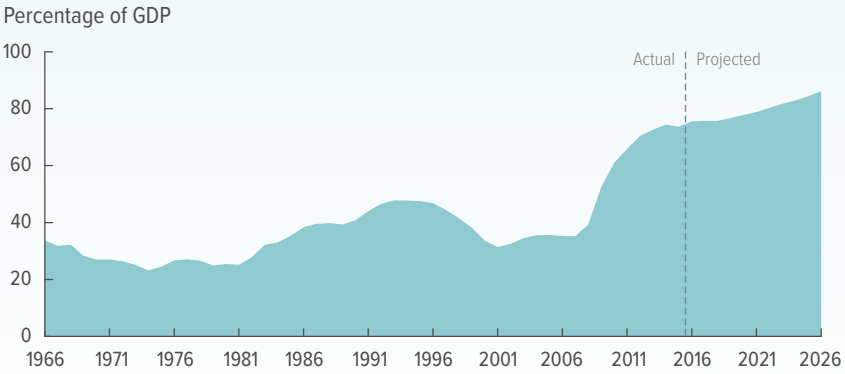
CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

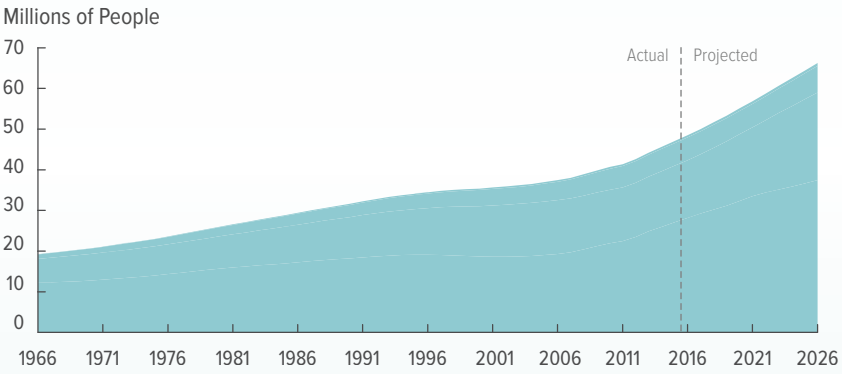
CBO

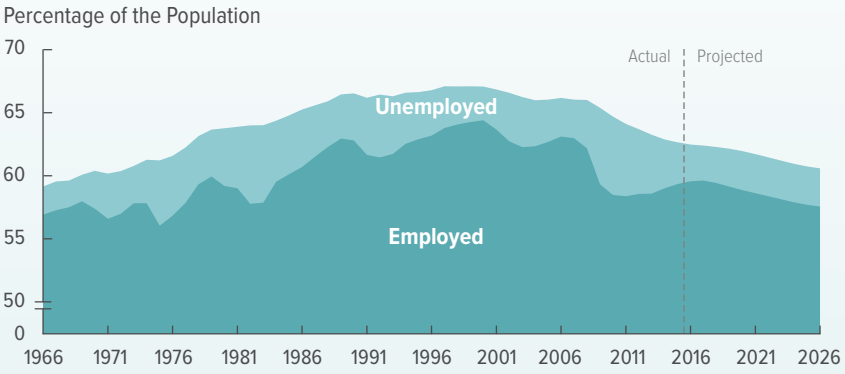
The Budget and Economic Outlook: 2016 to 2026



In CBO's projections, growing deficits drive up **debt** over the next decade, as spending rises and revenues remain relatively flat as a share of the economy.

Spending for Social Security and Medicare increases as the number of **people age 65 or older** grows.





Because retiring baby boomers reduce the percentage of the population in the **labor force**, the economy expands more moderately in later years after growing solidly this year and next.

JANUARY 2016

Notes

The Congressional Budget Office's budget projections are built on its economic forecast. In mid-December 2015, after CBO had completed that forecast, lawmakers enacted legislation that affected certain aspects of the economic outlook. Consequently, CBO updated its economic forecast; that updated forecast is presented in this report. But the agency did not have enough time to incorporate that update into its budget projections. Therefore, the budget projections in this report are based on the economic forecast that CBO completed in early December (though they include the direct budgetary effects of legislation enacted through December).

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 a tenth of a percentage point.

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

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.

Unless otherwise noted, amounts for Medicare spending in this report are net of income received by the government from premiums paid by Medicare beneficiaries, recoveries of overpayments made to providers, amounts paid by states from savings on Medicaid's prescription drug costs, and other offsetting receipts.

Supplemental data for this analysis are available on CBO's website (www.cbo.gov/publication/51129), as is a glossary of common budgetary and economic terms (www.cbo.gov/publication/42904).

Contents

Summary

In 2016, the federal budget deficit will increase, in relation to the size of the economy, for the first time since 2009, according to the Congressional Budget Office's estimates. If current laws generally remained unchanged, the deficit would grow over the next 10 years, and by 2026 it would be considerably larger than its average over the past 50 years, CBO projects. Debt held by the public would also grow significantly from its already high level.

CBO anticipates that the economy will expand solidly this year and next. Increases in demand for goods and services are expected to reduce the quantity of underused labor and capital, or "slack," in the economy—thereby encouraging greater participation in the labor force by reducing the unemployment rate and pushing up compensation. That reduction in slack will also push up inflation and interest rates. Over the following years, CBO projects, output will grow at a more modest pace, constrained by relatively slow growth in the nation's supply of labor. Nevertheless, in those later years, output is anticipated to grow more quickly than it has during the past decade.

The Budget Deficit for 2016 Will Increase After Six Years of Decline

The 2016 deficit will be $544 billion, CBO estimates, $105 billion more than the deficit recorded last year (see Summary Table 1). At 2.9 percent of gross domestic product (GDP), the expected shortfall for 2016 will mark the first time that the deficit has risen in relation to the size of the economy since peaking at 9.8 percent in 2009. About $43 billion of this year's increase in the deficit results from a shift in the timing of some payments that the government would ordinarily have made in fiscal year 2017, but that will instead be made in fiscal year 2016, because October 1, 2016—the first day of fiscal year 2017—falls on a weekend.[1] If not for that shift, the projected deficit in 2016 would be $500 billion, or 2.7 percent of GDP.

The 2016 deficit that CBO currently projects is $130 billion higher than the one that the agency projected in August 2015.[2] That increase is largely attributable to legislation enacted since August—in particular, the retroactive extension of a number of provisions that reduce corporate and individual income taxes.

The deficit projected by CBO would increase debt held by the public to 76 percent of GDP by the end of 2016, the agency estimates—about 2 percentage points higher than it was last year and higher than it has been since the years immediately following World War II (see Summary Figure 1).

Outlays

Federal outlays are projected to rise by 6 percent this year—to $3.9 trillion, or 21.2 percent of GDP. That increase is the result of a nearly 7 percent rise in mandatory spending, a 3 percent increase in discretionary outlays (which stem from annual appropriations), and a 14 percent jump in net interest spending.[3]

CBO anticipates that mandatory outlays will be $168 billion higher in 2016 than they were last year. A significant component of that growth is Social Security outlays, which are expected to increase by about $28 billion (or

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

2. For CBO's projections in August, see Congressional Budget Office, *An Update to the Budget and Economic Outlook: 2015 to 2025* (August 2015), www.cbo.gov/publication/50724.

3. About $39 billion of the increase in mandatory spending and $4 billion of the increase in discretionary spending result from the timing shift mentioned above. If not for that shift, total outlays would rise by 5 percent this year (and equal 21.0 percent of GDP); mandatory spending would rise by 6 percent and discretionary spending by 2 percent.

Summary Table 1.

CBO's Baseline Budget Projections

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
							In Billions of Dollars							
Revenues														
Individual income taxes	1,541	1,621	1,739	1,827	1,902	1,987	2,084	2,184	2,292	2,406	2,529	2,657	9,539	21,608
Payroll taxes	1,065	1,101	1,143	1,182	1,222	1,264	1,314	1,365	1,417	1,471	1,531	1,593	6,126	13,503
Corporate income taxes	344	327	348	353	358	391	391	397	402	410	421	434	1,842	3,907
Other	299	327	280	272	264	274	287	298	310	322	337	351	1,376	2,993
Total	**3,249**	**3,376**	**3,511**	**3,633**	**3,747**	**3,917**	**4,076**	**4,244**	**4,421**	**4,610**	**4,818**	**5,035**	**18,883**	**42,010**
On-budget	2,478	2,580	2,682	2,774	2,859	2,999	3,126	3,260	3,401	3,552	3,720	3,895	14,441	32,269
Off-budget[a]	770	796	829	859	888	917	949	984	1,020	1,058	1,098	1,139	4,442	9,741
Outlays														
Mandatory	2,299	2,466	2,558	2,633	2,825	2,981	3,143	3,375	3,500	3,622	3,875	4,142	14,140	32,653
Discretionary	1,165	1,198	1,206	1,203	1,222	1,248	1,274	1,307	1,332	1,358	1,397	1,429	6,152	12,975
Net interest	223	255	308	369	438	498	551	607	666	719	772	830	2,165	5,759
Total	**3,687**	**3,919**	**4,072**	**4,206**	**4,485**	**4,727**	**4,968**	**5,288**	**5,498**	**5,699**	**6,044**	**6,401**	**22,458**	**51,388**
On-budget	2,944	3,147	3,258	3,343	3,563	3,741	3,914	4,158	4,291	4,411	4,668	4,932	17,818	40,278
Off-budget[a]	743	772	814	863	922	986	1,055	1,130	1,207	1,288	1,376	1,469	4,640	11,110
Deficit (-) or Surplus	**-439**	**-544**	**-561**	**-572**	**-738**	**-810**	**-893**	**-1,044**	**-1,077**	**-1,089**	**-1,226**	**-1,366**	**-3,575**	**-9,378**
On-budget	-466	-567	-576	-569	-704	-741	-787	-899	-890	-859	-948	-1,036	-3,377	-8,010
Off-budget[a]	27	23	15	-4	-34	-69	-105	-146	-187	-230	-278	-330	-197	-1,369
Debt Held by the Public	13,117	13,978	14,613	15,244	16,033	16,886	17,813	18,891	20,003	21,129	22,399	23,817	n.a.	n.a.
Memorandum:														
Gross Domestic Product	17,810	18,494	19,297	20,127	20,906	21,710	22,593	23,528	24,497	25,506	26,559	27,660	104,632	232,382
							As a Percentage of Gross Domestic Product							
Revenues														
Individual income taxes	8.7	8.8	9.0	9.1	9.1	9.2	9.2	9.3	9.4	9.4	9.5	9.6	9.1	9.3
Payroll taxes	6.0	6.0	5.9	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.9	5.8
Corporate income taxes	1.9	1.8	1.8	1.8	1.7	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.8	1.7
Other	1.7	1.8	1.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Total	**18.2**	**18.3**	**18.2**	**18.1**	**17.9**	**18.0**	**18.0**	**18.0**	**18.0**	**18.1**	**18.1**	**18.2**	**18.0**	**18.1**
On-budget	13.9	13.9	13.9	13.8	13.7	13.8	13.8	13.9	13.9	13.9	14.0	14.1	13.8	13.9
Off-budget[a]	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.2	4.2
Outlays														
Mandatory	12.9	13.3	13.3	13.1	13.5	13.7	13.9	14.3	14.3	14.2	14.6	15.0	13.5	14.1
Discretionary	6.5	6.5	6.2	6.0	5.8	5.7	5.6	5.6	5.4	5.3	5.3	5.2	5.9	5.6
Net interest	1.3	1.4	1.6	1.8	2.1	2.3	2.4	2.6	2.7	2.8	2.9	3.0	2.1	2.5
Total	**20.7**	**21.2**	**21.1**	**20.9**	**21.5**	**21.8**	**22.0**	**22.5**	**22.4**	**22.3**	**22.8**	**23.1**	**21.5**	**22.1**
On-budget	16.5	17.0	16.9	16.6	17.0	17.2	17.3	17.7	17.5	17.3	17.6	17.8	17.0	17.3
Off-budget[a]	4.2	4.2	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.3	4.4	4.8
Deficit (-) or Surplus	**-2.5**	**-2.9**	**-2.9**	**-2.8**	**-3.5**	**-3.7**	**-4.0**	**-4.4**	**-4.4**	**-4.3**	**-4.6**	**-4.9**	**-3.4**	**-4.0**
On-budget	-2.6	-3.1	-3.0	-2.8	-3.4	-3.4	-3.5	-3.8	-3.6	-3.4	-3.6	-3.7	-3.2	-3.4
Off-budget[a]	0.2	0.1	0.1	*	-0.2	-0.3	-0.5	-0.6	-0.8	-0.9	-1.0	-1.2	-0.2	-0.6
Debt Held by the Public	73.6	75.6	75.7	75.7	76.7	77.8	78.8	80.3	81.7	82.8	84.3	86.1	n.a.	n.a.

Source: Congressional Budget Office.

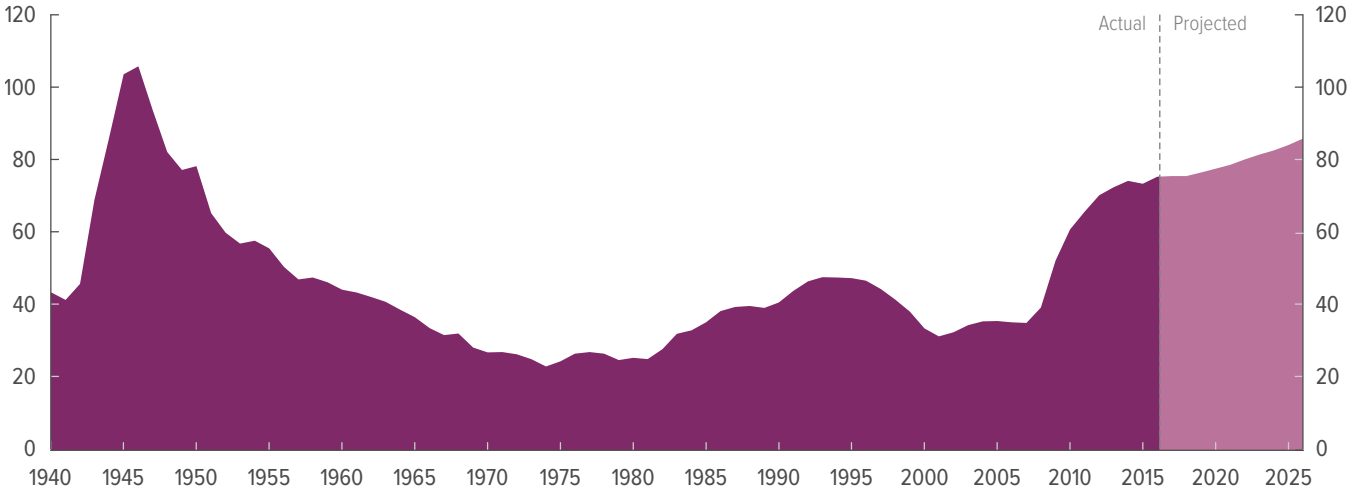
n.a. = not applicable; * = between -0.05 percent and zero.

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

Summary Figure 1.

Federal Debt Held by the Public

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

3 percent)—a percentage increase that is smaller than last year's, primarily because beneficiaries did not receive a cost-of-living adjustment in 2016 but did receive one in 2015. Nevertheless, because the program is so large, even that smaller-than-average increase accounts for one-sixth of the growth in mandatory spending projected for 2016. Federal spending for the major health care programs accounts for a much larger fraction—more than 60 percent—of the projected growth in mandatory spending: Outlays for Medicare (net of premiums and other offsetting receipts), Medicaid, and the Children's Health Insurance Program, plus subsidies for health insurance purchased through exchanges and related spending, are expected to be $104 billion (or 11 percent) higher this year than they were in 2015.[4]

Discretionary outlays are projected to be $32 billion higher in 2016 than they were last year. That upturn results largely from the Bipartisan Budget Act of 2015 (Public Law 114-74), which increased statutory limits on discretionary funding, and from the resulting appropriations for 2016, which were equal to those limits. According to CBO's estimates, discretionary outlays for national defense—in their first increase in five years—will edge up slightly this year, and nondefense discretionary outlays will climb by 4 percent.

The substantial increase that CBO expects in net interest spending, $32 billion, results from two factors: Interest rates are beginning to rise, and federal debt is growing. But interest rates remain quite low by historical standards, so net interest spending is anticipated to equal only 1.4 percent of GDP in 2016, still well below its 50-year average of 2.0 percent.

Revenues

CBO expects federal revenues to rise by 4 percent in 2016—to $3.4 trillion, or 18.3 percent of GDP. That overall increase results from growth in some sources of revenues and declines in others. Revenues from individual income taxes are projected to rise by 5 percent—more than the percentage increase in nominal GDP—because people's nominal income will increase and also because their income will rise more than will the tax brackets, which are indexed only to inflation. That phenomenon, real bracket creep, occurs in most years when the economy expands. Economic growth also will contribute to a rise of 3 percent in payroll taxes, CBO estimates. In contrast, corporate income taxes are projected to dip by 5 percent, largely because of recent legislation (the Consolidated Appropriations Act, 2016, P.L. 114-113) that extended several expired tax provisions retroactively to the beginning of calendar year 2015. Revenues from other sources are estimated to increase, on net, by 9 percent, primarily because of recent legislation (the Fixing America's Surface Transportation Act, also called the FAST Act, P.L. 114-94) that increases remittances to the Treasury from the Federal Reserve.

4. If not for the aforementioned shift in the timing of some spending—in this case, certain Medicare payments—spending for the major health care programs would increase by $80 billion, or 9 percent.

Growing Deficits Are Projected to Drive Up Debt

In CBO's baseline projections (which incorporate the assumption that current laws will generally remain the same), growth in spending—particularly for Social Security, health care, and interest payments on federal debt—outpaces growth in revenues over the coming 10 years. The budget deficit increases modestly through 2018 but then starts to rise more sharply, reaching $1.4 trillion in 2026. As a percentage of GDP, the deficit remains at roughly 2.9 percent through 2018, starts to rise, and reaches 4.9 percent by the end of the 10-year projection period. The projected cumulative deficit between 2017 and 2026 is $9.4 trillion.

The projected deficits would push debt held by the public up to 86 percent of GDP by the end of the 10-year period, a little more than twice the average over the past five decades. Beyond the 10-year period, if current laws remained in place, the pressures that had contributed to rising deficits during the baseline period would accelerate and push debt up even more sharply. Three decades from now, for instance, debt held by the public is projected to equal 155 percent of GDP, a higher percentage than any previously recorded in the United States.

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

- When interest rates increased from their current levels to more typical ones, federal spending on interest payments would rise substantially.
- Because federal borrowing reduces total saving in the economy over time, the nation's capital stock would ultimately be smaller than it would be if debt was smaller, and productivity and total wages would be lower.
- Lawmakers would have less flexibility to use tax and spending policies to respond to unexpected challenges.
- The likelihood of a fiscal crisis in the United States would increase. There would be a greater risk that investors would become unwilling to finance the government's borrowing needs unless they were compensated with very high interest rates; if that happened, interest rates on federal debt would rise suddenly and sharply.

Outlays

In CBO's projections, federal outlays remain near 21 percent of GDP for the next few years—higher than their average of 20.2 percent over the past 50 years. Later in the coming decade, if current laws generally remained the same, growth in outlays would outstrip growth in the economy, and outlays would rise to 23 percent of GDP by 2026. That increase reflects significant growth in mandatory spending and interest payments, offset somewhat by a decline (in relation to the size of the economy) in discretionary spending.

Outlays for mandatory programs are projected to rise from their current 13.1 percent of GDP (a figure that has been adjusted for the timing shift mentioned above) to 15.0 percent by the end of the 10-year projection period. That increase is mainly attributable to the aging of the population and rising health care costs per person. (According to CBO's projections, the number of people who are at least 65 years old will increase by 37 percent between now and 2026.) Of the 1.8 percentage-point increase in projected mandatory outlays, 0.9 percentage points come from a projected increase in Social Security outlays, and 0.8 percentage points come from a projected increase in Medicare outlays (net of premiums and other offsetting receipts). Almost half of the projected $2.5 trillion increase in *total* outlays from 2016 to 2026 is for Social Security and Medicare.

Because of rising interest rates and growing federal debt held by the public, the government's interest payments on that debt are projected to rise sharply over the next 10 years—more than tripling in nominal terms and more than doubling as a percentage of GDP, from 1.4 percent to 3.0 percent. Interest rates are now very low by historical standards, so net outlays for interest (in nominal dollars) are similar to their levels 15 to 20 years ago, even though federal debt now equals a considerably larger share of the economy. As interest rates rise, the government's cost of financing its debt will climb—especially if that debt continues to mount, as it does in CBO's projections.

In contrast, discretionary spending is projected to drop from 6.5 percent of GDP this year to 5.2 percent in 2026, a smaller percentage than in any year since 1962 (the first year for which comparable data are available). That projection incorporates the assumptions that the limits on funding and the automatic spending reductions set by the Budget Control Act of 2011 (P.L. 112-25), as they were subsequently amended, will stay in place through

2021; that appropriations for those years will be equal to the limits; and that funding in later years will keep pace with inflation.

Revenues

If current laws generally remained unchanged, revenues would remain relatively stable in relation to the size of the economy, ranging between 17.9 percent and 18.2 percent of GDP through 2026. (They have averaged 17.4 percent of GDP over the past 50 years.)

The projected stability of revenues over the next decade stems mostly from offsetting changes in projections of revenues from various sources. In CBO's baseline, receipts from individual income taxes increase each year in relation to GDP, because of real bracket creep, an expected increase in the share of wage and salary income going to high-income taxpayers, rising distributions from tax-deferred retirement accounts, and other factors. But revenues from other sources decline in relation to GDP. Remittances from the Federal Reserve, which have been unusually high since 2010, return to more typical levels. Corporate profits as a share of GDP decline modestly because of rising labor costs, higher interest payments on businesses' debt, and other factors, reducing receipts from corporate income taxes. And payroll tax receipts decline slightly in relation to GDP, primarily because of the expected increase in the share of wages going to higher-income taxpayers.

Changes From CBO's August 2015 Budget Projections

Over the 2016–2025 period (which was the 10-year projection period that CBO used last year), CBO now projects a cumulative deficit that is $1.5 trillion larger than the $7.0 trillion that the agency projected in August 2015. The $1.5 trillion increase is the net result of projected revenues that are lower by $1.2 trillion and projected outlays that are higher by $323 billion.

About half of the $1.5 trillion increase stems from the effects of laws enacted since August—which will reduce revenues by $425 billion and increase outlays by $324 billion over the 2016–2025 period, CBO estimates, adding $749 billion to projected deficits. Much of that amount stems from the extension of tax provisions by the Consolidated Appropriations Act, 2016, which will reduce corporate and individual income taxes.

About 30 percent of the increase in CBO's projection of the cumulative deficit through 2025—$437 billion—results from revisions to CBO's economic forecast. Lowered expectations for growth in the economy and for wages and corporate profits led the agency to reduce its projections of tax receipts from all sources by $771 billion over the 2016–2025 period. Lower projections of inflation, interest, and unemployment rates, among other changes, led CBO to mark down projected outlays by a smaller amount, $334 billion.

Finally, technical estimating changes that CBO has made since August have increased the agency's projection of the cumulative deficit over the 2016–2025 period by $363 billion, largely by increasing projected outlays. The most significant adjustments to outlays involve Medicaid and veterans' benefits. CBO boosted its projections of federal outlays for Medicaid to reflect higher-than-expected spending and enrollment for newly eligible beneficiaries under the Affordable Care Act. Also, on the basis of recent trends in the size of the eligible population and in average benefit payments, CBO now projects that spending for veterans' disability compensation will increase substantially.

Solid Economic Growth Over the Next Few Years Will Reduce Slack in the Labor Market

CBO expects that the economy will grow more quickly in 2016 and 2017 than it did in 2015, when real (that is, inflation-adjusted) GDP grew by an estimated 2.0 percent. The agency anticipates moderate economic growth in subsequent years, constrained by relatively slow growth in the labor force.

The Economic Outlook for 2016 Through 2020

If current laws governing federal taxes and spending generally remained in place, by CBO's projections, real GDP would grow by 2.7 percent this calendar year and by 2.5 percent in 2017, as measured by the change from the fourth quarter of the previous year (see Summary Figure 2). From 2018 through 2020, the economy would grow at an average annual rate of 2.0 percent, CBO projects.

The agency anticipates that consumer spending will be the largest single component of that growth, as it has been in the past. However, the pickup in the growth of output from 2015 to 2016 and 2017 is likely to stem largely from faster growth in investment in business capital and housing.

Fiscal Policy and the Economy. The pattern of projected federal spending and revenues under current law

Summary Figure 2.

Key Economic Indicators

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

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

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

Data are annual. For real GDP growth and inflation, actual data are plotted through 2014, and percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year. For the unemployment rate and interest rates, actual data are plotted through 2015, and all data are fourth-quarter values.

GDP = gross domestic product.

would have a range of effects on the economy through 2020. Laws enacted since August—most notably the Bipartisan Budget Act of 2015 and the Consolidated Appropriations Act, 2016—are estimated to boost real GDP slightly this year and next year. In total, however, the fiscal policies embodied in CBO's baseline would dampen GDP growth in 2017 and 2018, CBO estimates. In addition, some aspects of fiscal policy under current law, particularly the Affordable Care Act and real bracket creep, are projected to dampen the supply of labor and therefore the growth of output through 2020.

The Labor Market. Since the end of the most recent recession in 2009, GDP has grown faster than potential GDP, on average. (Potential GDP is the maximum sustainable output of the economy.) The gap between the two has therefore shrunk, reducing the amount of slack in the economy. In its current projections, CBO expects slack to diminish over the next few years; for example, the agency projects that hiring will reduce the unemployment rate from 5.0 percent in the fourth quarter of 2015 to 4.5 percent in the fourth quarter of 2016, which would be temporarily below the estimated natural rate of unemployment (the rate that arises from all sources except fluctuations in the overall demand for goods and services).

That relatively low unemployment rate would not indicate that slack in the labor market had disappeared entirely. Indeed, some slack is expected to persist through 2020, because fewer people will be participating in the labor market than if the economy was operating at its potential. However, as hiring puts upward pressure on employees' compensation, it is also likely to encourage some people to enter or stay in the labor force, gradually reducing the shortfall between actual and potential labor force participation. (Potential labor force participation is nevertheless projected to decline as a result of underlying demographic trends and, to a smaller degree, federal policies.)

Inflation. CBO expects the economic expansion over the next two years to put upward pressure on prices, helping raise the rate of inflation to the Federal Reserve's goal of 2 percent per year, on average, as measured by the price index for personal consumption expenditures.

Interest Rates. In CBO's economic forecast, interest rates rise from their currently low levels. The Federal Reserve had held the target range for the federal funds rate (its primary policy rate) at zero to 0.25 percent since late 2008, but in December 2015, it raised the range to 0.25 percent to 0.5 percent. CBO projects that the federal funds rate will rise to 1.2 percent in the fourth quarter of 2016 and to 2.2 percent in the fourth quarter of 2017 before settling at 3.5 percent in the second quarter of 2019.

Interest rates on federal borrowing are also expected to rise steadily over the next few years, as the economy improves and the federal funds rate rises. CBO projects that the interest rate on 3-month Treasury bills will steadily rise from 0.1 percent in the fourth quarter of 2015 and settle at 3.2 percent by the middle of 2019. CBO also projects that the interest rate on 10-year Treasury notes will rise from 2.3 percent in the fourth quarter of 2015 to 4.1 percent by the second half of 2019.

The Economic Outlook for 2021 Through 2026

CBO's projections for the second half of the 10-year period are not based on forecasts of cyclical developments in the economy; rather, they are based on the projected trends of underlying factors, such as growth in the labor force, the number of hours worked, and productivity. According to those projections, productivity will grow faster than it did over the past decade, and both actual and potential GDP will expand at an annual average rate of 2.0 percent. That rate represents a significant slowdown from the average growth of potential output that was observed during the 1980s, 1990s, and early 2000s; the slowdown results largely from slower projected growth in the nation's supply of labor.

Real GDP is projected to be about one-half of one percentage point lower than real potential GDP from 2021 through 2026, reflecting the historical average over the several business cycles that occurred between 1961 and 2009. Correspondingly, the projected unemployment rate over the 2021–2026 period, 5.0 percent, remains slightly above the natural rate. Inflation, as measured by the price index for personal consumption expenditures, is projected to average 2.0 percent per year, and interest rates for 3-month Treasury bills and 10-year Treasury notes are projected to average 3.2 percent and 4.1 percent, respectively. Those interest rates would be well above current rates. However, they would be lower than the average rates over the 25 years before the most recent recession, primarily because of lower inflation and slower growth in the labor force and in productivity.

Changes From CBO's August 2015 Economic Projections

CBO's current economic projections differ in some important respects from those that the agency made in August 2015. For example, revisions to historical data lowered CBO's estimates of potential total factor productivity (TFP) in the nonfarm business sector through 2015. (TFP is the average real output per unit of combined labor and capital services.) Also, after reassessment, CBO concluded that the slow growth of potential TFP was likely to persist longer than the agency had projected in August. As a result, CBO has revised its projected path of potential output downward since August, an adjustment that left potential and real GDP nearly 3 percent lower at the end of the 10-year period.

In addition, economic developments since August point to a weaker outlook for output growth over the next few years. CBO also projects a lower rate of unemployment and lower interest rates than it did in August.

A Note About These Budget and Economic Projections

In mid-December 2015, after CBO had completed the economic forecast that underlies its budget projections for this report, lawmakers enacted legislation that affected certain aspects of the economic outlook. Consequently, CBO's economic forecast has been updated to reflect the enactment of that legislation, as well as economic developments through the end of the year; that updated forecast is presented in this report. But the agency did not have enough time to incorporate those later changes to its economic forecast into its budget projections. Therefore, even though the budget projections in this report include the direct budgetary effects of legislation enacted through December, they are based on the economic forecast that CBO completed in early December.

CBO's next set of budget projections will be issued in March. They will be based on the economic forecast completed at the end of December and will also incorporate revisions derived from information that becomes available when the President's budget is published and from other sources.

A preliminary analysis at this point suggests that if CBO had incorporated that updated economic forecast into these budget projections, revenues in the baseline would be between $100 billion and $200 billion (or 0.2 percent to 0.4 percent) higher over the 2016–2026 period than they are currently projected to be. Projected outlays would also be affected, but probably to a lesser extent. CBO will also make technical estimating changes in its March projections that could be larger than those amounts, in either direction.

CHAPTER

1

The Budget Outlook

If current laws generally remain in place, the federal budget deficit will total $544 billion in fiscal year 2016, the Congressional Budget Office estimates, well above the $439 billion deficit posted for fiscal year 2015. After six consecutive years in which the deficit has declined relative to the size of the economy, this year's deficit—at 2.9 percent of gross domestic product (GDP)—is anticipated to increase for the first time since it peaked at 9.8 percent in 2009 (see Figure 1-1). As a result, debt held by the public (relative to the size of the economy), which declined last year for the first time in several years, is expected to rise again (as it did each year from 2007 to 2014). By CBO's estimate, debt held by the public will reach 76 percent of GDP in 2016, about 2 percentage points above last year's mark and equal to a larger percentage of GDP than in any year since 1951.

CBO constructs its 10-year baseline projections of federal revenues and spending under the assumption that current laws generally remain unchanged, following rules for those projections set in law.[1] CBO's baseline is not intended to be a forecast of budgetary outcomes; rather, it is meant to provide a neutral benchmark that policymakers can use to assess the potential effects of policy decisions. Under that assumption, in CBO's current baseline:

- Revenues are projected to remain roughly steady as a percentage of GDP through 2026, ranging between 17.9 percent and 18.3 percent, which is above their average of 17.4 percent over the 50 years from 1966 to 2015.

- Outlays are projected to rise as a share of GDP over the coming decade from 21.2 percent in 2016 to 23.1 percent in 2026 (the 50-year average is 20.2 percent). The increase in outlays reflects substantial growth in costs—to amounts well above historical averages—for benefit programs for the elderly, health care programs, and interest on the government's debt. The increase in those three areas would more than offset a significant projected decline in discretionary outlays relative to the size of the economy—outlays that are already more than 2 percentage points below their 50-year average.

- The deficit as a percentage of GDP has an upward trajectory over the projection period, growing from 2.9 percent this year to 4.9 percent in 2026 (see Table 1-1). Over the past 50 years, the annual deficit has averaged 2.8 percent of GDP.

Such increasing deficits over the next 10 years would cause debt held by the public to rise steadily. Relative to the nation's output, debt held by the public is projected to increase from 76 percent of GDP in 2016 to 86 percent at the end of 2026. At that point, federal debt would be the highest as a percentage of GDP since just after World War II. Such high and rising debt would have significant consequences, both for the economy and for the federal budget, including these:

- 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 ultimately would be smaller, and productivity and total wages would be lower, than would be the case if the debt was smaller.

- Lawmakers would have less flexibility than otherwise to use tax and spending policies to respond to unexpected challenges.

- The likelihood of a fiscal crisis in the United States would increase. Specifically, the risk would rise of investors' becoming unwilling to finance the government's borrowing unless they were compensated with very high interest rates. If that occurred, interest rates on federal debt would rise suddenly and sharply relative to rates of return on other assets.

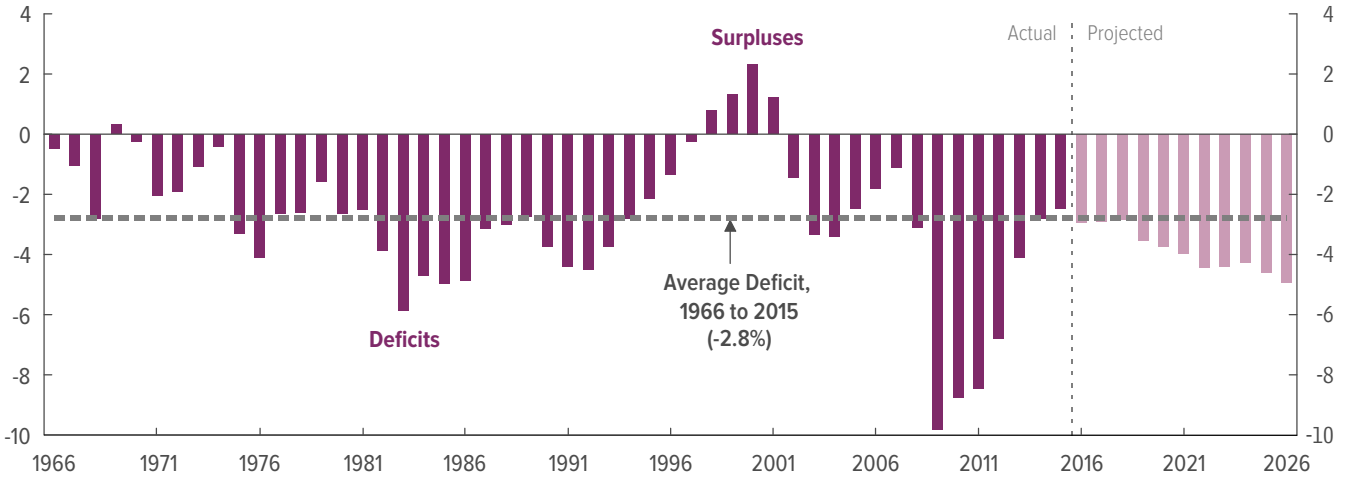
1. Section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177) specifies the rules for developing baseline projections.

Figure 1-1.

Total Deficits or Surpluses

CBO projects that deficits will exceed 4 percent of GDP by 2022 as mandatory spending and interest payments rise while revenues remain relatively flat.

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

Projected deficits and debt for the coming decade reflect the significant long-term budgetary challenges facing the nation. In particular, although revenues are projected to remain steady as a percentage of GDP over the coming decade, the aging of the population and the rising costs of health care are projected to substantially boost federal spending on Social Security and the government's major health care programs over the next 10 years and beyond. Unless spending for large benefit programs is reduced, revenues are allowed to rise more than they would under current law, or some combination of those approaches is adopted, debt will rise sharply relative to GDP after 2026.[2]

In addition, holding discretionary spending within the limits required under current law—an assumption that underlies CBO's current projections—may be quite difficult. Caps on discretionary budget authority were established by the Budget Control Act of 2011 (Public Law 112-25) for the 2012–2021 period, and automatic spending reductions further reduced those levels. Although subsequent legislation raised the limits for 2014 through 2017 relative to what they would have been after the automatic spending reductions, the caps and automatic spending reductions for 2018 through 2021 remain in place.[3] CBO's baseline reflects those constraints.

In CBO's current baseline, therefore, the caps on defense and nondefense spending together rise by a total of $3 billion in 2017 and then fall by $5 billion in 2018, after which they increase at roughly the same rate as inflation. For its baseline projections after 2021, CBO assumes that such funding continues to grow with inflation. As a result, discretionary outlays would fall to an unusually small amount relative to the size of the economy: 5.2 percent of GDP in 2026. By comparison, the lowest percentage for discretionary spending in any year since 1962 (the earliest year for which such data have been reported) was 6.0 percent in 1999, and the average over the past 50 years has been 8.7 percent.

2. For a more detailed discussion of the consequences of elevated debt in particular and a long-term overview for the budget generally, see Congressional Budget Office, *The 2015 Long-Term Budget Outlook* (June 2015), www.cbo.gov/publication/50250.

3. Budget authority is provided by law to allow the government to incur financial obligations that will result in immediate or future outlays of federal funds. Most recently, the Bipartisan Budget Act of 2015 (P.L. 114-74) raised the limits for defense and nondefense funding by $25 billion each for 2016 and by $15 billion each for 2017 relative to what they would have been after the automatic spending reductions.

Table 1-1.

Deficits Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Revenues	3,249	3,376	3,511	3,633	3,747	3,917	4,076	4,244	4,421	4,610	4,818	5,035	18,883	42,010
Outlays	3,687	3,919	4,072	4,206	4,485	4,727	4,968	5,288	5,498	5,699	6,044	6,401	22,458	51,388
Total Deficit	**-439**	**-544**	**-561**	**-572**	**-738**	**-810**	**-893**	**-1,044**	**-1,077**	**-1,089**	**-1,226**	**-1,366**	**-3,575**	**-9,378**
Net Interest	223	255	308	369	438	498	551	607	666	719	772	830	2,165	5,759
Primary Deficit[a]	-215	-289	-253	-203	-300	-312	-341	-438	-411	-370	-454	-536	-1,410	-3,619
Memorandum (As a percentage of GDP):														
Total Deficit	-2.5	-2.9	-2.9	-2.8	-3.5	-3.7	-4.0	-4.4	-4.4	-4.3	-4.6	-4.9	-3.4	-4.0
Primary Deficit[a]	-1.2	-1.6	-1.3	-1.0	-1.4	-1.4	-1.5	-1.9	-1.7	-1.5	-1.7	-1.9	-1.3	-1.6
Debt Held by the Public at the End of the Year	73.6	75.6	75.7	75.7	76.7	77.8	78.8	80.3	81.7	82.8	84.3	86.1	n.a.	n.a.

Source: Congressional Budget Office.

GDP = gross domestic product; n.a. = not applicable.

a. Excludes net interest.

CBO's current projections for the coming decade show a significant increase in deficits since its previous publication of 10-year projections, in August 2015.[4] Deficits under current law are now projected to total $8.6 trillion, or 3.8 percent of GDP, between 2016 and 2025 (which was the 10-year projection period that CBO used last year); in August, projected deficits for that period were about $1.5 trillion and 0.8 percentage points of GDP below the agency's current projection. Almost half of that change results from recently enacted legislation, primarily the Consolidated Appropriations Act, 2016 (P.L. 114-113), the Fixing America's Surface Transportation Act (also called the FAST Act, P.L. 114-94), the Bipartisan Budget Act of 2015, and the National Defense Authorization Act for Fiscal Year 2016 (P.L. 114-92). (The effects of those new laws are discussed in more detail later in this chapter and Appendix A.)

CBO's revised economic forecast accounts for nearly 30 percent of the change to the cumulative deficit since August; other, technical, adjustments account for about 20 percent. All told, the agency has reduced its projection of revenues by 2.9 percent through 2025 and increased its projection of outlays by 0.7 percent.

Although CBO's baseline generally does not incorporate potential changes in law, this chapter shows the ways in which some alternative policies would affect the budget over the next 10 years. For example, CBO has constructed a policy alternative under which funding for discretionary programs for 2017 through 2026 is kept at the amount provided for 2016. Under that alternative, discretionary spending over the 2017–2026 period would be $746 billion less than the amounts projected in the baseline. Other alternative policies would result in larger deficits than those in the baseline. For example, current law provides for a gradual phaseout of the ability of companies with large investments in equipment to immediately deduct some of that expense from their taxable income. If, instead, the higher expensing rate currently in place (50 percent) was made permanent, revenues over the 2018–2026 period would be $248 billion lower than projected in the baseline. (For more details, see "Alternative Assumptions About Fiscal Policy.")

