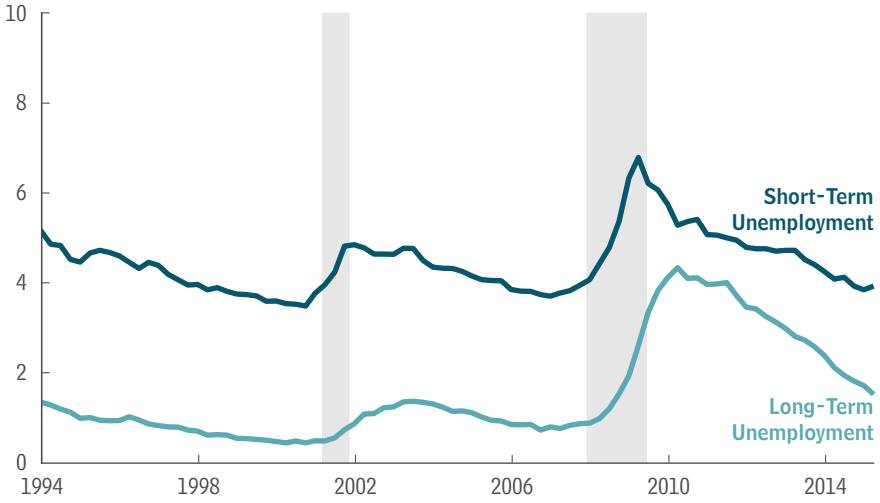
Household formation is the change in the number of households from one calendar year to the next.

The percentage change in real GDP among the United States' leading trading partners is calculated as the average of the rates of growth of those countries' real GDP, with their shares of U.S. exports used as weights. The trading partners are Australia, Brazil, Canada, China, Hong Kong, Japan, Mexico, Singapore, South Korea, Switzerland, Taiwan, the United Kingdom, and the countries of the euro zone. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

GDP = gross domestic product.

Figure 2-5. Return to Reference

Rates of Short- and Long-Term Unemployment



The overall unemployment rate remains elevated partly because of weakness in the demand for goods and services and partly because of the stigma and erosion of skills that can stem from long-term unemployment.

Sources: Congressional Budget Office; Bureau of Labor Statistics.

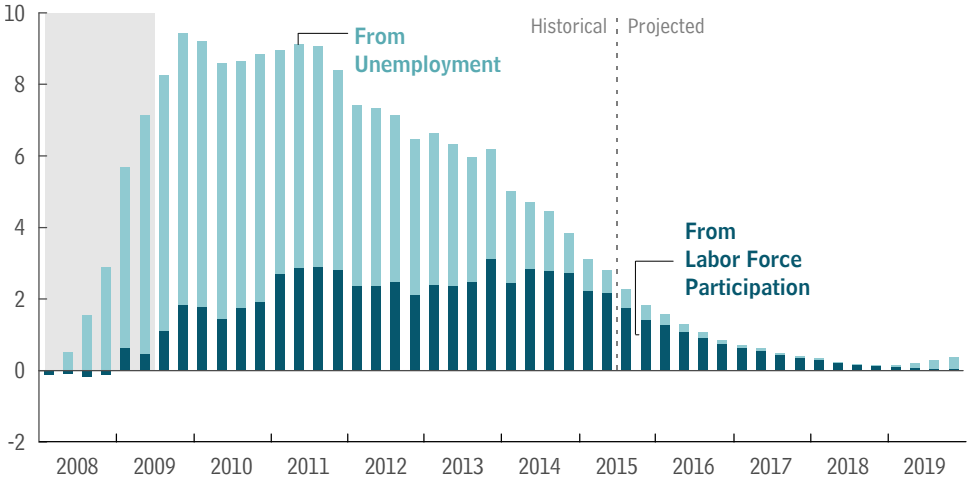
Notes: The rate of short-term unemployment is the percentage of the labor force that has been out of work for 26 weeks or less. The rate of long-term unemployment is the percentage of the labor force that has been out of work for at least 27 consecutive weeks.

Data are quarterly and are plotted through the second quarter of 2015.

Figure 2-6. Return to Reference

Employment Shortfall

Millions of People



The employment shortfall has dipped sharply since 2009 because of a decline in the unemployment rate; it remains elevated, however, mostly from low labor force participation.

Source: Congressional Budget Office.

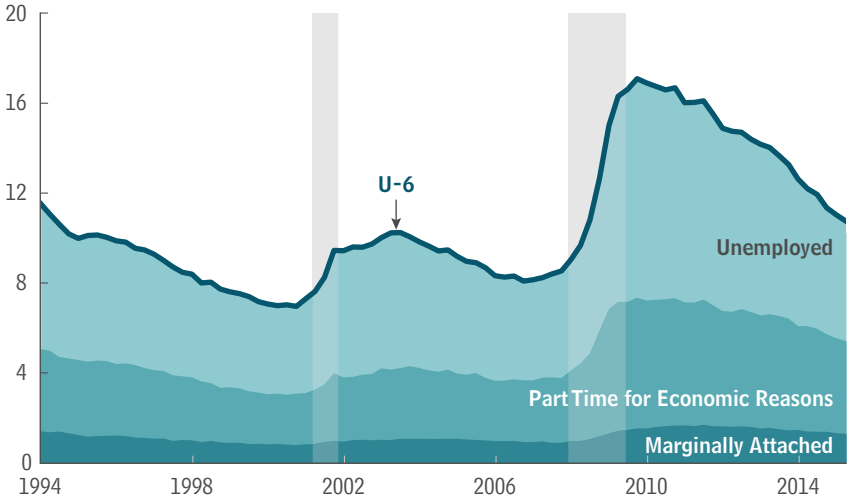
Notes: Data are quarterly.

The employment shortfall is the number of people who would be employed if the unemployment rate equaled its rate in December 2007 (the shortfall from unemployment) and if the labor force participation rate equaled its potential rate (the shortfall from labor force participation).

Figure 2-7. Return to Reference

Underuse of Labor

Percentage of the Labor Force Plus Marginally Attached Workers



The **U-6 measure of the underuse of labor** has fallen since the end of the recession but remains high: The percentage of people who are employed **part time for economic reasons** remains significantly higher than it was before the recession, and the percentage of people who are **marginally attached** to the labor force is slightly greater than it was before the recession began.

Sources: Congressional Budget Office; Bureau of Labor Statistics.

Notes: People who are employed part time for economic reasons are those who would prefer full-time employment.

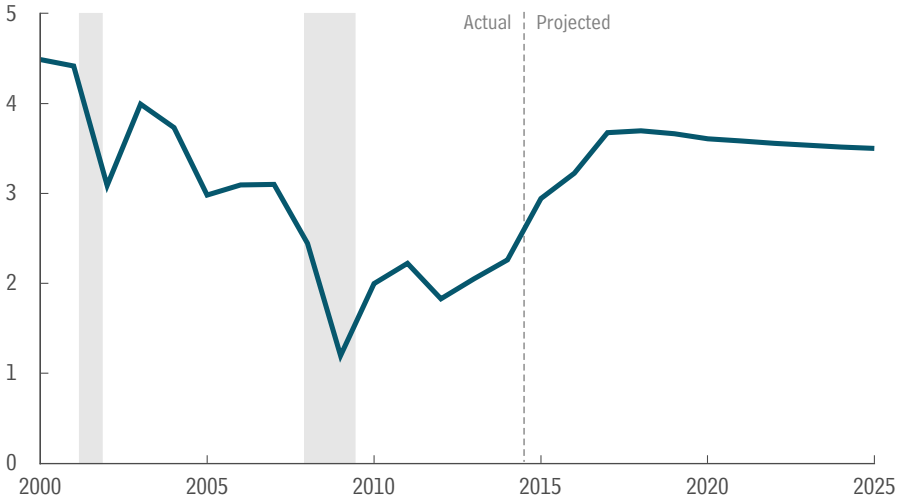
People who are marginally attached to the labor force are not currently looking for work but have looked for work in the past 12 months.

Data are quarterly and are plotted through the second quarter of 2015.

Figure 2-8. Return to Reference

Hourly Labor Compensation

Percentage Change



Although hourly labor compensation has grown slowly in recent years, CBO projects that growth over the next several years will be stronger than in 2014, as the demand for workers continues to rise and slack in the labor market diminishes.

Sources: Congressional Budget Office; Bureau of Labor Statistics.

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

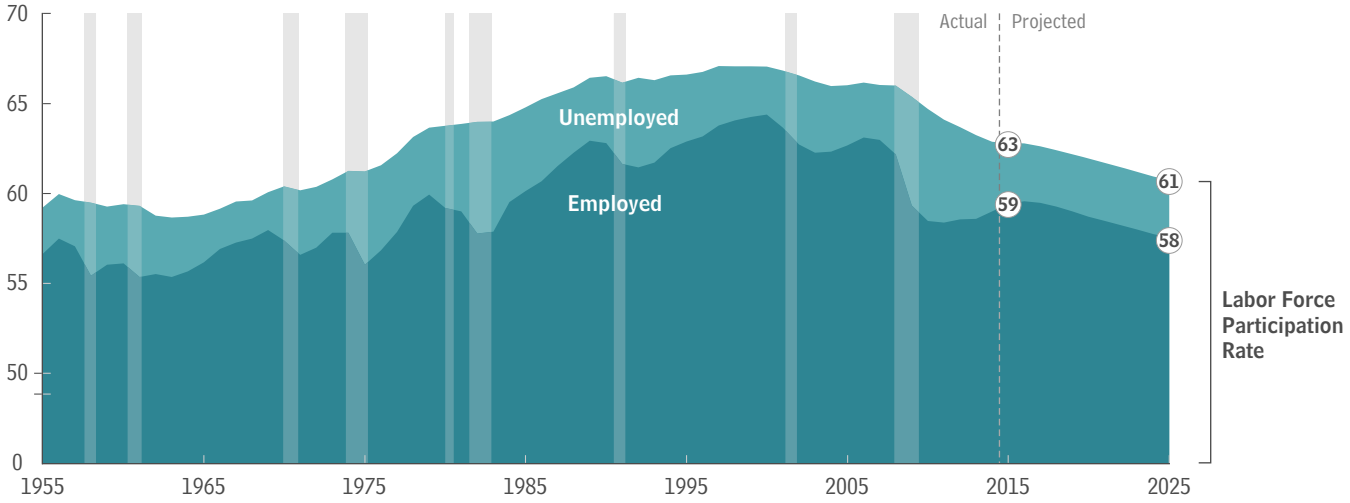
Data are annual. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

Figure 2-9. **Return to Reference**

The Labor Force, Employment, and Unemployment

The percentage of the population that is employed is projected to fall over the next 10 years because of declining participation in the labor force, mainly by baby boomers as they age and move into retirement.