4. For CBO's previous baseline budget projections, see Congressional Budget Office, *An Update to the Budget and Economic Outlook: 2015 to 2025* (August 2015), www.cbo.gov/publication/50724.

A Review of 2015

In fiscal year 2015, the budget deficit dropped once again, to $439 billion—almost 10 percent less than the $485 billion shortfall recorded in 2014 and about one-third of the $1.4 trillion deficit recorded in 2009. Revenues rose by $227 billion (or 8 percent) and outlays increased by $181 billion (or 5 percent). As a percentage of GDP, the deficit dropped from 2.8 percent in 2014 to 2.5 percent in 2015. Debt held by the public increased by $337 billion in 2015, ending up at 74 percent of GDP—slightly lower than the percentage recorded in 2014, marking the first decline in federal debt (relative to the size of the economy) since 2007. Nevertheless, debt held by the public in 2015 was more than double the amount recorded in 2007, when it equaled 35 percent of GDP.

Revenues

Total revenues increased from 17.6 percent of GDP in 2014 to 18.2 percent in 2015. Most of the increase in 2015 stemmed from collections of individual income taxes, the largest revenue source, which rose by $146 billion (or 10 percent), from 8.1 percent of GDP in 2014 to 8.7 percent in 2015—the highest percentage of GDP since 2001. In particular:

- Nonwithheld individual income taxes rose by $78 billion (or 16 percent), mostly as a result of increases in capital gains realizations and other nonwage income in 2014 that led to higher final tax payments for 2014 (as reflected in amounts paid with tax returns filed in 2015). In addition, increases in nonwage income in 2015 led to higher quarterly estimated payments of taxes for 2015.

- Receipts from withheld individual income taxes rose by $70 billion (or 6 percent), primarily because of increases in wages and salaries.

Receipts from payroll and corporate income taxes also increased but remained near the same percentage of GDP in 2015 as in 2014—together totaling 7.9 percent of GDP. Receipts from payroll taxes, the second-largest revenue source, grew by $42 billion (or 4 percent); those receipts rose largely as a result of increases in wages and salaries. Revenues from corporate income taxes increased by $23 billion (or 7 percent), reflecting growth in taxable profits.

In addition, miscellaneous fees and fines, a much smaller source of federal revenues, increased by $13 billion (or 35 percent), largely because of provisions of the Affordable Care Act (ACA) that established new collections from health insurers under the reinsurance and risk adjustment programs. (Those revenues were largely offset by associated outlays.) Revenues from fees and fines increased from 0.2 percent of GDP in 2014 to 0.3 percent in 2015.

Outlays

After declining relative to GDP for the preceding three years, federal spending rose in 2015 to 20.7 percent (or $3.7 trillion) of GDP. Mandatory spending increased in 2015; outlays for discretionary programs and net interest declined.

Mandatory Spending. Outlays for mandatory programs (including spending for many benefit programs and certain other payments to people, businesses, nonprofit institutions, and state and local governments) rose by $200 billion (or 9.5 percent) in 2015. By comparison, mandatory outlays grew at an average annual rate of 5.4 percent during the preceding decade (between 2004 and 2014).

Social Security. Spending for Social Security totaled $882 billion in 2015, $37 billion (or about 4 percent) more than in 2014. Beneficiaries received a 1.7 percent cost-of-living adjustment in January (which applied to three-quarters of fiscal year 2015); the increase in the previous year was 1.5 percent. In addition, the total number of people receiving benefits increased by 1.7 percent in 2015. That increase occurred only in the Old-Age and Survivors Insurance program; the total number of Disability Insurance beneficiaries (disabled workers and their dependents) declined by about 0.5 percent in 2015.

Major Health Care Programs. In 2015, federal spending for the major health care programs—Medicare, Medicaid, the Children's Health Insurance Program, and subsidies offered through health insurance exchanges and related spending—exceeded Social Security outlays for the first time.[5] In total, such spending equaled $936 billion last year, an increase of $105 billion (or about 13 percent).

Medicaid spending, which grew by $48 billion (or 16 percent) last year—after increasing by $36 billion (or 14 percent) in 2014—represented the largest increase.

5. Spending for Medicare is presented net of premium payments and other offsetting receipts, unless otherwise noted.

The sharp rise over the past two years occurred mainly because of new enrollees added by the 30 states plus the District of Columbia that had adopted the optional expansion of coverage authorized by the ACA. CBO estimates that the average monthly enrollment of newly eligible Medicaid beneficiaries was 55 percent higher in 2015 than in the previous year—a total of 9.6 million compared with 6.1 million in 2014.

Similarly, subsidies for health insurance purchased through the exchanges that were established under the ACA, as well as related spending, increased by $23 billion in 2015, to a total of $38 billion.[6] That growth resulted from a significant increase in the number of people purchasing coverage through the exchanges as well as the fact that the subsidies were available for the entire fiscal year.[7] (The subsidies did not become available until January 2014, three months into fiscal year 2014.) That growth also reflects the first year of spending for the ACA's risk adjustment and transitional reinsurance programs, which together resulted in about $9 billion in outlays in 2015; under the ACA, payments to and from the government for those programs are specified to be equal and thus have no net budgetary effect over the life of the programs.[8]

Medicare spending in 2015 (net of premiums and other offsetting receipts) rose by $34 billion, or nearly 7 percent—the fastest rate of growth recorded for the program since 2009 (after adjusting for shifts in the timing of certain payments). Part of that increase reflected the fact that certain statutory changes that reduced the rate of growth in Medicare spending had already been implemented. Those provisions will continue to constrain Medicare spending, but to roughly the same extent each year, so they no longer reduce its rate of growth. The increase in 2015 also reflected an expansion of about 3 percent in the number of Medicare beneficiaries and an escalation in the number or cost of services furnished to those beneficiaries, particularly under Part D (which covers outpatient prescription drugs).

Fannie Mae and Freddie Mac. Payments to the Treasury from Fannie Mae and Freddie Mac fell from $74 billion in 2014 to $23 billion in 2015 (such payments are recorded as reductions in outlays). That decline was partially attributable to a onetime revaluation in 2014 of certain tax assets held by Freddie Mac, which boosted its payments to the Treasury by nearly $24 billion in that year. In addition, financial institutions made 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 were smaller in 2015, as were their remittances to the Treasury.

Higher Education. Mandatory outlays for higher education include the estimated subsidy costs for federal student loans issued in the current year, revisions to the subsidy costs of loans made in past years, and mandatory spending for the Federal Pell Grant Program. Such outlays totaled $22 billion in 2015—amounting to a net increase of $34 billion over outlays in 2014 (which were –$12 billion in 2014). Outlays in 2015 were positive primarily because the Department of Education recorded a revision to the subsidy costs for past loans that resulted in an $18 billion increase in outlays (the 2014 revision increased outlays by $1 billion).

The estimated subsidy costs of new student loans made in 2014 and 2015 were negative; that is, over the life of those loans, the amounts expected to be received by the government are greater than the payments expected to be made by the government, as measured on a present-value basis—as required by the Federal Credit Reform Act of

6. Those subsidies are structured as refundable tax credits—the portions of such credits that exceed a taxpayer's other income tax liabilities are classified as outlays; the portions that reduce tax payments are classified in the budget as reductions in revenues.

7. In the March 2015 baseline, CBO and the staff of the Joint Committee on Taxation (JCT) projected that an average of about 8 million people per month would receive exchange subsidies in 2015. Additionally, the agencies projected that about 3 million people would not be eligible for subsidies but would purchase coverage through an exchange, for a total of 11 million people enrolled in coverage through exchanges in any given month, on average. CBO and JCT now estimate that about 9.5 million people enrolled in coverage purchased through the exchanges, on average, during 2015 and that 8 million of those enrollees received subsidies.

8. The risk adjustment program transfers resources from health insurance plans that attract a relatively small proportion of high-risk enrollees (people with serious chronic conditions, for example) to plans that attract a relatively large proportion of such people. The reinsurance program makes payments to all plans that operate in the individual insurance market whose enrollees incur particularly high costs for medical claims—that is, costs above a specified threshold and up to a certain maximum. To cover those costs, the government collects a per-enrollee assessment from most private insurance plans. The collections for both programs are recorded as revenues.

1990.[9] In particular, the interest rates charged to student loan borrowers are well above the interest rates the federal government pays on its borrowing. Even after accounting for anticipated loan defaults, the federal government expects to receive more (on a present-value basis) in loan repayments and interest than it disburses for such loans.[10] However, the subsidy rates in 2015 were less negative than those used in 2014 to estimate the costs of new loans, a difference that boosted outlays in 2015 relative to those recorded in 2014.

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, collections surged to $30 billion last year.

Discretionary Spending. In total, discretionary outlays declined in 2015 by $13 billion (or 1 percent). For the fourth consecutive year, defense outlays dropped, declining by $14 billion (or 2 percent). That reduction stemmed from lower spending from funding designated for overseas contingency operations (war-related activities, primarily in Afghanistan), which fell by roughly $20 billion, CBO estimates; other defense spending rose by $6 billion. Measured as a share of GDP, outlays for defense declined from 3.5 percent in 2014 to 3.3 percent in 2015. By comparison, as recently as 2010, such outlays totaled 4.7 percent of GDP.

In contrast, nondefense discretionary outlays rose slightly last year, increasing by $1 billion (or 0.1 percent) because of relatively small increases or decreases in outlays for various programs. Such spending dipped from 3.4 percent of GDP in 2014 to 3.3 percent in 2015.

Net Interest. Outlays in this budget category totaled $223 billion in 2015, $6 billion (or 2 percent) less than the amount recorded in 2014. Net interest outlays consist of interest paid on Treasury securities and other interest that the government pays minus the interest that it collects from various sources. The reduction in 2015 resulted primarily from a lower rate of inflation (relative to the rate in 2014), which resulted in smaller adjustments to the principal of inflation-protected securities. Because interest rates remained very low by historical standards, total outlays for net interest in 2015 were similar, in dollar terms, to those recorded 15 to 20 years ago, when federal debt was much smaller.

The Budget Outlook for 2016

If the laws that govern taxes and spending remain unchanged in fiscal year 2016, CBO projects, the budget deficit will increase by $105 billion, to $544 billion (see Table 1-2). At 2.9 percent of GDP, this year's deficit will be close to the 50-year average of 2.8 percent. Part of the increase in the deficit is attributable to a shift in the timing of some benefit payments from 2017 into 2016. Because October 1, 2016, falls on a weekend, certain payments that are due on that day will instead be made at the end of September, thus shifting them into fiscal year 2016. Without that shift, CBO estimates, the deficit would amount to $500 billion in 2016, or 2.7 percent of GDP.

The anticipated increase in the budget shortfall in 2016 would reverse a six-year trend of shrinking deficits. CBO estimates that revenues will increase by about 4 percent in 2016 (about half the rate of increase recorded in 2015), but that outlays will rise by 6 percent, a full percentage

9. Under that 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.

10. Under an alternative approach to valuing federal subsidy costs, called the fair-value approach, estimates are based on market values—market prices when those prices are available or approximations of market prices when directly comparable figures are unavailable—which more fully account for the cost of the risk the government takes on. In 2014, CBO estimated that accounting for student loan programs on a fair-value basis would show a net cost for those programs and substantially increase the estimated subsidy costs over the following 10 years. For further discussion of the fair-value approach, see Congressional Budget Office, *Fair-Value Accounting for Federal Credit Programs* (March 2012), www.cbo.gov/publication/43027.

Table 1-2.

CBO's Baseline Budget Projections

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
							In Billions of Dollars							
Revenues														
Individual income taxes	1,541	1,621	1,739	1,827	1,902	1,987	2,084	2,184	2,292	2,406	2,529	2,657	9,539	21,608
Payroll taxes	1,065	1,101	1,143	1,182	1,222	1,264	1,314	1,365	1,417	1,471	1,531	1,593	6,126	13,503
Corporate income taxes	344	327	348	353	358	391	391	397	402	410	421	434	1,842	3,907
Other	299	327	280	272	264	274	287	298	310	322	337	351	1,376	2,993
Total	**3,249**	**3,376**	**3,511**	**3,633**	**3,747**	**3,917**	**4,076**	**4,244**	**4,421**	**4,610**	**4,818**	**5,035**	**18,883**	**42,010**
On-budget	2,478	2,580	2,682	2,774	2,859	2,999	3,126	3,260	3,401	3,552	3,720	3,895	14,441	32,269
Off-budget[a]	770	796	829	859	888	917	949	984	1,020	1,058	1,098	1,139	4,442	9,741
Outlays														
Mandatory	2,299	2,466	2,558	2,633	2,825	2,981	3,143	3,375	3,500	3,622	3,875	4,142	14,140	32,653
Discretionary	1,165	1,198	1,206	1,203	1,222	1,248	1,274	1,307	1,332	1,358	1,397	1,429	6,152	12,975
Net interest	223	255	308	369	438	498	551	607	666	719	772	830	2,165	5,759
Total	**3,687**	**3,919**	**4,072**	**4,206**	**4,485**	**4,727**	**4,968**	**5,288**	**5,498**	**5,699**	**6,044**	**6,401**	**22,458**	**51,388**
On-budget	2,944	3,147	3,258	3,343	3,563	3,741	3,914	4,158	4,291	4,411	4,668	4,932	17,818	40,278
Off-budget[a]	743	772	814	863	922	986	1,055	1,130	1,207	1,288	1,376	1,469	4,640	11,110
Deficit (-) or Surplus	**-439**	**-544**	**-561**	**-572**	**-738**	**-810**	**-893**	**-1,044**	**-1,077**	**-1,089**	**-1,226**	**-1,366**	**-3,575**	**-9,378**
On-budget	-466	-567	-576	-569	-704	-741	-787	-899	-890	-859	-948	-1,036	-3,377	-8,010
Off-budget[a]	27	23	15	-4	-34	-69	-105	-146	-187	-230	-278	-330	-197	-1,369
Debt Held by the Public	13,117	13,978	14,613	15,244	16,033	16,886	17,813	18,891	20,003	21,129	22,399	23,817	n.a.	n.a.
Memorandum:														
Gross Domestic Product	17,810	18,494	19,297	20,127	20,906	21,710	22,593	23,528	24,497	25,506	26,559	27,660	104,632	232,382
							As a Percentage of Gross Domestic Product							
Revenues														
Individual income taxes	8.7	8.8	9.0	9.1	9.1	9.2	9.2	9.3	9.4	9.4	9.5	9.6	9.1	9.3
Payroll taxes	6.0	6.0	5.9	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.9	5.8
Corporate income taxes	1.9	1.8	1.8	1.8	1.7	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.8	1.7
Other	1.7	1.8	1.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Total	**18.2**	**18.3**	**18.2**	**18.1**	**17.9**	**18.0**	**18.0**	**18.0**	**18.0**	**18.1**	**18.1**	**18.2**	**18.0**	**18.1**
On-budget	13.9	13.9	13.9	13.8	13.7	13.8	13.8	13.9	13.9	13.9	14.0	14.1	13.8	13.9
Off-budget[a]	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.2	4.2
Outlays														
Mandatory	12.9	13.3	13.3	13.1	13.5	13.7	13.9	14.3	14.3	14.2	14.6	15.0	13.5	14.1
Discretionary	6.5	6.5	6.2	6.0	5.8	5.7	5.6	5.6	5.4	5.3	5.3	5.2	5.9	5.6
Net interest	1.3	1.4	1.6	1.8	2.1	2.3	2.4	2.6	2.7	2.8	2.9	3.0	2.1	2.5
Total	**20.7**	**21.2**	**21.1**	**20.9**	**21.5**	**21.8**	**22.0**	**22.5**	**22.4**	**22.3**	**22.8**	**23.1**	**21.5**	**22.1**
On-budget	16.5	17.0	16.9	16.6	17.0	17.2	17.3	17.7	17.5	17.3	17.6	17.8	17.0	17.3
Off-budget[a]	4.2	4.2	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.3	4.4	4.8
Deficit (-) or Surplus	**-2.5**	**-2.9**	**-2.9**	**-2.8**	**-3.5**	**-3.7**	**-4.0**	**-4.4**	**-4.4**	**-4.3**	**-4.6**	**-4.9**	**-3.4**	**-4.0**
On-budget	-2.6	-3.1	-3.0	-2.8	-3.4	-3.4	-3.5	-3.8	-3.6	-3.4	-3.6	-3.7	-3.2	-3.4
Off-budget[a]	0.2	0.1	0.1	*	-0.2	-0.3	-0.5	-0.6	-0.8	-0.9	-1.0	-1.2	-0.2	-0.6
Debt Held by the Public	73.6	75.6	75.7	75.7	76.7	77.8	78.8	80.3	81.7	82.8	84.3	86.1	n.a.	n.a.

Source: Congressional Budget Office.

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

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

point faster than last year. A number of factors are responsible for those changes. After several years in which revenues grew faster than GDP—because of the economic recovery, among other circumstances—CBO now projects that in 2016 (and for the remainder of the projection period), revenue growth will be roughly in line with GDP. Receipts from individual income taxes are expected to grow more slowly in 2016 than in 2015 in part because rapid growth in nonwage income, especially capital gains realizations and business income, is not expected to continue. In addition, corporate income tax receipts are expected to decline this year for the first time since 2011, largely as a result of recently enacted tax legislation.

On the outlay side, this year's higher caps on discretionary funding will cause discretionary outlays to rise (after falling last year). In addition, net interest outlays are anticipated to increase rapidly in 2016 (after also falling last year), primarily because of higher interest rates. Mandatory spending is projected to continue to increase in 2016, although at a slower pace than in 2015 (the reasons are discussed below).

Revenues

CBO projects that if current laws remain unchanged, revenues will increase by $127 billion in 2016, reaching $3.4 trillion and edging up to 18.3 percent of GDP. Receipts of individual income taxes are expected to increase by about $80 billion, from 8.7 percent of GDP to 8.8 percent. The largest source of the rise relative to GDP is continued economic growth, which causes people's income, in the aggregate, to rise faster than the rate of inflation. The inflation rate is used to adjust the tax brackets each year, and when incomes rise faster than inflation, more income is pushed into higher tax brackets (a phenomenon known as real bracket creep).

In the other direction, corporate tax receipts are expected to fall by $17 billion in 2016, from 1.9 percent of GDP in 2015 to 1.8 percent this year, largely because of provisions in the Consolidated Appropriations Act, 2016, that extended, retroactively to the beginning of calendar year 2015, several expired tax provisions that reduce corporate (and individual) income taxes.

CBO expects remittances from the Federal Reserve to increase by $16 billion in 2016, from 0.5 percent of GDP to 0.6 percent, because of a provision in the FAST Act that requires the Federal Reserve to remit most of its surplus account to the Treasury.

Outlays

In the absence of changes to laws governing federal spending, CBO estimates, outlays in 2016 will total $3.9 trillion, $232 billion more than in 2015. Outlays are projected to total 21.2 percent of GDP this year, about 0.5 percentage points above the percentage recorded in 2015.

Outlays in 2016 will be boosted, however, by the shift in timing of some payments from fiscal year 2017 to 2016 (because October 1, 2016, falls on a weekend). If not for that shift, CBO estimates, outlays in 2016 would increase by $189 billion (or 5.1 percent)—still faster than the 4.3 percent average annual rate of growth between 2004 and 2014—and would equal 21.0 percent of GDP.

Mandatory Spending. Under current law, spending for mandatory programs will rise by $168 billion (or 7.3 percent) in 2016, CBO estimates, amounting to 13.3 percent of GDP, up from the 12.9 percent recorded in 2015. Without the shift in the timing of some payments, mandatory spending would grow by $129 billion (or 5.6 percent) and equal 13.1 percent of GDP. The largest year-over-year changes are as follows:

Social Security. CBO anticipates that, under current law, Social Security outlays will increase by $28 billion (or 3.2 percent) in 2016, a slower rate of increase than in 2015, primarily because there will be no cost-of-living adjustment for beneficiaries in 2016 (beneficiaries received a cost-of-living increase in 2015). The number of Social Security beneficiaries is projected to grow by 1.7 percent this year, about the same as the increase in 2015.

Major Health Care Programs. Outlays for the federal government's major health care programs will increase by $104 billion (or 11.1 percent) this year, CBO estimates. That amount overstates underlying growth in the major health care programs, however, because it reflects a $24 billion shift in the timing of certain Medicare payments from 2017 into 2016. After adjusting for those payments, CBO anticipates that spending for the major health care programs will rise by $80 billion (or 8.6 percent) in 2016, compared with $105 billion (or 12.6 percent) last year.

Medicaid spending is expected to increase by $31 billion (or 8.8 percent) in 2016; the projected rate of growth in outlays is a little over half the average rate of growth recorded over the two previous years, primarily because

the optional expansion of coverage authorized by the ACA will have been in place for two years and the rapid growth in enrollment that occurred during the initial stage of the expansion will have begun to moderate. CBO projects that under current law, total enrollment in the program will increase by about 2 percent in 2016, about a third of the rate of increase in 2015.

Similarly, subsidies that help people who meet income and other eligibility criteria to purchase health insurance through exchanges and to meet their cost-sharing requirements, along with related spending, are expected to increase by $18 billion in 2016, reaching a total of $56 billion. The higher spending reflects an anticipated increase in the number of people expected to receive subsidies for coverage purchased through exchanges. CBO and the staff of the Joint Committee on Taxation (JCT) estimate that about 11 million people will receive exchange subsidies, on average, during calendar year 2016, compared with an average of 8 million in 2015. Additionally, the agencies project that about 2 million other people will purchase coverage through an exchange but will not be eligible for subsidies—for a total of 13 million people, on average, enrolled in policies purchased through exchanges.

The enrollment projections used in this report for estimating exchange subsidies authorized by the ACA have been updated to reflect available information about developments in 2016, but, other than to incorporate the effects of enacted legislation, projections for years after 2016 have not been updated since March 2015. CBO will revise those projections for its next baseline, to be published in March 2016.[11]

Spending for Medicare (net of premiums and other offsetting receipts and adjusted for shifts in the timing of certain payments) will rise by $28 billion, or 5.2 percent, in 2016, CBO projects. That growth is below last year's rate of 6.8 percent primarily because of higher premium receipts, on net, resulting from provisions of the Bipartisan Budget Act of 2015 and other legislation that modified Part B premiums for certain Medicare beneficiaries in calendar year 2016.

Higher Education. Reflecting the negative subsidy rates estimated for new student loans, CBO projects that mandatory outlays will total –$6 billion in 2016, compared with $22 billion in 2015. That $28 billion reduction will occur in part because in 2015 the Department of Education recorded a revision to the subsidy costs for past loans that resulted in an $18 billion increase in outlays; no such revision has yet been recorded in 2016, and CBO has no basis for predicting what revision, if any, might be made this year. Moreover, the estimated subsidy rates in 2016 are slightly more negative than those used in 2015 to estimate the costs of new loans.

Receipts From Spectrum Auctions. In 2015, net offsetting receipts from the auctioning of licenses to use a portion of the electromagnetic spectrum—which are recorded as offsets to mandatory outlays—reduced outlays by $30 billion. A portion of the winning bids from the 2015 auction will reduce outlays in 2016 by $11 billion. That difference will boost outlays in 2016 by $19 billion relative to spending in 2015. Although the Federal Communications Commission plans to conduct another large auction in 2016, the receipts for those licenses will not be recorded in the budget until 2017.

Discretionary Spending. Discretionary budget authority enacted for 2016 totals $1,168 billion, $53 billion (or 4.7 percent) more than such funding in 2015: Defense funding has increased by $21 billion (or 3.6 percent), and budget authority for nondefense discretionary programs has risen by $32 billion (or 5.9 percent). If no additional appropriations are enacted for this year, discretionary outlays also will rise—by $32 billion (or 2.8 percent) from the 2015 amounts, CBO projects.

Although funding for defense programs increased by $21 billion in 2016, CBO estimates that outlays (adjusted for shifts in the timing of certain payments) will rise by only $3 billion (or 0.4 percent) because slower-spending accounts (primarily for procurement, but also for research and development) received increases in budget authority whereas some faster-spending accounts (such as those for operations and maintenance) received less funding than they did a year ago. Outlays from funding designated for overseas contingency operations will drop by roughly $5 billion (after declining by about $20 billion in 2015) but all other defense spending will

11. Because of the complexity of the analysis involved, CBO and JCT generally produce one major update per year to those projections, which is incorporated into each year's March baseline and used as the basis for cost estimates for the remainder of the year. More discussion of the changes since August 2015 in CBO's projections for subsidies offered through health insurance exchanges is included in Appendix A; Chapter 3 presents a more detailed discussion of CBO's current baseline projections for such spending over the 2016–2026 period.

rise by about $8 billion.[12] CBO estimates that defense outlays will total $589 billion in 2016.

Outlays for nondefense programs are expected to rise by $26 billion (or 4.4 percent) this year, to a total of $609 billion. Nearly a quarter of that increase results from lower estimates of receipts credited to the Federal Housing Administration because of a lower negative subsidy rate for mortgage guarantees and an expected decline in the dollar volume of new guarantees in 2016. Because such receipts are recorded as reductions in discretionary outlays, the decline in estimated receipts causes overall spending for nondefense programs to increase. The remaining amount is the result of several relatively small increases to various programs.

Net Interest. CBO estimates that outlays for net interest will rise by $32 billion (or 14 percent) in 2016, to $255 billion. Although interest rates on securities issued by the Treasury are expected to remain very low by historical standards, they probably will rise over the course of the year. Those higher rates, along with a larger amount of debt, will boost interest payments, which will edge up to 1.4 percent of GDP in 2016, CBO estimates (still well below their 50-year average of 2.0 percent).

CBO's Baseline Budget Projections for 2017 to 2026

CBO constructs its baseline in accordance with provisions set forth in the Balanced Budget and Emergency Deficit Control Act of 1985 (P.L. 99-177) and the Congressional Budget and Impoundment Control Act of 1974 (P.L. 93-344). For the most part, those laws require that the agency's baseline projections incorporate the assumption that current laws governing taxes and spending in future years remain in place. Under that assumption for constructing CBO's baseline, the budget deficit is projected to remain just under 3.0 percent of GDP through 2018. After that, however, the deficit generally increases each year as a share of the economy, reaching 4.9 percent of GDP by 2026.

The pattern of stable deficits through 2018 is largely attributable to shifts in the timing of certain payments from one fiscal year to another because certain scheduled payment dates fall on weekends; without those shifts, the deficit would rise in each year of the projection period. Although revenues are projected to remain roughly flat as a share of GDP, outlays are projected to increase each year, driven by the aging of the population, the rising costs of health care, and increasing interest payments.[13]

Revenues

From 2017 through 2026, revenues in CBO's baseline remain between 17.9 percent and 18.2 percent of GDP, largely reflecting offsetting movements in individual and corporate income taxes, payroll taxes, and remittances from the Federal Reserve.

Individual income taxes are projected to generate increasing revenues, relative to the size of the economy, growing from 8.8 percent of GDP in 2016 to 9.6 percent in 2026 (see Figure 1-2). That change stems most significantly from real bracket creep. In addition, taxable distributions from tax-deferred retirement accounts are expected to grow more rapidly than GDP in coming years as the population ages. Also, earnings from wages and salaries are expected to continue the recent trend of increasing faster for higher-income people than for others, causing a larger share of income to be subject to higher income tax rates and, therefore, further increasing revenues.

Because of the changing wage distribution, however, a growing share of people's wages and salaries moves above the maximum annual amount that is subject to the Social Security tax (currently $118,500 for an individual taxpayer). That trend will reduce receipts from payroll taxes relative to GDP—by about three-fifths of the increase in income taxes stemming from the changing distribution. As a result, payroll tax receipts are projected to decline from 6.0 percent of GDP in 2016 to 5.8 percent by 2026.

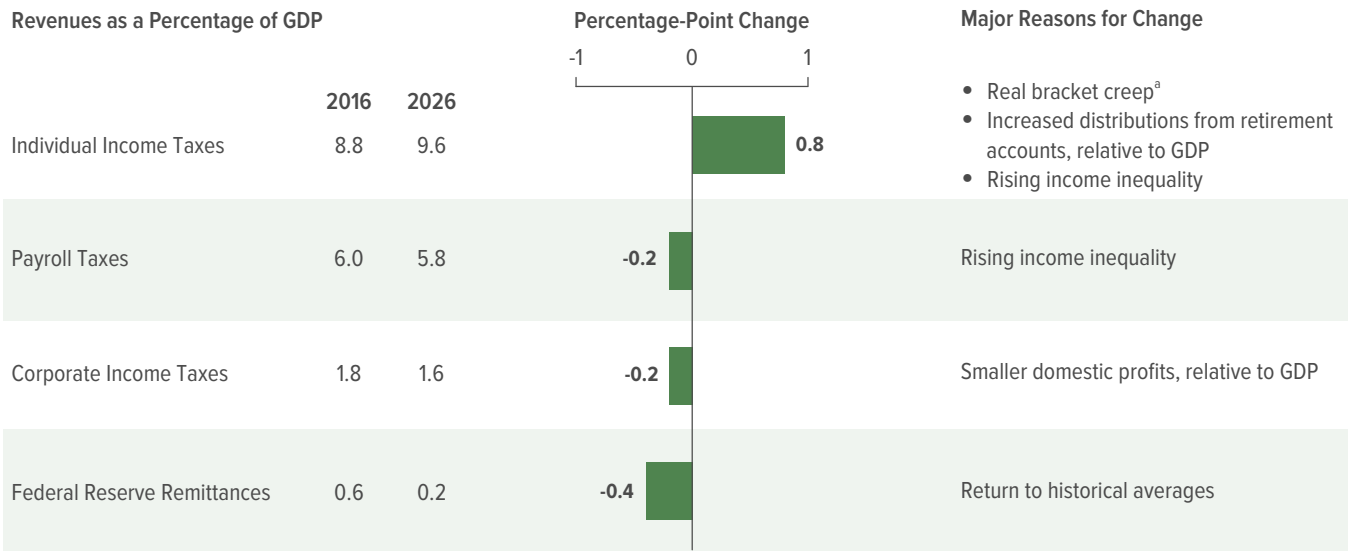
Remittances from the Federal Reserve, which have been quite high by historical standards since 2010, also are projected to decline relative to the size of the economy, primarily because of changes in the size and composition of the central bank's portfolio of securities. In CBO's

12. Funding provided to the Department of Defense in 2016 for overseas contingency operations includes some amounts that are intended to be used for regular activities.

13. Because October 1 will fall 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. Those shifts noticeably boost projected deficits in fiscal years 2016 and 2022 but reduce them in fiscal years 2018 and 2024.

Figure 1-2.

Major Changes in Projected Revenues From 2016 to 2026



Source: Congressional Budget Office.

GDP = gross domestic product.

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

baseline projections, those receipts fall to more typical levels, dropping from 0.6 percent of GDP in 2016 to about 0.2 percent of GDP for the 2018–2026 period.

CBO projects a decline in corporate income tax receipts, from 1.8 percent of GDP in 2016 to 1.6 percent by 2026, largely because of an anticipated drop in domestic economic profits relative to GDP. Profits are expected to decline because of rising labor costs and rising interest payments on businesses' debt over the next several years, and because, in later years, CBO projects that nonlabor income will grow less rapidly than output, reversing an unusual trend seen since 2000.

Outlays

The Deficit Control Act requires CBO's projections for most mandatory programs to be made in keeping with the assumption that current laws continue unchanged.[14] Thus, CBO's baseline projections for mandatory spending reflect expected changes in the economy, demographics, and other factors, as well as the across-the-board reductions in certain mandatory programs that are required under current law. CBO's baseline incorporates the caps on discretionary funding that are currently in place through 2021 and then reflects the assumption that such funding keeps pace with inflation in later years. Those elements of discretionary funding that are not constrained by the caps established by the Budget Control Act of 2011—for example, the appropriations designated for overseas contingency operations—are assumed to keep pace with inflation throughout the next decade. On that basis, total outlays in CBO's baseline are projected to increase relative to GDP in most years through 2026—averaging 22.1 percent over the decade, which is about 2 percentage points above the 50-year average.[15]

Mandatory spending (net of offsetting receipts and adjusted for shifts in the timing of certain payments) is projected to increase by 5 percent in 2017 and grow by an average of about 6 percent annually after that, reaching

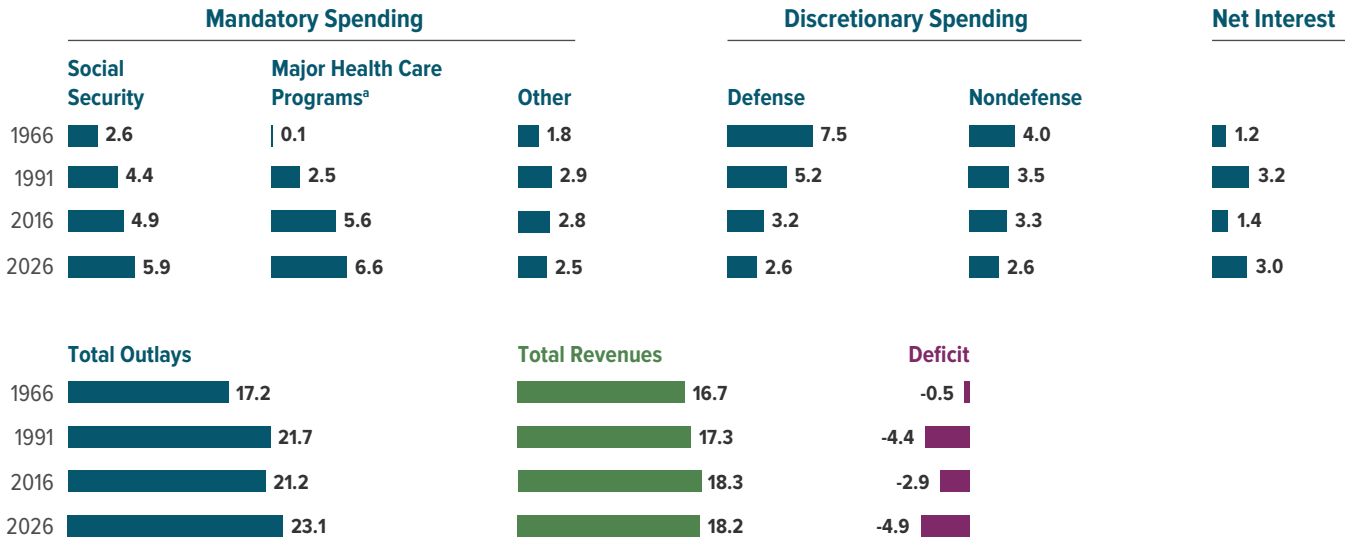
14. The Deficit Control Act specifies some exceptions. For example, spending programs whose authorizations are set to expire are assumed to continue if they have outlays of more than $50 million in the current year and were established at or before enactment of the Balanced Budget Act of 1997 (P.L. 105-33). Programs established after that law was enacted are not automatically assumed to continue but are considered individually by CBO in consultation with the House and Senate Budget Committees.

15. Without the shifts in the timing of certain payments, outlays would increase relative to GDP in each year of the projection period, CBO estimates.

Figure 1-3.

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

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

a. Consists of 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.

15.0 percent of GDP in 2026 (compared with 12.9 percent in 2015). In particular, because of the aging of the population and rising health care costs, outlays for Social Security and the federal government's major health care programs are projected to rise substantially relative to the size of the economy over the next 10 years (see Figure 1-3). In addition, growing debt and rising interest rates will boost net interest payments. Specifically, in CBO's baseline:

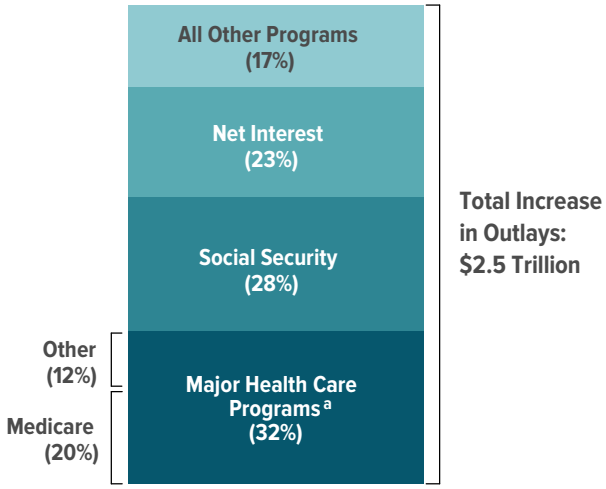
- Outlays for Social Security are projected to increase from 4.9 percent of GDP in 2016 to 5.9 percent of GDP by 2026.
- Outlays for the major health care programs—Medicare, Medicaid, the Children's Health Insurance Program, and subsidies offered through health insurance exchanges and related spending—are estimated to total 5.5 percent of GDP in 2016 and to grow rapidly in ensuing years, reaching 6.6 percent of GDP in 2026. (Medicare accounts for roughly three-quarters of that growth; the estimates here are adjusted for shifts in the timing of certain payments.)
- Net interest payments are anticipated to increase from 1.4 percent of GDP in 2016 to 3.0 percent of GDP in 2026—the highest ratio since 1996. Two factors drive that sharp increase: rising interest rates and growing debt. The interest rate paid on 3-month Treasury bills is anticipated to increase from around 1 percent at the beginning of 2017 to 3.2 percent by mid-2019 (and remain there through 2026); and the interest rate on 10-year Treasury notes is projected to rise from around 3 percent early in 2017 to 4.1 percent by late 2019 (and remain there through 2026). Meanwhile, debt held by the public is projected to increase from 75.6 percent of GDP at the end of 2016 to 86.1 percent at the end of 2026.

Those three components of the budget account for 83 percent of the total increase in outlays over the coming decade and would be the largest categories of spending in the budget by the end of that period (see Figure 1-4). Social Security and Medicare alone account for nearly half of the total increase.

In contrast, CBO projects that under current law, all other spending (adjusted for shifts in the timing of certain payments) decreases from 9.2 percent of GDP in 2016 to 7.7 percent in 2026. That decline is projected to occur in part because spending for many of the other mandatory programs is expected to rise roughly with inflation (which itself is projected to be well below the rate of growth of nominal GDP). In addition, most

Figure 1-4.

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



Source: Congressional Budget Office.

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

a. Consists of 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.

discretionary funding is capped through 2021 at amounts that increase more slowly than the growth of the economy. As a result, projected spending for defense and nondefense discretionary programs grows relatively slowly and falls relative to GDP under CBO's baseline assumptions. Discretionary outlays (adjusted for shifts in the timing of certain payments) are estimated to increase by 1.0 percent in 2017 and then to grow at an average rate of 1.9 percent between 2018 and 2026; that rate is less than half of the projected growth rate of nominal GDP, and as a result, discretionary outlays would drop from 6.5 percent of GDP in 2016 to 5.2 percent in 2026.

Outlays for defense, which account for about half of discretionary outlays, are projected to drop from 3.2 percent of GDP in 2016 to 2.6 percent in 2026, 2.3 percentage points below the average from 1966 to 2015 and the lowest share in any year since 1962 (the earliest year for which such data have been reported). Spending for nondefense discretionary programs is projected to drop from 3.3 percent of GDP in 2016 to 2.6 percent in 2026, 1.2 percentage points below the average from 1966 to 2015 and also the lowest share in any year since 1962.

Federal Debt

Federal debt held by the public consists mostly of the securities that the Treasury issues to raise cash to fund the federal government's activities and to pay off its maturing liabilities.[16] The Treasury borrows money from the public by selling securities in the capital markets; that debt is purchased by various buyers in the United States, by private investors overseas, and by the central banks of other countries. Of the $13.1 trillion in federal debt held by the public at the end of 2015, 54 percent ($7.0 trillion) was held by domestic investors and 46 percent ($6.1 trillion) was held by foreign investors.[17] Other measures of federal debt are sometimes used for various purposes, such as to provide a more comprehensive picture of the government's financial condition or to account for debt held by federal trust funds.

Debt Held by the Public. Under the assumptions that govern CBO's baseline, the federal government is projected to borrow $9.8 trillion from the end of 2016 through 2026, boosting debt held by the public to 86 percent of GDP by the end of the projection period (see Table 1-3).

That amount of debt relative to the size of the economy would be the greatest since 1947 and more than double the 50-year average of 39 percent. By historical standards, debt that high—and heading higher—would have significant negative consequences for the budget and the economy.

The amount that the Treasury borrows by selling securities (net of the maturing securities it redeems) is determined primarily by the annual budget deficit. However, several factors—collectively labeled "other means of financing" and not directly included in budget totals—also affect the government's need to borrow from the public. Those factors include changes in the government's cash balance and investments in the Thrift Savings Plan's G Fund, as well as the cash flows associated with federal credit programs (such as student loans), because only the

16. A small amount of debt held by the public is issued by other agencies, mainly the Tennessee Valley Authority.

17. The largest U.S. holders of Treasury debt are the Federal Reserve System (21 percent), individual households (9 percent), and mutual funds (8 percent); investors in China and Japan have the largest foreign holdings of Treasury securities, accounting for nearly 20 percent of U.S. public debt. For additional information, see Congressional Budget Office, *Federal Debt and Interest Costs* (December 2010), Chapter 1, www.cbo.gov/publication/21960.