Percentage of the Population



Sources: Congressional Budget Office; Bureau of Labor Statistics.

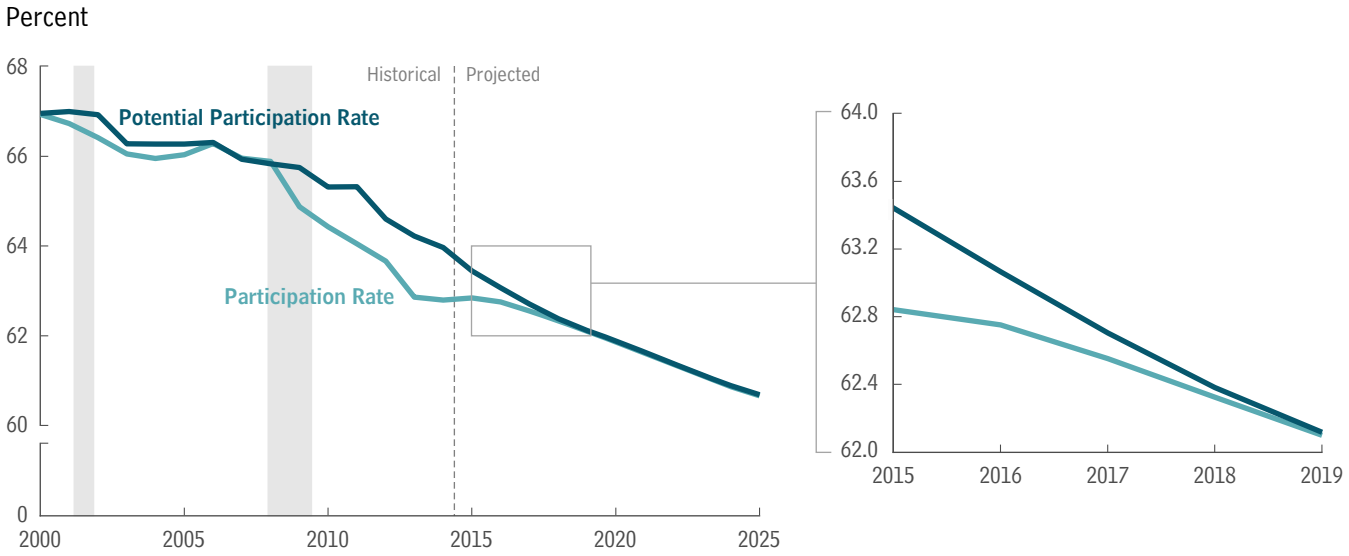
Notes: The labor force consists of people who are employed and people who are unemployed but who are available for work and are actively seeking jobs. Unemployment as a percentage of the population is not the same as the official unemployment rate, which is expressed as a percentage of the labor force.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

Data are annual. Actual data are plotted through 2014.

Figure 2-10. **Return to Reference 1, 2**

Labor Force Participation Rates

CBO expects the rate of labor force participation to remain largely unchanged over the coming year and then to decline through 2025.



Sources: Congressional Budget Office; Bureau of Labor Statistics.

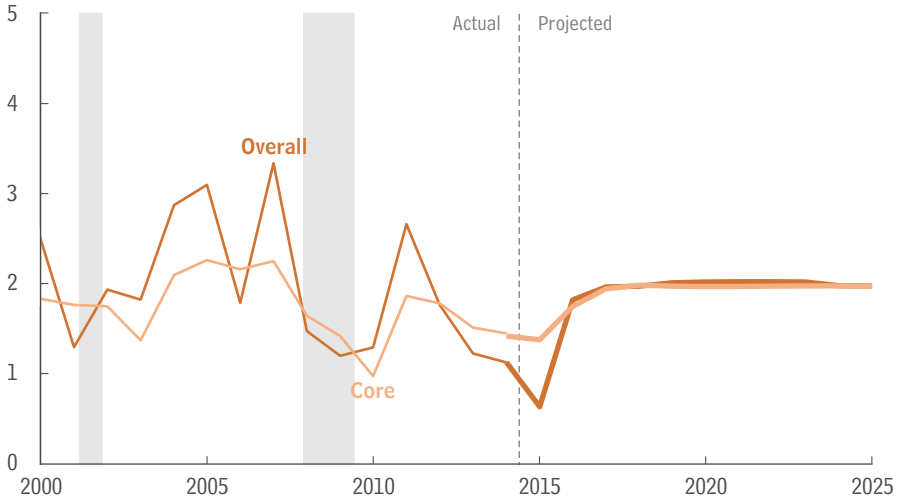
Notes: The participation rate is the percentage of people in the civilian noninstitutionalized population who are at least 16 years old and in the labor force. The labor force consists of people who are employed and people who are unemployed but who are available for work and are actively seeking jobs. The potential participation rate is the participation rate excluding the effects of the business cycle.

Data are fourth-quarter values.

Figure 2-11. **Return to Reference**

Inflation

Percentage Change in Prices



CBO anticipates that core prices will rise modestly, reflecting the remaining slack in the economy and widely held expectations for low and stable inflation.

Sources: Congressional Budget Office; Bureau of Economic Analysis.

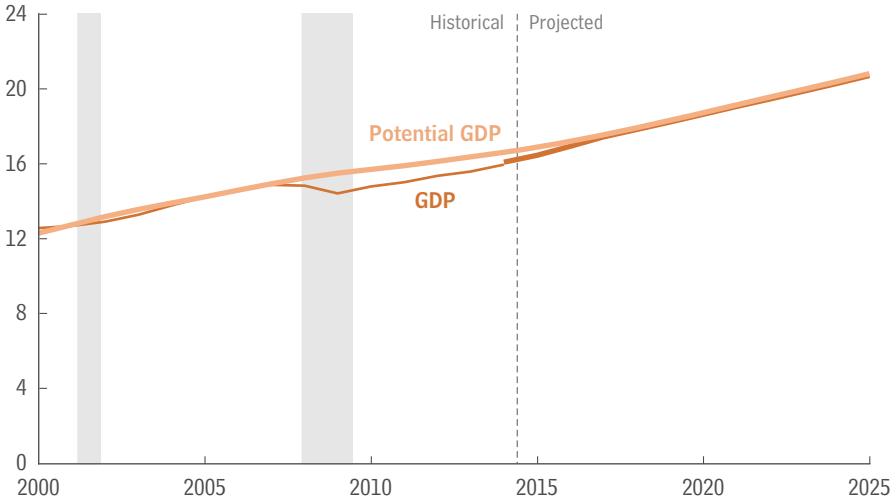
Notes: The overall inflation rate is based on the price index for personal consumption expenditures; the core rate excludes prices for food and energy.

Data are annual. Values from 2000 through 2014 (the thin lines) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 30, 2015. Values from 2014 through 2025 (the thick lines) reflect the data available and projections made before July 30. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

Figure 2-12. Return to Reference

GDP and Potential GDP

Trillions of 2009 Dollars



The gap between the economy's actual and potential output, adjusted for inflation, narrows to its historical average—about one-half of one percent of potential GDP—by the end of 2017 in CBO's projection.

Sources: Congressional Budget Office; Bureau of Economic Analysis.

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

Data are annual. Values from 2000 through 2014 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 30, 2015. Values from 2014 through 2025 (the thick line) reflect the data available and projections made before July 30.

GDP = gross domestic product.

Table 2-2. Return to Reference

Key Inputs in CBO's Projections of Potential GDP

Percent, by Calendar Year

	Average Annual Growth							Projected Average Annual Growth		
	1950-1973	1974-1981	1982-1990	1991-2001	2002-2007	2008-2014	Total, 1950-2014	2015-2019	2020-2025	Total, 2015-2025
					Overall Economy					
Potential GDP	4.0	3.3	3.1	3.3	2.7	1.5	3.3	2.0	2.1	2.1
Potential Labor Force	1.6	2.5	1.6	1.3	1.0	0.5	1.5	0.4	0.5	0.5
Potential Labor Force Productivity[a]	2.4	0.8	1.5	2.0	1.6	1.0	1.8	1.5	1.6	1.6
					Nonfarm Business Sector					
Potential Output	4.1	3.6	3.3	3.7	3.0	1.7	3.5	2.4	2.6	2.5
Potential Hours Worked	1.4	2.3	1.5	1.4	0.4	0.4	1.3	0.4	0.6	0.5
Capital Services	3.8	3.8	3.6	3.9	2.7	1.6	3.4	2.8	2.5	2.6
Potential TFP	1.9	0.9	1.1	1.5	1.9	1.0	1.5	1.3	1.4	1.4
Potential TFP excluding adjustments	1.9	0.9	1.1	1.5	1.5	1.0	1.5	1.3	1.4	1.4
Adjustments to TFP (Percentage points)[b]	0	0	0	0.1	0.4	*	0.1	*	*	*
Contributions to the Growth of Potential Output (Percentage points)										
Potential hours worked	1.0	1.6	1.1	1.0	0.3	0.3	0.9	0.3	0.4	0.3
Capital input	1.1	1.1	1.1	1.2	0.8	0.5	1.0	0.8	0.7	0.8
Potential TFP	1.9	0.9	1.1	1.5	1.9	1.0	1.5	1.3	1.4	1.4
Total Contributions	4.0	3.6	3.3	3.7	3.0	1.7	3.5	2.4	2.6	2.5
Potential Labor Productivity[c]	2.7	1.3	1.7	2.2	2.6	1.4	2.1	2.0	2.0	2.0

Source: Congressional Budget Office.