Table 1-3.

Federal Debt Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Debt Held by the Public at the Beginning of the Year	12,779	13,117	13,978	14,613	15,244	16,033	16,886	17,813	18,891	20,003	21,129	22,399
Changes in Debt Held by the Public												
Deficit	439	544	561	572	738	810	893	1,044	1,077	1,089	1,226	1,366
Other means of financing	-102	318	74	58	51	43	34	33	35	36	44	52
Total	337	862	635	630	789	853	927	1,078	1,112	1,126	1,270	1,418
Debt Held by the Public at the End of the Year	**13,117**	**13,978**	**14,613**	**15,244**	**16,033**	**16,886**	**17,813**	**18,891**	**20,003**	**21,129**	**22,399**	**23,817**
Debt Held by the Public at the End of the Year (As a percentage of GDP)	**73.6**	**75.6**	**75.7**	**75.7**	**76.7**	**77.8**	**78.8**	**80.3**	**81.7**	**82.8**	**84.3**	**86.1**
Memorandum:												
Debt Held by the Public Minus Financial Assets[a]												
In billions of dollars	11,755	12,501	13,042	13,593	14,309	15,096	15,965	16,985	18,037	19,100	20,300	21,641
As a percentage of GDP	66.0	67.6	67.6	67.5	68.4	69.5	70.7	72.2	73.6	74.9	76.4	78.2
Gross Federal Debt[b]	18,143	19,332	20,093	20,864	21,737	22,635	23,574	24,649	25,745	26,834	28,003	29,314
Debt Subject to Limit[c]	18,113	19,301	20,062	20,833	21,706	22,603	23,542	24,617	25,712	26,801	27,970	29,280
Average Interest Rate on Debt Held by the Public (Percent)[d]	1.7	1.8	2.1	2.4	2.7	2.9	3.1	3.2	3.3	3.4	3.4	3.5

Source: Congressional Budget Office.

GDP = gross domestic product.

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

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

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

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

subsidy costs of those programs (calculated on a present-value basis) are reflected in the budget deficit.

For two main reasons, CBO projects that the increase in debt held by the public will exceed the $544 billion deficit in 2016 by $318 billion. First, the Treasury has reinvested the Thrift Savings Plan's G Fund in Treasury securities after having disinvested about $200 billion in 2015 as a result of debt-ceiling constraints.[18] Second, the government's need for cash to finance new student loans and other credit programs will boost the debt by roughly $90 billion in 2016. The subsidy costs for those credit programs are part of the projected deficit for each year from 2017 to 2026, but the cash outlays needed to finance those programs each year are greater than the net subsidy costs, which are calculated on a present-value basis; CBO estimates that the government will need to borrow between $30 billion and $75 billion more per year during that period than the budget deficits would suggest.

Other Measures of Federal Debt. Three other measures are sometimes used in reference to federal debt:

- *Debt held by the public minus financial assets* subtracts from debt held by the public the value of the government's financial assets, such as student loans. That measure provides a more comprehensive picture of the government's financial condition and its overall impact on credit markets than does debt held by the public. Calculating that measure is not straightforward, however, because neither the financial assets to be included nor the methods for evaluating them are well defined. Under CBO's baseline assumptions, that measure is roughly 10 percent smaller than debt alone but varies roughly in line with it.

- *Gross federal debt* consists of debt held by the public and debt issued to government accounts (for example, the Social Security trust funds). The latter type of debt does not directly affect the economy and has no net effect on the budget. In CBO's projections, debt held by the public increases by $9.8 trillion between the end of 2016 and the end of 2026, and debt held by government accounts rises by $0.1 trillion. As a result, gross federal debt is projected to rise by $10.0 trillion over that period and to total $29.3 trillion at the end of 2026. About one-fifth of that sum would be debt held by government accounts.

- *Debt subject to limit* is the amount of debt that is subject to the statutory limit on federal borrowing; it differs from gross federal debt mainly because most debt issued by agencies other than the Treasury and the Federal Financing Bank is included in gross debt but excluded from the debt limit. Currently, there is no statutory limit on the issuance of new federal debt because the Bipartisan Budget Act of 2015 suspended the debt ceiling from November 2, 2015, through March 15, 2017. In the absence of any legislative action on the debt limit before the suspension ends, the amount of borrowing accumulated during that period will be added to the previous debt limit of $18.1 trillion on March 16, 2017. In CBO's baseline projections, the amount of outstanding debt subject to limit increases from $19.3 trillion at the end of 2016 to $29.3 trillion at the end of 2026. (For the purpose of those projections, CBO assumes that increases in the statutory ceiling will occur as necessary.)

Changes in CBO's Baseline Since August 2015

CBO completed its previous set of baseline projections in August 2015. Since then, the agency has increased its estimate of the deficit in 2016 by $130 billion and its baseline projection of the cumulative deficit from 2016 through 2025 by $1.5 trillion—from $7.0 trillion to $8.6 trillion—mostly because of a decline in its projections of revenues (see Table 1-4). Several factors led to those changes: Legislation enacted since last August was the largest factor, and it caused CBO to increase its deficit projection through 2025 by $749 billion; a revised economic outlook raised that projection by $437 billion; and other, technical, changes increased the projection by $363 billion. (For additional details about those changes, see Appendix A.)

Changes Attributable to Legislation

CBO has lowered its revenue projections by $425 billion over the 2016–2025 period as a result of legislation enacted since August. The largest effect on revenues stemmed from the Consolidated Appropriations Act, 2016, which, among other changes, retroactively and prospectively extended several provisions reducing corporate and individual income taxes that had expired at the end of calendar year 2014. According to estimates by JCT, the largest such reductions in revenues over the 2016–2025 period stem from permanent extensions of the research and experimentation tax credit (in modified form); the ability of businesses to defer certain foreign financing income; the ability of businesses with relatively small amounts of investment to immediately deduct all such investment (in modified form); and the option for individuals to take an itemized deduction for state and local sales taxes instead of state and local income taxes.

Also as a result of legislation, CBO has increased its projection of total outlays for the 2016–2025 period by $324 billion. Changes to refundable income tax credits—primarily as a result of provisions contained in the Consolidated Appropriations Act, 2016, to permanently extend the American Opportunity Tax Credit and also to extend the expansions of the earned income tax credit and the child tax credit—increased mandatory outlays by $154 billion. Also, discretionary spending in the baseline rose, on net, by $56 billion because of legislation,

18. The Thrift Savings Plan is a retirement program, similar to a 401(k) plan, for federal civilian employees and members of the uniformed services. One component of that plan, the G Fund, is invested entirely in Treasury securities. Because the amount of outstanding debt in March 2015 reached the statutory ceiling, the Treasury had no room to continue borrowing under its standard procedures. In response, the Treasury disinvested participants' savings in the G Fund, as permitted by law. The Bipartisan Budget Act of 2015 suspended the debt ceiling on November 2, 2015, thus allowing the Treasury the ability to fully restore the securities to the G Fund.

Table 1-4.

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

Billions of Dollars

											Total	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
Deficit in CBO's August 2015 Baseline	-414	-416	-454	-596	-687	-767	-885	-895	-886	-1,008	-2,566	-7,007
Changes												
Legislative												
Revenues	-134	-91	-62	-48	-8	8	-7	-19	-29	-36	-343	-425
Outlays	30	31	16	31	35	37	39	42	45	17	143	324
Subtotal	-164	-123	-78	-78	-43	-29	-46	-61	-74	-53	-487	-749
Economic												
Revenues	-33	-39	-40	-53	-67	-82	-95	-108	-120	-132	-233	-771
Outlays	-16	-23	-32	-34	-37	-36	-37	-38	-42	-40	-142	-334
Subtotal	-17	-16	-9	-19	-30	-46	-58	-69	-79	-93	-92	-437
Technical												
Revenues	28	13	6	1	-12	-15	-13	-13	-13	-14	37	-30
Outlays	-23	20	37	46	38	36	42	39	39	59	118	333
Subtotal	51	-7	-31	-45	-50	-51	-55	-52	-51	-73	-81	-363
Increase (-) in the Deficit	**-130**	**-146**	**-118**	**-142**	**-123**	**-126**	**-159**	**-182**	**-204**	**-218**	**-659**	**-1,549**
Deficit in CBO's January 2016 Baseline	-544	-561	-572	-738	-810	-893	-1,044	-1,077	-1,089	-1,226	-3,225	-8,556
Memorandum:												
Changes in Revenues	-139	-117	-96	-100	-87	-88	-115	-139	-162	-182	-540	-1,226
Changes in Outlays	-9	28	22	42	37	38	44	43	42	37	120	323

Source: Congressional Budget Office.

primarily from increases in the caps on such funding for 2016 and 2017 and increased funding for surface transportation programs. The resulting growth in the estimate of federal borrowing due to enacted legislation led CBO to raise its projection of interest payments on federal debt by $137 billion through 2025.

Changes Attributable to Revisions in the Economic Forecast

The baseline also reflects changes in CBO's economic forecast that were made through early December. They include updated projections of GDP, the unemployment rate, interest rates, inflation, and other factors that affect federal revenues and spending.[19]

Those updates to economic factors—primarily slower projected growth in economic output over the 10-year projection period—have caused the agency to lower its projections of revenues from each of the three major revenue sources (individual income taxes, corporate income taxes, and payroll taxes) between 2016 and 2025. All told, CBO reduced its projections of revenues by $771 billion for that 10-year period as a result of the changed economic outlook.

In addition, adjustments to economic factors caused CBO to reduce its estimates of outlays for the period

19. As noted in the Summary, CBO did not have enough time to incorporate into its budget projections the most recent updates to its economic forecast, which accounted for legislation enacted in December and for other developments through the end of that month. A preliminary analysis suggests that if CBO had incorporated those updates into its budget projections, as it will do in March, projected revenues would be between $100 billion and $200 billion (or 0.2 percent to 0.4 percent) higher over the 2016–2026 period than they are currently projected to be. Projected outlays also would be affected, but probably to a lesser extent. CBO will also make technical estimating changes in its March projections that could be larger than those amounts, in either direction.

by $334 billion. Lower spending for net interest costs—primarily because CBO now anticipates lower inflation in 2016 and lower interest rates for much of the projection period—accounts for roughly half of that change ($181 billion).

Technical Changes

CBO also made other, technical, changes to its projections. Those changes led to an increase of $333 billion in projected outlays for the 2016–2025 period, mostly for mandatory programs (higher by $258 billion). Higher spending for Medicaid (by $187 billion) and veterans' benefits ($152 billion) is partially offset by lower spending for Social Security ($97 billion) in CBO's projections. In addition, technical changes boosted net interest costs in the baseline by $72 billion, for two main reasons: Projected debt-service costs are higher—mostly because of the larger deficits attributable to technical factors—and projected receipts from the financing accounts associated with the government's credit programs are smaller (mostly stemming from a reduction in the projected volume of federal student loans). Projected revenues have been reduced by $30 billion over the period for technical reasons.

Uncertainty in Budget Projections

Even if federal laws remained unchanged for the next decade, actual budgetary outcomes would differ from CBO's baseline projections because of unanticipated changes in economic conditions and in a host of other factors that affect federal spending and revenues. The agency aims for its projections to be in the middle of the distribution of possible outcomes, given the baseline assumptions about federal tax and spending policies, while recognizing that there will always be deviations from any such projections.

CBO's projections of outlays depend on the agency's economic projections for the coming decade, which include forecasts for such variables as interest rates, inflation, and the growth of real (inflation-adjusted) GDP. Discrepancies between those forecasts and actual economic outcomes can cause significant differences between baseline budgetary projections and budgetary outcomes.

For instance, CBO's current economic forecast anticipates that interest rates on 3-month Treasury bills will increase from around 1 percent at the beginning of 2017 to 3.2 percent by mid-2019 (and remain there through 2026) and that interest rates on 10-year Treasury notes will rise from around 3 percent early in 2017 to 4.1 percent by late 2019 (and remain there through 2026). If interest rates were 1 percentage point higher or lower each year from 2017 through 2026 and if all other economic variables were unchanged, cumulative deficits projected for the 10-year period would be about $1.6 trillion higher or lower, mostly as a result of changes in interest payments on Treasury debt. (For further discussion of how some key economic projections affect budget projections, see Appendix E.)

Uncertainty also surrounds myriad technical factors that can substantially affect CBO's baseline projections of outlays. For example, spending per enrollee for Medicare and Medicaid is very difficult to predict. If per capita costs in those programs rose 1 percentage point faster or slower per year than CBO has projected for the next decade, total federal outlays for Medicare and Medicaid would be roughly $1 trillion lower or higher for that period.

Projections of revenues also are quite sensitive to a variety of factors. Revenues depend on total amounts of wages and salaries, corporate profits, and other income, all of which are encompassed by CBO's economic projections. For example, if the growth of real GDP and taxable income was 0.1 percentage point higher or lower per year than in CBO's baseline projections, deficits would be $327 billion lower or higher over the 2017–2026 period.

Even fairly small deviations in revenues and outlays relative to CBO's projections could have a substantial effect on budget deficits. For example, if revenues projected for 2016 were too high or too low by 3 percent (a range that has included about two-thirds of the deviations between actual amounts and CBO's projections in the past), then actual revenues would be about $100 billion lower or higher than in the agency's baseline.[20] Similarly, if outlays projected for 2016 were too high or too low by 3 percent, then outlays would deviate from CBO's baseline by about $120 billion. Such differences for both revenues and outlays could largely offset each other, thus having little net effect on the deficit, or they could both push the deficit in the same direction, thus compounding the differences.

20. Projection errors have tended to be larger for longer horizons than for shorter ones. CBO's six-year revenue projections—those that estimate revenues for the fifth fiscal year after the year in which they are released—have, on average, overestimated revenues by 5.3 percent. The mean absolute error of those projections (that is, the average of the errors without regard to direction) is 10.4 percent. See Congressional Budget Office, *CBO's Revenue Forecasting Record* (November 2015), www.cbo.gov/publication/50831.

Table 1-5.

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

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Policy Alternatives That Affect Discretionary Outlays													
Increase Discretionary Appropriations at the Rate of Inflation After 2016[a]													
Increase (-) in the deficit[b]	0	-23	-55	-69	-75	-81	-85	-88	-91	-94	-97	-303	-757
Debt service	0	*	-1	-4	-6	-10	-13	-16	-20	-24	-29	-21	-124
Freeze Discretionary Appropriations at the 2016 Amount[c]													
Increase (-) or decrease in the deficit[b]	0	-9	-16	-2	22	48	77	108	139	172	207	43	746
Debt service	0	*	*	-1	-1	1	3	6	11	17	24	-1	61
Policy Alternative That Affects Both Discretionary and Mandatory Outlays													
Prevent the Automatic Spending Reductions Specified in the Budget Control Act[d]													
Increase (-) in the deficit[b]	n.a.	-7	-65	-89	-97	-100	-105	-107	-110	-120	-97	-358	-897
Debt service	n.a.	*	-1	-4	-7	-11	-15	-20	-24	-29	-34	-24	-147
Policy Alternatives That Affect the Tax Code[e]													
Extend Partial Expensing of Equipment Property[f]													
At 50 percent rate													
Increase (-) in the deficit[b]	n.a.	n.a.	-9	-21	-52	-56	-38	-27	-20	-15	-11	-138	-248
Debt service	n.a.	n.a.	*	-1	-2	-4	-6	-7	-8	-9	-10	-7	-47
At 30 percent rate													
Increase (-) in the deficit[b]	n.a.	n.a.	n.a.	n.a.	-30	-41	-27	-19	-14	-10	-7	-72	-149
Debt service	n.a.	n.a.	n.a.	n.a.	-1	-2	-3	-4	-5	-5	-6	-2	-26
Extend Other Expiring Tax Provisions[g]													
Increase (-) in the deficit[b]	0	-4	-12	-13	-15	-18	-19	-21	-23	-25	-28	-61	-178
Debt service	0	*	*	-1	-1	-2	-3	-3	-4	-5	-7	-4	-27

Continued

Alternative Assumptions About Fiscal Policy

CBO's baseline budget projections—which are constructed in accordance with provisions of law—are intended to show what would happen to federal spending, revenues, and deficits if current laws generally remained unchanged. Future legislative action, however, could lead to markedly different budgetary outcomes.

To assist policymakers and analysts who may hold differing views about the most useful benchmark against which to consider possible changes to laws, CBO has estimated the effects on budgetary projections of some alternative assumptions about future policies (see Table 1-5). The discussion below focuses on how those policy actions would directly affect revenues and outlays. Such changes also would influence the costs of servicing the federal debt (shown separately in the table).

Discretionary Spending

Policymakers could vary discretionary funding in many ways from the amounts projected in the baseline. For example, if appropriations grew each year through 2026 at the same rate as inflation after 2016 rather than being constrained by the caps, discretionary spending would be $757 billion higher over the 2017–2026 period than it is in CBO's baseline. If, by contrast, lawmakers kept appropriations for 2017 through 2026 at the nominal 2016 amount, total discretionary outlays would be $746 billion lower over that period. Under that scenario (sometimes

Table 1-5. Continued

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

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Policy Alternatives That Affect the Tax Code[e] (Continued)													
Repeal Certain Postponed Health Taxes[h]													
Increase (-) in the deficit[b]	n.a.	n.a.	-13	-15	-18	-26	-29	-32	-36	-41	-46	-72	-256
Debt service	n.a.	n.a.	*	-1	-1	-2	-3	-4	-6	-7	-9	-4	-34
Memorandum:													
Deficit in CBO's Baseline	-544	-561	-572	-738	-810	-893	-1,044	-1,077	-1,089	-1,226	-1,366	-3,575	-9,378

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

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

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

b. Excludes debt service.

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

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

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

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

g. This option would extend about 40 tax provisions that are scheduled under current law to expire before 2027. It does not include an extension of the partial-expensing provisions or a repeal of certain health provisions; those effects are shown separately.

h. This option would repeal the health insurance provider tax, the medical device excise tax, and the excise tax on certain health insurance plans with high premiums. All were postponed for either one or two years in the Consolidated Appropriations Act, 2016. The estimate includes a decrease in revenues of $277 billion over the 2018–2026 period and a decrease in outlays of $21 billion over the 2020–2026 period; that decrease in outlays occurs because some people who would have otherwise been enrolled in insurance obtained through Medicaid and the exchanges would instead enroll in employment-based coverage if the tax on certain health insurance plans with high premiums was repealed.

called a freeze in appropriations), total discretionary spending would fall from 6.5 percent of GDP in fiscal year 2016 to 4.4 percent in 2026. (In CBO's baseline, such spending is already projected to fall to 5.2 percent of GDP in 2026, reflecting the caps on most new discretionary funding through 2021 and adjustments for inflation thereafter.)

Automatic Spending Reductions

The Budget Control Act of 2011 put in place automatic procedures to reduce discretionary and mandatory spending through 2021. Those procedures require equal reductions (in dollar terms) in defense and nondefense spending. The Bipartisan Budget Act of 2015 canceled the discretionary reductions for 2016 and 2017 and instead set new caps for those years. That act also extended the required reductions to mandatory spending (through a process called sequestration) through 2025. If lawmakers chose to prevent those automatic cuts each year—starting in 2017—without making other changes that reduced spending, total outlays over the 2017–2026 period would be $897 billion (or about 2 percent) higher than the amounts in CBO's baseline. Total discretionary outlays would be $764 billion (or 5.9 percent) higher, and outlays for mandatory programs—most of which are not subject to sequestration—would be $134 billion (or 0.4 percent) higher.[21]

Revenues

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

If the provision allowing for 50 percent expensing became permanent after 2017, it would reduce revenues by about $248 billion over the 2018–2026 period, JCT estimates. If instead the provision allowing for 30 percent expensing became permanent after 2019, it would reduce revenues by about $149 billion from 2020 through 2026. If all other tax provisions scheduled to expire before 2027 were permanently extended, CBO and JCT estimate, revenues would be lower by a total of $178 billion over the 2017–2026 period.

Deficits also would increase if delays in the implementation of certain taxes established by the ACA were extended or made permanent. The Consolidated Appropriations Act, 2016, postponed for 2016 and 2017 the medical device tax, placed a moratorium on the health insurance tax for 2017, and postponed for two years (to 2020) the start of the tax on high-premium health insurance plans. Permanently repealing those taxes would reduce revenues (net of small reductions in outlays) by a total of $256 billion over the 2018–2026 period.

The Long-Term Budget Outlook

Beyond the coming decade, the fiscal outlook is significantly more worrisome. In CBO's most recent long-term projections—which extend through 2046—budget deficits rise steadily under the extended baseline, which follows CBO's 10-year baseline projections for the first decade and then extends the baseline concept for subsequent years (see Table 1-6).[22] Although long-term budget projections are highly uncertain, the aging of the

21. Because of interactions between the effects of different policy options, the estimated budgetary effects of this option cannot be added to the estimated budgetary effects of either of the other alternatives that affect discretionary spending.

22. CBO has not fully updated its long-term projections, which were most recently issued in June 2015. Instead, for this report, CBO adopted a simplified approach that it has regularly used between full updates: The long-term projections incorporate the most current baseline for the first 10 years; for subsequent periods, they incorporate the interest rates as well as the growth rates for revenues, spending, and GDP from the agency's extended baseline in its most recent full update. For that June 2015 update, see Congressional Budget Office, *The 2015 Long-Term Budget Outlook* (June 2015), www.cbo.gov/publication/50250. For additional information about the simplified approach used here, see Congressional Budget Office, *Budgetary and Economic Outcomes Under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Price, March 2015* (March 2015), pp. 13–14, www.cbo.gov/publication/49977. CBO expects to publish its next complete update of its long-term projections in the summer of 2016.

Table 1-6.

Key Projections in CBO's Extended Baseline

Percentage of Gross Domestic Product

			Projected Annual Average			
	2016	2017	2018-2021	2022-2026	2027-2036[a]	2037-2046[a]
Revenues						
Individual income taxes	8.8	9.0	9.1	9.4	9.9	10.5
Payroll taxes	6.0	5.9	5.8	5.8	5.7	5.8
Corporate income taxes	1.8	1.8	1.8	1.6	1.6	1.6
Other sources of revenues	1.8	1.5	1.3	1.3	1.3	1.5
Total Revenues	**18.3**	**18.2**	**18.0**	**18.1**	**18.6**	**19.4**
Outlays						
Mandatory						
Social Security	4.9	4.9	5.2	5.7	6.2	6.3
Major health care programs[b]	5.6	5.6	5.7	6.3	7.4	8.7
Other mandatory programs	2.8	2.8	2.7	2.5	2.3	2.0
Subtotal	13.3	13.3	13.6	14.5	15.9	17.0
Discretionary	6.5	6.2	5.8	5.3	5.2	5.2
Net interest	1.4	1.6	2.2	2.8	4.0	5.4
Total Outlays	**21.2**	**21.1**	**21.5**	**22.6**	**25.1**	**27.6**
Deficit	**-2.9**	**-2.9**	**-3.5**	**-4.5**	**-6.6**	**-8.2**
Debt Held by the Public at the End of the Period	**76**	**76**	**79**	**86**	**116**	**155**
Memorandum:						
Social Security						
Revenues[c]	4.5	4.5	4.4	4.4	4.4	4.4
Outlays[d]	4.9	4.9	5.2	5.7	6.2	6.3
Net Increase (-) in the Deficit[e]	-0.4	-0.4	-0.7	-1.3	-1.9	-2.0
Medicare						
Revenues	1.3	1.3	1.4	1.4	1.3	1.3
Outlays[d]	3.7	3.6	3.8	4.4	5.4	6.7
Offsetting Receipts	-0.5	-0.6	-0.6	-0.7	-0.9	-1.1
Net Increase (-) in the Deficit[e]	-1.9	-1.7	-1.8	-2.3	-3.2	-4.3
Gross Domestic Product at the End of the Period (Trillions of dollars)	18.5	19.3	22.6	27.7	41.4	63.7

Source: Congressional Budget Office.

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

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2026 and then extending the baseline concept for the following 20 years.

a. These projections do not reflect the macroeconomic feedback of the policies underlying the extended baseline after 2026, except for debt held by the public.

b. Consists of 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.

c. 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.

d. 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 on behalf of federal employees to the Social Security trust fund.

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

population and growth in per capita spending on health care would almost certainly boost federal spending significantly relative to GDP after 2026 if current laws remained in effect. Federal revenues also would continue to increase relative to GDP under current law, but they would not keep pace with outlays. As a result, public debt would reach 155 percent of GDP by 2046 (taking into account the effects on the economy of the rising debt), CBO estimates, higher than any percentage previously recorded in the United States.[23]

Such high and rising debt relative to the size of the economy would dampen economic growth and thus reduce people's incomes compared with what otherwise would be the case. It would also increasingly restrict policymakers' ability to use tax and spending policies to respond to unexpected challenges, and it would boost the risk of a fiscal crisis in which the government would lose its ability to borrow at affordable rates.

Moreover, debt would still be on an upward path relative to the size of the economy in 2046, a trend that would ultimately be unsustainable. To avoid the negative consequences of high and rising federal debt and to put debt on a sustainable path, lawmakers will have to make significant changes to tax and spending policies—letting revenues rise more than they would under current law, reducing spending for large benefit programs below the projected amounts, or adopting some combination of those approaches.

23. In June 2015, CBO's long-term projections showed debt of roughly 100 percent of GDP in 2040; debt held by the public in the 10-year baseline was about $1.2 trillion less in 2025 than CBO currently estimates, and the projected deficits were smaller. As a result, CBO now estimates that debt held by the public in 2040 would be substantially higher if current laws remained in place.

CHAPTER

2

The Economic Outlook

The economy's real (inflation-adjusted) output will expand at an average annual rate of roughly 2½ percent over the next two years, the Congressional Budget Office projects, after last year's estimated 2 percent growth. Consumer spending is expected to provide the largest contribution to the growth of output over the next few years, as it has done on average in the past. However, the anticipated pickup in growth in 2016 and 2017 stems largely from faster growth in investment in business capital and in housing. CBO expects that the federal tax and spending policies embodied in CBO's baseline projections would boost growth in demand for goods and services in the economy in 2016 but dampen it in 2017 and 2018. CBO also expects the economic expansion over the next few years to put upward pressure on interest rates and inflation, helping to raise the rate of inflation to the Federal Reserve's goal of 2 percent per year, on average.[1]

The growth rates that CBO projects for the next two years are modestly faster than the average since the end of the recession in 2009. That postrecession average has been weak by historical standards, reflecting the nature and severity of the last recession as well as structural, longer-term factors such as declining growth in the labor force owing to an aging population. Because of the slow recovery in output, the amount of underused labor and capital resources, or "slack," in the economy has diminished slowly as well.

CBO expects the economic expansion over the next few years to reduce the slack in the labor market. For example, CBO projects that further hiring will reduce the unemployment rate from 5.0 percent in the fourth quarter of 2015 to 4.5 percent in the fourth quarter of 2016 and put some upward pressure on employee compensation. The hiring also will encourage some people to enter or stay in the labor force, slowing a long-term decline in labor force participation that is attributable to underlying demographic trends and, to a smaller degree, to federal policies.

The later years of CBO's economic projections through 2026 are based primarily on projections of underlying trends in variables such as growth of the labor force, of hours worked, and of productivity. Those projections do not include predictions of the timing or magnitude of economic fluctuations. Real output will grow faster through 2026 than it did during the past decade, CBO expects, because business investment will be stronger and the economy's productivity will grow faster. Nevertheless, slower growth in the nation's supply of labor will probably keep growth of output below the rates observed during the 1980s, 1990s, and early 2000s. On that basis, CBO projects annual growth averaging 2.0 percent over the 2021–2026 period.

Recognizing the uncertainty of economic forecasts, 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-expected growth in productivity, or slower growth of foreign economies—could cause outcomes to differ substantially from those CBO has projected.

CBO's current economic projections differ in some significant respects from its August 2015 projections. Most important, CBO has lowered its projected paths of potential and actual output, reducing its estimate of potential and actual gross domestic product (GDP) by nearly 3 percent in 2025, the end of the projection period examined in the August report. Those revisions were made on the basis of revised historical data and a reassessment of future growth in total factor productivity (TFP),

1. During December 2015, lawmakers enacted legislation that affected the economic outlook. Consequently, CBO's economic forecast, which is typically completed in early December, has been updated to incorporate the enactment of that legislation, as well as economic developments through the end of the year. In particular, as discussed in the section "Federal Fiscal Policy," recent legislation led CBO to boost its estimate of output over the next two years. In addition, economic developments in December suggested slightly more output and taxable income over the projection period.

the average real output per unit of combined labor and capital services. In addition, economic developments since August point to a weaker outlook for output growth over the next few years. CBO also projects a lower rate of unemployment and lower interest rates than it estimated in August.

The economic projections in this report indicate a slightly stronger economy in the near term than do the *Blue Chip* consensus forecast (published in January) and the forecasts developed by the Federal Reserve (and presented at the Federal Open Market Committee's December 2015 meeting).

The Economic Outlook for 2016 Through 2020

CBO expects real GDP to grow by 2.7 percent this year and 2.5 percent next year—faster than last year's estimated 2.0 percent rate—but at a slower pace in later years (see Table 2-1). The agency anticipates that continued solid growth in spending by consumers and faster growth in investment spending by businesses and homebuilders will drive most of the growth over the next few years. Under current law, developments in the federal government's tax and spending policies would, on net, have a small positive effect on the growth in the demand for goods and services this year and a modest negative effect in 2017 and 2018, CBO projects. The agency also anticipates that monetary policy will support the growth of output this year and over the next few years, but by smaller degrees over time.

CBO expects the slack in the economy to diminish to a negligible amount over the next few years. Since the end of the last recession, GDP has grown faster than potential GDP, on average, reducing the gap between the two and hence the amount of slack in the economy. CBO expects that gap to continue narrowing through the middle of 2018 (see Figure 2-1). In the agency's projections, increased demand for workers reduces the unemployment rate this year and contributes to faster growth in hourly labor compensation as measured by the employment cost index. Those developments are expected to encourage more people to enter, reenter, or remain in the labor force. Reduced slack in the economy will also remove some of the downward pressure seen in recent years on the rate of inflation.

Unlike CBO's projections for 2016 and 2017, those for the 2018–2020 period do not reflect expected cyclical developments in the economy. Rather, the projections largely serve as transitional paths to values projected for the 2021–2026 period, which are based primarily on an assessment of underlying trends in variables such as growth of the labor force, of hours worked, and of productivity.

Federal Fiscal Policy

Changes projected to occur in federal spending and revenues under current law would have a variety of effects on the economy through 2020. Major legislation enacted since August is one source of those effects; as a whole, it is estimated to boost GDP this year and next, largely by increasing aggregate demand.[2] Other year-to-year changes in spending and revenues that are expected to occur under laws enacted before August are projected to have little effect on growth this year and modestly dampen demand for goods and services in 2017 and 2018. Altogether, the fiscal policies embodied in CBO's baseline would boost GDP growth in 2016 but dampen it in 2017 and 2018, CBO estimates. (Over the past several years, changes in spending and revenues generally reduced growth in real GDP.) In addition, some aspects of fiscal policy under current law are projected to dampen the supply of labor and therefore the growth of output.

Effects on the Economy From Major Legislation Enacted Since August 2015. Laws enacted since August 2015 raised spending and lowered revenue in comparison with the amounts in CBO's August 2015 baseline—adding an estimated $749 billion to the projected 10-year cumulative deficit (see Appendix A). The Consolidated Appropriations Act, 2016 (Public Law 114-113), accounts for most of those legislative changes.

CBO estimates that laws enacted since August would boost real GDP growth by 0.4 percentage points in 2016 and then dampen GDP growth in 2017 and 2018 by

2. 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.

Table 2-1.

CBO's Economic Projections for Calendar Years 2016 to 2026

	Estimated, 2015	Forecast 2016	Forecast 2017	Projected Annual Average 2018–2020	Projected Annual Average 2021–2026
		Percentage Change From Fourth Quarter to Fourth Quarter			
Gross Domestic Product					
Real (Inflation-adjusted)	2.0	2.7	2.5	1.9	2.0
Nominal	3.4	4.3	4.4	3.9	4.1
Inflation					
PCE price index	0.5	1.5	2.0	2.0	2.0
Core PCE price index[a]	1.4	1.6	1.9	2.0	2.0
Consumer price index[b]	0.4	1.7	2.4	2.4	2.4
Core consumer price index[a]	2.0	2.0	2.2	2.3	2.3
GDP price index	1.3	1.6	1.9	2.0	2.0
Employment Cost Index[c]	2.2	2.9	3.3	3.3	3.2
		Fourth-Quarter Level (Percent)			
Unemployment Rate	5.0 [d]	4.5	4.5	5.0 [e]	5.0 [f]
		Percentage Change From Year to Year			
Gross Domestic Product					
Real	2.4	2.5	2.6	2.0	2.0
Nominal	3.5	4.1	4.4	4.0	4.1
Inflation					
PCE price index	0.3	1.1	1.9	2.0	2.0
Core PCE price index[a]	1.3	1.5	1.8	2.0	2.0
Consumer price index[b]	0.1	1.3	2.3	2.4	2.4
Core consumer price index[a]	1.8	2.0	2.2	2.3	2.3
GDP price index	1.1	1.6	1.8	2.0	2.0
Employment Cost Index[c]	2.3	2.6	3.2	3.3	3.2
		Calendar Year Average			
Unemployment Rate (Percent)	5.3 [d]	4.7	4.4	4.8	5.0
Payroll Employment (Monthly change, in thousands)[g]	228 [d]	172	124	65	75
Interest Rates (Percent)					
Three-month Treasury bills	0.1 [d]	0.7	1.6	3.0	3.2
Ten-year Treasury notes	2.1 [d]	2.8	3.5	4.0	4.1
Tax Bases (Percentage of GDP)					
Wages and salaries	43.6	43.9	43.9	43.9	43.9
Domestic economic profits	9.2	8.7	8.6	8.1	7.5

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

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

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. Actual value for 2015.

e. Value for 2020.

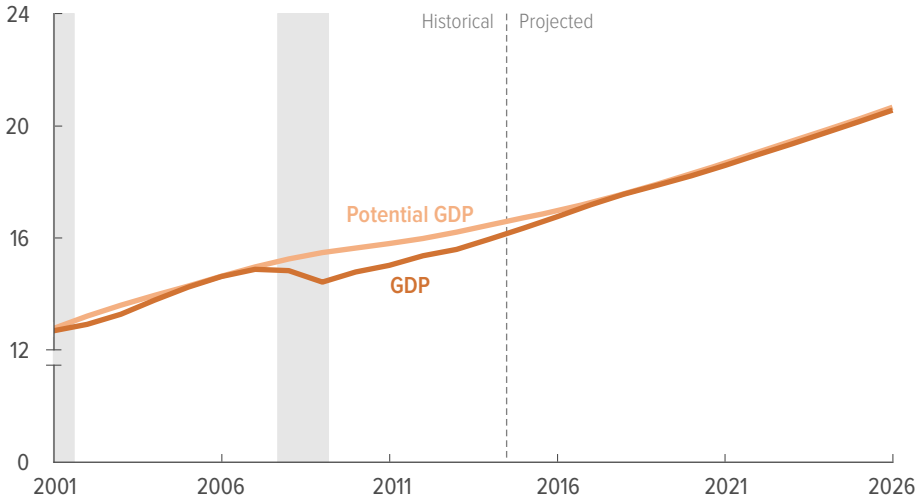
f. Value for 2026.

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

Figure 2-1.

GDP and Potential GDP

Trillions of 2009 Dollars



The gap between the economy's actual and potential output will be largely eliminated by the middle of 2018 and then increase to its historical average—about one-half of one percent of potential GDP—by 2020 in CBO's projection.

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

Potential gross domestic product is CBO's estimate of the maximum sustainable output of the economy.

Data are calendar year averages.

GDP = gross domestic product.

0.2 percentage points in each year.[3] The effects on GDP growth through the rest of the projection period are likely to be small, and until later years the direction of those effects is uncertain. By the end of the projection period, the laws would probably lower real GDP somewhat as an increase in federal debt from the larger cumulative deficit would ultimately reduce private investment enough to more than offset any positive effects on output from other aspects of the legislation.

The estimated effects on growth in the near term, in part, reflect the laws' effects on projected discretionary spending. Together they boosted spending for discretionary programs by $25 billion (in nominal dollars) in 2016 over previously projected amounts, resulting in an increase of $32 billion over the 2015 level. That increase will tend to boost the growth of real output this year. In CBO's baseline, enacting the legislation increased discretionary outlays by the same amount in 2017 as it did in 2016 and increased them by less in 2018. After adjustment for inflation, those nominal increases imply a smaller boost to real federal spending in 2017 and 2018 than will occur this year. Hence, those changes to the baseline projections dampen CBO's estimate of real GDP growth slightly in 2017 and 2018.

In addition, the Consolidated Appropriations Act, 2016, includes major changes to tax provisions that will affect the economy over the 2016–2018 period and beyond. That law increased incentives for businesses to invest by changing the tax treatment of investment spending. As discussed later, those changes are expected over the next few years to increase business investment, another source of aggregate demand.[4] That outcome also implies faster

3. Although the legislation significantly affects spending and revenues over the next decade, several factors are estimated to restrain the economic effects over the next few years. Some of the reductions in revenues are estimated to have only a modest effect on private demand; moreover, some reductions in business taxes were retroactive and are expected to have little effect on investment. In addition, with short-term interest rates no longer constrained by the zero lower bound, monetary policy is expected to partly offset the boost to economic growth from stronger aggregate demand. For a description of CBO's approach to analyzing the economic effects of fiscal policy, see Congressional Budget Office, *How CBO Analyzes the Effects of Changes in Federal Fiscal Policies on the Economy* (November 2014), www.cbo.gov/publication/49494.

4. Enacted in December 2015, the Consolidated Appropriations Act, 2016, retroactively extended many tax provisions that reduced tax liabilities and had been extended routinely in previous years. Those changes in law reduced income tax revenues more in 2016 than in future years, contributing slightly to the projected increase in revenues after 2016.

growth of aggregate demand in 2016 and 2017 but slightly slower growth in 2018.

CBO anticipates that the laws enacted since August will affect the quantity of labor and capital services supplied in the economy in several ways. On net, those effects will probably have only a small impact on output in the later years of the projection period. In particular, the Consolidated Appropriations Act, 2016, will affect work incentives for many households—but the effects are small and offsetting, and the net impact on labor supply is estimated to be minuscule. Also, the projected boost to business investment over the next several years will tend to result in a larger capital stock and greater capital services in the near term. However, in the longer term the legislation enacted since August will tend to dampen the growth of capital services because it increased projected deficits over the next decade. The agency estimates that those deficits would gradually reduce—or crowd out—private investment in productive capital because the portion of people's savings used to buy government securities would not be available to finance private investment.

Effects on Aggregate Demand From Other Changes in Fiscal Policy. Other year-to-year changes in spending and revenues projected under current law would have small negative effects on growth in output. Although recent legislation boosted spending for discretionary programs, the previously enacted limits on discretionary appropriations continue to apply for 2018 through 2021, reducing projected discretionary spending as a share of output over that period. CBO also expects that the automatic stabilizers (that is, the automatic increases in revenues and decreases in outlays in the federal budget that occur when the economy strengthens) will provide less economic stimulus over the next few years.[5]

Effects on the Supply of Labor From Other Changes in Fiscal Policy. CBO anticipates that several developments in federal fiscal policy under current law will affect the economy through their impact on the labor market. The most sizable effects stem from provisions of the Affordable Care Act (ACA). The ACA's largest effect on the labor market—especially as overall employment conditions improve—will come from provisions of the act that raise effective marginal tax rates on earnings, thereby reducing how much some people choose to work.[6] 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 some people's additional earnings. The act also directly imposes higher taxes on some people's labor income. Because both effects on labor supply will grow over the next few years, CBO projects, they will subtract from economic growth over that period.

CBO expects that other aspects of the federal tax and transfer system also will affect incentives to work over the next decade. People's real incomes are projected to rise, on average, over the next decade, because of both a continuing recovery and underlying growth in productivity. That increase in income will tend to push some households into higher tax brackets, raising marginal tax rates and dampening growth in labor supply.