Notes: 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.

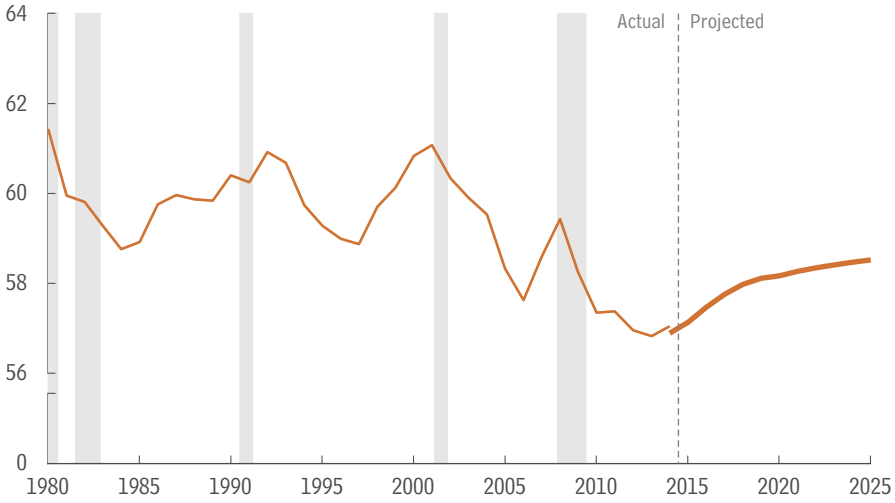
b. The adjustments reflect CBO's estimate of the unusually rapid growth of TFP between 2001 and 2003, and changes in the average level of education and experience of the labor force.

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

Figure 2-13. Return to Reference

Labor Income

Percentage of Gross Domestic Income



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

Sources: Congressional Budget Office; Bureau of Economic Analysis.

Notes: Labor income is defined as the sum of employees' compensation and CBO's estimate of the share 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 the labor share of income, see Congressional Budget Office, *How CBO Projects Income* (July 2013), www.cbo.gov/publication/44433.

Data are annual. Values from 1980 through 2014 (the thin line) reflect revisions to the national income and product accounts that the Bureau of Economic Analysis released on July 30, 2015. Values from 2014 through 2025 (the thick line) reflect the data available and projections made before July 30.

Table 2-3. Return to Reference

Comparison of CBO's Current and Previous Economic Projections for Calendar Years 2015 to 2025

	Forecast			Projected Annual Average		
	2015	2016	2017	2015–2019	2020–2025	2015–2025
	Percentage Change From Fourth Quarter to Fourth Quarter					
Real (Inflation-adjusted) GDP						
August 2015	2.0	3.1	2.7	2.4	2.1	2.3
January 2015	2.9	2.9	2.5	2.5	2.1	2.3
Nominal GDP						
August 2015	3.2	4.7	4.7	4.2	4.3	4.3
January 2015	4.2	4.6	4.5	4.3	4.2	4.3
PCE Price Index						
August 2015	0.6	1.8	2.0	1.7	2.0	1.9
January 2015	1.4	1.9	2.0	1.9	2.0	1.9
Core PCE Price Index[a]						
August 2015	1.4	1.7	1.9	1.8	2.0	1.9
January 2015	1.8	1.9	1.9	1.9	2.0	1.9
Consumer Price Index[b]						
August 2015	0.7	2.3	2.3	2.0	2.4	2.2
January 2015	1.5	2.3	2.3	2.2	2.4	2.3
Core Consumer Price Index[a]						
August 2015	2.0	2.1	2.3	2.2	2.3	2.3
January 2015	2.1	2.2	2.3	2.2	2.3	2.3
GDP Price Index						
August 2015	1.1	1.6	2.0	1.8	2.1	1.9
January 2015	1.3	1.7	1.9	1.8	2.0	1.9
Employment Cost Index[c]						
August 2015	2.8	3.3	3.5	3.3	3.3	3.3
January 2015	2.7	3.2	3.6	3.3	3.4	3.4
Real Potential GDP						
August 2015	1.7	1.9	2.1	2.0	2.1	2.1
January 2015	1.8	2.1	2.2	2.1	2.1	2.1
	Calendar Year Average					
Unemployment Rate (Percent)						
August 2015	5.4	5.1	5.0	5.1	5.2	5.2
January 2015	5.5	5.4	5.3	5.4	5.4	5.4
Interest Rates (Percent)						
Three-month Treasury bills						
August 2015	0.1	0.7	1.7	1.7	3.4	2.6
January 2015	0.2	1.2	2.6	2.2	3.4	2.8
Ten-year Treasury notes						
August 2015	2.3	3.0	3.7	3.4	4.3	3.9
January 2015	2.8	3.4	3.9	3.7	4.6	4.2
Tax Bases (Percentage of GDP)						
Wages and salaries						
August 2015	43.4	43.5	43.5	43.5	43.5	43.5
January 2015	42.6	42.6	42.7	42.7	43.0	42.9
Domestic economic profits						
August 2015	9.7	9.3	8.9	8.9	7.7	8.1
January 2015	10.0	9.7	9.4	9.3	8.0	8.5

Source: Congressional Budget Office.

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

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

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

Figure 2-14. Return to Reference

Comparison of Economic Projections by CBO and the *Blue Chip* Consensus

Sources: Congressional Budget Office; Aspen Publishers, *Blue Chip Economic Indicators* (August 10, 2015).

Notes: The *Blue Chip* consensus is the average of about 50 forecasts by private-sector economists.

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

Growth of real GDP and inflation rates are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

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.

GDP = gross domestic product.

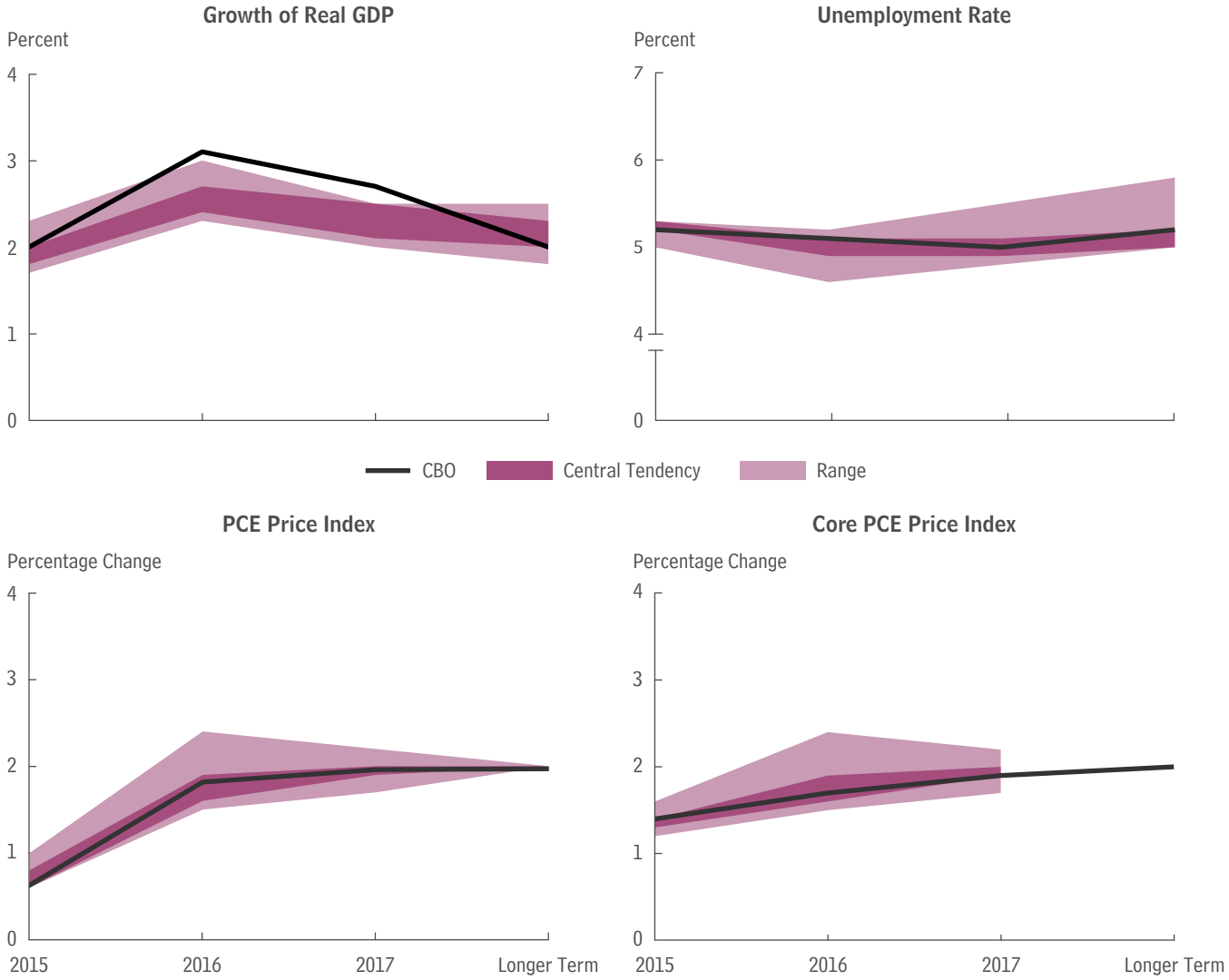
a. The consumer price index for all urban consumers.

b. Rate in the fourth quarter.

Figure 2-15. Return to Reference

Comparison of Economic Projections by CBO and the Federal Reserve

CBO's projection of the growth of real GDP is slightly above or within the Federal Reserve's central tendencies, and CBO's projections of the rates of unemployment and inflation are within the central tendencies.



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 2015" (June 17, 2015).

Notes: Each range of estimates from the Federal Reserve reflects the projections of each member of the Board of Governors and the president of each Federal Reserve Bank. The central tendency is that range without the three highest and three lowest projections.

For CBO, longer-term projections are values for 2025. 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.