Monetary Policy and Interest Rates on Treasury Securities

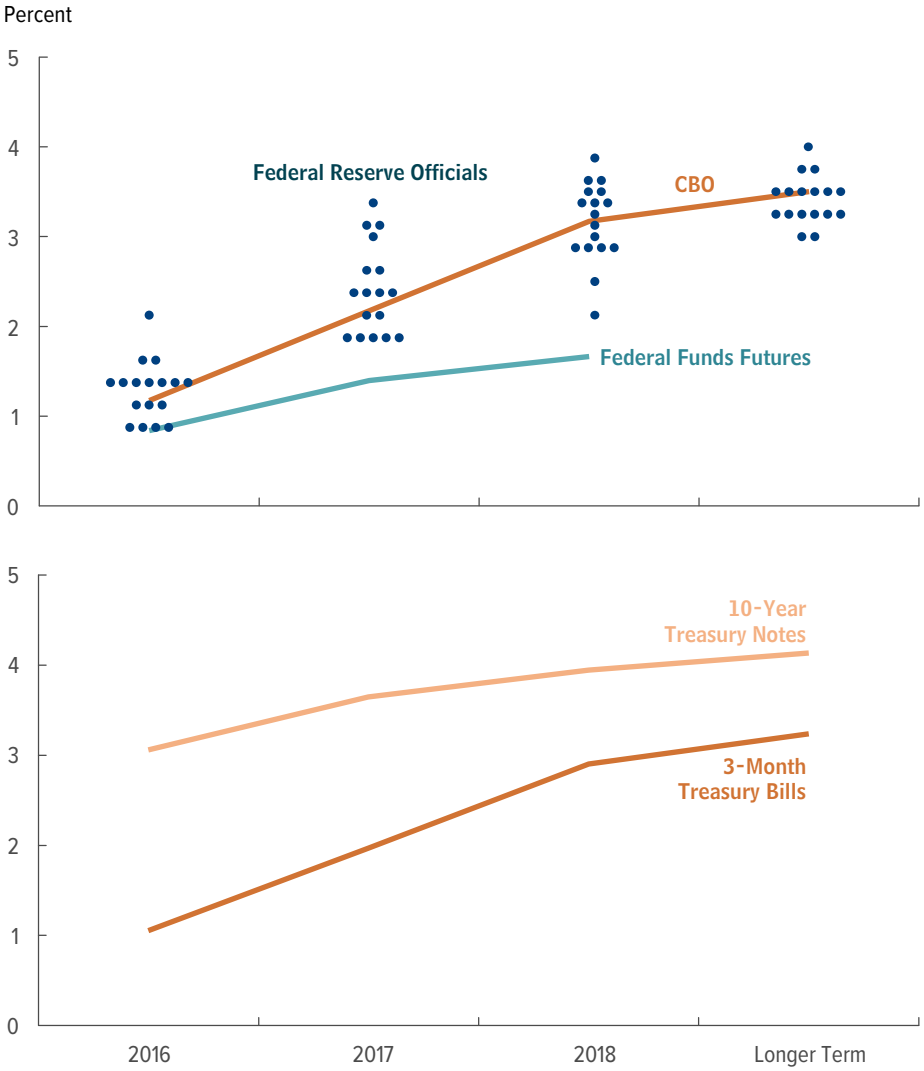
CBO expects that the Federal Reserve will continue to gradually reduce the extent to which its monetary policy supports the growth of output as the economy improves and as the rate of inflation approaches the central bank's longer-run goal of 2 percent. After holding the target range for the federal funds interest rate (the Federal Reserve's primary policy rate) at zero to 0.25 percent since late 2008, the Federal Reserve raised the range to 0.25 percent to 0.50 percent at its December 2015 meeting. In CBO's forecast, the federal funds rate rises to 1.2 percent in the fourth quarter of 2016 and 2.2 percent in the fourth quarter of 2017, and it settles at 3.5 percent in the second quarter of 2019. CBO's projections not only take into account projections by Federal Reserve officials but also place some weight on the lower path for interest rates implied by prices in the futures market for federal funds (see Figure 2-2).

5. All else being equal, automatic stabilizers affect aggregate demand, and therefore output, 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, demand, and output. For more discussion of the automatic stabilizers, see Appendix C and Frank Russek and Kim Kowalewski, *How CBO Estimates Automatic Stabilizers*, Working Paper 2015-07 (Congressional Budget Office, November 2015), www.cbo.gov/publication/51005.

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

Figure 2-2.

Forecasts of Interest Rates by CBO, by Federal Reserve Officials, and Derived From Federal Funds Futures



CBO's forecast for the **federal funds rate** is below forecasts by most Federal Reserve officials for the next two years. CBO's forecast places some weight on the lower path for interest rates implied by prices in the futures market for federal funds.

CBO projects that **interest rates on Treasury securities** will rise steadily over the next few years, reflecting continued economic improvement and increases in the federal funds rate.

Sources: Congressional Budget Office; Bloomberg; Board of Governors of the Federal Reserve System, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents, December 2015" (December 16, 2015), http://go.usa.gov/cUkyR.

The 17 data points for each year in the top panel represent forecasts made by members of the Federal Reserve Board and presidents of the Federal Reserve Banks in December 2015. 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 December 31, 2015, corresponding to the last observation used for CBO's forecast. Values for 2016 and 2017 are averages for the fourth quarter of the year; the value for 2018 is the average of July and August of 2018, the last values available at the time of the forecast.

CBO's forecast values are for the fourth quarter of the year shown. CBO's forecast for the longer term is the value for 2026.

Interest rates on federal borrowing will rise steadily over the next few years, CBO projects, as the economy improves and the federal funds rate rises. CBO projects that the interest rate on 3-month Treasury bills will rise from 0.1 percent in the fourth quarter of 2015 and settle at 3.2 percent by mid-2019.[7] The interest rate on 10-year Treasury notes is projected to rise from 2.2 percent in the fourth quarter of 2015 to 4.1 percent by late 2019.

The projected increase in the 10-year rate reflects the anticipated increase in the 3-month rate and an expected increase in the term premium—the premium paid to bondholders for the extra risk associated with holding long-term bonds—from its historically low level at the end of last year. The term premium has probably been held down in recent years by an unusually heightened concern among investors that economic activity in the United States might be unexpectedly bad, which would lead monetary policymakers to keep short-term interest rates lower for a longer-than-expected period. CBO expects those concerns to diminish if, as it anticipates, the economy grows at a steady pace over the next few years. In addition, the term premium has probably been held down by the influence of the Federal Reserve's large portfolio of long-term assets. CBO expects the size of that portfolio to gradually diminish beginning at the end of this year; that development will begin to put upward pressure on the term premium and the 10-year rate. Because the reduction in the size of the Federal Reserve's portfolio is expected to begin later than the rise in the federal funds rate, the interest rate on 10-year notes rises more slowly in CBO's projection and stabilizes slightly later than the rate on 3-month bills.[8]

Although CBO expects long-term rates to rise, it also anticipates that several factors, detailed below, will keep real interest rates from rising to levels that prevailed before the 2007–2009 recession (see "The Economic Outlook for 2021 Through 2026").

7. CBO expects the interest rate on 3-month Treasury bills to be lower than the federal funds rate over the next 10 years, consistent with their historical relationship. The 3-month Treasury bill rate is typically lower than the federal funds rate because Treasury securities are free of default risk, whereas the overnight unsecured loans made at the federal funds rate carry a small risk of default.

8. The 10-year rate is projected to rise by less than the 3-month rate, because, in CBO's estimation, the current 10-year rate already largely incorporates the projected rise in the 3-month rate over the 10-year period.

Contributions to Growth of Real GDP

CBO expects that consumer spending and both business and residential investment will drive growth of real GDP in coming years (see Figure 2-3). Consumer spending is expected to provide the largest contribution to the growth of output over the next few years, as it has done on average in the past. However, the anticipated pickup in growth in 2016 and 2017 stems largely from faster growth in investment in business capital and in housing (see Table 2-2). On net, purchases by the federal government and by state and local governments are projected to have a small positive effect on the growth of GDP through 2020. In contrast, net exports will restrain growth in 2016 and 2017 but contribute slightly to growth thereafter, CBO projects.

Consumer Spending. In CBO's estimation, solid growth in consumer spending on goods and services will be an important contributor to the growth of real output. That contribution this year will be nearly the same as in 2015—about 1.9 percentage points (as measured from the fourth quarter of the previous year)—and then fall slightly to 1.8 percentage points in 2017. CBO estimates that consumer spending will contribute less to the growth of output thereafter.

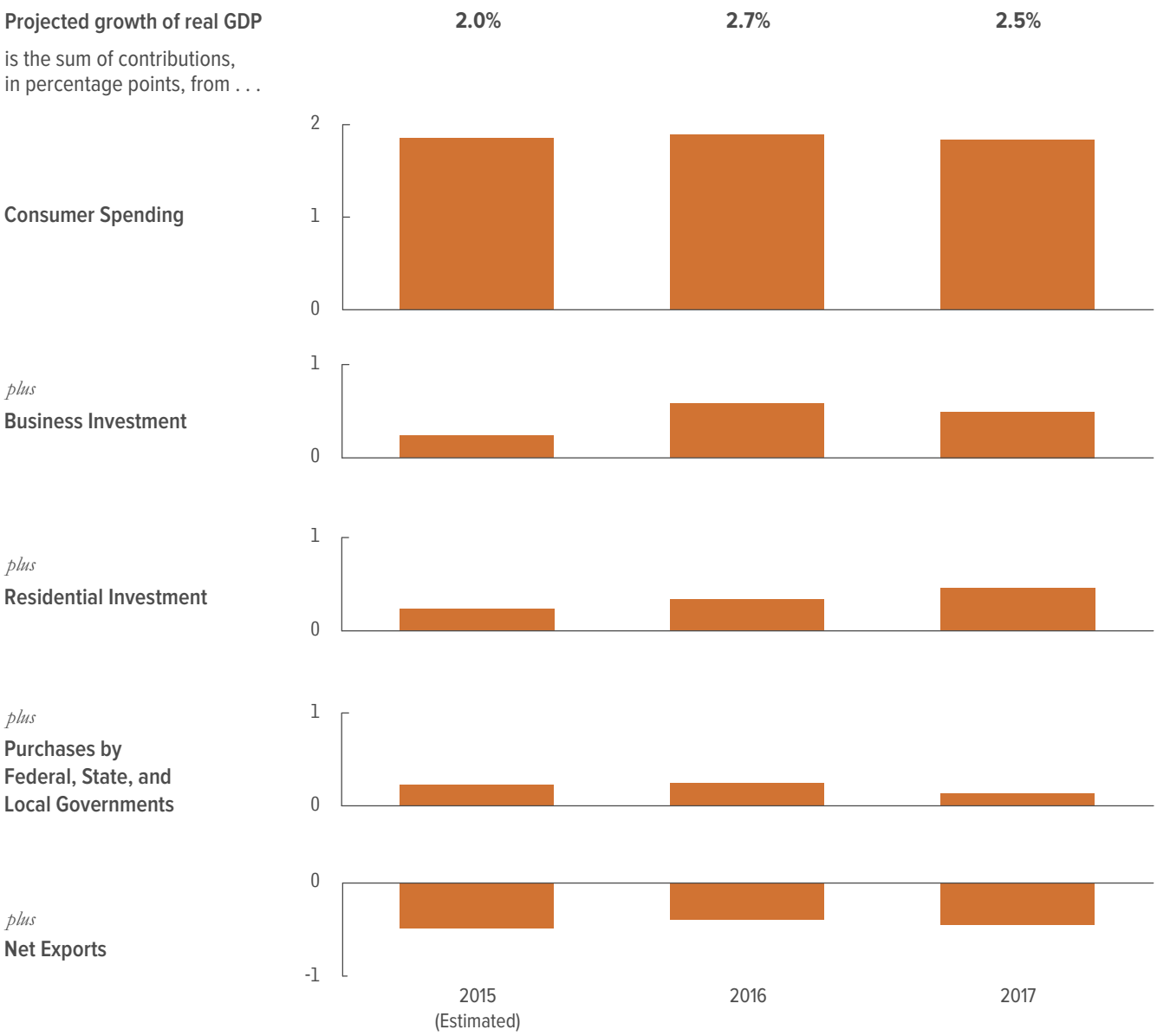
Several factors support that outlook for consumer spending over the next two years. The most important factor is real compensation of employees, which CBO expects will be spurred by the expected further recovery in the labor market (see Figure 2-4 on page 40). CBO also expects low prices for energy goods and services to continue to support consumer spending; in particular, CBO projects prices for gasoline to remain below their 2015 average over the next few years. The agency also projects that further increases in housing prices will support consumer spending by raising household wealth. However, CBO does not expect a significant boost to consumer spending from changes in financial wealth over the next two years.[9]

CBO also expects improvements in households' creditworthiness and in availability of credit to support consumer spending over the next few years. The projected growth in income will allow consumers to borrow more,

9. Broad indexes of U.S. equity markets have fallen sharply since the end of 2015 when CBO completed its economic forecast, lowering the value of household equity wealth. If equity values remain below CBO's forecast, that development could dampen the growth of real consumer spending over the next year or two.

Figure 2-3.

Projected Contributions to the Growth of Real GDP



Source: Congressional Budget Office.

The values show the projected contribution of the major components of GDP to the projected growth rate of real (inflation-adjusted) GDP. Consumer spending consists of personal consumption expenditures. Business investment includes purchases of equipment, nonresidential structures, and intellectual property products, as well as 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.

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

GDP = gross domestic product.

Table 2-2.

Projected Growth in Components of Real GDP

	Estimated, 2015	Forecast	
		2016	2017
	Change From Fourth Quarter to Fourth Quarter (Percent)		
Real GDP	2.0	2.7	2.5
Consumer Spending	2.7	2.7	2.6
Business Investment	1.9	4.8	4.0
Business Fixed Investment	2.6	5.4	4.5
Residential Investment	7.2	10.0	12.6
Purchases by Federal, State, and Local Governments	1.3	1.4	0.8
Federal	0.2	0.7	-0.7
State and local	1.9	1.9	1.7
Exports	0.9	3.0	4.7
Imports	4.1	5.2	6.9
	Change From Fourth Quarter to Fourth Quarter (Billions of 2009 dollars, annualized)		
Net Exports	-88	-77	-92

Source: Congressional Budget Office.

Real gross domestic product is the output of the economy adjusted to remove the effects of inflation. Consumer spending consists of personal consumption expenditures. Business investment includes purchases of equipment, nonresidential structures, and intellectual property products, as well as the change in inventories. Business fixed investment is the spending by businesses on structures, equipment, and software. 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.

CBO expects, and will diminish delinquency rates on consumer loans, which already are historically low by some measures. In recent years, banks have increased their willingness to make consumer loans, and CBO expects them to continue to do so over the next few years.

Business Investment. CBO expects investment by businesses to contribute significantly to the growth of real GDP over the next few years.[10] CBO estimates that real business investment will contribute 0.6 percentage points to the growth rate of real GDP in 2016 and 0.5 percentage points in 2017—up from a contribution of 0.2 percentage points in 2015. The contribution in 2016 accounts for most of this year's increase in the projected growth in real GDP. CBO estimates that real business investment will contribute less to the growth of output in later years. All of the contribution from business investment will be from investment in fixed assets rather than from inventory accumulation because businesses have largely restored the ratio of their inventories to sales to the desired level, in CBO's view.

Business investment remains in a cyclical expansion after the last recession. In addition to replacing worn-out or obsolete capital assets, businesses invest in new assets to meet the unexpected growth of demand for their goods and services since the last time they purchased capital and to meet expected growth of demand. Consequently, investment responds to both past and expected growth of real output. For that reason, the recession and slow recovery of the economy slowed the recovery in business investment. CBO expects that past output growth and expectations of growth will significantly boost investment this year and next but will provide a smaller boost in later years as output growth slows (see Figure 2-4).

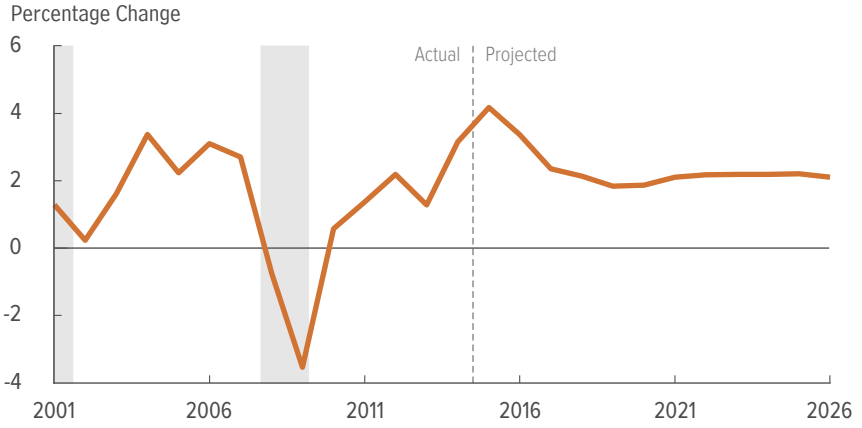
Other factors also play a role in CBO's projection of business investment. Partial-expensing provisions will encourage investment by permitting businesses to deduct new

10. Business investment consists of fixed investment (investment in equipment, nonresidential structures, and intellectual property products such as research and development) and investment in inventories.

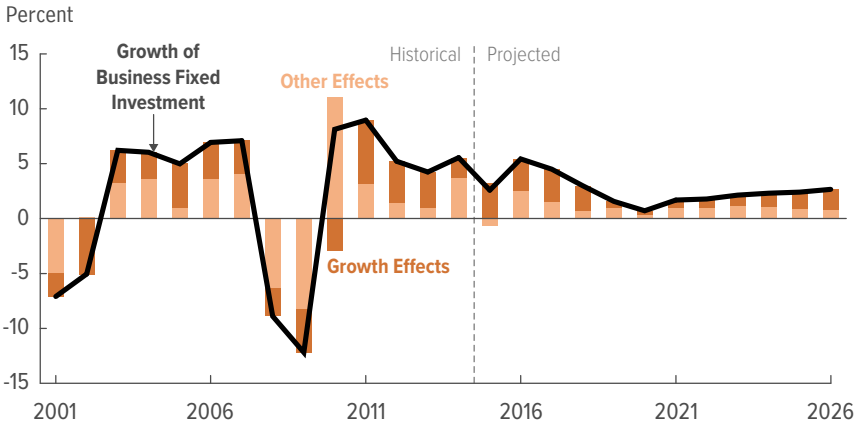
Figure 2-4.

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 growth in consumer spending in the next few years.



CBO expects the **effects of past and expected future growth of output** to drive the growth of business fixed investment over the next few years.



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

The total amount of real (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 year.

Growth effects are the estimated effects of past and expected future growth of output on the growth of real business fixed investment (purchases of equipment, nonresidential structures, and intellectual property products). In addition to replacing worn out and obsolete capital, businesses buy new capital to meet the growth of demand for their goods and services since the last time they purchased capital and to meet expected future growth of demand. All other effects include such factors as taxes and the cost of financing investments. Percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year.

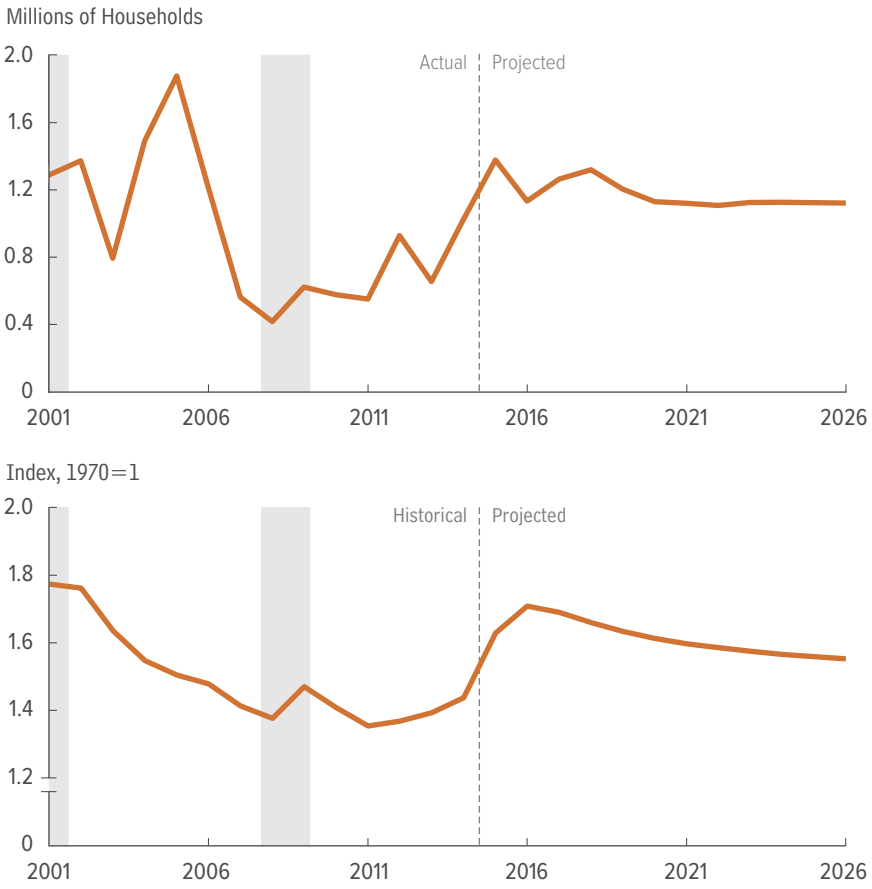
Continued

investment from taxable income more rapidly, CBO expects. In the other direction, the agency expects that investment in mining structures will continue to slow in response to low oil prices through mid-2016, but by less than it did in 2015, and then begin to pick up again thereafter.[11] Moreover, the increase in interest rates anticipated in CBO's forecast will exert some downward pressure on investment, but not enough to offset the influence of the ongoing economic expansion. The recent lifting of restrictions on exports of crude oil will have little impact on oil prices and thus on investment over the next few years, in CBO's judgment. Because continuing the restrictions probably would eventually have restrained domestic oil prices, lifting them is expected to increase investment beyond the next few years.

11. Oil prices have fallen considerably since CBO completed its forecast in late December. That decline implies somewhat lower oil prices over the projection period and a somewhat greater slowing of mining investment in 2016.

Figure 2-4. Continued

Factors Underlying the Projected Contributions to the Growth of Real GDP



Household formation, along with robust demand for replacement housing units and less restrictive mortgage lending standards, will contribute to solid growth in residential investment over the next few years.

The continued appreciation of the **exchange rate of the U.S. dollar** through 2016 is projected to contribute to lower net exports this year and next.

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

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

GDP = gross domestic product.

Residential Investment. CBO expects residential investment to grow rapidly in real terms over the next few years, even as mortgage rates begin to rise.[12] The sector's small size will limit its contribution to the growth of real GDP, but CBO expects the contribution will be noticeably larger than the historical average. CBO projects that residential investment will contribute 0.4 percentage points to the average growth rate of real GDP from 2016 through 2018—up slightly from 2015—and a smaller amount thereafter.

CBO anticipates that construction of new homes will be the primary contributor to residential investment, mainly because of expected continued strength in household formation (see Figure 2-4). Other factors include less restrictive mortgage lending standards and robust demand for replacement housing units. Although mortgage lending standards remain tighter than they were before the 2007–2009 recession, they have been loosening over the past few years and probably will continue to loosen.

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

CBO anticipates that stronger growth in demand for housing will put upward pressure on house prices. In 2015, house prices (as measured by the Federal Housing Finance Agency's price index for home purchases) rose by 4.4 percent (on a fourth-quarter-to-fourth-quarter basis), in CBO's estimation. CBO projects that they will increase by 2.1 percent in 2016 and by about 2.4 percent per year, on average, over the 2017–2020 period. That outlook accounts for the projected increase in the supply of housing units, which is expected to temper the price gains resulting from stronger housing demand.

Government Purchases. CBO projects that, in real terms, the purchases of goods and services by federal, state, and local governments will contribute 0.2 percentage points to the growth rate of output this year—about the same as last year—and contribute about 0.1 percentage point per year thereafter. The projected growth of the real value of overall government purchases in 2016 is attributable to an estimated increase of 1.9 percent in state and local purchases and an increase of 0.7 percent in federal purchases. After this year, the government sector's positive contribution to the growth of output will be small and due entirely to spending by state and local governments, CBO projects. The statutory caps on funding for discretionary programs constrain spending through 2021, reducing projected real purchases by the federal government in both 2017 and 2018 and leaving them roughly unchanged in 2019 and 2020.

Net Exports. CBO expects that real net exports will fall and slow the growth of GDP from 2016 through 2018, just as they did last year. In later years, net exports are expected to make a small contribution to growth.[13] CBO's projection of net exports is based primarily on the significant increase in the exchange value of the dollar during the past two years and on the agency's forecast of that value (see Figure 2-4). In the past two years, the trade-weighted U.S. dollar appreciated by approximately 19 percent.[14] That appreciation occurred because long-term interest rates declined among the United States' leading trading partners, particularly in Europe and Asia, and because the outlook for foreign growth deteriorated. Those developments increased the exchange value of the dollar by boosting the relative demand for dollar-denominated assets, which reduced net exports in the past year and will continue to do so this year. CBO expects the stronger growth in the United States compared with that among its trading partners to continue to contribute to an increasing divergence between interest rates in the United States and those abroad this year. That effect will further push up the exchange value of the dollar and contribute to weaker net exports over the next two years. As growth in foreign economies strengthens, however, foreign central banks will gradually tighten their monetary policies and foreign interest rates will generally rise, in CBO's estimation. As a result, the exchange value of the dollar is expected to decrease and contribute to stronger net exports in 2019 and beyond.

CBO's projection of net exports also is based partly on important differences in the expected pace of economic activity in the United States and among its leading trading partners. CBO expects growth in the United States this year to outpace that of the leading U.S. trading partners; for example, China's economic growth is projected to continue to slow over the next few years, and continued decline in commodity prices will dampen growth in Canada and Mexico over the next year. The effects of modest improvements to economic growth in the euro zone and Japan are expected to only partially offset the effects of slow growth in the economies of China, Canada, and Mexico. Consequently, U.S. spending on imports is projected to rise more than the trading partners' spending on U.S. exports will, reducing net exports. As commodity prices rebound, CBO expects growth among the nation's major trading partners (especially Canada, Mexico, and other commodity-producing economies) to rise and exceed the rate of U.S. economic growth—slightly boosting net exports.

The Labor Market

The labor market showed marked improvement in 2015. The primary measure CBO uses to assess the amount of slack in the labor market—the estimated shortfall in employment from its potential (maximum sustainable)

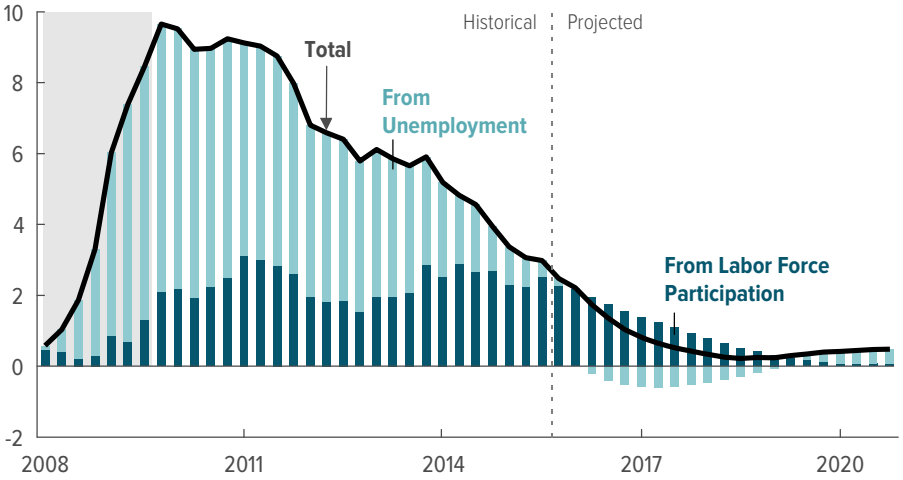
13. Net exports are currently negative, meaning that the United States imports more than it exports. A decrease in net exports indicates that imports are increasing more than exports.

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

Figure 2-5.

Employment Shortfall

Millions of People



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

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

The employment shortfall from unemployment is the number of people who would be employed if the unemployment rate equaled its natural rate. (The natural rate is CBO's estimate of the rate arising from all sources except fluctuations in the overall demand for goods and services.) The shortfall from unemployment falls below zero from 2016 through early 2019, reflecting CBO's forecast that the unemployment rate will be below its natural rate during that period. The employment shortfall from labor force participation is the number of people who would be employed if the rate of labor force participation equaled its potential.

Data are quarterly.

amount—fell by an estimated 1½ million people, down to about 2½ million people at the end of last year. That decline reflects, in part, a drop in the unemployment rate to its lowest value since early 2008. (For more discussion of slack at the end of 2015, see Box 2-1.) Because of population growth, the labor force continued to grow modestly last year, despite a decline in the rate of labor force participation.[15]

According to CBO's estimates, the growth of output over the next two years will increase the demand for labor, leading to solid employment gains and virtually eliminating labor market slack. The employment shortfall is projected to shrink to a little more than 1 million people by the end of 2016 and reach ½ million people by the end of 2017 (see Figure 2-5). The projected employment shortfall over the next few years reflects CBO's expectation that the labor force will remain smaller than its estimated potential size. Partially offsetting that factor is the agency's projection that the unemployment rate will fall below the estimated natural rate of unemployment (the rate that arises from all sources except fluctuations in the overall demand for goods and services). That difference shrinks the projected employment shortfall in 2016 and 2017. With that increased demand for labor, CBO projects, the increased competition for workers will boost the growth of hourly labor compensation (wages, salaries, and benefits).

CBO's labor market projections for 2018 through 2020 do not reflect expected cyclical developments in the economy. Instead, the projections largely serve as a transition to values projected for later years, which primarily reflect estimated long-term trends. Consequently, the projected rate of unemployment rises to its historical relationship with the natural rate of unemployment over that period, increasing labor market slack, by a small amount, to its average level over past decades.

Employment. Nonfarm payroll employment rose solidly last year, and CBO expects it to continue to increase over the next few years, but more slowly. After an average increase of 228,000 jobs per month in 2015, employment is expected to rise by an average of about

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

Box 2-1.

Slack in the Labor Market at the End of 2015

Slack in the labor market decreased last year but remained elevated. The Congressional Budget Office based that assessment on its analysis of the employment shortfall and measures of underused labor as well as indicators such as growth of compensation and rates of hiring and quitting.

The employment shortfall, CBO's primary measure of slack in the labor market, is the difference between actual employment and the agency's estimate of potential (maximum sustainable) employment. Potential employment is the employment that would exist if the unemployment rate was at the natural rate of unemployment (the rate that arises from all sources except fluctuations in the overall demand for goods and services) and the rate of labor force participation was at its potential rate. The contribution to the shortfall from the difference in unemployment rates is the difference between the number of jobless people searching for work at the current rate of unemployment and the number who would be jobless at the natural rate of unemployment. The contribution to the shortfall from the difference in participation rates is the difference between the number of people who are employed at the current labor force participation rate and the number who would potentially be employed if the participation rate reflected a labor market with healthy job prospects. CBO estimates that the employment shortfall was about 2½ million people at the end of last year. That shortfall was almost entirely accounted for by the depressed rate of labor force participation; CBO estimates that the unemployment rate was only slightly above its natural rate.

CBO's primary measure of labor market slack incorporates the most important sources of slack during the current recovery but does not include all possible sources. For example, another source of slack in the labor market is the continued unusually large percentage of part-time workers who would prefer to work full time. About 4 percent of all workers were employed part time for economic reasons (that is, because of weakness in the overall demand for goods and services) at the end of 2015, down from 4¾ percent at the end of 2014. Yet that rate is still about 1 percentage point above the rate in the fourth quarter of 2007. But how much of that difference is a measure of slack is hard to determine because part of the increase since 2007 may also be related to structural factors such as a changing composition of employment by industry. One such factor is a shift of employment to industries that employ a larger fraction of part-time workers, such as service industries. That development suggests

Continued

172,000 jobs per month in 2016 and about 124,000 jobs per month in 2017, reflecting an anticipated slowdown in the decline in the unemployment rate and slower growth in the labor force because of the retirement of baby boomers (people born between 1946 and 1964). CBO's employment projections indicate that the number of people employed as a percentage of the population will be roughly unchanged over the next two years before falling steadily in later years as the rate of participation in the labor force falls (see Figure 2-6 on page 46).

Labor Force Participation. The rate of labor force participation has dropped noticeably in recent years. It fell by 0.3 percentage points, to 62.5 percent in 2015. That rate was roughly 1 percentage point below CBO's estimate of the potential participation rate. CBO projects that the participation rate will remain at 62.5 percent through 2016 and then fall by roughly 0.1 percentage point per year, reaching 62.1 percent at the end of 2019 (see Figure 2-7 on page 47). At the same time, the potential participation rate continues to fall in CBO's projection, also reaching 62.1 percent by the end of 2019.

Those projected declines in actual and potential rates of labor force participation reflect several factors. The most important factor is the aging of members of the baby-boom generation, even though that generation apparently has a stronger attachment to the labor force than

Box 2-1. Continued

Slack in the Labor Market at the End of 2015

that the share of workers working fewer hours than they prefer may be elevated as workers and firms adjust to those structural changes.[1]

Another source of slack is the number of people said to be marginally attached to the labor force (that is, who are not looking for work now but have looked for work in the past 12 months). That number is larger than before the recession, for example—about 1.8 million people at the end of last year, up from about 1.4 million in the fourth quarter of 2007. Since the elevated level of the number of people who are marginally attached to the labor force is closely related to the depressed rate of labor force participation, CBO's measure of the employment shortfall largely reflects that factor. Marginally attached people are included in the U-6 measure of underused labor computed by the Bureau of Labor Statistics, along with the number of unemployed people and the number of people employed part time for economic reasons. U-6 is expressed as a percentage of the number of people in the labor force plus the number of marginally attached workers. At the end of last year, the U-6 measure stood at 9.9 percent, greater than the 8.5 percent observed before the last recession.

Another measure of slack could focus on the number of hours worked, such as the average number of hours worked per week. CBO does not use hours to measure slack because the agency forecasts average hours worked per week for only a portion of the economy (the nonfarm business sector). Nonetheless, in 2015 the average number of hours worked per week had returned to its prerecession value, and average hours worked per week in the nonfarm business sector had returned to its historic relationship with potential average hours worked per week. That outcome suggests that any cyclical influence on average hours worked per week was not a significant source of slack in the labor market last year.[2]

Other economic indicators offered mixed signals about the amount of slack remaining in the labor market. The continued slow growth in hourly labor compensation compared with the growth in labor productivity and inflation indicated slack at the end of 2015. But two other indicators—the rate at which job seekers are hired and the rate at which workers are quitting their jobs (as a fraction of total employment)—suggested that slack had diminished considerably.

1. See Rob Valletta and Catherine van der List, "Involuntary Part-Time Work: Here to Stay?" FRBSF Economic Letter 2015-19 (Federal Reserve Bank of San Francisco, June 8, 2015), http://tinyurl.com/pbywpck.

2. As measured by the number of people who work part time for economic reasons, the percentage of workers who would prefer to work more hours is higher than before the recession. Yet the average number of weekly hours worked per job has returned to its prerecession value. Those two developments can be reconciled by noting the following: First, the number of workers holding multiple jobs is depressed, putting downward pressure on average hours worked per worker. Second, the improvement in average weekly hours worked per job reflects in part more overtime hours. If those increases in overtime are concentrated in some jobs, average weekly hours may have rebounded even as a large share of workers would prefer more hours.

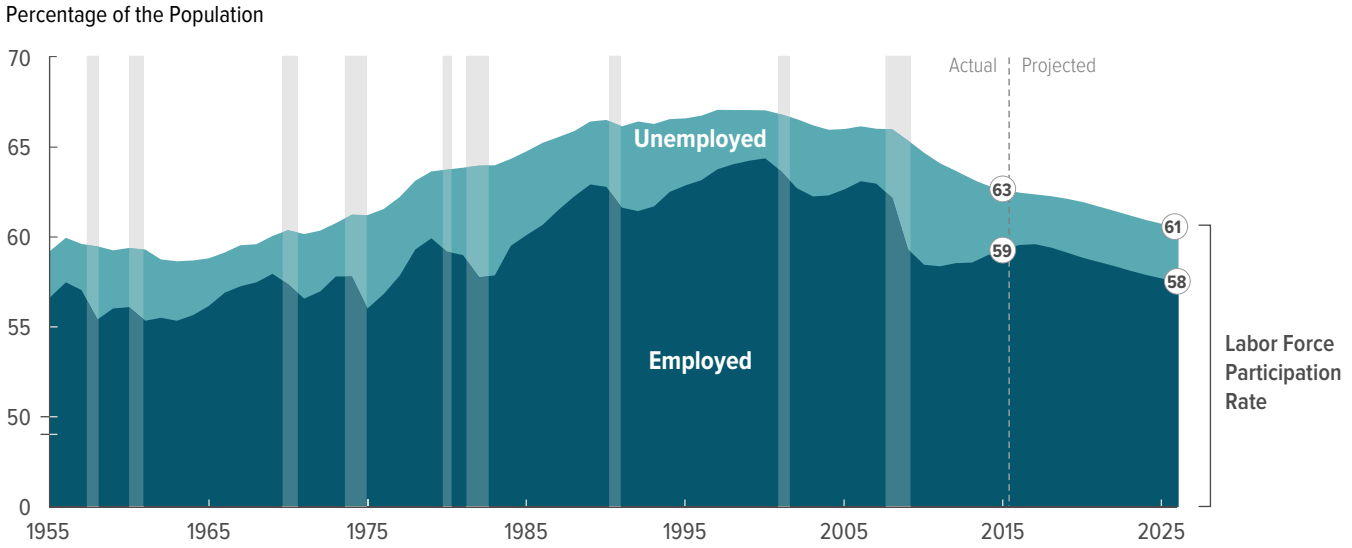
that of people age 60 and over in recent generations. The lingering effects of the recession and ensuing weak recovery also will continue to push down participation, in CBO's view. Although many workers who experienced long-term unemployment because of the deep recession and slow recovery later found jobs, a notable fraction also left the labor force and remain categorized as not participating in the labor force. In addition, federal tax and spending policies—in particular, certain aspects of the ACA and the structure of the tax code, which pushes some people with rising income into higher tax brackets—will tend to lower participation rates over the next several years. Finally, a set of long-term trends involving particular cohorts of people are projected to push down the participation rate slightly. Those trends include, for example, less participation in the labor force by younger and less-educated workers.

CBO's projection of the actual rate of labor force participation falls by less than its projection of the potential rate because the expected continued improvement in the

Figure 2-6.

The Labor Force, Employment, and Unemployment

The percentage of the population that is employed is projected to remain roughly unchanged over the next few years and then decrease through 2026 because of declining participation in the labor force, mainly by baby boomers as they age and move into retirement.



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

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

Data are calendar year averages.

labor market will bolster the actual rate. 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 strengthens.

Unemployment. The unemployment rate fell from 5.7 percent in the fourth quarter of 2014 to 5.0 percent in the fourth quarter of 2015. Most of that decline stemmed from a decline in long-term unemployment (that is, unemployment lasting at least 27 consecutive weeks) as those who had been unemployed long-term appeared to move into employment (see Figure 2-8 on page 48). That outcome indicates possibly diminishing effects of the stigma and erosion of skills that can result from long-term unemployment.

CBO projects the unemployment rate to fall to 4.5 percent by the end of this year and reach 4.4 percent in 2017, leaving the rate roughly 0.4 percentage points below CBO's estimate of the natural rate of unemployment. That difference reflects a projected increase in the demand for labor that temporarily outstrips the boost to the labor force resulting from an improving labor market. However, the relatively low unemployment rate does not imply that slack is no longer present in the labor market beginning this year. Some slack is expected to persist through 2020 because fewer people will be participating in the labor market than would do so if the economy was operating at its potential.

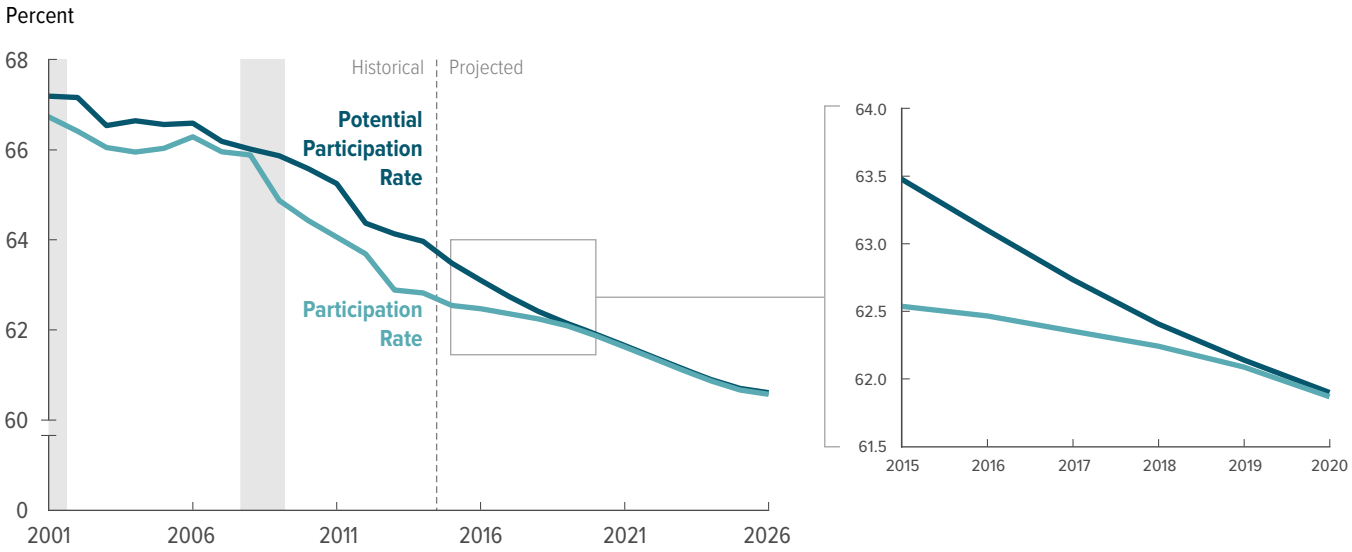
CBO expects the natural rate of unemployment to fall by about 0.1 percentage point through 2020—from 4.9 percent last year—largely because of the demographic shift in composition of the workforce to older workers, who tend to have lower rates of unemployment.

Labor Compensation. Labor compensation has grown slowly since the end of the last recession. But CBO projects that compensation—as measured by the Bureau of Labor Statistics with the employment cost index (ECI)—will grow faster over the next several years (see Figure 2-9 on page 49). CBO expects the ECI for workers in private industries to increase at an average annual

Figure 2-7.

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 2026.



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

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

Data are fourth-quarter values.

rate of 3.3 percent in 2016 and 2017 and 3.6 percent from 2018 through 2020, compared with an average of 2.0 percent from 2010 through 2015. The growth of other measures of compensation, such as the average hourly earnings of production and nonsupervisory workers in private industries, is similarly expected to increase.

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

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. The agency projects that the rate of inflation in the price index for personal consumption expenditures (PCE price index) will rise to 1.5 percent this year, up from 0.5 percent in 2015 (see Figure 2-10 on page 50). The decline in energy prices and the increase in the exchange value of the dollar exerted downward pressure on inflation last year. CBO expects inflation to rise in 2016 as the temporary downward pressure from the decline in energy prices dissipates and the remaining slack in the economy diminishes.[16]

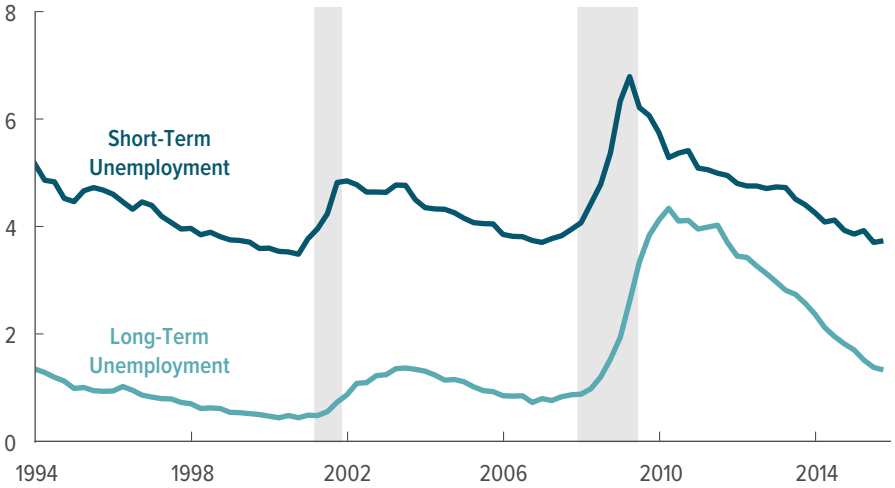
In 2017, the agency projects, inflation will stabilize at 2.0 percent—the Federal Reserve's longer-run goal. That projection reflects CBO's judgment that consumers and businesses expect the Federal Reserve to adjust monetary

16. The further declines in oil prices since CBO completed its forecast in late December imply slightly lower energy prices and overall inflation in the near term than is currently recognized in the forecast.

Figure 2-8.

Rates of Short- and Long-Term Unemployment

Percent



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

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

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 2015.

policy to prevent inflation from exceeding or falling short of the 2 percent goal for a prolonged period. CBO has a similar projection for core PCE inflation, which excludes food and energy prices; in CBO's forecast, that inflation rate reaches 2 percent at the end of 2017.

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

The Economic Outlook for 2021 Through 2026

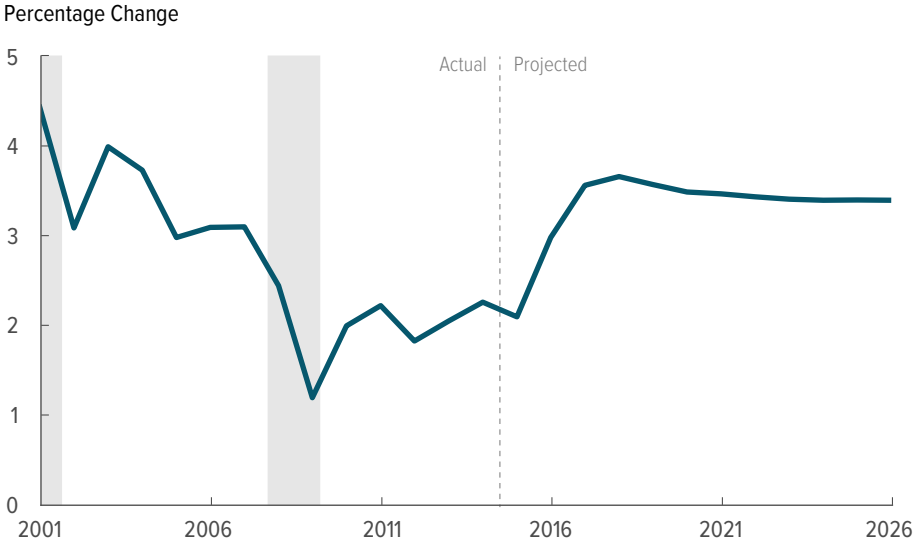
CBO's projections of real GDP, inflation, and real interest rates for 2021 through 2026—unlike its projections for the next few years—are not based on forecasts of cyclical developments. Rather, they are based primarily on projections of underlying trends in key variables, such as growth of the labor force, hours worked, capital formation, and productivity. CBO also considers the effects of federal tax and spending policies under current law, and in recent years it has taken into account the persistent effects of the 2007–2009 recession and subsequent weak recovery.

In CBO's projections for the 2021–2026 period:

- Actual and potential real GDP grow at an annual average of roughly 2.0 percent per year.
- The unemployment rate remains stable at 5.0 percent, slightly above the estimated natural rate of 4.8 percent.
- 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 3.2 percent and 4.1 percent, respectively.

Figure 2-9.

Hourly Labor Compensation



CBO projects that growth over the next several years will be stronger than that in 2015, spurred by continued gains in the demand for labor, which will lower slack in the labor market, and faster growth in productivity and prices.

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

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

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

CBO projects that real GDP will be about one-half of one percent below its estimate of real potential GDP, on average, during the 2021–2026 period. 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.[17] CBO projects that, consistent with the average gap between actual and potential GDP, the unemployment rate will be slightly higher than its estimated natural rate, on average, during the 2021–2026 period.

Future developments will undoubtedly differ from what those underlying trends and averages imply, so CBO's projections should be interpreted as the average of likely outcomes, given information available now.

Potential Output

In developing its projections of potential output, CBO projects underlying trends in the aggregate labor force; the distribution of employment across sectors of the economy; and hours worked, capital services, and TFP in the nonfarm business sector (which accounts for roughly three-quarters of total output). In doing so, CBO considers the effects on those trends of federal policies under current law as well as the persistent effects of the 2007–2009 recession and subsequent weak recovery.

The 2.1 percent average annual rate of increase in real potential output that CBO projects is substantially faster than the growth in potential output since the end of 2007, the beginning of the last recession (see Table 2-3 on page 51). However, that rate represents a significant slowdown from average growth in potential output over the three complete business cycles that occurred between 1981 and 2007. Most of that projected slowdown reflects slower projected growth of the potential labor force. GDP is also expected to be lower from 2021 through 2026 than it otherwise would have been because of the lingering effects of the recession and slow recovery.

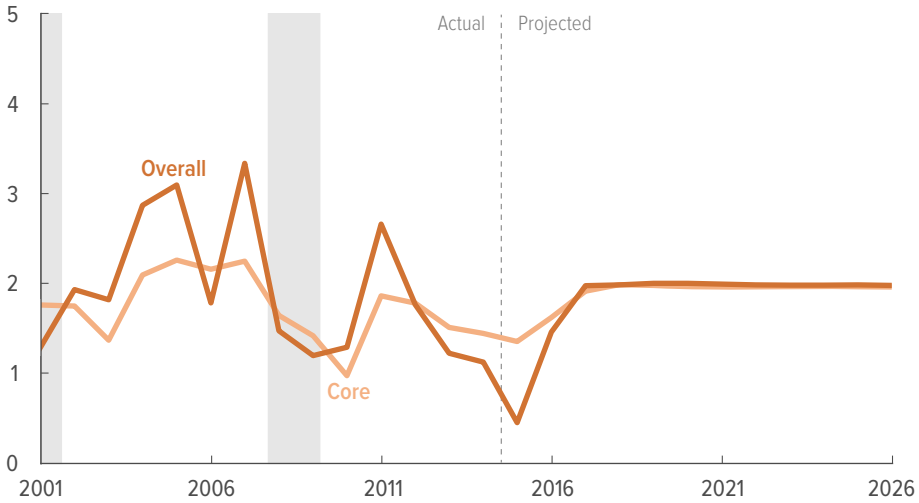
Growth in Potential Output Compared With Growth Since the Last Recession. The average projected rate of potential output growth of 2.1 percent over the 2021–2026 period is half again faster than the estimated average growth of about 1.4 percent per year over the 2008–2015 period. The projected increase arises primarily because CBO expects growth of the determinants of potential

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

Figure 2-10.

Inflation

Percentage Change in Prices



CBO anticipates that inflation will rise to the Federal Reserve's goal of 2 percent over the next two years, which is consistent with CBO's projection of the diminishing slack in the economy.

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

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

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

output in the nonfarm business sector to accelerate from their recent rates of growth. In particular, CBO expects potential TFP in the nonfarm business sector to quicken from its unusually slow postrecession pace of 0.8 percent to nearly 1.4 percent during the 2021–2026 period.[18] CBO also projects a modest pickup in growth of potential hours worked in the nonfarm business sector, reflecting a similar pickup in growth of the overall potential labor force.

Growth of capital services in the nonfarm business sector has been restrained since 2008 because of weak investment, itself a response to the cyclical weakness of the overall demand for goods and services. In the long term, however, growth of capital services depends mostly on increases in TFP and hours worked. As a result, faster growth in the sector's potential TFP and potential hours worked is expected to spur an increase in the growth of capital services in the sector as well.

Because of those factors, CBO expects potential labor force productivity (the ratio of potential GDP to the potential labor force) for the economy as a whole to pick up to 1.5 percent. That growth rate is substantially higher than the 0.9 percent average rate that CBO estimates for the 2008–2015 period.

Growth in Potential Output Compared With Growth in Previous Business Cycles. Despite the anticipated acceleration in the growth of potential output, CBO's projection for the growth of potential output over the 2021–2026 period is a full percentage point slower than the estimated 3.1 percent average annual growth that the economy experienced between 1981 and 2007. Most of that decrease reflects the slower growth of the potential labor force, itself the consequence of several factors. Most important, growth in the labor force is declining because of the ongoing retirement of baby boomers and the relatively stable labor force participation rate among working-age women (after sharp increases from the 1960s to the mid-1990s). Federal tax and spending policies set in current law also are projected to cause some people to work less than in earlier decades.

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

Table 2-3.

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	2008-2015	Total, 1950-2015	2016-2020	2021-2026	Total, 2016-2026
Overall Economy										
Potential GDP	4.0	3.2	3.2	3.3	2.7	1.4	3.2	1.8	2.1	1.9
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	0.7	1.5	2.0	1.6	0.9	1.7	1.4	1.5	1.4
Nonfarm Business Sector										
Potential Output	4.1	3.6	3.3	3.7	3.0	1.6	3.5	2.1	2.4	2.3
Potential Hours Worked	1.4	2.3	1.5	1.5	0.3	0.4	1.3	0.4	0.5	0.5
Capital Services	3.8	3.8	3.5	3.8	2.8	1.7	3.4	2.7	2.2	2.4
Potential TFP	1.9	0.9	1.1	1.5	1.9	0.8	1.5	1.1	1.4	1.2
Potential TFP excluding adjustments	1.9	0.9	1.1	1.5	1.5	0.8	1.4	1.1	1.4	1.2
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	0.2	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	0.7
Potential TFP	1.9	0.9	1.1	1.5	1.9	0.8	1.5	1.1	1.4	1.2
Total Contributions	4.0	3.6	3.3	3.7	3.0	1.6	3.4	2.1	2.4	2.3
Potential Labor Productivity[c]	2.7	1.3	1.7	2.2	2.7	1.2	2.1	1.7	1.8	1.8

Source: Congressional Budget Office.

Potential GDP is CBO's estimate of the maximum sustainable output of the economy, adjusted to remove the effects of inflation.

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.

CBO projects that productivity of the potential labor force also will grow more slowly, but only modestly so, during the 2021–2026 period than over the 1981–2007 period. That slowdown, attributable to both slower growth of capital per worker and slower potential TFP growth in nonfarm business, accounts for the remaining reduction in projected potential output growth from the average over recent business cycles.

Lingering Effects of the Recession and Slow Recovery. CBO expects the three major factors that determine potential output to be lower through 2026 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 since the recession 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. The rate of labor force participation will thus be slightly lower—and the labor force slightly smaller—than it would have been otherwise.

Capital services also will be lower for several reasons. Fewer workers require proportionately less capital, all else being equal, and lower TFP (discussed below) tends to

reduce investment as well. Because of automatic stabilizers and changes in fiscal policies implemented to bolster the economy during and after the recession, federal debt increased sharply. That higher debt will crowd out additional capital investment in the long term, CBO estimates.

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

How the recession and slow recovery will continue to affect those three factors is 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. (For example, the rate of improvement in information technology may have begun to slow a few years before the recession began.)

The Labor Market

In CBO's projection, the unemployment rate settles down to its long-term relationship with the agency's estimate of the natural rate of unemployment. The unemployment rate remains steady at 5.0 percent from the first quarter of 2020 through the fourth quarter of 2026, roughly a quarter of a percentage point above the natural rate of 4.8 percent.[19]

For 2026, CBO projects a potential rate of labor force participation of 61 percent. That rate is about 1 percentage point lower than what the agency projects for 2021 and about 5½ percentage points lower than the estimated rate for the end of 2007. CBO estimates that roughly 4½ percentage points of the decline from 2007 to 2026 is attributable to the aging of the population, because older people tend to work less than younger ones. Roughly one-quarter of a percentage point of the decline in the potential participation rate from 2007 reflects the fact that some workers withdrew from the labor force in response to the most recent recession and slow recovery.

The rest of the projected fall in potential labor force participation stems from some people's reduced 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). Both effects reduce workers' incentive to supply labor.

Real labor compensation per hour in the nonfarm business sector, a measure of labor costs that is a useful gauge of longer-term trends, will grow at an average annual rate of 2.0 percent between 2021 and 2026, CBO projects. That projection is consistent with the agency's projection of the growth of labor productivity, reflecting the historical relationship between the two. In the early 2000s, however, that relationship broke down when compensation grew more slowly. In recent years, real compensation per hour and productivity have grown at more similar rates, suggesting that the relationship has been largely restored. CBO expects average historical patterns to be maintained in the future, with real compensation per hour growing about as fast as productivity over the 2021–2026 period. Another measure of hourly labor compensation, the ECI for private industry workers, shows a qualitatively similar pattern in the agency's projections.

Inflation

In CBO's projections, inflation as measured by the overall PCE and the core PCE price indexes averages 2.0 percent annually over the 2021–2026 period. That rate is consistent with the Federal Reserve's longer-run goal and is broadly in line with widely held expectations. As measured by the CPI-U and the core CPI-U, projected inflation is higher during that period, at 2.4 percent and 2.3 percent, respectively.[20] CPI-U and core CPI-U have maintained a close, long-run relationship. In the current forecast, the agency anticipates slightly faster growth in energy prices in the out years, which will cause CPI-U to grow faster than core CPI-U.

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 3.2 percent and

19. The difference between the projections of the unemployment rate and the natural rate over the 2021–2026 period corresponds to the projected gap between output and potential output, as discussed above.

20. Differences in how the two price indexes are calculated make the CPI-U grow faster than the PCE price index, on average.

4.1 percent, respectively, from 2021 through 2026. CBO projects that the federal funds rate would be 3.5 percent during that period.

When the effect of expected inflation (as measured by the CPI-U) is removed, the projected real interest rate on 10-year Treasury notes equals 1.7 percent between 2021 and 2026. That rate would be well above the current real rate but more than a percentage point below the average real rate of 2.9 percent between 1990 and 2007. CBO uses that period for comparison because it featured fairly stable expectations for inflation and no severe economic downturns or financial crises.

According to CBO's analysis, average real interest rates on Treasury securities will be lower than their earlier average for several reasons:

- Slower growth in the labor force (reducing the return on capital),
- Slightly slower growth of productivity (also reducing the return on capital),
- A greater share of total income going to high-income households (tending to increase saving, thereby making more funds available for borrowing), and
- A higher risk premium on risky assets (increasing relative demand for Treasury securities, boosting their prices and thereby lowering their interest rates).

In addition to those factors, which affect both short-term and long-term securities, CBO also foresees a greater demand for long-term bonds as a hedge against unexpectedly low inflation. Investors' concerns that adverse economic surprises would lead to unexpectedly low inflation appear to have increased over recent decades, and CBO expects those concerns to continue. The increased demand for long-term bonds as a hedge against that outcome is expected to push long-term interest rates down from their average levels during the 1990–2007 period.

Other factors will act to raise real interest rates from 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 (increasing the supply of Treasury securities),
- Smaller net inflows of capital from other countries as a percentage of GDP (making less funds available for borrowing),
- More older people, who will be drawing down their savings, than younger workers in their prime saving years (tending to decrease saving, thereby also making less funds available for borrowing), and
- A larger share of income going to capital (increasing return on capital assets with which Treasury securities compete).[21]

In addition to considering those factors, 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. 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 labor income, domestic economic profits, proprietors' income, interest and dividend income, and other categories.[22] CBO projects various categories of income by estimating their shares of gross domestic income (GDI, the income earned in the production of GDP).[23] Labor income (especially wage and salary payments) and domestic profits are the most important components of income for the tax base.

21. For a more detailed discussion of the factors affecting future interest rates, see Congressional Budget Office, *The 2015 Long-Term Budget Outlook* (June 2015), pp. 116–117, www.cbo.gov/publication/50250.

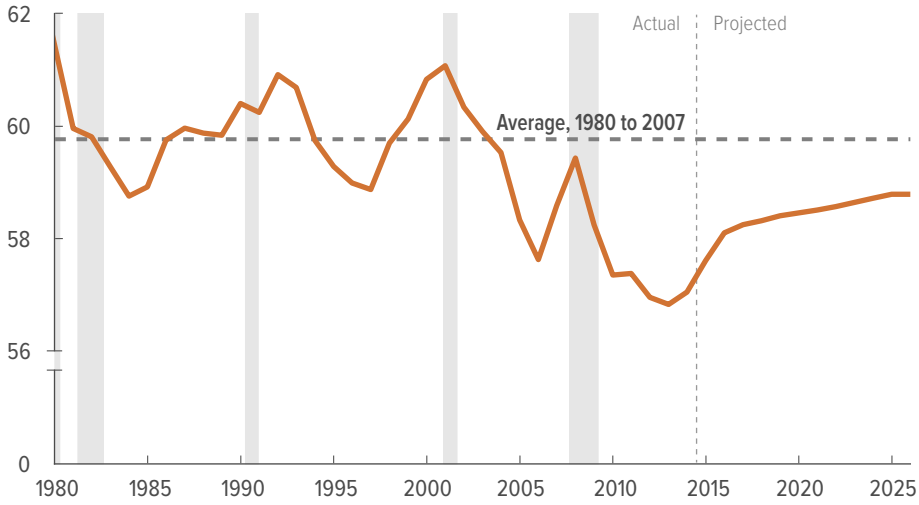
22. Calculating domestic economic profits involves adjusting estimates of corporations' domestic profits to remove distortions in depreciation allowances caused by tax rules and to exclude the effects of inflation on the value of inventories. Estimates of domestic economic profits exclude certain income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

23. 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.

Figure 2-11.

Labor Income

Percentage of Gross Domestic Income



CBO expects the labor share of income to rise but remain below its average from 1980 to the beginning of the recession in 2007.

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

Labor income is the sum of employees' compensation and CBO's estimate of 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 calendar year averages and are plotted through 2026.

In CBO's projections, labor income grows faster than other components of GDI over the next decade, increasing its share from 57.6 percent in 2015 to 58.8 percent in 2026 (see Figure 2-11). CBO expects the labor share to rise because employment is expected to rise and real compensation per hour is projected to grow more strongly than productivity for several years as cyclical weakness in the labor market wanes. As a result, the bargaining power of workers will improve and the share of income going to corporate profits will be smaller. By the end of the projection period, however, real hourly compensation is projected to move in step with growth in labor productivity.

However, CBO expects that some factors that have depressed labor's share of GDI since 2000 will continue during the coming decade. As a result, that share will not return to its 1980–2007 average of nearly 60 percent. One such factor is globalization, which has tended to move the production of labor-intensive goods and services to countries with lower labor costs. 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 an estimated 9.1 percent of GDI in 2015 to 7.5 percent in 2026. Over the next several years, that decline occurs largely because of the expected pickup in the growth of labor compensation and a projected increase in corporate interest payments, the result of rising interest rates. In later years, CBO expects the sum of all non–labor income components to grow less rapidly than output, reversing a trend seen since 2000 and making GDI equal to GDP by the latter half of the projection period.

Another measure of overall income, real gross national product (GNP), is projected to grow at an annual average of 2.0 percent per year between 2016 and 2026. Unlike the more commonly cited GDP, GNP includes income that U.S. residents earn abroad and excludes income that foreigners earn in this country. GNP is therefore a better measure than GDP of the resources available to U.S. households.

Some Uncertainties in the Economic Outlook

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 embodied in current law. Even if no significant

changes are made to those fiscal policies, economic outcomes will undoubtedly differ from CBO's projections. For example, CBO's forecasts of the average annual growth of real GDP over five-year periods since the early 1980s have a standard deviation around the actual values of 1.2 percentage points.[24] If the nature of CBO's forecast errors is the same in the future as in the past, then CBO's current forecast of average annual GDP growth for the next five years will, roughly speaking, have a two-thirds chance of being within a range of 1.2 percentage points above or below the actual amount. The forecasts of inflation as measured by the CPI-U have had a standard deviation around the actual values of 0.6 percentage points.

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

On the other hand, CBO's forecast for 2016 through 2020 may be too optimistic. For example, if the increased tightness of labor markets does not lead to increases in wages and benefits, household income and consumer spending could grow more slowly than CBO anticipates.

In addition, an unexpected worsening in international political or economic conditions, such as a more severe decline in China's stock market, could likewise weaken the U.S. economy by disrupting the international financial system, interfering with international trade, and reducing business and consumer confidence. Further declines in U.S. equity markets, if persistent, could significantly reduce household wealth and consumer spending. Also, household formation could be weaker than CBO expects. Weaker household formation would imply slower residential investment and slower overall growth of GDP.

In addition, the possibility exists that the economy will enter a recession. The current economic expansion is over 6 years old—slightly longer than the average expansion (about 5 years) over the past 11 business cycles back to 1945. Over the past 30 years, expansions lasting at least 6 years that are characterized by a relatively low unemployment rate have tended to fall into recession within two years. However, the length of economic expansions has varied greatly. And, although the longest expansion over the past 11 business cycles has been 10 years, no statistical evidence suggests that the length of an expansion alone causes the economy to enter a recession.

Several 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 older workers chose to stay in the labor force longer than expected),
- The natural rate of unemployment could be lower than expected, or
- Productivity could grow 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.

24. That standard deviation around the actual values is also known as the root mean square error. For more on the inherent uncertainty underlying economic forecasts, see Congressional Budget Office, *CBO's Economic Forecasting Record: 2015 Update* (February 2015), www.cbo.gov/publication/49891. That report presents an evaluation of the quality of CBO's economic forecasts, in comparison with the economy's 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.

Also uncertain is how income inequality affects economic growth. Economists have found mixed theoretical and empirical results on that question. Some studies conclude that income inequality leads to faster growth, others suggest that it slows growth, and still others find that it does not affect growth. Therefore, CBO's projection of economic growth does not explicitly include the effect of changes in income inequality. However, CBO's economic projections implicitly include some effects of income inequality insofar as past changes in inequality have affected economic growth. Economists continue to study the issue, and CBO will update its analysis if research in that area yields a more definitive conclusion.

Comparison With CBO's August 2015 Projections

CBO's current economic projections differ notably in one important respect from those issued in August 2015 and more modestly in other respects (see Table 2-4). Real GDP is now projected to be 2.7 percent lower in 2025 than CBO projected in August, the last year of CBO's previous projection (see Table 2-5). Other changes to the projection are more modest: The unemployment rate is lower throughout the 2016–2025 period, inflation is lower in the near term but unchanged later in the projection period, and interest rates are lower throughout the projection period.[25]

Output

CBO has revised its projected path of potential output downward since the August forecast. That revision results largely from the agency's lower estimate of potential TFP over recent history and over the projection period. That change was prompted by revisions to historical data that lowered CBO's estimates of potential TFP in the nonfarm business sector through 2015 and by CBO's reassessment of how long the slow growth in potential TFP is likely to persist. In particular, the Bureau of Economic Analysis revised downward its estimate of nonfarm business output for recent years. That downward revision resulted in about 1.0 percent lower actual TFP, on average, in 2013 and 2014. Combined with continued slow TFP growth in 2015, those new data resulted in a notably lower estimate of trend growth in potential TFP over the current business cycle, which has now finished its eighth year. For example, potential TFP is estimated to have grown at a 0.8 percent pace last year, down from CBO's previous projection of 1.1 percent.

In addition, to account for the possibility that the slow growth in potential TFP could persist for some time, CBO reduced the speed and extent to which the growth of potential TFP is projected to rebound from its current low rates. To do that, CBO calculated a weighted average of potential TFP growth over the past 25 years. That calculation placed more weight on the recent slow growth than on the faster growth of the 1990s and early 2000s. Reflecting those judgments, CBO projects that potential TFP growth will rebound to a 1.4 percent pace by 2022—later and to a slightly lower rate than appeared in CBO's previous projection.

Lower growth in potential TFP would also indirectly reduce potential output by reducing demand for capital goods and growth of capital services. That effect is responsible for most of the decline in projected growth of capital services, compared with the August forecast. In addition, CBO projects greater federal borrowing than in its August forecast, which would limit the money available for private investment and thus dampen growth in capital services. But an upward revision in the private saving rate roughly offsets that effect. CBO also has slightly revised down projected population growth, which suggests a slightly smaller potential labor force. However, a downward revision in CBO's estimate of the natural rate of unemployment slightly boosts potential output. That rate is projected to be more than 0.2 percentage points lower over the 2021–2025 period than in the August forecast (discussed below). In addition, a reassessment of the share of employment in the nonfarm business sector in comparison with other sectors dampens potential hours worked in the nonfarm business sector and boosts hours worked in other sectors.

In addition, economic developments since August point to a weaker outlook for output growth over the next few years. In particular, CBO's current projection for growth of real GDP during the 2016–2020 period averages 2.2 percent, compared with 2.5 percent in August. One source of the downward revision is that CBO expects net exports to contribute less to growth during the next few years, largely because the exchange value of the dollar is higher and foreign economic growth is likely to be lower than anticipated. Another source is expected slower growth in business investment spending. Oil prices declined more sharply from August through the end

25. CBO uses the 2016–2025 period for comparison because the August forecast did not include 2026.

Table 2-4.

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

	Estimated, 2015	Forecast		Projected Annual Average		
		2016	2017	2015–2020	2021–2025	2015–2025
		Percentage Change From Fourth Quarter to Fourth Quarter				
Real (Inflation-adjusted) GDP						
January 2016	2.0	2.7	2.5	2.2	2.0	2.1
August 2015	2.0	3.1	2.7	2.4	2.1	2.3
Nominal GDP						
January 2016	3.4	4.3	4.4	4.0	4.1	4.0
August 2015	3.2	4.7	4.7	4.3	4.3	4.3
PCE Price Index						
January 2016	0.5	1.5	2.0	1.6	2.0	1.8
August 2015	0.6	1.8	2.0	1.7	2.0	1.9
Core PCE Price Index[a]						
January 2016	1.4	1.6	1.9	1.8	2.0	1.9
August 2015	1.4	1.7	1.9	1.8	2.0	1.9
Consumer Price Index[b]						
January 2016	0.4	1.7	2.4	2.0	2.4	2.2
August 2015	0.7	2.3	2.3	2.1	2.4	2.2
Core Consumer Price Index[a]						
January 2016	2.0	2.0	2.2	2.2	2.3	2.3
August 2015	2.0	2.1	2.3	2.2	2.3	2.3
GDP Price Index						
January 2016	1.3	1.6	1.9	1.8	2.0	1.9
August 2015	1.1	1.6	2.0	1.8	2.1	1.9
Employment Cost Index[c]						
January 2016	2.2	2.9	3.3	3.1	3.2	3.1
August 2015	2.8	3.3	3.5	3.3	3.3	3.3
Real Potential GDP						
January 2016	1.5	1.6	1.7	1.8	2.0	1.9
August 2015	1.7	1.9	2.1	2.1	2.1	2.1
		Calendar Year Average				
Unemployment Rate (Percent)						
January 2016	5.3 [d]	4.7	4.4	4.8	5.0	4.9
August 2015	5.4	5.1	5.0	5.2	5.2	5.2
Interest Rates (Percent)						
Three-month Treasury bills						
January 2016	0.1 [d]	0.7	1.6	1.9	3.2	2.5
August 2015	0.1	0.7	1.7	2.0	3.4	2.6
Ten-year Treasury notes						
January 2016	2.1 [d]	2.8	3.5	3.4	4.1	3.7
August 2015	2.3	3.0	3.7	3.6	4.3	3.9
Tax Bases (Percentage of GDP)						
Wages and salaries						
January 2016	43.6	43.9	43.9	43.9	43.9	43.9
August 2015	43.4	43.5	43.5	43.5	43.5	43.5
Domestic economic profits						
January 2016	9.2	8.7	8.6	8.4	7.5	8.0
August 2015	9.7	9.3	8.9	8.7	7.6	8.1

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

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. Actual value for 2015.

Table 2-5.

Sources of Revision Since August 2015 in CBO's Estimate of Potential Output in 2025

Percent

Source	Reduction in Potential Output
Potential Output in the Nonfarm Business Sector	
Total factor productivity	
New data	-1.1
New methodology	-0.8
Subtotal	-2.0
Capital services	-0.4
Potential hours worked	-0.2
Subtotal	-2.5
Potential Output in Other Sectors	-0.1
Total Revision	**-2.7**

Source: Congressional Budget Office.

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

Total factor productivity is average real (inflation-adjusted) output per unit of combined labor and capital services.

Capital services are a measure of the flow of services available for production from the stock of capital goods.

Other sectors include farm businesses, owner-occupied housing, nonprofit institutions serving households, the federal government, and state and local governments.

of December than CBO had anticipated; those prices are expected to remain lower than CBO had forecast, so the forecast for mining investment has been revised downward. A final source of the downward revision is the decline in the prices of equities from mid-2015 through the end of December, which has lowered CBO's near-term projection of household wealth. Lower estimates of wealth imply less support for consumer spending in CBO's near-term forecast. However, that negative effect is smaller than the boost to consumer spending expected from the downward revision to energy prices that results from the downward revision to oil prices.

CBO has made a smaller change to projected GDP growth in the later years of the coming decade. In CBO's forecast, growth of real GDP during the 2021–2025 period is slower by less than 0.1 percentage point per year, on average, than in CBO's August projection. That rate reflects slower growth in potential GDP during the same period. That attenuated growth, in turn, is due to slower projected potential growth in the three determinants of nonfarm business output: potential hours worked (due to slower population growth), capital services, and potential TFP. Higher employment and output in other sectors of the economy slightly offset that slower growth of potential output in the nonfarm business sector.

Labor Market

Compared with CBO's August estimates, the agency's current projection for the unemployment rate is lower and the pace of employment growth is higher during the 2016–2020 period. Those changes largely reflect a judgment that recent trends in certain labor market indicators will continue longer than CBO estimated earlier. For example, recent trends in rates of hiring, layoffs, and retirement suggest that the unemployment rate will decline slightly faster and job growth will be more rapid during the next few years than CBO had estimated. In particular, CBO now projects that the unemployment rate will temporarily fall below its estimated 4.8 percent natural rate. In the years after 2020, projected employment growth is similar to what CBO projected in August. However, the unemployment rate is roughly 0.2 percentage points lower than the August projection, largely because CBO lowered its estimate of the natural rate of unemployment.

CBO lowered its estimate of the natural rate of unemployment over the past decade and throughout the next decade after reassessing how demographic trends affect that rate. Reflecting those trends, the share of younger workers in the working-age population has declined and the share of older workers has increased since 2005. Because a higher proportion of younger workers are unemployed, on average, than older workers, incorporating those developments points to a downward revision in the agency's estimate of the average natural rate of unemployment across all workers in the labor market. Consequently, CBO has reduced its estimate of the economywide natural rate of unemployment to 4.9 percent in 2015 from 5.1 percent in its previous estimate. Because those trends are projected to continue, the natural rate is projected to decline to 4.8 percent in 2025, down from 5.0 percent in the previous projection. Correspondingly, CBO has lowered its estimate of the unemployment rate to 5.0 percent in 2025, down from 5.2 percent.

CBO projects that the rate of labor force participation will be roughly one-quarter of a percentage point lower in the near term than it projected in August. During the second half of 2015, that rate fell more than CBO had forecast in August. That larger-than-expected decline resulted from older workers leaving the labor force, probably to retire, and CBO does not expect them to return. CBO's projection for the participation rate during the 2021–2026 period is almost unchanged since August.

Inflation and Interest Rates

CBO projects that inflation through 2020 will be slightly lower, on average, than forecast in August. In the near term, CBO's forecast reflects lower-than-expected energy prices and an increase in the exchange value of the dollar; both moves through the end of December have been larger than CBO had forecast. CBO's projections for the rates of core and overall inflation during the years after 2020 are roughly the same as in the agency's August forecast.

The agency anticipates that interest rates will be lower on average during the 2016–2020 period than projected in August. The rate on 3-month Treasury bills is expected to be 0.1 percentage points lower, on average, and the rate on 10-year Treasury notes is expected to be 0.2 percentage points lower, on average, in the near term. CBO projects lower rates over that period, partly because interest rates since August were lower than expected and because the Federal Reserve is now projected to raise the federal funds rate by less than CBO expected through 2020.

CBO also anticipates that interest rates will be lower during the 2021–2025 period than projected in August. Both short- and long-term rates are expected to be 0.2 percentage points lower, on average, over that period than in CBO's previous forecast. That downward revision stems from revised forecasts of the factors that influence real interest rates, particularly the downward revision to projected growth of potential TFP. CBO projects larger federal deficits than it did in its August forecast, which would generally lead to higher interest rates. However, upward revisions in other components of saving left national saving as a share of GDP roughly unchanged. CBO's revised projection also reflects changes in expectations of future interest rates on the part of participants in the financial markets and private-sector forecasters.

Comparison With Other Economic Projections

The agency's projections of the growth of real GDP, the unemployment rate, inflation, and interest rates in 2016 and 2017 are similar to the *Blue Chip* consensus—the average of the roughly 50 forecasts by private-sector economists published in the January 2016 *Blue Chip Economic Indicators*. CBO's projection for real GDP growth is slightly above the *Blue Chip* consensus, which indicates a slightly stronger economy in the near term, and the agency's forecast of the unemployment rate is slightly below that consensus, which indicates a slightly stronger labor market. However, the agency's projections for GDP growth and other indicators are generally within the middle two-thirds of the range of private-sector forecasts included in the *Blue Chip* survey (see Figure 2-12). For example, the agency's projections of GDP price inflation, the 3-month Treasury bill rate, and the 10-year Treasury note rate also fall within the middle two-thirds of the range included in the *Blue Chip* survey.

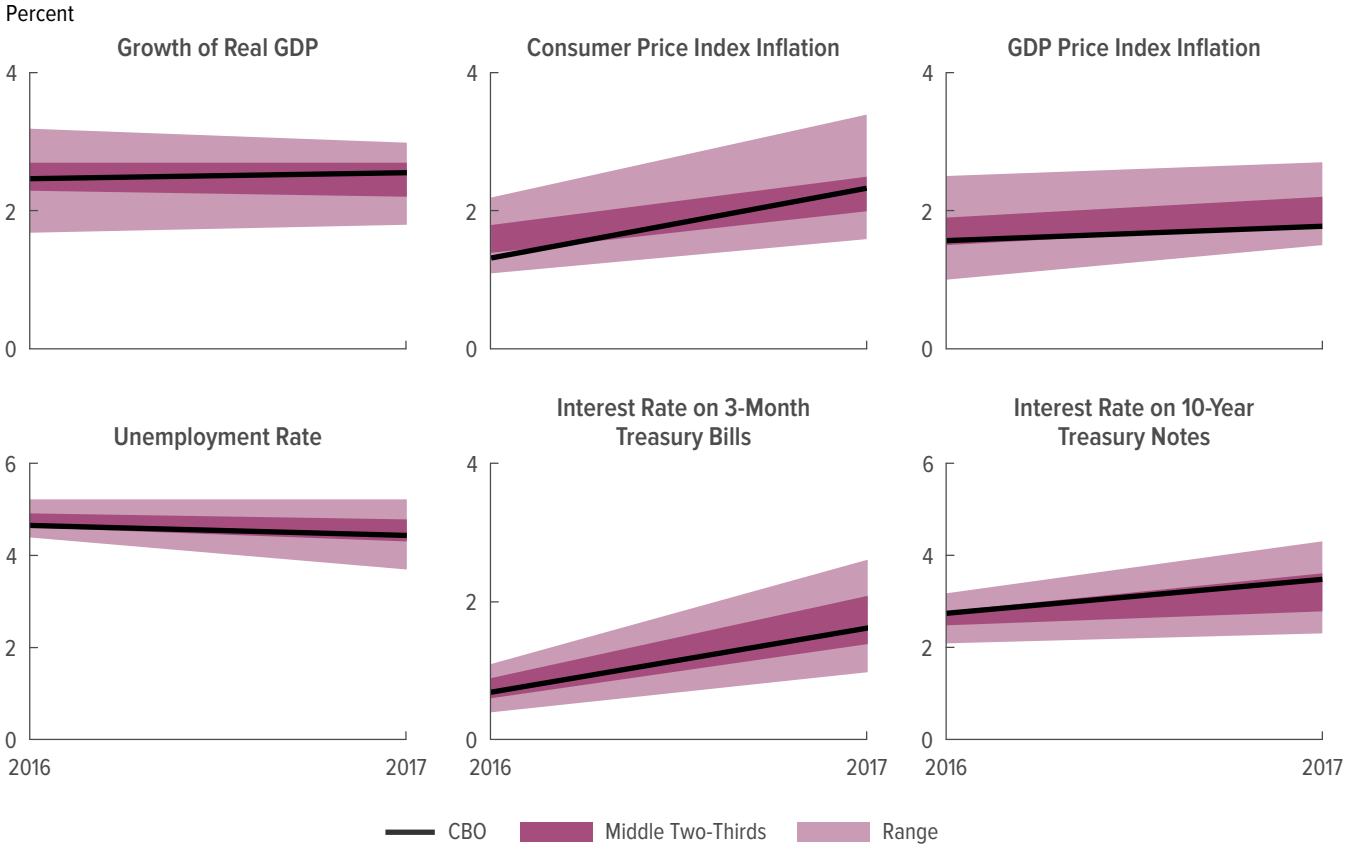
CBO's projections suggest a slightly stronger economy than the forecasts produced by Federal Reserve officials and presented at the December 2015 meeting of the Federal Open Market Committee (see Figure 2-13). The Federal Reserve reports three sets of forecasts: a median, a range, and a central tendency. The range 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. The central tendency reflects the range without the three highest and three lowest projections. CBO's projections for growth of real GDP in 2016 and 2017 are above the central tendency and at the upper end of the range. CBO's projections for the unemployment rate in 2016 and 2017 are within the full range and below the central tendency.

CBO's projections differ from those of other forecasters for a variety of reasons. For example, the other forecasts may not yet include all of the economic effects of the federal legislation enacted in late 2015. Differences in the economic news available when the forecasts were completed and differences in the economic and statistical models used might also account for the discrepancies.

Figure 2-12.

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

CBO's projections of the growth of real GDP, inflation, the unemployment rate, and interest rates are generally within the middle two-thirds of the range of forecasts from the *Blue Chip* survey.



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

The full range of forecasts from the *Blue Chip* reflects the highest and lowest forecasts among the roughly 50 forecasts in the survey. The middle two-thirds of that range omits the top one-sixth of the forecasts and the bottom one-sixth.