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

Table A-1. Return to Reference 1, 2

Changes in CBO's Baseline Projections of the Deficit Since March 2015

Billions of Dollars

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
Deficit in CBO's March 2015 Baseline	-486	-455	-455	-489	-607	-696	-763	-900	-907	-899	-1,038	-2,701	-7,209
Changes to Revenue Projections													
Legislative Changes													
Individual income taxes	*	1	1	1	1	1	1	1	1	1	1	4	8
Corporate income taxes	*	*	*	*	*	6	-6	*	*	*	*	6	1
Payroll taxes	*	*	*	*	*	*	*	*	*	*	*	1	2
Other	-1	-1	-1	-1	*	-1	-1	-1	-1	-1	-1	-4	-7
Subtotal	-1	*	1	1	*	6	-6	*	*	*	*	7	3
Economic Changes													
Individual income taxes	-1	2	12	14	11	6	5	6	6	7	10	45	79
Corporate income taxes	-14	-18	-19	-23	-23	-20	-19	-18	-15	-13	-10	-103	-178
Payroll taxes	5	4	8	10	10	8	7	8	8	7	6	41	76
Other	*	15	23	20	4	2	3	4	4	4	5	64	85
Subtotal	-10	2	24	22	2	-3	-5	1	3	6	10	48	63
Technical Changes													
Individual income taxes	36	11	-2	-8	-13	-20	-24	-25	-28	-31	-32	-32	-172
Corporate income taxes	33	34	12	-4	-8	-7	-6	-6	-5	-5	-5	27	*
Payroll taxes	4	-1	-4	-4	-5	-5	-5	-5	-6	-6	-6	-18	-46
Other	-3	-2	-4	-5	-4	-3	-2	-1	*	1	1	-17	-18
Subtotal	70	42	2	-21	-30	-34	-37	-37	-39	-41	-41	-41	-236
Total Revenue Changes	**60**	**44**	**27**	**1**	**-28**	**-31**	**-47**	**-36**	**-36**	**-34**	**-31**	**14**	**-170**
Changes to Outlay Projections													
Legislative Changes													
Mandatory outlays													
Medicare	7	14	14	8	8	8	11	14	15	15	15	53	124
CHIP	0	2	8	5	*	0	0	0	0	0	0	15	15
Health insurance subsidies and related spending	0	-1	-3	-2	-1	-1	-1	-1	-1	-2	-2	-9	-16
Other	2	4	2	4	4	2	1	*	-1	-4	-9	16	3
Subtotal	8	19	22	15	11	9	11	12	12	9	5	76	125
Discretionary outlays	0	0	0	0	0	0	0	0	0	2	2	0	3
Net interest outlays (Debt service)	*	*	1	1	2	3	3	4	5	5	6	8	30
All Legislative Changes	8	19	23	17	13	12	14	16	17	16	12	83	159
Economic Changes													
Mandatory outlays													
Social Security	0	-6	-13	-15	-15	-15	-15	-14	-14	-14	-13	-63	-133
Unemployment compensation	-1	-2	-2	-2	-3	-2	-2	-2	-2	-2	-2	-11	-21
Other	-1	-5	-9	-10	-11	-9	-11	-13	-13	-13	-14	-44	-108
Subtotal	-2	-12	-24	-27	-29	-26	-28	-29	-29	-29	-29	-118	-262

Continued

Table A-1. **Continued**

Changes in CBO's Baseline Projections of the Deficit Since March 2015

Billions of Dollars

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
						Changes to Outlay Projections (Continued)							
Economic Changes (Continued)													
Discretionary outlays	0	*	*	*	*	*	*	*	*	-1	-1	-1	-3
Net interest outlays													
Effect of rates and inflation	-8	-14	-24	-35	-30	-29	-31	-35	-38	-42	-45	-132	-324
Debt service	*	*	-1	-4	-7	-10	-12	-15	-19	-22	-26	-23	-118
Subtotal	-8	-14	-25	-39	-37	-39	-44	-50	-57	-64	-71	-155	-441
All Economic Changes	-10	-26	-49	-66	-67	-65	-72	-80	-86	-93	-102	-274	-706
Technical Changes													
Mandatory outlays													
Medicare	7	7	10	11	12	12	13	10	15	22	18	52	130
Veterans' compensation and pensions	2	2	2	3	3	3	3	3	4	4	4	13	32
Social Security	-1	-2	-2	-3	-3	-3	-3	-3	-3	-4	-4	-13	-31
Earned income and child tax credits	-2	-2	-2	-3	-3	-3	-3	-3	-3	-3	-3	-14	-28
Medicaid	7	8	8	6	3	2	0	0	0	0	0	27	27
Other	5	2	-1	3	1	*	1	*	1	1	1	5	8
Subtotal	17	14	15	16	14	11	11	7	13	19	16	71	138
Discretionary outlays	-13	-2	1	1	1	*	*	*	*	*	*	1	*
Net interest outlays													
Debt service	*	-1	*	*	1	3	5	7	9	11	14	3	49
Other	-3	-1	-2	-2	-1	-1	-1	-1	-1	-1	-1	-6	-12
Subtotal	-3	-2	-2	-1	1	2	4	5	8	10	13	-3	37
All Technical Changes	1	10	14	16	15	14	15	12	21	29	28	69	175
Total Outlay Changes	*	**3**	**-12**	**-33**	**-39**	**-40**	**-43**	**-51**	**-48**	**-48**	**-61**	**-121**	**-372**
						All Changes							
Total Effect on the Deficit[a]	**60**	**41**	**39**	**35**	**11**	**9**	**-4**	**15**	**12**	**14**	**31**	**135**	**203**
Deficit in CBO's August 2015 Baseline	-426	-414	-416	-454	-596	-687	-767	-885	-895	-886	-1,008	-2,566	-7,007
Memorandum:[a]													
Total Legislative Changes	-9	-19	-22	-16	-13	-6	-20	-16	-17	-16	-12	-76	-156
Total Economic Changes	*	29	74	88	69	63	67	80	89	100	112	321	769
Total Technical Changes	69	32	-12	-37	-44	-48	-52	-49	-60	-70	-70	-110	-411