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

Consumer price index inflation uses the consumer price index for all urban consumers.

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.

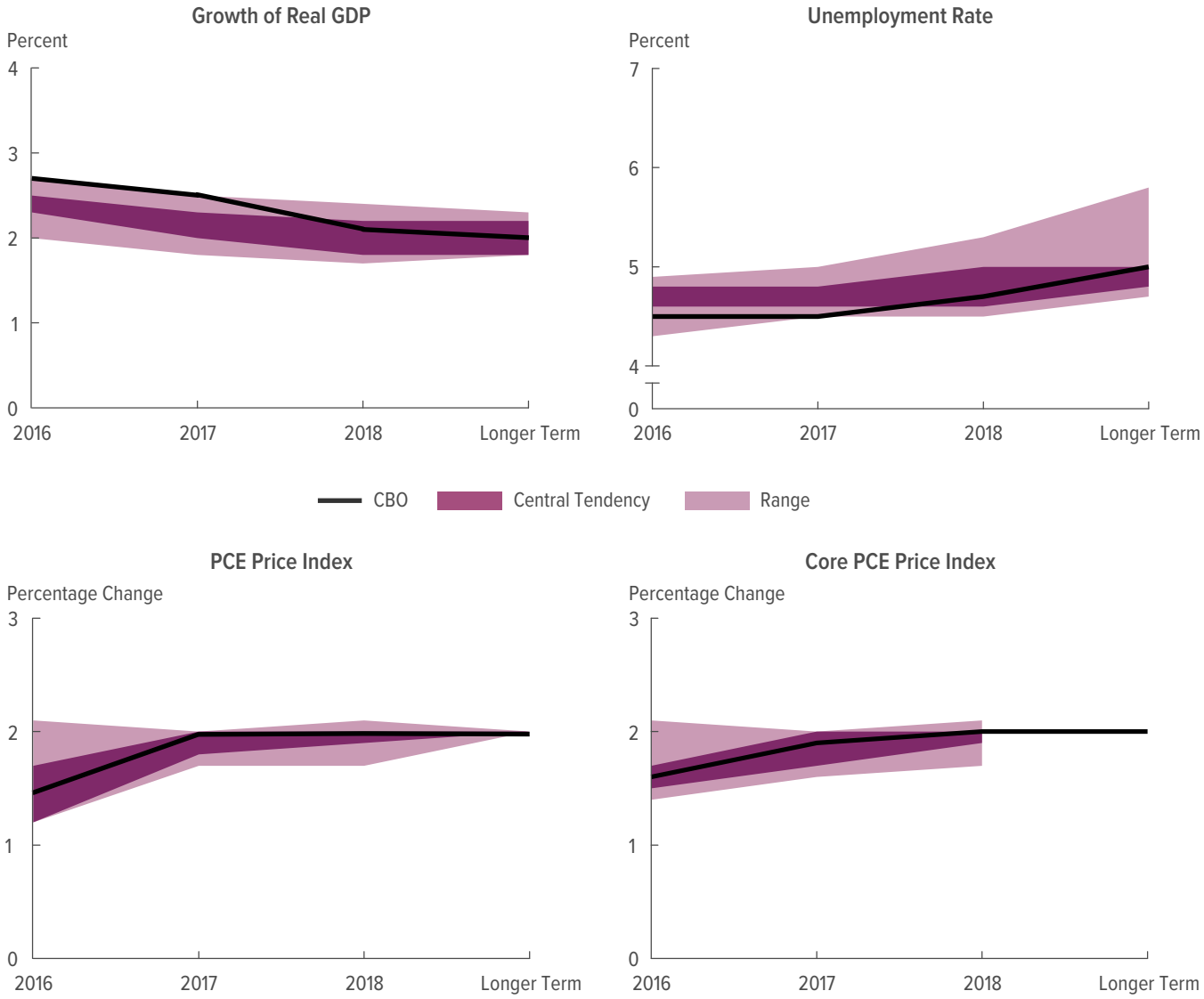
Growth of real GDP and inflation are measured from the average of one calendar year to the next year. The unemployment rate and interest rates are calendar year averages.

GDP = gross domestic product.

Figure 2-13.

Comparison of Economic Projections by CBO and Federal Reserve Officials

Over the next two years, CBO's forecast for the growth of real GDP is at the upper end of the range, and its forecast for the unemployment rate is at the lower end of the range, of forecasts by Federal Reserve officials.



Sources: Congressional Budget Office; Board of Governors of the Federal Reserve System, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents, December 2015" (December 16, 2015), http://go.usa.gov/cUkyR.

Each range of estimates from the Federal Reserve reflects the 17 projections by 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, roughly indicating the middle two-thirds of the range.

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

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

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

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

Growth of real GDP and growth of price indexes are measured from the fourth quarter of one calendar year to the fourth quarter of the next year. The unemployment rate is a fourth-quarter value.

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

CHAPTER

3

The Spending Outlook

Under the provisions of current law, federal outlays in 2016 will total $3.9 trillion, the Congressional Budget Office estimates, $232 billion (or 6 percent) more than the amount spent in 2015. They are projected to grow over the coming decade—at an average annual rate of more than 5 percent—and reach $6.4 trillion in 2026.

Most of the projected growth in outlays for 2016 is attributable to mandatory spending, which makes up just over 60 percent of the federal budget and is projected to rise by $168 billion, from $2.3 trillion last year to $2.5 trillion this year (see Table 3-1). Discretionary spending and the government's net interest payments are each expected to rise by $32 billion. CBO estimates that discretionary spending will reach $1.2 trillion this year and net outlays for interest, $255 billion. (See Box 3-1 for descriptions of the three major types of federal spending.)

All told, federal outlays in 2016 will equal 21.2 percent of gross domestic product (GDP), CBO estimates, up from 20.7 percent last year and above the 20.2 percent of GDP such spending has averaged over the past 50 years. But the mix of that spending has changed noticeably over time. Mandatory spending (net of the offsetting receipts that are credited against such spending) is expected to equal 13.3 percent of GDP in 2016, whereas over the 1966–2015 period, it averaged 9.5 percent. Meanwhile, measured as shares of GDP, the other major components of federal spending have fallen below their 50-year averages: Discretionary spending is anticipated to equal 6.5 percent of GDP this year, below its 8.7 percent average over the past 50 years, and net outlays for interest are expected to be 1.4 percent of GDP, below the 50-year average of 2.0 percent (see Figure 3-1 on page 66).

About $43 billion of the increase in spending for 2016 occurs because the first day of fiscal year 2017—October 1, 2016—falls on a Saturday. When the first day of a month falls on a weekend, certain monthly payments (mostly for mandatory benefit programs) normally made on that day are shifted to the preceding month; when that date is October 1, the shift moves payments to the preceding fiscal year. Accordingly, 13 months of payments for certain benefit programs will be made in fiscal year 2016 rather than the usual 12. If that shift in the timing of payments did not occur, outlays for 2016 would rise by 5 percent this year.[1]

In CBO's baseline projections, outlays continue to rise in relation to the size of the economy over the coming decade, reaching 23.1 percent of GDP in 2026, an increase of 2.0 percentage points. Mandatory spending and outlays for net interest are each projected to increase by 1.6 percentage points. The projected rise in mandatory spending results from a combination of rapid growth in spending for Social Security and Medicare and a drop, relative to GDP, in outlays for most other mandatory programs; that growth is primarily attributable to the aging of the population and rising health care spending per beneficiary. As interest rates return to more typical levels and debt continues to mount, net outlays for interest are also projected to jump significantly. Discretionary spending, however, falls by 1.3 percentage points of GDP in CBO's baseline projections.

Specifically, CBO's baseline for federal spending includes the following projections:

- Outlays for the largest federal program, Social Security, are expected to rise from 4.9 percent of GDP in 2016 to 5.9 percent in 2026.

- Federal outlays for the major health care programs—Medicare, Medicaid, subsidies offered through health insurance exchanges and related spending, and the Children's Health Insurance Program (CHIP)—are

1. About $39 billion of the increase in mandatory spending and $4 billion of the increase in discretionary spending for 2016 result from a shift in the timing of payments that would otherwise have been made in 2017. (Similar amounts will be shifted from 2018 to 2017.) If not for that shift in the timing of payments, total outlays in 2016 would equal 20.9 percent of GDP, mandatory outlays would be 13.1 percent of GDP, and discretionary outlays would be 6.4 percent of GDP, CBO estimates.

Table 3-1.

Outlays Projected in CBO's Baseline

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
							In Billions of Dollars							
Mandatory														
Social Security	882	910	946	1,002	1,066	1,133	1,205	1,281	1,360	1,441	1,528	1,618	5,352	12,580
Medicare[a]	634	692	699	711	787	845	907	1,015	1,048	1,075	1,193	1,288	3,949	9,569
Medicaid	350	381	401	420	439	460	484	509	536	564	593	642	2,205	5,049
Other spending	690	721	750	747	781	804	823	863	865	864	907	943	3,905	8,347
Offsetting receipts	-256	-237	-238	-247	-248	-262	-276	-294	-309	-323	-346	-350	-1,270	-2,892
Subtotal	2,299	2,466	2,558	2,633	2,825	2,981	3,143	3,375	3,500	3,622	3,875	4,142	14,140	32,653
Discretionary														
Defense	582	589	592	593	609	623	638	657	669	680	702	719	3,055	6,481
Nondefense	583	609	614	610	613	624	636	649	664	679	695	710	3,098	6,494
Subtotal	1,165	1,198	1,206	1,203	1,222	1,248	1,274	1,307	1,332	1,358	1,397	1,429	6,152	12,975
Net Interest	223	255	308	369	438	498	551	607	666	719	772	830	2,165	5,759
Total	**3,687**	**3,919**	**4,072**	**4,206**	**4,485**	**4,727**	**4,968**	**5,288**	**5,498**	**5,699**	**6,044**	**6,401**	**22,458**	**51,388**
On-budget	2,944	3,147	3,258	3,343	3,563	3,741	3,914	4,158	4,291	4,411	4,668	4,932	17,818	40,278
Off-budget[b]	743	772	814	863	922	986	1,055	1,130	1,207	1,288	1,376	1,469	4,640	11,110
Memorandum:														
Gross Domestic Product	17,810	18,494	19,297	20,127	20,906	21,710	22,593	23,528	24,497	25,506	26,559	27,660	104,632	232,382
							As a Percentage of Gross Domestic Product							
Mandatory														
Social Security	5.0	4.9	4.9	5.0	5.1	5.2	5.3	5.4	5.6	5.7	5.8	5.9	5.1	5.4
Medicare[a]	3.6	3.7	3.6	3.5	3.8	3.9	4.0	4.3	4.3	4.2	4.5	4.7	3.8	4.1
Medicaid	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.1	2.2
Other spending	3.9	3.9	3.9	3.7	3.7	3.7	3.6	3.7	3.5	3.4	3.4	3.4	3.7	3.6
Offsetting receipts	-1.4	-1.3	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.3	-1.3	-1.3	-1.3	-1.2	-1.2
Subtotal	12.9	13.3	13.3	13.1	13.5	13.7	13.9	14.3	14.3	14.2	14.6	15.0	13.5	14.1
Discretionary														
Defense	3.3	3.2	3.1	2.9	2.9	2.9	2.8	2.8	2.7	2.7	2.6	2.6	2.9	2.8
Nondefense	3.3	3.3	3.2	3.0	2.9	2.9	2.8	2.8	2.7	2.7	2.6	2.6	3.0	2.8
Subtotal	6.5	6.5	6.2	6.0	5.8	5.7	5.6	5.6	5.4	5.3	5.3	5.2	5.9	5.6
Net Interest	1.3	1.4	1.6	1.8	2.1	2.3	2.4	2.6	2.7	2.8	2.9	3.0	2.1	2.5
Total	**20.7**	**21.2**	**21.1**	**20.9**	**21.5**	**21.8**	**22.0**	**22.5**	**22.4**	**22.3**	**22.8**	**23.1**	**21.5**	**22.1**
On-budget	16.5	17.0	16.9	16.6	17.0	17.2	17.3	17.7	17.5	17.3	17.6	17.8	17.0	17.3
Off-budget[b]	4.2	4.2	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.3	4.4	4.8

Source: Congressional Budget Office.

a. Gross spending, excluding the effects of Medicare premiums and other offsetting receipts. (Net Medicare spending is included in the memorandum section of Table 3-2.)

b. Off-budget outlays stem from transactions related to the Social Security trust funds and the net cash flow of the Postal Service.

Box 3-1.

Categories of Federal Spending

On the basis of its treatment in the budget process, federal spending can be divided into three broad categories: mandatory spending, discretionary spending, and net interest.

Mandatory spending consists primarily of spending for benefit programs, such as Social Security, Medicare, and Medicaid. The Congress largely determines funding for those programs by setting rules for eligibility, benefit formulas, and other parameters rather than by appropriating specific amounts each year. In making baseline projections, the Congressional Budget Office generally assumes that the existing laws and policies governing those programs will remain unchanged. Mandatory spending also includes offsetting receipts—fees and other charges that are recorded as negative budget authority and outlays. Offsetting receipts differ from revenues in that revenues are collected in the exercise of the government's sovereign powers (income taxes, for example), whereas offsetting receipts are mostly collected from other government accounts or from members of the public for businesslike transactions (premiums for Medicare or rental payments and royalties for the drilling of oil or gas on public lands, for example).

Discretionary spending is controlled by annual appropriation acts in which policymakers specify how much money will be provided for certain government programs in specific years. Appropriations fund a broad array of government activities, including defense, law enforcement, and transportation. They also fund the national park system, disaster relief, and foreign aid. Some of the fees and charges triggered by appropriation acts are classified as offsetting collections and are credited against discretionary spending for the particular accounts affected.

CBO's baseline depicts the path of spending for individual discretionary accounts as directed by the provisions of the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177). That act stated that current appropriations should be assumed to grow with inflation in the future.[1] However, the Budget Control Act of 2011 (P.L. 112-25) imposed caps on discretionary appropriations through 2021 (and subsequent legislation modified those limits), so the baseline also incorporates the assumption that discretionary funding will not exceed the current caps.

The caps can, however, be adjusted upward for appropriations for certain activities, including war-related activities known as overseas contingency operations, certain disaster assistance efforts, specified program integrity initiatives, or designated emergencies. In CBO's baseline, the most recent appropriations for those categories, with increases for inflation and accounting for any statutory restrictions on those categories, are used to project future adjustments to the caps.

In addition to outlays from appropriations subject to caps, the baseline also includes discretionary spending for highway and airport infrastructure programs and public transit programs, all of which receive mandatory budget authority from authorizing legislation. Each year, however, appropriation acts control spending for those programs by limiting how much of the budget authority the Department of Transportation can obligate. For that reason, those obligation limitations are often treated as a measure of discretionary resources, and the resulting outlays are considered discretionary spending.

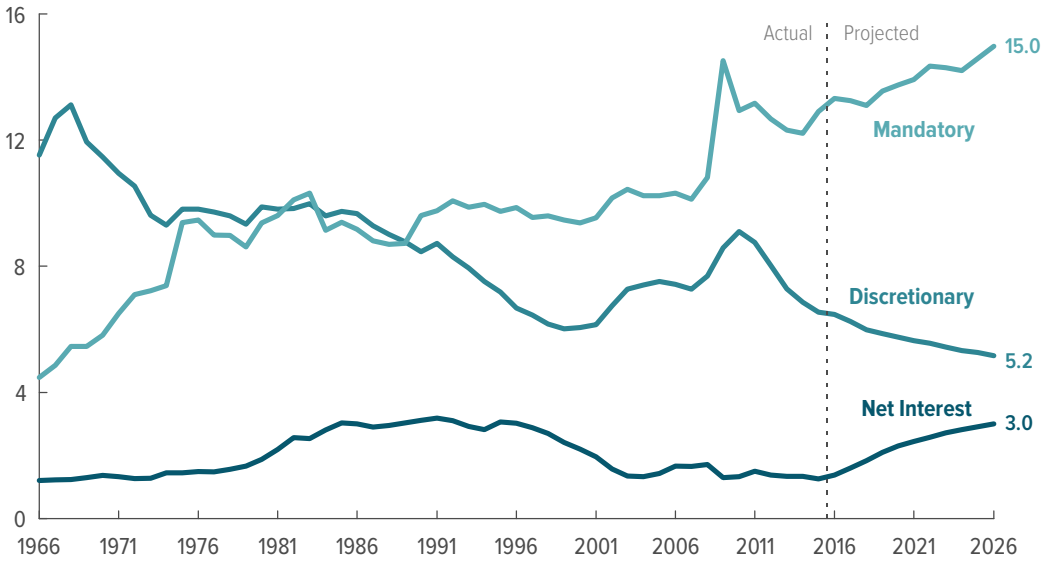
Net interest includes interest paid on Treasury securities and other interest that the government pays (for example, that paid on late refunds issued by the Internal Revenue Service) minus the interest that it collects from various sources (for example, from states that pay the federal unemployment insurance trust fund interest on advances they received when the balances of their state unemployment insurance accounts were insufficient to pay benefits in a timely fashion). Net interest is determined by the size and composition of the government's debt and by market interest rates.

1. In CBO's baseline, discretionary funding related to federal personnel is inflated using the employment cost index for wages and salaries; other discretionary funding is adjusted using the gross domestic product price index.

Figure 3-1.

Outlays, by Type of Spending

Percentage of Gross Domestic Product



Under current law, rising spending for Social Security and Medicare would boost mandatory outlays.

Total discretionary spending is projected to fall relative to GDP as funding grows modestly in nominal terms.

At the same time, higher interest rates and growing debt are projected to push up net interest payments.

Source: Congressional Budget Office.

GDP = gross domestic product.

projected to increase by 1 percentage point of GDP, growing from 5.6 percent of GDP in 2016 to 6.6 percent in 2026, mostly because of growth in Medicare spending.[2]

- Outlays for all other mandatory programs (net of other offsetting receipts) are projected to decline from 2.8 percent of GDP in 2016 to 2.5 percent in 2026.
- Discretionary spending relative to the size of the economy is projected to fall by about 20 percent over the next 10 years, from 6.5 percent of GDP in 2016 to 5.2 percent in 2026.
- Net interest payments are projected to more than double, rising from 1.4 percent of GDP in 2016 to 3.0 percent of GDP in 2026.

In developing its baseline projections, CBO generally assumes, in accordance with the rules established by the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177), that the provisions of current law governing federal taxes and spending will remain unchanged. Therefore, when projecting spending for mandatory programs, CBO assumes that existing laws will not be altered and that future outlays will depend on changes in caseloads, benefit costs, economic variables, and other factors. When projecting spending for discretionary programs, CBO assumes that most discretionary appropriations provided between 2017 and 2021 will be constrained by the statutory caps and other provisions of the Budget Control Act of 2011 (P.L. 112-25), as amended, and that after 2021 appropriations in a given year will equal those in the prior year with an adjustment for inflation.[3]

Mandatory Spending

Mandatory—or direct—spending includes spending for some benefit programs and certain other payments to people, businesses, nonprofit institutions, and state and local governments. It is generally governed by statutory criteria and is not normally constrained by the annual

2. Spending for Medicare is presented net of premium payments and other offsetting receipts, unless otherwise noted.

3. Appropriations for certain activities—those designated as overseas contingency operations, emergency requirements, and disaster relief, as well as initiatives designed to enhance program integrity by reducing overpayments in certain benefit programs—are not constrained by the caps and are thus generally assumed to grow with inflation from the amounts provided in 2016.

appropriation process.[4] Certain types of payments that federal agencies receive from the public and from other government agencies are classified as offsetting receipts and reduce gross mandatory spending.

Total mandatory spending amounted to 12.9 percent of GDP in 2015. (For a more detailed discussion of 2015 spending, refer to Chapter 1.) Such spending will, under current law, jump by 7 percent in 2016, from $2.3 trillion in 2015 to $2.5 trillion (or 13.3 percent of GDP), CBO estimates. (Without the shift in the timing of certain payments, mandatory spending would increase by 6 percent this year, to $2.4 trillion, or 13.1 percent of GDP.) The major contributors to that growth include outlays for Medicaid and subsidies offered through health insurance exchanges.

Over the next 10 years, outlays for mandatory programs are projected to rise by an average of about 5 percent per year, reaching $4.1 trillion in 2026 (see Table 3-2). As a share of GDP, such spending is projected to be higher in each year of the coming decade than it was in 2015, rising to 15.0 percent of GDP in 2026. By comparison, mandatory spending averaged 12.2 percent of GDP over the past 10 years and 9.5 percent over the past 50 years.

Much of the growth in mandatory spending arises because the largest mandatory programs—Social Security and Medicare—provide benefits mostly to the elderly, a segment of the population that has been growing significantly and will continue doing so. The number of people age 65 and older is now more than twice what it was 50 years ago, and over the next 10 years, that number is expected to rise by more than one-third (see Figure 3-2 on page 70).

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

At $1.5 trillion in 2016, outlays for Social Security and Medicare will make up nearly 40 percent of all federal outlays and 60 percent of mandatory spending. Under current law, CBO projects, spending for those programs would increase by an average of 6 percent a year over the 2017–2026 period and total $2.7 trillion in 2026. Outlays for the other major health care programs would grow from $449 billion in 2016 to $756 billion in 2026. From 2016 through 2026, spending for Social Security and the major health care programs accounts for about 60 percent of the projected $2.5 trillion increase in total outlays; by 2026, it would rise to 12.5 percent of GDP (from 10.5 percent in 2016), CBO projects.

After Social Security and the major health care programs, the next largest component of mandatory outlays consists of spending designed to provide income security—including outlays for certain refundable tax credits, the Supplemental Nutrition Assistance Program (SNAP), Supplemental Security Income (SSI), and unemployment compensation.[5] Such spending will amount to $307 billion in 2016, or 1.7 percent of GDP, by CBO's estimate. Together, that spending is projected to grow by an average of 2 percent per year, more slowly than GDP is projected to grow. As a result, by 2026 those outlays are projected to shrink to 1.4 percent of GDP.

Other mandatory spending includes retirement benefits for federal civilian and military employees, certain benefits for veterans, spending for student loans, and support for agriculture. Under current law, all such spending is projected to grow at an average annual rate of about 3 percent from 2016 through 2026 and to decline as a share of GDP, from 1.8 percent in 2016 to 1.6 percent of GDP in 2026. (Civilian and military retirement benefits account for roughly half of those amounts.)

In CBO's projections, offsetting receipts (other than those for Medicare) reduce mandatory outlays by 0.7 percent of GDP in 2016 and by an average of 0.6 percent of GDP in subsequent years. Receipts from auctioning a

4. Each year, some mandatory programs are modified by provisions in annual appropriation acts. Such changes may decrease or increase spending for the affected programs for either a single year or multiple years. Provisions of the Deficit Control Act and the Balanced Budget Act of 1997 (P.L. 105-33) govern how CBO projects spending for mandatory programs whose authorizations are scheduled to expire under current law, some of which are assumed to continue.

5. Tax credits reduce a taxpayer's overall income tax liability; if a refundable credit exceeds a taxpayer's other income tax liabilities, all or a portion of the excess (depending on the particular credit) is refunded to the taxpayer, and that payment is recorded as an outlay in the budget.

Table 3-2.

Mandatory Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Social Security														
Old-Age and Survivors Insurance	738	766	800	851	908	970	1,034	1,101	1,171	1,245	1,322	1,403	4,562	10,805
Disability Insurance	144	144	146	151	157	164	172	180	188	197	206	215	790	1,776
Subtotal	882	910	946	1,002	1,066	1,133	1,205	1,281	1,360	1,441	1,528	1,618	5,352	12,580
Major Health Care Programs														
Medicare[a]	634	692	699	711	787	845	907	1,015	1,048	1,075	1,193	1,288	3,949	9,569
Medicaid	350	381	401	420	439	460	484	509	536	564	593	642	2,205	5,049
Health insurance subsidies and related spending[b]	38	56	73	80	85	87	91	95	99	102	105	109	415	925
Children's Health Insurance Program	9	13	13	11	6	6	6	6	6	6	6	6	41	70
Subtotal[a]	1,030	1,141	1,186	1,222	1,316	1,398	1,488	1,625	1,688	1,747	1,897	2,045	6,610	15,612
Income Security														
Earned income, child, and other tax credits[c]	85	87	86	86	88	91	93	95	97	99	101	103	443	939
Supplemental Nutrition Assistance Program	76	75	74	73	73	72	72	72	72	72	73	74	364	728
Supplemental Security Income	55	59	56	53	60	61	63	70	67	64	71	74	293	639
Unemployment compensation	33	32	31	33	37	42	44	46	48	50	53	55	188	440
Family support and foster care[d]	31	31	32	32	33	33	33	34	34	34	35	35	163	336
Child nutrition	22	23	24	25	26	27	28	29	30	32	33	34	128	286
Subtotal	302	307	302	303	316	326	333	346	349	351	366	376	1,580	3,368
Federal Civilian and Military Retirement														
Civilian[e]	97	98	101	103	107	110	114	118	122	126	130	134	535	1,165
Military	57	62	58	55	61	63	65	72	68	65	72	74	303	653
Other	7	5	6	5	5	5	6	7	8	8	5	11	28	66
Subtotal	162	165	164	164	173	179	185	196	198	198	207	220	866	1,885
Veterans' Programs[f]														
Income security	76	89	87	84	95	99	103	115	110	105	118	122	468	1,038
Other	16	21	22	17	17	18	19	21	21	21	23	24	94	203
Subtotal	92	110	109	101	113	117	122	136	131	126	141	146	562	1,241
Other Programs														
Agriculture	13	15	19	18	16	15	15	15	15	15	15	15	84	159
Deposit Insurance	-13	-11	-13	-15	-12	-11	-12	-12	-14	-15	-14	-14	-63	-132
MERHCF	10	10	10	11	11	12	13	13	14	14	15	16	57	130
Fannie Mae and Freddie Mac[g]	0	0	3	2	1	1	*	1	1	1	1	2	7	12
Higher education	22	-6	-4	*	*	1	1	1	1	*	*	*	-2	*
Other	55	63	73	72	72	73	69	67	66	64	65	68	359	689
Subtotal	87	71	88	88	89	90	86	84	83	81	83	88	441	858

Continued

portion of the electromagnetic spectrum have boosted that total this year, but they are expected to have much smaller effects, on average, in future years. In addition, because of the way CBO treats the activities of Fannie Mae and Freddie Mac in its baseline projections, offsetting receipts from those entities are not reflected in the baseline beyond the current year (see page 80 for more details).

Social Security

Social Security, the largest federal spending program, provides cash benefits to the elderly, to people with disabilities, and to their dependents and survivors. Social Security comprises two main parts: Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI). Social Security outlays grew by about 4 percent in 2015 because of increases in caseloads and average benefits.

Table 3-2. Continued

Mandatory Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Offsetting Receipts														
Medicare[h]	-94	-101	-110	-118	-126	-136	-146	-161	-172	-180	-194	-210	-637	-1,552
Federal share of federal employees' retirement														
Social Security	-16	-16	-17	-17	-18	-19	-19	-20	-21	-21	-22	-23	-90	-196
Military retirement	-20	-19	-18	-18	-18	-19	-19	-19	-20	-20	-20	-21	-91	-192
Civil service retirement and other	-32	-32	-35	-36	-37	-38	-39	-40	-41	-42	-43	-44	-184	-395
Subtotal	-68	-68	-69	-71	-73	-75	-77	-79	-81	-84	-86	-88	-365	-783
Fannie Mae and Freddie Mac[g]	-23	-20	0	0	0	0	0	0	0	0	0	0	0	0
MERHCF	-7	-7	-7	-8	-8	-9	-9	-10	-10	-11	-11	-12	-41	-94
Receipts related to natural resources	-11	-9	-10	-13	-13	-13	-14	-14	-14	-16	-16	-17	-63	-139
Other	-54	-32	-41	-37	-28	-29	-30	-30	-31	-33	-39	-24	-165	-323
Subtotal	-256	-237	-238	-247	-248	-262	-276	-294	-309	-323	-346	-350	-1,270	-2,892
Total Mandatory Outlays	**2,299**	**2,466**	**2,558**	**2,633**	**2,825**	**2,981**	**3,143**	**3,375**	**3,500**	**3,622**	**3,875**	**4,142**	**14,140**	**32,653**
Memorandum:														
Mandatory Spending Excluding the Effects of Offsetting Receipts	2,555	2,703	2,796	2,880	3,073	3,243	3,419	3,669	3,808	3,944	4,221	4,492	15,411	35,545
Spending for Medicare Net of Offsetting Receipts	539	591	589	593	661	708	761	854	876	895	999	1,079	3,312	8,016
Spending for Major Health Care Programs Net of Offsetting Receipts[i]	936	1,040	1,076	1,104	1,190	1,262	1,341	1,465	1,516	1,567	1,703	1,835	5,974	14,060

Source: Congressional Budget Office.

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

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

b. Subsidies for health insurance purchased through the exchanges established under the Affordable Care Act.

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. Most of the costs of veterans' health care are classified as discretionary spending and thus are not shown in this table.

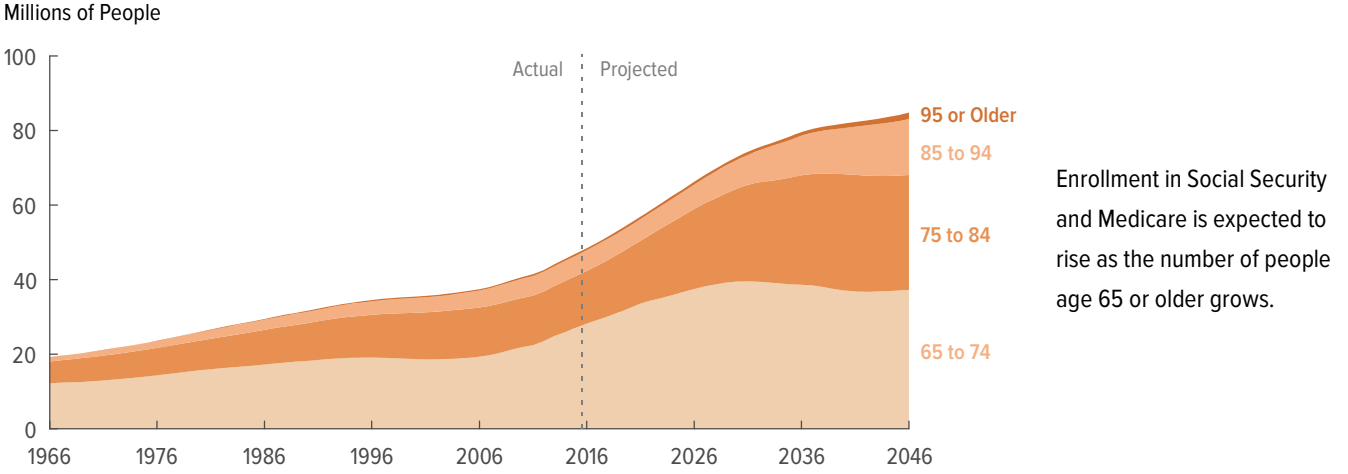
g. The cash payments from Fannie Mae and Freddie Mac to the Treasury are recorded as offsetting receipts in 2015 and 2016. Beginning in 2017, CBO's estimates reflect the net lifetime costs—that is, the subsidy costs adjusted for market risk—of the guarantees that those entities will issue and of the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

Figure 3-2.

Number of People Age 65 or Older, by Age Group



Source: Congressional Budget Office.

CBO estimates that, under current law, outlays for Social Security would total $910 billion, or 4.9 percent of GDP, in 2016 and climb steadily (by an average of about 6 percent per year) over the next decade as the nation's elderly population grew and as average benefits rose. By 2026, CBO estimates, Social Security outlays would total $1.6 trillion, or 5.9 percent of GDP, if current laws remained unchanged (see Figure 3-3).

Old-Age and Survivors Insurance. OASI, the larger of Social Security's two components, pays full benefits to workers who start collecting them at a specified full retirement age that depends on a worker's year of birth. Full retirement age rises incrementally from 65 (for people born before 1938) to 67 (for people born after 1959). Workers can, however, choose to start collecting reduced benefits as early as age 62. The program also makes payments to eligible spouses and children of workers (living and deceased). OASI spending totaled $738 billion in 2015, accounting for almost 85 percent of Social Security's outlays.

About 48 million people received OASI benefits in 2015. Over the 2016–2026 period, as more baby boomers (people born between 1946 and 1964) become eligible to receive benefits under the program, the number of people collecting those benefits is projected to increase by an average of about 3 percent per year. At that rate, by 2026 more than 65 million people will be receiving OASI benefits—35 percent more than the number of recipients in 2015 and 60 percent more than the number in 2007, the last year before the first baby boomers became eligible for benefits under the program.

Under current law, average benefits would also rise because beneficiaries generally receive annual cost-of-living adjustments (COLAs) and because initial benefits are based on people's lifetime earnings, which tend to increase over time. Each year's COLA is determined by the annual increase, if any, in the consumer price index for urban wage earners; when prices fall, beneficiaries of Social Security (and those of most other programs that provide COLAs) are protected from a drop in benefits. Because the consumer price index declined during 2015, OASI beneficiaries did not receive a COLA in January 2016; CBO anticipates that, under current law, beneficiaries would receive a COLA of 0.9 percent in 2017 and that COLAs would average 2.5 percent annually from 2017 through 2026. All told, the average benefit is projected to rise by about 3 percent per year over the 2016–2026 period. The increasing average benefit, in combination with the growing number of beneficiaries, is projected to boost outlays for OASI by an average of 6 percent per year over that period.[6]

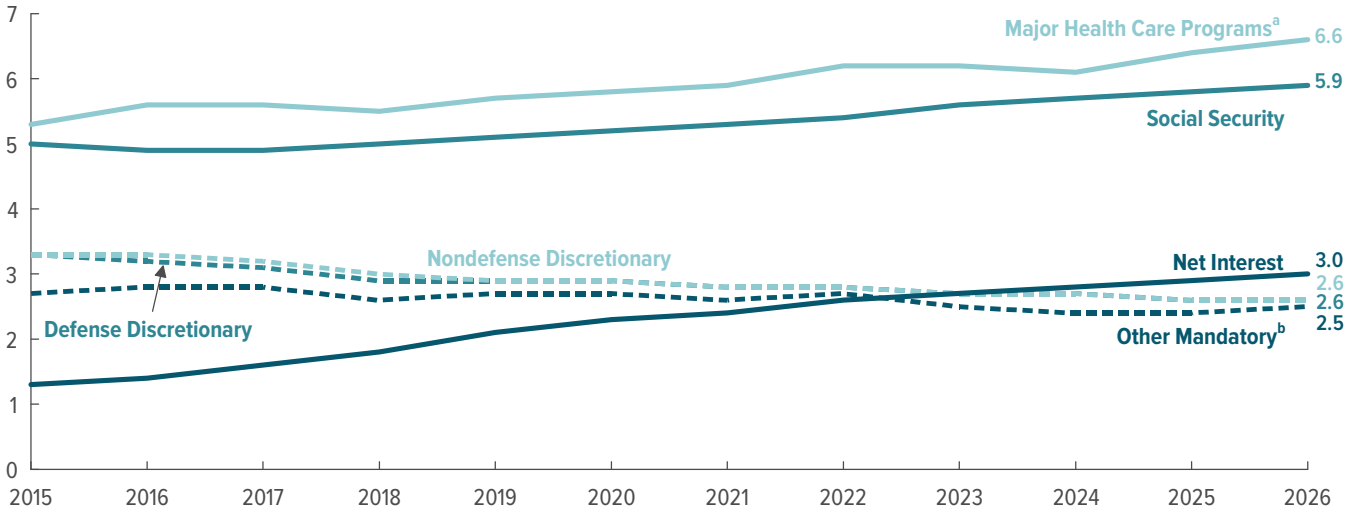
Disability Insurance. Social Security's disability benefits are paid to workers who suffer debilitating health conditions before they reach OASI's full retirement age. Payments are also made to the eligible spouses and children of those recipients. In 2015, federal spending for DI totaled $144 billion.

6. For additional background and an analysis of possible changes to Social Security, see Congressional Budget Office, *Social Security Policy Options, 2015* (December 2015), www.cbo.gov/publication/51011.

Figure 3-3.

Projected Outlays in Major Budget Categories

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

a. Consists of 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. All mandatory spending other than that for the major health care programs and Social Security.

The number of people receiving those benefits declined by 0.6 percent in 2015, to 11 million. CBO expects that total to decline again in 2016. In 2015, the number of new awards roughly equaled the number of disabled workers who left the program, and in 2016, CBO expects more people to leave the program than to be awarded benefits. Additionally, the number of children and spouse beneficiaries declined in 2015, and CBO expects that trend to continue in 2016. After 2016, the DI caseload is anticipated to grow at a more modest rate than in the years before the most recent recession because the economy is expected to continue to expand and because more Americans will be reaching the age at which they qualify for benefits under OASI.

Before the Bipartisan Budget Act of 2015 (P.L. 114-74) was enacted, CBO projected that the balance of the DI trust fund would be exhausted during fiscal year 2017. That legislation shifted a share of payroll tax revenues for calendar years 2016 through 2018 from the OASI trust fund to the DI trust fund, delaying the exhaustion of the balance of the DI trust fund. CBO now projects that, under current law, the balance of that trust fund would be exhausted during fiscal year 2022.[7] In accordance with the rules in section 257 of the Deficit Control Act, CBO's baseline incorporates the assumption that full benefits will continue to be paid even after the trust fund has been exhausted, although without legislative action, there will be no legal authority to make such payments.

Medicare, Medicaid, and Other Major Health Care Programs

Totaling $1.0 trillion in 2015, gross federal outlays for Medicare, Medicaid, and other major programs related to health care accounted for 40 percent of gross mandatory spending and equaled 5.8 percent of GDP. Under current law, CBO estimates, gross federal outlays for those programs will jump to $1.1 trillion, or 6.2 percent of GDP, in 2016. In CBO's baseline projections, that spending grows robustly—at an average rate of nearly 6 percent per year—and thus nearly doubles in dollar terms between 2016 and 2026, reaching $2.0 trillion, or 7.4 percent of GDP, by the end of that period. About three-fifths of

7. In CBO's most recent long-term projections, which are consistent with the 10-year baseline projections that were issued in March 2015 adjusted for the effects of the Bipartisan Budget Act of 2015, the OASI trust fund is exhausted in calendar year 2030, a year earlier than would have been projected without the payroll tax shift. See Congressional Budget Office, *CBO's 2015 Long-Term Projections for Social Security: Additional Information* (December 2015), www.cbo.gov/publication/51047.

total spending on the major health care programs would finance care for people age 65 or older, CBO projects.

Medicare. Medicare provides subsidized medical insurance to the elderly and to some people with disabilities. The program has three principal components: Part A (Hospital Insurance), Part B (Medical Insurance, which covers doctors' services, outpatient care, home health services, and other medical services), and Part D (which covers outpatient prescription drugs).[8] People generally become eligible for Medicare at age 65 or two years after they qualify for Social Security disability benefits.

Gross spending for Medicare will total $692 billion in 2016, CBO estimates, or 3.7 percent of GDP.[9] By 2026, spending for the program would reach nearly $1.3 trillion, or 4.7 percent of GDP, if current laws remained in place.[10] Medicare also collects substantial offsetting receipts—mostly in the form of premiums paid by beneficiaries—which, in CBO's baseline projections, rise from $101 billion in 2016 to $210 billion in 2026. (See page 79 for further details.) Under current law, spending for Medicare net of those offsetting receipts is projected to be 3.2 percent of GDP in 2016 and 3.9 percent in 2026.

Spending for Medicare (not including offsetting receipts) is projected to grow by an average of about 6 percent per year over the next 10 years under current law. Some of that growth stems from the increasing number of beneficiaries; CBO projects that, under current law, Medicare caseloads would expand at an average rate of 3 percent per year as growing numbers of baby boomers turned 65 and became eligible for benefits. In 2015, Medicare had about 55 million beneficiaries; that number is projected to climb to 75 million in 2026—36 percent more recipients than in 2015 and 60 percent more than in 2010, the last year before the first baby boomers became eligible for benefits under the program.

About 60 percent of the growth over the next 10 years results from rising costs per beneficiary, although those costs are rising much more slowly than they have in the past. CBO projects that, under current law, nominal spending per beneficiary would grow at an average rate of 4 percent per year over the coming decade. In real terms (adjusted for inflation using the price index for personal consumption expenditures), Medicare spending per beneficiary is projected to increase at an average annual rate of 1.6 percent between 2016 and 2026, whereas it averaged real annual growth of 4 percent between 1985 and 2007 (excluding the jump in spending that occurred in 2006 when Part D was implemented).

The comparatively slow growth in per-beneficiary spending that CBO projects for the next decade results from a combination of factors. One of those factors is the anticipated influx of new beneficiaries, which will bring down the average age of Medicare beneficiaries and therefore, all else equal, reduce average health care costs per beneficiary because younger beneficiaries tend to use fewer health care services.

Another factor is the slowdown in the growth of Medicare spending across all types of services, beneficiaries, and major geographic regions in recent years. Although the reasons for that slower growth are not yet entirely clear, CBO projects that the slowdown will persist for some years to come.[11]

A third factor that contributes to the slow projected growth in Medicare spending per beneficiary over the next decade is the constraints on service payment rates that are built into current law. The Medicare Access and CHIP Reauthorization Act of 2015 (P.L. 114-10)

8. Medicare Part C (known as Medicare Advantage) specifies the rules under which private health care plans can assume responsibility for, and be compensated for, providing benefits covered under Parts A, B, and D.

9. About $24 billion in Medicare spending in 2016 will occur because capitation payments to group health plans and prescription drug plans that are due on Saturday, October 1, 2016, will be made on September 30, the last day of the previous fiscal year. If that shift in the timing of payments did not occur, gross Medicare spending would amount to 3.6 percent of GDP in 2016.

10. Those amounts include the effects of sequestration (that is, the cancellation of funding) specified by the Budget Control Act of 2011, as amended. Those automatic procedures will reduce payments for most Medicare services by 2.0 percent through March 2025 and then by 4.0 percent through September 2025.

11. See Michael Levine and Melinda Buntin, *Why Has Growth in Spending for Fee-for-Service Medicare Slowed?* Working Paper 2013-06 (Congressional Budget Office, August 22, 2013), www.cbo.gov/publication/44513. That analysis reviews the observed slowdown in growth in Medicare spending from the 2000–2005 period to the 2007–2010 period. It suggests that demand for health care by Medicare beneficiaries was not measurably diminished by the financial turmoil and recession and that, instead, much of the slowdown in spending growth was caused by other factors affecting beneficiaries' demand for care and by changes in providers' behavior.

specifies that annual increases in payment rates for physicians' services will range between zero and 0.75 percent during the 2016–2026 period. (Before that law was enacted, payment rates had been scheduled to drop by 21 percent in April 2015 and to be raised or lowered by small amounts thereafter.) In addition, program rules constrain annual increases in payment rates for Medicare services apart from those provided by physicians by adjusting for changes in productivity in the economy overall. Under CBO's economic projections, those payment rates are expected to increase by about 2 percent per year on average—roughly 1 percentage point lower than the rate at which prices of inputs to Medicare services are projected to increase.

Medicaid. Medicaid is a joint federal and state program that funds medical care for certain low-income, elderly, and disabled people. The federal government shares costs for approved services, as well as administrative costs, with states; the federal share varies from state to state but averaged about 57 percent in most years before 2014. (During some economic downturns, the federal government's share has temporarily increased.)

Beginning in January 2014, the Affordable Care Act (ACA) gave states the option of expanding eligibility for their Medicaid programs to people with income at or below 138 percent of the federal poverty guidelines. By the end of 2015, 30 states and the District of Columbia had expanded their programs. The federal government pays a greater share of the costs incurred by enrollees who were made eligible for Medicaid in those states than it does for traditional enrollees: The federal share for those newly eligible enrollees is 100 percent through 2016 and declines thereafter, falling to 90 percent in 2020. In 2015, the federal government's overall share of Medicaid expenditures was about 63 percent.

Federal outlays for Medicaid totaled $350 billion in 2015, 16 percent more than spending for the program in 2014. CBO estimates that about two-thirds of that increase resulted from enrollment of people who were newly eligible because of the ACA and from the greater share of costs paid by the federal government for those new enrollees.[12] Under current law, CBO projects, federal spending for Medicaid will jump by almost 9 percent this year as more people in those states that have expanded Medicaid eligibility enroll in the program. The average number of people enrolled in Medicaid on a monthly basis is expected to rise from 76 million in 2015 to 77 million in 2016. By 2026, 80 percent of the people who meet the new eligibility criteria will live in states that have extended Medicaid coverage, CBO anticipates; Medicaid enrollment in that year is projected to be 85 million.

Overall, federal spending for Medicaid from 2017 to 2026 is projected to increase more slowly than it has over the past two years, largely because the rapid growth in enrollment that occurred during the initial stage of the expansion of coverage authorized by the ACA will have slowed. Over that period, CBO projects, spending per beneficiary would grow at an average annual rate of 5 percent. In real terms (adjusted for inflation using the price index for personal consumption expenditures), Medicaid spending per enrollee is expected to increase at an average annual rate of 3 percent between 2017 and 2026. By 2026, federal outlays for Medicaid are projected to total $642 billion, or about 2.3 percent of GDP (up from 2.1 percent of GDP in 2016).

Exchange Subsidies and Related Spending. Individuals and families can purchase private health insurance coverage through marketplaces known as exchanges that are operated by the federal government, by state governments, or through a partnership between federal and state governments. Subsidies of purchases made through those exchanges fall into two categories: subsidies to cover a portion of participants' health insurance premiums and subsidies to reduce their cost-sharing amounts (out-of-pocket payments required under insurance policies). The first category of subsidies is available to people with household income between 100 percent and 400 percent of the federal poverty guidelines who meet certain other conditions, while the second category is available to those who are eligible for premium subsidies, have a household income between 100 percent and 250 percent of the federal poverty guidelines, and enroll in an eligible plan.[13]

12. Provisions of the ACA also led many people who were previously eligible for Medicaid to enroll. CBO cannot, however, precisely determine the share of total growth in Medicaid enrollment between 2014 and 2015 attributable to such people because there is no way to know whether new enrollees who would have been eligible in the absence of the ACA would have signed up had it not been enacted.

13. In order to be eligible for cost-sharing subsidies, people must enroll in a plan that pays about 70 percent of the costs of covered benefits (sometimes referred to as a silver plan).

Related spending consists of grants to states for establishing health insurance exchanges and outlays for risk adjustment and reinsurance. Outlays for exchange subsidies and related spending are projected to rise from $38 billion in 2015 to $56 billion in 2016 and to $109 billion by 2026.

Exchange subsidies make up the largest portion of that spending: Outlays are projected to total $39 billion in 2016 (up from $27 billion in 2015) and to reach $93 billion by 2026. (In addition, a portion of the subsidies for health insurance premiums will be provided in the form of reductions in recipients' tax payments.)[14] During calendar year 2015, an estimated 8 million people per month, on average, received subsidies for health insurance purchased through the exchanges.[15]

On the basis of information about 2015 enrollment and information available as of the end of December 2015 on 2016 enrollment, CBO and the staff of the Joint Committee on Taxation (JCT) estimate that about 11 million people per month, on average, will receive such subsidies in calendar year 2016. Additionally, the agencies project that about 2 million people who are not eligible for subsidies will purchase coverage through an exchange, bringing the total number of people enrolled in coverage through exchanges in any given month to 13 million, on average.[16] (The enrollment projections and other factors underlying the estimates of exchange subsidies provided in this report for years after 2016 have not been updated since March 2015, except to incorporate the effects of enacted legislation.)[17]

CBO estimates that outlays for grants to states for exchange operations will be about $1 billion in 2016. Because funds for new grants needed to be obligated by the end of 2014, spending of such grants is winding down. In CBO's baseline, outlays associated with grants for operating state exchanges decline to zero by 2019.

In accordance with the ACA, new programs requiring the federal government to make payments to health insurance plans for risk adjustment (amounts paid to plans that attract less healthy enrollees) and for reinsurance (amounts paid to plans that enroll individuals who end up with high costs) became effective for insurance issued in 2014. The two programs are intended to spread more widely some of the risk that health insurers face when selling health insurance through the exchanges or in other individual or small-group markets. Outlays for the two programs totaled $9 billion in 2015, the first year in which payments were made; this year, they are expected to amount to $16 billion. Those payments are offset by associated revenues. Under current law, the risk adjustment program is permanent, but the reinsurance program is authorized only for insurance issued through 2016 (although spending associated with the program is expected to continue for an additional year).

Children's Health Insurance Program. The Children's Health Insurance Program provides health insurance coverage to children in families whose income, although modest, is too high for them to qualify for Medicaid. The program is jointly financed by the federal government and the states and is administered by the states within broad federal guidelines. Total federal spending for CHIP was approximately $9 billion in 2015 and is expected to

14. The subsidies for health insurance premiums are structured as refundable tax credits; the portions of such credits that exceed taxpayers' other income tax liabilities are classified as outlays, whereas the portions that reduce tax payments are classified as reductions in revenues.

15. Estimates reflect the average enrollment in each month over the course of a calendar year and include spouses and dependents covered under family policies; they include residents of the 50 states and District of Columbia who are younger than 65. In the March 2015 baseline, CBO and the staff of the Joint Committee on Taxation (JCT) projected that an average of about 8 million people per month would receive exchange subsidies in 2015. Additionally, the agencies projected that about 3 million people would not be eligible for subsidies but would purchase coverage through an exchange, bringing the total number of people enrolled in coverage purchased through exchanges in any given month to 11 million, on average. CBO and JCT now estimate that about 9.5 million people enrolled in coverage purchased through the exchanges, on average, during 2015 and that 8 million of those enrollees received subsidies.

16. Previously, CBO and JCT projected that an average of about 15 million people per month would receive exchange subsidies in 2016 and that an additional 6 million people would purchase unsubsidized coverage through an exchange, bringing the total number of people enrolled in coverage purchased through exchanges in any given month to 21 million, on average. Most of the unsubsidized people who are no longer expected to purchase insurance through an exchange are expected to purchase insurance directly from an insurer instead.

17. Because of the limited scope of the current update, this report does not include an appendix with updated estimates of the insurance coverage provisions analogous to the one published last March; see Congressional Budget Office, *Updated Budget Projections: 2015 to 2025* (March 2015), Appendix, www.cbo.gov/publication/49973. In March 2016, CBO and JCT will update their projections of exchange enrollment and subsidies to incorporate actual 2015 enrollment, information on 2016 enrollment, CBO's recent economic forecast, and other data.

rise to $13 billion in 2016. That projected growth stems almost entirely from an increase in the federal match rate that went into effect in January of this year. Without that change in the match rate, federal spending for CHIP would be about $9 billion in 2016, CBO estimates.

Funding for CHIP is authorized through 2017. Following the rules governing baseline projections, CBO assumes in its baseline that funding for the program after 2017 is set at about $6 billion a year (that is, at the annualized rate of the second of the semiannual allotments for 2017), almost $7 billion less than the outlays estimated for 2017, when the program is fully funded. Nevertheless, annual spending for CHIP is projected to reach $11 billion in 2018 because some of the funds allocated to states in previous years will be spent in that year; outlays are projected to fall to about $6 billion in 2019 and remain at that amount in subsequent years. Nearly 6 million people will be enrolled in CHIP on an average monthly basis in 2016 and 2017, CBO estimates. Enrollment drops in subsequent years in CBO's baseline projections, mostly because funding is assumed to decline after 2017.

Income Security

The federal government makes various payments to people and government entities in order to assist the poor, the unemployed, and others in need. Mandatory spending for those purposes totaled $302 billion in 2015. Under current law, that spending is projected to rise modestly in 2016 to $307 billion and then to grow at an average annual rate of about 2 percent. By 2026, income-security outlays are projected to be $376 billion, or 1.4 percent of GDP.

Earned Income, Child, and Other Tax Credits. Refundable tax credits for income security, like those for health insurance premiums discussed above, reduce a filer's overall income tax liability; if the credit exceeds the rest of the filer's income tax liability, the government pays all or some portion of that excess to the taxpayer.[18] Those payments—including the ones made for the refundable portions of the earned income tax credit (EITC), the child tax credit, and the American Opportunity Tax Credit (AOTC)—are categorized as outlays. The EITC is a fully refundable credit available primarily to people with earnings and income that fall below established maximums. The child tax credit is a partially refundable credit (limited to 15 percent of earnings over a predetermined threshold) available to qualifying families with dependent children. The AOTC allows certain individuals (including those who owe no taxes) to claim a credit for college expenses. Outlays for those credits totaled $85 billion in 2015.

Under current law, by 2026 outlays for refundable tax credits would total $103 billion, CBO projects. That projection incorporates the permanent extension—recently enacted in the Consolidated Appropriations Act, 2016 (P.L. 114-113)—of the AOTC and of the expansions of the child tax credit and the EITC that were first enacted in 2009 and that had been set to expire at the end of 2017. The tax credits also affect the budget, to a lesser extent, by reducing tax revenues. However, the portion of the refundable tax credits that reduces revenues is not reported separately in the federal budget.

Supplemental Nutrition Assistance Program. Outlays for SNAP, which provides benefits to help people in low-income households purchase food, held steady at $76 billion in 2015.[19] CBO estimates that the program's spending will decline slightly this year, to $75 billion, and that 45 million people will receive those benefits. The number of people collecting SNAP benefits, which increased dramatically in the wake of the most recent recession, is anticipated to continue to decline gradually over the coming years as the economy strengthens. Average per-person benefits are expected to remain the same in 2016 as they were last year, but they are projected to increase thereafter because of adjustments for inflation in prices of food. On the basis of the assumption (specified by the rules governing baseline projections) that the program will be extended after it expires at the end of fiscal year 2018, CBO projects that by 2026, 33 million people will be enrolled in SNAP and the program's outlays will total $74 billion.

Supplemental Security Income. SSI provides cash benefits to people with low income who are elderly or disabled.[20] Outlays for SSI rose by about 1 percent in 2015, to $55 billion. According to CBO's estimates, under current

18. For more information, see Congressional Budget Office, *Refundable Tax Credits* (January 2013), www.cbo.gov/publication/43767.

19. For more information on SNAP, see Congressional Budget Office, *The Supplemental Nutrition Assistance Program* (April 2012), www.cbo.gov/publication/43173.

20. For more information on SSI, see Congressional Budget Office, *Supplemental Security Income: An Overview* (December 2012), www.cbo.gov/publication/43759.

law spending for that program would increase at an average annual rate of about 2 percent over the coming decade. In CBO's projections, the number of beneficiaries for SSI edges up at an average annual rate of less than half of 1 percent; most of the anticipated growth in spending for that program through 2026 stems from COLA increases. Under current law, spending for SSI benefits is estimated to be $74 billion in 2026.

Unemployment Compensation. The federal-state unemployment compensation program provides benefits to people who lose their jobs through no fault of their own, are actively seeking work, and meet other criteria established by the laws in their states. In 2015, outlays for unemployment compensation were $33 billion, about 0.2 percent of GDP. That amount is well below the high-water mark of such spending during the recent recession: In 2010, outlays for unemployment compensation peaked at $159 billion, in part because of the exceptionally high unemployment rate and in part because of legislation that significantly expanded benefits for individuals who had been unemployed for long periods. In CBO's estimates, outlays for unemployment compensation grow at an average annual rate of nearly 6 percent (reflecting fluctuations in unemployment and growth in the labor force and wages, which serve as the basis for benefits); measured as a share of GDP, those outlays remain at their current level throughout the projection period. By 2026, outlays for the program would, under current law, amount to $55 billion, CBO projects.

Family Support and Foster Care. Spending for family support programs—grants to states that help fund welfare programs, foster care and adoption assistance, child support enforcement, and the Child Care Entitlement—is expected to remain about the same as last year, roughly $31 billion, in 2016. Spending for those programs is projected to rise only gradually through 2026, at an average annual rate of about 1 percent.

Funding for two major components of family support is capped: The primary Temporary Assistance for Needy Families (TANF) program is limited to roughly $17 billion annually (although some additional funding is available if a state's unemployment rate or SNAP caseload exceeds certain thresholds), and funding for the Child Care Entitlement is capped at just under $3 billion per year.[21] Under current law, the primary TANF program and the Child Care Entitlement are funded only through the end of this fiscal year, but CBO's baseline reflects the assumption (as specified in the Deficit Control Act) that such funding will continue throughout the projection period.

Outlays for federal grants to states for foster care and adoption assistance and for child support enforcement are expected to remain near the 2015 amounts—about $7 billion and $4 billion, respectively—in 2016. CBO estimates that, under current law, spending for the two programs would increase modestly over the coming decade and amount to $10 billion and $5 billion, respectively, in 2026.

Child Nutrition. CBO projects that federal spending for child nutrition—which provides cash and commodities for meals and snacks in schools, day care settings, and summer programs—will rise by 4 percent in 2016, to $23 billion.[22] Much of that growth stems from an increase in the number of free lunches served in the school lunch program. CBO anticipates that growth in the number of meals provided and in reimbursement rates would lead to spending increases averaging 4 percent per year from 2017 through 2026, boosting total spending to $34 billion in 2026.[23]

Civilian and Military Retirement

Retirement and survivors' benefits for federal civilian employees (along with benefits provided through several smaller retirement programs for employees of various government agencies and for retired railroad workers) amounted to $105 billion in 2015. Under current law, such outlays would grow by about 3 percent annually over the next 10 years, CBO projects, reaching $146 billion in 2026.

Growth in federal civil service retirement benefits is attributable primarily to COLAs for retirees and to increases in federal salaries, which boost benefits for people entering retirement. (CBO's projections reflect the

21. For more information on the TANF program, see Congressional Budget Office, *Temporary Assistance for Needy Families: Spending and Policy Options* (January 2015), www.cbo.gov/publication/49887.

22. For more information on federal spending for child nutrition, see Congressional Budget Office, *Child Nutrition Programs: Spending and Policy Options* (September 2015), www.cbo.gov/publication/50737.

23. Spending for child nutrition includes roughly $1 billion in outlays each year related to the Funds for Strengthening Markets program (also known as Section 32), which, among other things, provides funds to purchase commodities that are distributed to schools as part of the child nutrition programs.

assumption that federal salaries will rise in accordance with the employment cost index for wages and salaries of workers in private industry.) One factor that is restraining growth in spending for retirement benefits is the ongoing, gradual replacement of the Civil Service Retirement System (CSRS) with the Federal Employees Retirement System (FERS). FERS covers employees hired after 1983 and provides a smaller defined benefit than that provided by CSRS. FERS recipients are, however, eligible for Social Security benefits on the basis of their federal employment, whereas CSRS employees are not. In addition, under FERS, employees' contributions to the federal Thrift Savings Plan are matched in part by their employing agencies (but those matching funds are categorized as discretionary costs—not mandatory—because they come out of annual appropriations to the agencies).

The federal government also provides annuities to personnel who retire from the military and their survivors. Outlays for those annuities totaled $57 billion in 2015. Most of the annual growth in those outlays results from COLAs and increases in military basic pay. Like their civilian counterpart, outlays for military retirement annuities are projected to grow over the next 10 years by an average of about 3 percent per year, rising to $74 billion in 2026.

Veterans' Benefits

Mandatory spending for veterans' benefits includes disability compensation, readjustment benefits, pensions, insurance, housing assistance, and burial benefits. Outlays for those benefits totaled $92 billion in 2015, of which roughly 75 percent represented disability compensation. That amount does not include most federal spending for veterans' health care, which is funded by discretionary appropriations.

Spending for mandatory veterans' benefits is projected to swell by 19 percent in 2016, to $110 billion. Nearly 40 percent of that increase arises because of the shift in payments that results in 13 monthly payments in 2016 rather than 12; without that shift in payments, the increase in outlays would be about 12 percent. Such growth occurs because CBO anticipates significant increases in both the number of veterans receiving disability compensation and the average benefit payment. CBO expects the number of beneficiaries to grow because the Department of Veterans Affairs (VA) has implemented increasingly effective initiatives to reduce its backlog of applications. In addition, the average disability rating (that is, the rating of the severity of the disability that a veteran either incurred or aggravated during active military service on which his or her benefits are based) now approaches 50 percent for veterans currently on the rolls and appears to be continuing its steady rise; therefore, CBO expects that newly rated veterans will enter the VA system with higher disability ratings than those in previous years, which will result in a higher average benefit payment per veteran.

Under current law, growth in mandatory spending for veterans' benefits is projected to grow more slowly after 2016, at an average rate of about 3 percent a year between 2016 and 2026, causing outlays to rise to $146 billion in 2026. CBO projects slower growth because the VA is expected to largely eliminate its claims backlog over the next several years, causing the flow of new veterans receiving disability compensation to decline.

Other Mandatory Spending

Other mandatory spending includes outlays for agricultural support and some smaller health care programs, net outlays for deposit insurance, subsidy costs for student loans, and other payments. Outlays in some of those categories fluctuate markedly from year to year and may be either positive or negative.

Agricultural Support. Mandatory spending for agricultural programs totaled $13 billion in 2015. Spending for agricultural support is projected to average $16 billion per year between 2016 and 2026 on the basis of the assumption (specified in the Deficit Control Act) that the current programs that are scheduled to expire during that period will be extended.

Deposit Insurance. Net outlays for deposit insurance were negative last year: The program's collections (premiums paid by financial institutions) exceeded its disbursements (the cost of resolving failed institutions) by $13 billion. In CBO's baseline projections, premium payments continue to exceed amounts spent on failed institutions, and net outlays for deposit insurance range from –$11 billion to –$15 billion annually over the coming decade.

Medicare-Eligible Retiree Health Care Fund. The Department of Defense's Medicare-Eligible Retiree Health Care Fund (MERHCF) provides health care benefits, mainly through the TRICARE for Life program, to retirees of the uniformed services (and to their dependents and surviving spouses) who are eligible for Medicare. Outlays for those benefits totaled $10 billion

in 2015. Over the coming decade, spending from MERHCF is projected to rise at an average annual rate of roughly 5 percent, reaching $16 billion in 2026.

Fannie Mae and Freddie Mac. In September 2008, the government placed Fannie Mae and Freddie Mac, two institutions that facilitate the flow of funding for home loans nationwide, into conservatorship.[24] Because the Administration considers Fannie Mae and Freddie Mac to be nongovernmental entities for federal budgeting purposes, it records the Treasury's payments to those entities as outlays in the budget and reports payments by those entities to the Treasury, such as those made in 2015 and expected in 2016, as offsetting receipts. (For further details, see page 80.)

In contrast to the Administration, CBO projects the budgetary impact of the two entities' operations in future years as if they were being conducted by a federal agency because of the degree of management and financial control that the government exercises over them.[25] CBO therefore estimates 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 and shows those costs as federal outlays in the year of issuance. Those outlays are projected to amount to $12 billion from 2017 through 2026.

Higher Education. Mandatory outlays for higher education fall into three categories: the net costs (on a present-value basis) of student loans originated in a given year, which are frequently estimated to be negative (because expected repayments exceed expected costs); a portion of the costs of Pell grants provided in that year; and spending for some smaller programs.[26] In 2015, total mandatory outlays for higher education were $22 billion. That amount included the following: the budgetary effects of student loans originated last year, which amounted to –$6 billion (on a present-value basis); an increase of $18 billion in the estimated cost of direct and guaranteed loans originated in previous years (also on a present-value basis); and mandatory spending for Pell grants, which totaled $10 billion.[27]

In 2016, CBO estimates, the net costs for new student loans will be –$13 billion, mandatory spending for the Federal Pell Grant Program will be $7 billion, and other spending will be $0.4 billion, resulting in net mandatory outlays for higher education of –$6 billion. In later years, projected mandatory outlays for higher education trend from modestly negative to around zero. In those years, under current law, rising interest rates would, in CBO's estimation, increase the subsidy cost of student loans (making it less negative) to the point that the negative outlays for new student loans would roughly offset the cost of mandatory spending for Pell grants and other higher education programs. (The projected outlays for 2016 and subsequent years do not include any potential revision to the estimated subsidy costs of loans or guarantees made before 2016.)

Additional Mandatory Spending Programs. Other mandatory spending is projected to rise from $55 billion in 2015 to $63 billion in 2016 and then continue rising

24. Conservatorship is the legal process in which an entity is appointed to establish control and oversight of a company to put it in a sound and solvent condition.

25. See Congressional Budget Office, *CBO's Budgetary Treatment of Fannie Mae and Freddie Mac* (January 2010), www.cbo.gov/publication/41887.

26. CBO calculates the subsidy costs for student loans following the procedures specified in the Federal Credit Reform Act of 1990 (FCRA). Under FCRA accounting, the discounted present value of expected income from federal student loans made during the 2016–2026 period is projected to exceed the discounted present value of the government's costs. (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—known as the discount rate—that is used to translate future cash flows into current dollars.) Credit programs that produce net income rather than net outlays are said to have negative subsidy rates, which result in negative outlays. The original subsidy calculation for a set of loans or loan guarantees may be increased or decreased in subsequent years by a credit subsidy reestimate based on an updated assessment of the present value of the cash flows associated with the outstanding loans or loan guarantees.

    FCRA accounting does not, however, consider all costs borne by the government. In particular, it omits market risk—the risk taxpayers face because federal receipts from payments on student loans tend to be low when economic and financial conditions are poor and resources are therefore more valuable. Fair-value accounting methods account for such risk, so the program's savings are less (or its costs are greater) under fair-value accounting than they are under FCRA accounting. For further discussion, see Congressional Budget Office, *Fair-Value Accounting for Federal Credit Programs* (March 2012), www.cbo.gov/publication/43027, and *Costs and Policy Options for Federal Student Loan Programs* (March 2010), www.cbo.gov/publication/21018.

27. Under current law, the Federal Pell Grant Program also receives funding from discretionary appropriations. For 2015, those appropriations totaled $22 billion.

by an average of about 1 percent annually over the rest of the decade. Included in such spending are outlays for a number of different programs; some of those outlays are associated with significant offsetting receipts or revenues collected by the federal government. For example, an average of $15 billion in mandatory outlays each year from 2016 through 2026 is related to the administration of justice, including some activities of the Department of Homeland Security. Most of that spending is offset by revenues and by fees, penalties, fines, and forfeited assets that are credited in the budget as offsetting receipts. An additional $11 billion in annual outlays over the next 10 years stems from the Universal Service Fund and is offset in the federal budget by revenues of similar amounts.[28] Other mandatory spending projected in the coming decade includes the following outlays:

- $6 billion per year for conservation activities on private lands;
- $6 billion per year for grants to states for social services, such as vocational rehabilitation;
- About $4 billion per year in subsidy payments to state and local governments related to the Build America Bonds program for infrastructure improvements; and
- About $3 billion per year in payments to states and territories, primarily from funds generated from mineral production on federal land.

Offsetting Receipts

Offsetting receipts are funds collected by federal agencies from other government accounts or from the public in businesslike or market-oriented transactions that are recorded as negative outlays (that is, as credits against direct spending). Such receipts include beneficiaries' premiums for Medicare, intragovernmental payments made by federal agencies for their employees' retirement benefits, royalties and other charges for the production of oil and natural gas on federal lands, proceeds from sales of timber harvested and minerals extracted from federal lands, payments by Fannie Mae and Freddie Mac (for 2015 and 2016 only), and various fees paid by users of public property and services.

CBO estimates that offsetting receipts will fall from $256 billion in 2015 to $237 billion in 2016. That drop is primarily due to receipts from the Federal Communications Commission's 2015 auction for licenses to use a portion of the electromagnetic spectrum. Some of the proceeds from that auction were collected in 2015 and reduced outlays by $30 billion that year. CBO estimates that additional proceeds from that auction will also reduce outlays in 2016, by $11 billion. Over the coming decade, offsetting receipts are projected to increase by 4 percent each year, on average, rising to $350 billion by 2026 (see Table 3-2 on page 68).

Some offsetting receipts come from sources outside of the federal government, and some are intragovernmental transfers. For example, offsetting receipts for Medicare and for natural resources are paid from sources outside the government, whereas offsetting receipts for federal employees' retirement benefits and for the Medicare-Eligible Retiree Health Care Fund are intragovernmental.

Medicare. Offsetting receipts for Medicare are primarily composed of premiums paid by Medicare beneficiaries, but they also include recoveries of overpayments made to providers and payments made by states to cover a portion of the prescription drug costs for low-income beneficiaries. In 2015, those receipts totaled $94 billion, constituting one-third of all offsetting receipts and covering about 15 percent of gross Medicare spending. Over the coming years, CBO estimates that a larger share of beneficiaries in Parts B and D will pay higher premiums based on their income. As a result, offsetting receipts for Medicare are projected to rise more rapidly than outlays for benefits—at a rate of nearly 8 percent annually, compared with the 6 percent growth rate expected for outlays—and to total $210 billion in 2026.

Federal Employees' Retirement. In 2015, $68 billion in offsetting receipts consisted of intragovernmental transfers from federal agencies to the federal funds from which employees' retirement benefits are eventually paid (mostly trust funds for Social Security and for military and civilian retirement). Those payments from agencies' operating accounts to the funds have no net effect on federal outlays. Such payments are projected to grow by nearly 3 percent per year, on average, CBO estimates, reaching $88 billion in 2026.

28. Created by the Telecommunications Act of 1996, the Universal Service Fund (USF) redistributes income from interstate telecommunications carriers to other carriers that provide services to high-cost areas, low-income households, schools, libraries, and nonprofit health care providers in rural areas. The cash flows from the USF appear in the budget—fund collections, as revenues, and amounts distributed from the fund, as direct spending.

Natural Resources. Receipts stemming from the extraction of natural resources—most significantly oil, natural gas, and minerals—from federally owned lands totaled $11 billion in 2015. By 2026, those receipts are projected to be $17 billion. The royalty payments included in that category fluctuate depending on the price of the commodity extracted.

Medicare-Eligible Retiree Health Care Fund. Intragovernmental transfers are also made to the Department of Defense's MERHCF. Contributions to the fund are made annually on an accrual basis in an amount sufficient to cover the increase in the estimated future costs of retirement benefits for active-duty service members. Such payments totaled $7 billion in 2015 and, because of rising health care costs, are projected to grow to $12 billion by 2026. As with transfers to the federal retirement funds, these transfers have no net effect on total outlays.

Fannie Mae and Freddie Mac. In the first few years after they were placed into conservatorship, the Treasury made payments to Fannie Mae and Freddie Mac; however, over the past few years, those entities have been making payments to the government. The Administration has recorded the payments by the government as outlays and the payments to the government from those two entities as offsetting receipts. To match the reporting for the current year in the *Monthly Treasury Statements*, CBO adopts the Administration's presentation for 2016, but for later years, because of the extent of the government's control over the two entities, CBO treats them as if they were government agencies and considers their transactions with the Treasury to be intragovernmental (and therefore computes the cost of the programs on a net present-value basis and records those costs as mandatory outlays).

In 2015, the Treasury made no payments to those entities and received payments from them totaling $23 billion. CBO estimates that net payments from those entities to the Treasury will amount to $20 billion in 2016.

Assumptions About Legislation for Expiring Programs Incorporated Into the Baseline

In keeping with the rules established by the Deficit Control Act, CBO's baseline projections incorporate the assumption that some mandatory programs will be extended when their authorization expires, although the rules provide for different treatment for programs created before and after the Balanced Budget Act of 1997 (P.L. 105-33). All direct spending programs that predate that act and have current-year outlays greater than $50 million are assumed to continue in CBO's baseline projections. For programs established after 1997, continuation is assessed program by program, in consultation with the House and Senate Budget Committees.

CBO's baseline projections therefore incorporate the assumption that the following programs whose authorization expires within the current projection period will continue: SNAP, TANF, CHIP, rehabilitation services, the Child Care Entitlement, trade adjustment assistance for workers, child nutrition, family preservation and support, and most farm subsidies. In addition, the Deficit Control Act directs CBO to assume that a COLA for veterans' compensation will be granted each year. In CBO's projections, the assumption that expiring programs and that COLA will continue accounts for about $1 trillion in outlays between 2017 and 2026, most of which are for SNAP and TANF (see Table 3-3 on page 82). That amount represents about 3 percent of all mandatory spending net of offsetting receipts.

Discretionary Spending

Roughly one-third of federal outlays in 2016 will stem from budget authority provided in annual appropriation acts.[29] That funding—referred to as discretionary—translates into outlays when the money is spent. Although some appropriations (for example, those designated for employees' salaries) are spent quickly, others (such as those intended for major construction projects) are disbursed over several years. In any given year, discretionary outlays include spending from new budget authority and from budget authority provided in previous appropriations.

Several transportation programs have an unusual budgetary treatment: Their budget authority is provided in authorizing legislation, rather than in appropriation acts, but their spending is constrained by *obligation limitations* imposed by appropriation bills. Consequently, their budget authority is considered mandatory, but their outlays are

29. Budget authority is the authority provided by law to incur financial obligations that will result in immediate or future outlays of federal funds. Budget authority may be provided in an appropriation act or an authorization act and may take the form of a direct appropriation of funds from the Treasury, borrowing authority, contract authority, entitlement authority, or authority to obligate and expend offsetting collections or receipts. Offsetting collections and receipts are shown as negative budget authority and outlays.

discretionary. (The largest of those programs is the Federal-Aid Highway program, which is funded from the Highway Trust Fund.) As a result, total discretionary outlays in the budget are greater than total discretionary budget authority. In some cases, the amounts of those obligation limitations are added to discretionary budget authority to produce a measure of the total *funding* provided for discretionary programs.

The Budget Control Act of 2011 established caps on discretionary spending through 2021 and provided for automatic spending reductions that further reduced those levels. Such limits have since been modified in subsequent legislation; most recently, the Bipartisan Budget Act of 2015 canceled the automatic reductions in discretionary spending for 2016 and 2017 and set caps for those years that are $50 billion and $30 billion higher, respectively, than they would have been if the automatic reductions had occurred. In CBO's baseline projections, most appropriations for the 2016–2021 period are assumed to be constrained by the modified caps. For the period from 2022 through 2026, CBO assumes that those appropriations will grow at the rate of inflation from the amounts estimated for 2021.[30]

By law, however, the caps are adjusted upward when appropriations are provided for certain purposes. Specifically, budget authority provided for military and diplomatic operations in Afghanistan and elsewhere that have been designated as overseas contingency operations (or OCO), responses to events designated as emergencies, disaster relief, or initiatives designed to enhance program integrity by reducing overpayments in some benefit programs leads to increases in the caps (although funding for program integrity and disaster relief is subject to certain limits).[31] CBO developed projections for such funding by assuming that it would grow at the rate of inflation from the amounts appropriated for 2016 and remain within the statutory constraints for program integrity efforts and disaster relief.

Under those assumptions about budget authority, discretionary outlays in CBO's baseline increase in 2016 (largely because the caps are higher than those in effect last year), increase slightly in 2017, and fall slightly in 2018. Starting in 2019, discretionary outlays grow by an average of 2.2 percent each year through 2026. As a share of GDP, discretionary outlays in CBO's baseline projections fall from 6.5 percent in 2016 to 5.2 percent in 2026, a smaller share than in any year since 1962, the first year for which comparable data are available (see Figure 3-4 on page 84).

Discretionary Appropriations and Outlays in 2016

The caps for 2016 total $1,066.6 billion—$548.1 billion for defense programs and $518.5 billion for nondefense programs.[32] The Consolidated Appropriations Act, 2016, provided discretionary budget authority totaling $1,168 billion—$101 billion more than the sum of the two caps (see Table 3-4 on page 85).[33] That additional amount of budget authority includes $74 billion for activities designated as OCO and $9 billion in other funding that triggers cap adjustments, bringing the 2016 cap to a revised total of $1,150 billion, CBO estimates. The remaining $18 billion in budget authority in excess of the adjusted caps stems from changes to mandatory programs, enacted in the Consolidated Appropriations Act, to keep funding within limits set by the caps. (When such reductions in mandatory funding are included in appropriation acts, the savings are credited for budget enforcement purposes against the full amount of discretionary funding provided in those acts.) In CBO's baseline, those changes to mandatory programs are reflected in the relevant mandatory accounts, and the full amount of discretionary budget authority is shown in the discretionary accounts.

In total, discretionary budget authority for 2016 is 4.7 percent more than the $1,116 billion appropriated for 2015. Assuming that no additional appropriations are made, CBO estimates that discretionary outlays will increase in 2016 to about $1,198 billion, which is 2.8 percent—or $33 billion—more than such outlays in 2015 and equal to 6.5 percent of GDP. That sum

30. CBO develops projections of discretionary spending by first inflating the appropriations provided for specific activities in 2016 (or for subsequent years through advance appropriations) and then reducing total projected defense and nondefense funding by the amounts necessary to bring them in line with the caps. In CBO's baseline, discretionary funding related to federal personnel is inflated using the employment cost index for wages and salaries; other discretionary funding is adjusted using the gross domestic product price index.

31. Initiatives related to program integrity identify and reduce improper payments for benefit programs such as DI, SSI, Medicare, Medicaid, and CHIP.

32. See Congressional Budget Office, *Final Sequestration Report for Fiscal Year 2016* (December 2015), www.cbo.gov/publication/51038.

33. Obligation limitations for transportation programs in 2016 total an additional $56 billion, which is roughly $3 billion more than the amount legislated for 2015.

Table 3-3.

Costs for Mandatory Programs That Continue Beyond Their Current Expiration Date in CBO's Baseline

Billions of Dollars

												Total	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2017-2021	2017-2026
Supplemental Nutrition Assistance Program													
Budget authority	0	0	0	73	72	72	72	72	72	73	75	217	581
Outlays	0	0	0	70	72	72	72	72	72	73	74	215	579
Temporary Assistance for Needy Families													
Budget authority	0	17	17	17	17	17	17	17	17	17	17	86	173
Outlays	0	13	16	17	17	17	17	17	17	17	17	79	166
Veterans' Compensation COLAs													
Budget authority	0	1	2	4	7	9	13	14	16	20	23	23	108
Outlays	0	1	2	4	6	9	12	14	15	19	22	22	106
Commodity Credit Corporation[a]													
Budget authority	0	0	0	2	2	9	8	9	9	10	10	13	61
Outlays	0	0	0	1	1	8	8	9	9	10	10	10	56
Children's Health Insurance Program													
Budget authority	0	0	6	6	6	6	6	6	6	6	6	23	51
Outlays	0	0	6	6	6	6	6	6	6	6	6	23	51
Child Care Entitlements to States													
Budget authority	0	3	3	3	3	3	3	3	3	3	3	15	29
Outlays	0	2	3	3	3	3	3	3	3	3	3	14	28
Rehabilitation Services													
Budget authority	0	0	0	0	0	0	0	4	4	4	4	0	16
Outlays	0	0	0	0	0	0	0	2	4	4	4	0	14
Child Nutrition[b]													
Budget authority	0	1	1	1	1	1	1	1	1	1	1	4	10
Outlays	0	1	1	1	1	1	1	1	1	1	1	4	9
Promoting Safe and Stable Families													
Budget authority	0	*	*	*	*	*	*	*	*	*	*	2	3
Outlays	0	*	*	*	*	*	*	*	*	*	*	1	3

Continued

represents the first increase in discretionary outlays following their gradual decline over the 2010–2015 period.

Defense Discretionary Funding and Outlays. Budget authority provided for defense discretionary programs in 2016 totals $607 billion—3.6 percent more than the 2015 amount of $586 billion. (Almost all defense spending is categorized as discretionary.) That amount includes $59 billion in appropriations designated for OCO, $6 billion (or 8.7 percent) less than the sum provided in 2015; the funding provided for OCO includes some amounts intended to be used for regular activities of the Defense Department. The latest drop in defense funding designated for OCO continues a marked decline in such funding, which has fallen by 63 percent (in nominal terms) since 2010. Excluding the amounts for OCO, funding for defense in 2016 is $27 billion (or 5.1 percent) higher than it was last year. As a whole, CBO estimates that discretionary outlays for defense programs will total $589 billion in 2016—1.1 percent more than the 2015 amount (but that increase is 0.4 percent if adjusted for shifts in the timing of certain payments). As a share of GDP, however, such outlays will fall by 0.1 percentage point to 3.2 percent, the lowest level since 2002.

Three major categories of funding for the Department of Defense account for most of the defense appropriation for 2016 (as they have in preceding years): Operation

Table 3-3. Continued

Costs for Mandatory Programs That Continue Beyond Their Current Expiration Date in CBO's Baseline

Billions of Dollars

												Total	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2017-2021	2017-2026
Trade Adjustment Assistance for Workers[c]													
Budget authority	0	0	0	0	0	0	0	1	1	1	1	0	3
Outlays	0	0	0	0	0	0	0	*	1	1	1	0	3
Ground Transportation Programs Not Subject to Annual Obligation Limitations													
Budget authority	0	0	0	0	0	1	1	1	1	1	1	1	4
Outlays	0	0	0	0	0	*	1	1	1	1	1	0	3
Ground Transportation Programs Controlled by Obligation Limitations[d]													
Budget authority	0	0	0	0	0	50	50	50	50	50	50	50	302
Outlays	0	0	0	0	0	0	0	0	0	0	0	0	0
Air Transportation Programs Controlled by Obligation Limitations[d]													
Budget authority	2	3	3	3	3	3	3	3	3	3	3	17	34
Outlays	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Resources													
Budget authority	0	0	0	0	0	0	0	0	0	0	0	0	0
Outlays	0	*	*	*	*	*	*	*	*	*	*	*	*
Total													
Budget authority	**2**	**25**	**33**	**110**	**112**	**172**	**175**	**182**	**184**	**190**	**194**	**451**	**1,376**
Outlays	**0**	**16**	**28**	**101**	**107**	**116**	**120**	**125**	**129**	**135**	**140**	**368**	**1,018**

Source: Congressional Budget Office.