Source: Congressional Budget Office.

Note: CHIP = Children's Health Insurance Program; * = between -$500 million and $500 million.

a. Negative numbers indicate an increase in the deficit; positive numbers indicate a decrease in the deficit.

Table B-1. Return to Reference

CBO's Economic Projections, by Calendar Year

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					Percentage Change From Year to Year						
Gross Domestic Product											
Real (Inflation-adjusted)	2.3	3.0	2.9	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Nominal	3.3	4.5	4.8	4.4	4.3	4.4	4.3	4.3	4.3	4.2	4.2
Inflation											
PCE price index	0.3	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE price index[a]	1.3	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index[b]	0.1	2.1	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Core consumer price index[a]	1.8	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GDP price index	1.0	1.5	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1
Employment Cost Index[c]	2.6	3.0	3.4	3.5	3.5	3.4	3.4	3.4	3.3	3.3	3.3
					Calendar Year Average						
Unemployment Rate (Percent)	5.4	5.1	5.0	5.0	5.1	5.2	5.2	5.2	5.2	5.2	5.2
Payroll Employment (Monthly change, in thousands)[d]	225	167	113	65	59	73	76	70	70	71	71
Interest Rates (Percent)											
Three-month Treasury bills	0.1	0.7	1.7	2.8	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Ten-year Treasury notes	2.3	3.0	3.7	4.0	4.2	4.2	4.3	4.3	4.3	4.3	4.3
Tax Bases (Percentage of GDP)											
Wages and salaries	43.4	43.5	43.5	43.6	43.6	43.5	43.5	43.5	43.5	43.5	43.6
Domestic economic profits	9.7	9.3	8.9	8.5	8.1	7.9	7.7	7.6	7.6	7.6	7.6
Tax Bases (Billions of dollars)											
Wages and salaries	7,803	8,173	8,578	8,966	9,348	9,745	10,169	10,607	11,060	11,530	12,021
Domestic economic profits	1,746	1,746	1,760	1,743	1,738	1,773	1,809	1,858	1,924	2,002	2,090
Nominal GDP (Billions of dollars)	17,989	18,802	19,708	20,573	21,460	22,396	23,366	24,369	25,406	26,483	27,600

Source: Congressional Budget Office.

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

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

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

d. 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

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					Percentage Change From Year to Year						
Gross Domestic Product											
Real (Inflation-adjusted)	2.4	2.7	3.0	2.5	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Nominal	3.4	4.1	4.8	4.5	4.3	4.4	4.3	4.3	4.3	4.2	4.2
Inflation											
PCE price index	0.4	1.4	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE price index[a]	1.3	1.6	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index[b]	0.3	1.7	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4
Core consumer price index[a]	1.7	2.0	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GDP price index	1.0	1.4	1.7	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1
Employment Cost Index[c]	2.5	2.9	3.4	3.5	3.5	3.4	3.4	3.4	3.3	3.3	3.3
					Fiscal Year Average						
Unemployment Rate (Percent)	5.5	5.2	5.0	5.0	5.1	5.2	5.2	5.2	5.2	5.2	5.2
Payroll Employment (Monthly change, in thousands)[d]	242	182	125	75	61	68	77	71	69	70	73
Interest Rates (Percent)											
Three-month Treasury bills	*	0.5	1.4	2.6	3.3	3.4	3.4	3.4	3.4	3.4	3.4
Ten-year Treasury notes	2.2	2.8	3.6	4.0	4.1	4.2	4.3	4.3	4.3	4.3	4.3
Tax Bases (Percentage of GDP)											
Wages and salaries	43.3	43.4	43.5	43.6	43.6	43.5	43.5	43.5	43.5	43.5	43.6
Domestic economic profits	9.8	9.4	9.0	8.6	8.2	8.0	7.8	7.6	7.6	7.6	7.6
Tax Bases (Billions of dollars)											
Wages and salaries	7,719	8,075	8,477	8,871	9,252	9,643	10,062	10,496	10,945	11,411	11,897
Domestic economic profits	1,743	1,755	1,756	1,751	1,732	1,764	1,800	1,844	1,906	1,982	2,067
Nominal GDP (Billions of dollars)	17,847	18,587	19,482	20,359	21,234	22,158	23,121	24,115	25,144	26,210	27,317

Source: Congressional Budget Office.

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

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

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

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