COLAs = cost-of-living adjustments; * = between -$500 million and $500 million.

a. Agricultural commodity price and income supports and conservation programs under the Agricultural Act of 2014 generally expire after 2018. Although permanent price support authority under the Agricultural Adjustment Act of 1938 and the Agricultural Act of 1949 would then become effective, CBO adheres to the rule in section 257(b)(2)(ii) of the Balanced Budget and Emergency Deficit Control Act of 1985 that indicates that the baseline should incorporate the assumption that the provisions of the Agricultural Act of 2014 remain in effect.

b. Includes the Summer Food Service program and states' administrative expenses.

c. Excludes the cost of extending Reemployment Trade Adjustment Assistance.

d. Authorizing legislation for those programs provides contract authority, which is counted as mandatory budget authority. However, because the programs' spending is subject to obligation limitations specified in annual appropriation acts, outlays are considered discretionary.

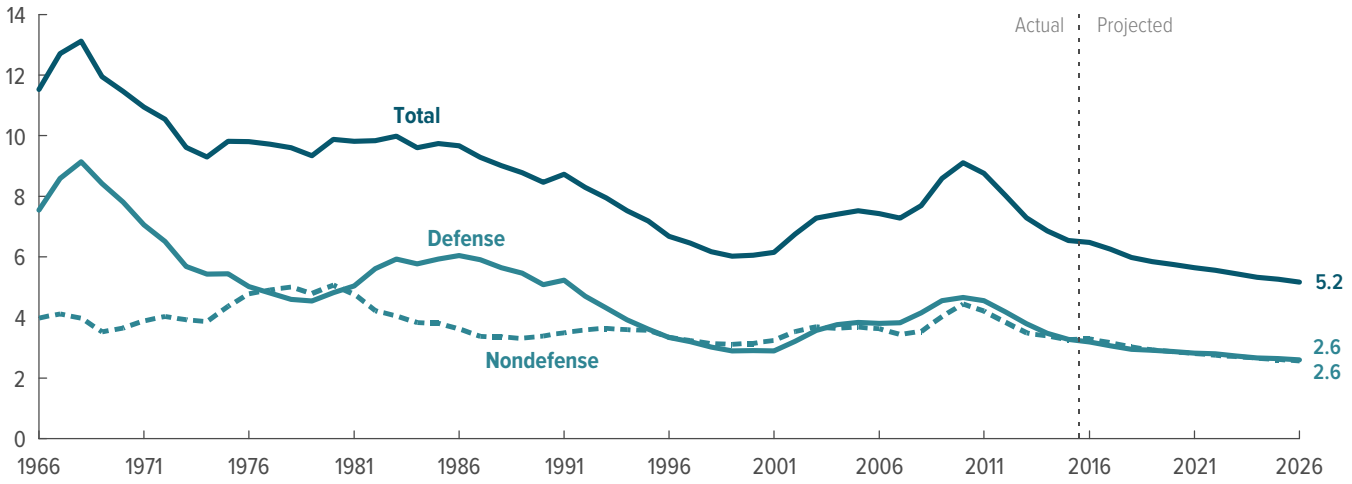
and maintenance ($244 billion), military personnel ($139 billion), and procurement ($119 billion) account for 83 percent of total funding. Research and development ($69 billion) accounts for an additional 11 percent of total funding for defense. The remaining 6 percent of the appropriation comprises funding for military construction, family housing, and other Department of Defense programs ($9 billion); funding for atomic energy activities, primarily within the Department of Energy ($19 billion); and funding for various defense-related programs in other departments and agencies ($8 billion).

Nondefense Discretionary Funding and Outlays. Nondefense discretionary programs encompass a broad array of activities, including transportation, education grants, housing assistance, health-related research, veterans' health care, most homeland security activities, the federal justice system, foreign aid, and environmental protection. Funding for nondefense programs in 2016 totals $618 billion. That amount represents $561 billion in appropriations and $56 billion in obligation limitations for several ground and air transportation programs. The 2016 amount is $37 billion (or 6.3 percent) more than

Figure 3-4.

Discretionary Outlays, by Category

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

the funding provided in 2015. CBO anticipates that nondefense discretionary outlays will rise from $583 billion in 2015 to $609 billion in 2016—an increase of 4.4 percent. As a share of GDP, however, those outlays will remain at the 2015 level of 3.3 percent in 2016.

Seven broad budget categories (referred to as budget functions) account for about 80 percent of the $618 billion in resources provided in 2016 for nondefense discretionary activities (see Table 3-5). Activities related to education, training, employment, and social services received $94 billion, claiming 15 percent of total nondefense discretionary funding.[34] Transportation programs accounted for $89 billion (including appropriations and obligation limitations), or 14 percent of the total. Programs related to veterans' benefits and services received $72 billion (or 12 percent); income-security programs received $67 billion (or 11 percent); and health programs received $60 billion (or 10 percent). Programs related to international affairs and to administration of justice each accounted for $55 billion, or 9 percent of total nondefense discretionary spending.[35]

34. Spending for student loans and for several other federal programs in the category of education, training, employment, and social services is not included in that total because funding for those programs is considered mandatory.

35. Some significant income-security programs, such as unemployment compensation and TANF, are not reflected in that total because they are included in mandatory spending.

Projections for 2017 Through 2026

CBO's projections reflect the assumption that most discretionary appropriations will be constrained at levels specified in the Budget Control Act of 2011 (as modified)—including the automatic spending reductions required by that act—and that the caps will be adjusted to accommodate additional appropriations designated for OCO and other activities that are not constrained by the caps.

For 2017, the caps are now set at $551 billion for defense and $519 billion for nondefense activities, for a total of $1,070 billion—about $3 billion (or 0.3 percent) higher than the 2016 caps (prior to adjustments for appropriations for OCO and other activities not constrained by the caps). In addition, for 2017 CBO projects funding totaling $85 billion (equal to the 2016 amounts after they are adjusted for inflation) for OCO and other activities not constrained by the caps, bringing total projected discretionary appropriations for that year to $1,154 billion—$611 billion for defense and $543 billion for nondefense activities. Those amounts represent a $4 billion (or 0.7 percent) increase in defense appropriations and an $18 billion (or 3.2 percent) reduction in nondefense funding for a total net reduction of $14 billion (or 1.2 percent) from the 2016 appropriation. Most of that reduction occurs because the budget authority enacted for 2016 includes the amount that was offset by reductions in mandatory programs; similar actions are not assumed in the baseline for subsequent years. (However,

Table 3-4.

Changes in Discretionary Budget Authority From 2015 to 2016

Billions of Dollars

	Actual, 2015	Estimated, 2016	Percentage Change
Defense			
Funding constrained by caps	521	548	5.1
Overseas contingency operations	64	59	-8.7
Other cap adjustments	*	0	n.a.
Subtotal	586	607	3.6
Nondefense			
Funding constrained by caps	507	537	5.9
Overseas contingency operations	9	15	60.9
Other cap adjustments	13	9	-29.6
Subtotal	530	561	5.9
Total Discretionary Budget Authority			
Funding constrained by caps	1,029	1,085	5.5
Overseas contingency operations	74	74	**
Other cap adjustments	13	9	-30.2
Total	**1,116**	**1,168**	**4.7**

Source: Congressional Budget Office.

Excludes budgetary resources provided by obligation limitations for certain ground and air transportation programs.

Budget authority designated as an emergency requirement or provided for overseas contingency operations leads to an increase in the caps, as does budget authority provided for some types of disaster relief or for certain program integrity initiatives.

n.a. = not applicable; * = between zero and $500 million; ** = between zero and 0.05 percent.

since 2012, the first year when caps specified in the Budget Control Act applied to discretionary spending, the amount of such mandatory offsets included in annual appropriation acts has averaged about $18 billion a year.)

CBO estimates that the caps for 2018 (before adjustments for OCO and other activities not constrained by the caps) will total $1,065 billion—about $5 billion (or 0.5 percent) less than the 2017 caps.[36] All told, discretionary appropriations for both defense and nondefense programs in 2018 are projected to fall below their 2017 levels, by about $1 billion and $3 billion, respectively (about a 0.3 percent decline overall), and total $1,151 billion. Starting in 2019, the caps—and total discretionary appropriations—are projected to grow at an average rate of 2.5 percent per year.

Under those assumptions regarding the caps, CBO estimates, discretionary outlays would increase by 0.7 percent in 2017, primarily as a result of spending from the larger appropriations in 2016. Discretionary outlays are then projected to dip by 0.2 percent in 2018, mirroring the slight reduction in the caps for that year. In CBO's baseline projections, discretionary outlays grow at an average rate of about 2.2 percent annually over the 2019–2026 period, following the projected growth in funding. Because that pace is well below the expected growth rate of nominal GDP, discretionary outlays are projected to fall steadily in relation to the size of the economy, from 6.5 percent of GDP in 2016 to 5.2 percent in 2026.

Alternative Paths for Discretionary Spending

Total funding for discretionary activities in 2016 will amount to about $1,224 billion, CBO estimates—$1,168 billion in budget authority and $56 billion in transportation-related obligation limitations. In CBO's baseline projections, discretionary funding is projected for subsequent years on the basis of the amounts and procedures prescribed in the Budget Control Act of 2011 (as amended). If the policies governing discretionary appropriations changed, funding could differ greatly from the baseline projections. To illustrate such potential

36. See Congressional Budget Office, *Final Sequestration Report for Fiscal Year 2016* (December 2015), www.cbo.gov/publication/51038.

Table 3-5.

Changes in Nondefense Discretionary Funding From 2015 to 2016

Billions of Dollars

Budget Function	Actual, 2015	Estimated, 2016	Change
Education, Training, Employment, and Social Services	92	94	3
Transportation[a]	85	89	4
Veterans' Benefits and Services	64	72	8
Income Security	66	67	2
Health	56	60	3
Administration of Justice	52	55	3
International Affairs	51	55	4
Natural Resources and Environment	35	37	3
General Science, Space, and Technology	29	31	2
Community and Regional Development	17	18	1
General Government	19	18	-1
Medicare	6	7	*
Agriculture	6	6	*
Social Security	5	6	1
Energy	5	6	1
Commerce and Housing Credit	-6	-3	3
Total	**581**	**618**	**37**

Source: Congressional Budget Office.

* = between zero and $500 million.

a. Includes budgetary resources provided by obligation limitations for certain ground and air transportation programs.

differences, CBO has estimated the budgetary consequences of three alternative paths for discretionary funding (see Table 3-6).

For the first alternative scenario, CBO assumed that most discretionary funding and obligation limitations would grow at the rate of inflation after 2016—an assumption that is consistent with the guidelines in the Deficit Control Act regarding account-level baseline projections. If that occurred, discretionary outlays would grow steadily by an average of 2.4 percent a year and surpass CBO's baseline projections by $757 billion (or 5.8 percent) over the 2017–2026 period; discretionary spending would equal 5.5 percent of GDP in 2026.

The second scenario reflects the assumption that most discretionary budget authority and obligation limitations—including funding designated for OCO and other activities that are exempt from caps—would be frozen at the 2016 level for the entire projection period.[37] In that case, discretionary outlays would remain relatively flat over the 10-year period, total $746 billion (or 5.7 percent) less than those projected in the baseline, and fall to 4.4 percent of GDP by 2026.

Finally, CBO projected what would occur if lawmakers canceled the automatic reductions in the discretionary caps prescribed by the Budget Control Act. (In this scenario, projections of funding designated for OCO and other activities that are not constrained by the caps are assumed to grow with inflation unless constrained by other provisions of the Budget Control Act.) Overall, results under this scenario are similar to those under the scenario in which appropriations are assumed to grow with inflation: Total outlays over the 2017–2026 period exceed the amount projected in CBO's baseline by $764 billion (or 5.9 percent).

Net Interest

In 2015, net outlays for interest were $223 billion, about $6 billion less than the amount spent in 2014. However, CBO estimates that net outlays will increase by almost $32 billion in 2016, to a total of $255 billion, rising from 1.3 percent of GDP in 2015 to 1.4 percent in 2016.

37. Some items, such as offsetting collections and payments made by the Treasury on behalf of the Department of Defense's TRICARE for Life program, would not be held constant.

Table 3-6.

CBO's Projections of Discretionary Spending Under Selected Policy Alternatives

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
CBO's January 2016 Baseline (Budget Control Act Caps and Automatic Enforcement Procedures in Effect Through 2021)														
Budget Authority														
Defense	586	607	611	610	624	640	655	671	687	704	722	739	3,140	6,663
Nondefense	530	561	543	540	554	568	581	595	610	625	641	657	2,786	5,916
Total	1,116	1,168	1,154	1,150	1,178	1,208	1,236	1,266	1,298	1,330	1,363	1,396	5,926	12,579
Outlays														
Defense	582	589	592	593	609	623	638	657	669	680	702	719	3,055	6,481
Nondefense	583	609	614	610	613	624	636	649	664	679	695	710	3,098	6,494
Total	1,165	1,198	1,206	1,203	1,222	1,248	1,274	1,307	1,332	1,358	1,397	1,429	6,152	12,975
Increase Discretionary Appropriations at the Rate of Inflation After 2016[a]														
Budget Authority														
Defense	586	607	620	635	650	666	682	699	717	734	753	772	3,254	6,928
Nondefense	530	561	577	592	608	624	640	657	673	691	708	726	3,041	6,496
Total	1,116	1,168	1,197	1,227	1,258	1,290	1,323	1,356	1,390	1,425	1,461	1,497	6,295	13,423
Outlays														
Defense	582	589	598	611	631	648	664	685	697	709	732	750	3,151	6,724
Nondefense	583	609	632	648	659	675	691	707	723	740	759	776	3,304	7,009
Total	1,165	1,198	1,229	1,258	1,290	1,323	1,355	1,392	1,420	1,449	1,490	1,526	6,455	13,732
Freeze Most Discretionary Appropriations at the 2015 Amount[b]														
Budget Authority														
Defense	586	607	607	608	608	609	609	610	610	611	611	612	3,041	6,095
Nondefense	530	561	566	567	567	568	569	569	569	569	569	567	2,837	5,678
Total	1,116	1,168	1,173	1,174	1,176	1,177	1,178	1,178	1,179	1,179	1,180	1,179	5,878	11,773
Outlays														
Defense	582	589	590	591	598	600	601	605	602	598	603	603	2,980	5,992
Nondefense	583	609	625	628	625	625	625	624	623	622	621	619	3,129	6,237
Total	1,165	1,198	1,215	1,220	1,223	1,226	1,226	1,229	1,224	1,220	1,224	1,222	6,109	12,229
Prevent the Automatic Spending Reductions Specified in the Budget Control Act[c]														
Budget Authority														
Defense	586	607	611	664	678	693	709	726	744	762	781	800	3,355	7,170
Nondefense	530	561	543	578	590	603	616	631	647	663	679	696	2,930	6,246
Total	1,116	1,168	1,154	1,242	1,268	1,297	1,325	1,357	1,391	1,425	1,461	1,497	6,285	13,416
Outlays														
Defense	582	589	592	627	655	673	689	712	724	737	760	778	3,236	6,946
Nondefense	583	609	614	630	643	657	670	684	699	715	732	748	3,215	6,792
Total	1,165	1,198	1,206	1,257	1,298	1,331	1,359	1,396	1,423	1,451	1,492	1,526	6,451	13,739

Source: Congressional Budget Office.

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.

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

b. This option reflects the assumption that appropriations generally would be frozen at the 2016 level through 2026. Some items, such as offsetting collections and payments made by the Treasury on behalf of the Department of Defense's TRICARE for Life program, would not be held constant.

c. 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 (and mandatory spending through 2025). Those procedures take the form of equal cuts (in dollar terms) in funding for defense and nondefense programs. The Bipartisan Budget Act of 2015 canceled those procedures for 2016 and 2017, but they will take effect again in 2018 and reduce discretionary spending over the 2018–2021 period. In its projections for the 2022–2025 period, CBO assumes that appropriations will grow at the rate of inflation from the amounts estimated for 2021.

Net interest outlays are dominated by the interest paid to holders of the debt that the Department of the Treasury issues to the public. The Treasury also pays interest on debt issued to trust funds and other government accounts, but such payments are intragovernmental transactions that have no effect on the budget deficit. Other federal accounts also pay and receive interest for various reasons.[38]

The federal government's interest payments depend primarily on market interest rates and the amount of debt held by the public; however, other factors, such as the rate of inflation for Treasury Inflation-Protected Securities and the maturity structure of outstanding securities, also affect interest costs. (For example, longer-term securities generally pay higher interest than do shorter-term securities.) Interest rates are determined by a combination of market forces and the policies of the Federal Open Market Committee. Debt held by the public is determined mostly by cumulative budget deficits, which depend on policy choices about noninterest spending and revenues as well as on economic conditions and other factors. At the end of 2015, debt held by the public reached $13.1 trillion, and in CBO's baseline, it is projected to total $23.8 trillion in 2026. (For detailed projections of debt held by the public, see Table 3-1 on page 64.)

Although debt held by the public surged in the past few years to its highest levels relative to GDP since the early 1950s, the government's interest costs measured as a percentage of GDP have remained low because interest rates on Treasury securities have been remarkably low. Average rates on 3-month Treasury bills plummeted from nearly 5 percent in 2007 to 0.1 percent in 2010 and have remained at or below 0.1 percent since then. Similarly, average rates on 10-year Treasury notes dropped from nearly 5 percent in 2007 to a low of 1.9 percent in 2012; since then, those rates have generally remained steady, increasing slightly in 2015 to 2.2 percent. As a result of those low rates, outlays for net interest fell from 1.7 percent of GDP in 2007 to 1.3 percent in 2015, even though debt held by the public increased by 160 percent over that period. By comparison, such outlays averaged about 3 percent of GDP in the 1980s and 1990s.

38. See Congressional Budget Office, *Federal Debt and Interest Costs* (December 2010), www.cbo.gov/publication/21960.

Baseline Projections of Net Interest

Net interest costs consist of gross interest (the amounts paid on all of the Treasury's debt issuances) minus interest payments received by trust funds (which are intragovernmental transfers) and from other sources. Under CBO's baseline assumptions, net interest costs are projected to more than triple over the next decade—surging from $255 billion in 2016 to $830 billion in 2026. One reason for that increase is that debt held by the public is projected to rise by 70 percent (in nominal terms) over the next 10 years (see Figure 3-5).[39] More significantly, the interest rate paid on 3-month Treasury bills is anticipated to increase from 0.04 percent in the last quarter of 2015 to 3.2 percent by mid-2019 (and remain there through 2026); the interest rate on 10-year Treasury notes is projected to rise from 2.2 percent in the last quarter of 2015 to 4.1 percent by late 2019 (and remain there through 2026). (For a more detailed discussion of CBO's forecast for interest rates, refer to Chapter 2.) As a result, under current law, net interest outlays are projected to reach 3.0 percent of GDP in 2026.

Gross Interest

In 2015, interest paid by the Treasury on all of its debt issuances totaled $402 billion (see Table 3-7). More than one-third of that total, $141 billion, represents payments to trust funds within the federal government; the remainder is paid to owners of Treasury debt issued to the public. In CBO's baseline, gross interest payments increase to $437 billion in 2016 and total $1.1 trillion in 2026. About 70 percent of that amount is interest paid on debt held by the public.

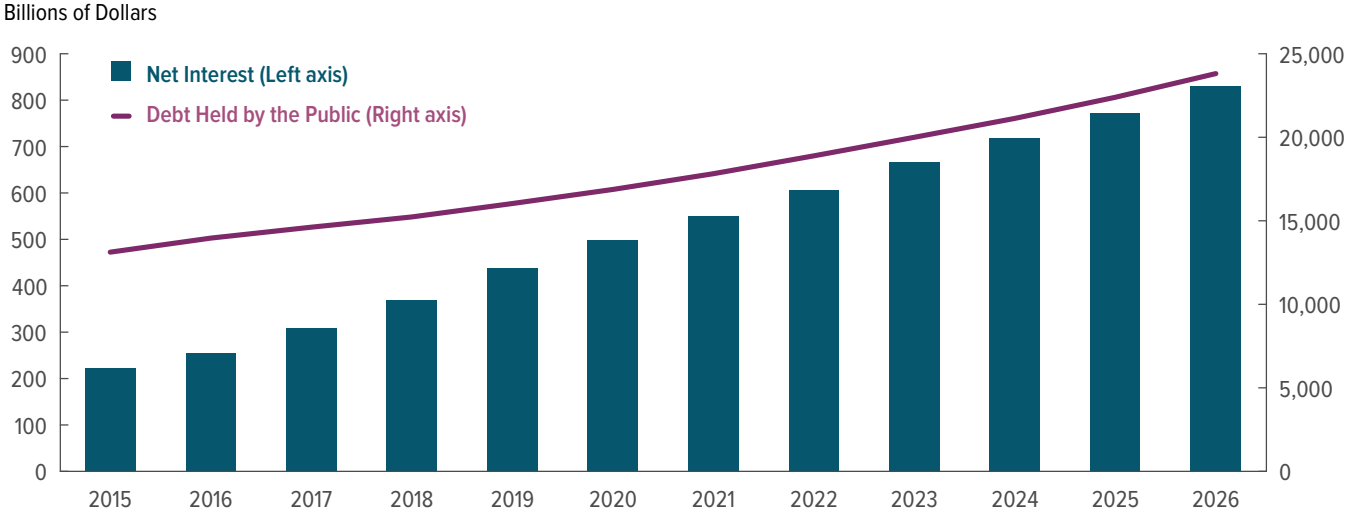
Interest Received by Trust Funds

As of the end of 2015, the Treasury has issued $5.0 trillion in securities to federal trust funds and other government accounts. Trust funds are the predominant holders of such securities, owning 90 percent of them. The interest paid on those securities has no net effect on federal spending because it is credited to accounts elsewhere in the budget. In 2016, trust funds will be credited with $141 billion of such intragovernmental interest, CBO estimates, mostly for the trust funds for Social Security, military retirement, civil service retirement, and disability insurance. The intragovernmental interest credited to the

39. Debt held by the public does not include securities issued by the Treasury to federal trust funds and other government accounts. Those securities are included as part of the measure of gross debt. (For further details, see Chapter 1.)

Figure 3-5.

Projected Debt Held by the Public and Net Interest



Source: Congressional Budget Office.

trust funds is projected to peak at $161 billion in 2021 as interest rates rise and then decline to $151 billion in 2026 as the balances held by the funds decrease.

Other Interest

CBO anticipates that the government will record $40 billion in net receipts of other interest in 2016 and projects that such receipts will total $619 billion over the 2017–2026 period, representing the net result of many transactions, both collections and payments of interest.

The largest interest collections come from the government's credit financing accounts, which were established to record the cash transactions related to federal direct loan and loan guarantee programs. For those programs, net subsidy costs are recorded in the budget, but the cash flows that move through the credit financing accounts are not. Credit financing accounts both pay interest to and receive interest from Treasury accounts that appear in the budget, but on net, they pay more interest to the Treasury than they receive from it. CBO estimates that net receipts from the credit financing accounts will total $32 billion in 2016; in CBO's baseline, they steadily increase to $54 billion in 2026. Interest payments associated with the direct student loan program dominate those totals.

Table 3-7.

Federal Interest Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Interest on Treasury Debt Securities (Gross interest)[a]	402	437	498	569	650	716	774	831	891	946	1,000	1,059	3,207	7,933
Interest Received by Trust Funds														
Social Security	-96	-92	-87	-88	-89	-89	-88	-85	-82	-78	-72	-64	-441	-822
Other[b]	-45	-49	-56	-61	-69	-71	-73	-74	-75	-78	-81	-87	-330	-726
Subtotal	-141	-141	-144	-148	-157	-160	-161	-159	-157	-156	-154	-151	-770	-1,547
Other Interest[c]	-38	-40	-46	-51	-54	-57	-61	-64	-67	-70	-74	-77	-267	-619
NRRIT Investment Income (Non-Treasury holdings)[d]	*	*	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-4	-8
Net Interest Outlays	**223**	**255**	**308**	**369**	**438**	**498**	**551**	**607**	**666**	**719**	**772**	**830**	**2,165**	**5,759**

Source: Congressional Budget Office.

NRRIT = National Railroad Retirement Investment Trust; * = between -$500 million and $500 million.

a. Excludes interest costs on debt issued by agencies other than the Treasury (primarily the Tennessee Valley Authority).

b. Mainly the Civil Service Retirement, Military Retirement, Medicare, and Unemployment Insurance Trust Funds.

c. Primarily interest on loans to the public.

d. Earnings on investments by the NRRIT, an entity created to manage and invest assets of the Railroad Retirement program.

CHAPTER

4

The Revenue Outlook

The Congressional Budget Office projects that, if current laws generally remain unchanged, total revenues will rise by about 4 percent in 2016, reaching almost $3.4 trillion. Revenues are expected to rise just slightly as a percentage of gross domestic product (GDP)—from 18.2 percent in 2015 to 18.3 percent in 2016—following five consecutive years in which revenues rose significantly as a percentage of GDP (see Figure 4-1). In CBO's baseline projections for 2017 through 2026, revenues remain relatively stable as a share of the economy, ranging from 17.9 percent to 18.2 percent of GDP—higher than the 50-year average of 17.4 percent of GDP. Revenues over that historical period had been as high as 20.0 percent of GDP (in 2000) and as low as 14.6 percent (in 2009 and 2010).

Revenues are projected to change little as a percentage of GDP between 2015 and 2016 because of the offsetting effects of small increases and decreases in various sources of revenues. The most significant increases in revenues in 2016 come from individual income tax receipts and remittances from the Federal Reserve System; revenues from both of those sources are expected to edge up by 0.1 percentage point relative to GDP. However, a decline in corporate income tax revenues as a percentage of GDP is expected to largely offset those increases. The projected increase in receipts from individual income taxes occurs mainly because people's income is expected to rise faster than inflation, pushing more income into higher tax brackets, which are indexed only to inflation. That phenomenon, known as real bracket creep, occurs in most years when the economy expands. The small upward shift in Federal Reserve remittances and the small downward shift in corporate income tax receipts relative to GDP stem largely from the expected effects of recently enacted legislation.

Beyond 2016, revenues are projected to decline slightly, to 17.9 percent of GDP by 2019, and then rise to 18.2 percent of GDP by 2026. The relative stability exhibited from 2017 to 2026 mainly reflects offsetting movements in four sources of revenues:

- *Individual income tax receipts* are projected to increase relative to GDP in each year because of real bracket creep, an expected increase in the share of wages and salaries earned by higher-income taxpayers, rising distributions from tax-deferred retirement accounts, and other factors.

- *Remittances from the Federal Reserve to the Treasury* are projected to decline to more typical amounts relative to GDP. They have been very large since 2010 because of substantial changes in the size and composition of the central bank's portfolio and will be further boosted in 2016 because of a recent change in law.

- *Corporate income tax receipts* are projected to decline as a percentage of GDP largely because of an expected drop in domestic economic profits relative to the size of the economy, the result of rising costs of labor, higher interest payments on businesses' debt, and other factors.

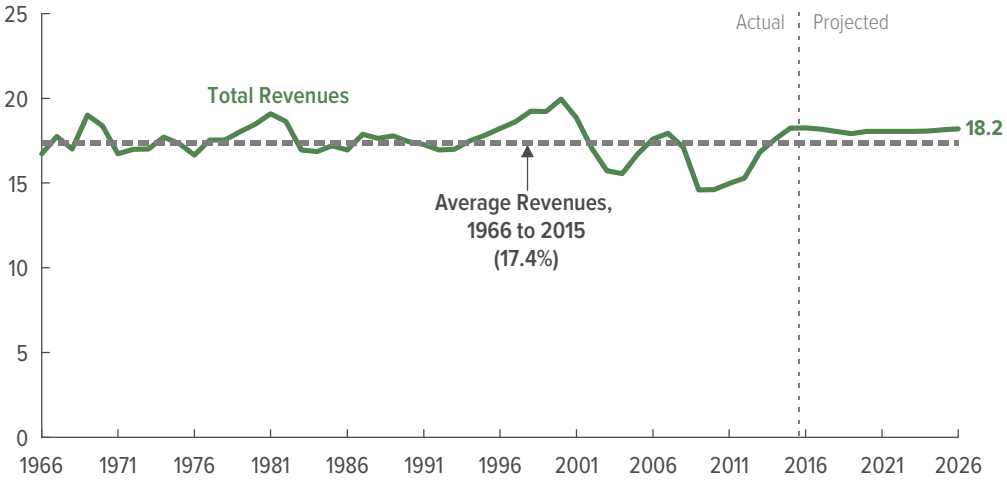
- *Payroll tax receipts* are projected to decline slightly relative to GDP over the next decade, primarily as a result of an expected continued increase in the share of wages earned by higher-income taxpayers; that increase will cause a greater share of wages to be above the maximum amount subject to Social Security payroll taxes. The resulting reduction in payroll taxes offsets about three-fifths of the expected increase in individual income tax receipts that is expected to occur for the same reason.

CBO's revenue projections for the 2016–2025 period are lower than those the agency released in August 2015. At that time, CBO published revenue projections for the 2015–2025 period; the projections in this report cover the 2016–2026 period. For the overlapping years—2016 through 2025—the current projections are below the previous ones by $1.2 trillion (or about 3 percent). About three-fifths of that change stems from changes to the agency's economic forecast, primarily to projections of GDP and the types of income that comprise GDP, such

Figure 4-1.

Total Revenues

Percentage of Gross Domestic Product



CBO projects that, under current law, total revenues over the next decade would remain relatively stable as a share of GDP because of the offsetting effects of changes in various sources of revenues.

Source: Congressional Budget Office.

GDP = gross domestic product.

as wages and salaries, corporate profits, and proprietors' income. Most of the rest stems from the recent extension of expired tax provisions and other legislative changes. (For more information on changes to the revenue projections since August, see Appendix A.)

In mid-December 2015, after CBO had completed the economic forecast that underlies its budget projections for this report, lawmakers enacted legislation that affected certain aspects of the economic outlook. Consequently, CBO's economic forecast has been updated to reflect the enactment of that legislation, as well as economic developments through the end of the year; that updated forecast is presented in this report. However, the agency did not have enough time to incorporate those subsequent changes to its economic forecast into its budget projections for fiscal years 2016 through 2026. Therefore, even though the budget projections in this report include the direct budgetary effects of legislation enacted through December, they are based on the economic forecast CBO completed in early December. CBO's next set of budget projections, which will be issued in March, will be based on the economic forecast that the agency completed at the end of December and will also incorporate revisions derived from information that becomes available when the President's budget is published and from other sources. A preliminary analysis at this point suggests that if CBO had incorporated that updated economic forecast into its budget projections, revenues in the baseline would be between $100 billion and $200 billion (or 0.2 percent to 0.4 percent) higher over the 2016–2026 period than they are currently projected to be.

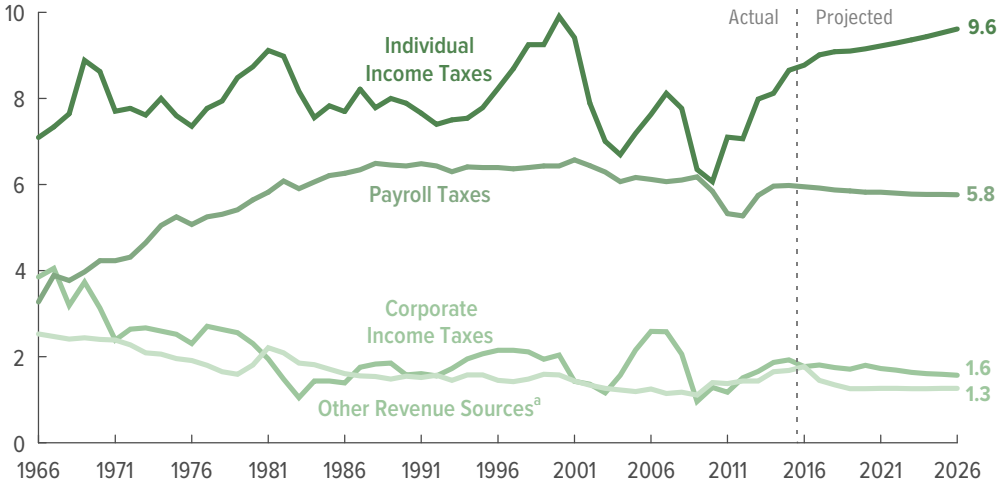
The tax rules that form the basis of CBO's projections include an array of exclusions, deductions, preferential rates, and credits that reduce revenues for any given level of tax rates, in both the individual and corporate income tax systems. Some of those provisions are called tax expenditures because,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

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

Figure 4-2.

Revenues, by Major Source

Percentage of Gross Domestic Product



Over the next decade, individual income taxes are projected to grow at a faster rate than other major tax sources, most significantly because of "real bracket creep," which occurs when income grows faster than inflation and more income is pushed into higher tax brackets.

Source: Congressional Budget Office.

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

- The deferral for profits earned abroad, which certain corporations may exclude from their taxable income until those profits are returned to the United States.

On the basis of estimates prepared by the staff of the Joint Committee on Taxation (JCT), which were published before the enactment of the Consolidated Appropriations Act, 2016 (Public Law 114-113), and do not include numerous changes made by that law that affect tax expenditures, CBO expects that those and other tax expenditures will total almost $1.5 trillion in 2016. That amount equals 7.9 percent of GDP—more than 40 percent of the revenues projected for the year. Most of that amount arises from the 10 largest tax expenditures, which CBO estimates would total 5.9 percent of GDP in 2016 and 6.2 percent of GDP from 2017 to 2026.

CBO's revenue projections since 1982 have, on average, been a bit too high—more so for projections spanning six years than for those spanning two—owing mostly to the difficulty of predicting when economic downturns will occur. However, their overall accuracy has been similar to that of the projections of other agencies.

The Evolving Composition of Revenues

Federal revenues come from various sources: individual income taxes; payroll taxes, which are dedicated to certain social insurance programs; corporate income taxes; excise taxes; earnings of the Federal Reserve System, which are remitted to the Treasury; customs duties; estate and gift taxes; and miscellaneous fees and fines. Individual income taxes constitute the largest source of federal revenues, having contributed, on average, about 45 percent of total revenues (equal to 7.9 percent of GDP) over the past 50 years. Payroll taxes—mainly for Social Security and Medicare Part A (the Hospital Insurance program)—are the second-largest source of revenues, averaging about one-third of total revenues (equal to 5.7 percent of GDP) over the same period. Corporate income taxes constituted 12 percent of revenues (or 2.1 percent of GDP) over the past 50 years, and all other sources combined contributed about 10 percent of revenues (or 1.7 percent of GDP).

Although that broad picture has remained roughly the same over the past several decades, the details have varied.

- Receipts from individual income taxes have fluctuated significantly over the past five decades, ranging from 41 percent to 50 percent of total revenues (and from 6.1 percent to 9.9 percent of GDP) between 1966 and 2015. Those fluctuations are attributable to changes in the economy and changes in law over that period, but show no consistent trend over time (see Figure 4-2).

- Receipts from payroll taxes rose as a share of revenues from the mid-1960s through the 1980s—largely because of an expansion of payroll taxes to finance the Medicare program (which was established in 1965) and because of legislated increases in tax rates for Social Security and in the amount of income to which those taxes applied. Those receipts accounted for about 37 percent of total revenues (and about 6.5 percent of GDP) by the late 1980s. Since 2001, payroll tax receipts have fallen slightly relative to the size of the economy, averaging 6.0 percent of GDP. That period includes two years, 2011 and 2012, when receipts fell because certain payroll tax rates were cut.

- Revenues from corporate income taxes declined as a share of total revenues and GDP from the 1960s to the mid-1980s, mainly because of declining profits relative to the size of the economy. Those revenues have fluctuated widely since then, the result both of changes in the economy and changes in law, with no consistent trend.

- Revenues from the remaining sources, particularly excise taxes, have slowly fallen relative to total revenues and GDP. However, that downward trend has reversed in the past several years because of the increase in remittances from the Federal Reserve System.

If current law generally remained in effect—an assumption underlying CBO's baseline—individual income taxes would generate a growing share of revenues over the next decade, CBO projects. By 2018, they would account for more than half of total revenues, and by 2026 they would reach 9.6 percent of GDP, well above the historical average. Receipts from payroll taxes are projected to decline slightly relative to GDP, from 6.0 percent in 2015 to 5.8 percent for the period from 2020 to 2026. Corporate income taxes would make a slightly lower contribution than they have made on average for the past 50 years, supplying about 9 percent of total revenues and averaging about 1.7 percent of GDP over the 2016–2026 period. Taken together, the remaining sources of revenue are projected to diminish somewhat relative to total revenues and GDP, averaging 1.3 percent of GDP from 2016 through 2026, largely because remittances from the Federal Reserve are expected to fall to more typical levels.

Individual Income Taxes

In 2015, receipts from individual income taxes totaled more than $1.5 trillion, or 8.7 percent of GDP. Under current law, individual income taxes in 2016 will total more than $1.6 trillion, CBO estimates—5 percent more than the amount collected in 2015. That percentage increase would be slightly greater than the 4 percent increase expected for GDP, and individual income tax receipts would edge up to 8.8 percent of GDP. If current laws generally remained unchanged, CBO projects, those receipts would continue to rise as a share of the economy after this year, reaching 9.6 percent of GDP by 2026, which would be the highest percentage since 2000 and well above the 50-year average of 7.9 percent (see Table 4-1).

In CBO's baseline, receipts climb in 2016 and beyond, in part as a result of projected growth in taxable personal income. (That measure of income includes wages, salaries, dividends, interest, rental income, and proprietors' income—each of which is defined by the Bureau of Economic Analysis for use in its national income and product accounts.) According to CBO's projections, taxable personal income would grow at a rate of 4 percent to 4½ percent per year over the next decade, roughly corresponding to expected growth in nominal GDP. However, receipts from individual income taxes are projected to rise even faster than taxable personal income—boosting receipts relative to GDP by 0.8 percentage points from 2016 to 2026. That increase relative to the size of the economy would result from real bracket creep, relatively faster growth in the earnings of higher-income taxpayers, rising taxable distributions from retirement accounts, and other factors.

Real Bracket Creep

The most significant factor pushing up taxes relative to income is real bracket creep. That phenomenon occurs because the income tax brackets and exemptions under both the regular income tax and the alternative minimum tax are indexed only to inflation.[1] If income grows faster than inflation, as generally occurs when the economy is growing, more income is pushed into higher tax brackets. That factor causes projected revenues measured as a percentage of GDP to rise in CBO's baseline by 0.4 percentage points from 2016 to 2026.

1. 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.

Table 4-1.

Revenues Projected in CBO's Baseline

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
							In Billions of Dollars							
Individual Income Taxes	1,541	1,621	1,739	1,827	1,902	1,987	2,084	2,184	2,292	2,406	2,529	2,657	9,539	21,608
Payroll Taxes	1,065	1,101	1,143	1,182	1,222	1,264	1,314	1,365	1,417	1,471	1,531	1,593	6,126	13,503
Corporate Income Taxes	344	327	348	353	358	391	391	397	402	410	421	434	1,842	3,907
Other														
Excise taxes	98	97	90	104	106	107	110	112	114	116	118	120	517	1,097
Federal Reserve remittances	96	113	69	46	34	36	40	44	49	53	59	64	225	493
Customs duties	35	36	37	39	41	43	45	46	48	51	54	58	205	463
Estate and gift taxes	19	20	21	22	23	23	24	25	26	27	29	30	113	250
Miscellaneous fees and fines	50	61	63	61	61	64	67	70	72	75	77	79	316	689
Subtotal	299	327	280	272	264	274	287	298	310	322	337	351	1,376	2,993
Total	**3,249**	**3,376**	**3,511**	**3,633**	**3,747**	**3,917**	**4,076**	**4,244**	**4,421**	**4,610**	**4,818**	**5,035**	**18,883**	**42,010**
On-budget	2,478	2,580	2,682	2,774	2,859	2,999	3,126	3,260	3,401	3,552	3,720	3,895	14,441	32,269
Off-budget[a]	770	796	829	859	888	917	949	984	1,020	1,058	1,098	1,139	4,442	9,741
Memorandum:														
Gross Domestic Product	17,810	18,494	19,297	20,127	20,906	21,710	22,593	23,528	24,497	25,506	26,559	27,660	104,632	232,382
							As a Percentage of Gross Domestic Product							
Individual Income Taxes	8.7	8.8	9.0	9.1	9.1	9.2	9.2	9.3	9.4	9.4	9.5	9.6	9.1	9.3
Payroll Taxes	6.0	6.0	5.9	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.9	5.8
Corporate Income Taxes	1.9	1.8	1.8	1.8	1.7	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.8	1.7
Other														
Excise taxes	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5
Federal Reserve remittances	0.5	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Customs duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Estate and gift taxes	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Miscellaneous fees and fines	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Subtotal	1.7	1.8	1.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Total	**18.2**	**18.3**	**18.2**	**18.1**	**17.9**	**18.0**	**18.0**	**18.0**	**18.0**	**18.1**	**18.1**	**18.2**	**18.0**	**18.1**
On-budget	13.9	13.9	13.9	13.8	13.7	13.8	13.8	13.9	13.9	13.9	14.0	14.1	13.8	13.9
Off-budget[a]	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.2	4.2

Source: Congressional Budget Office.

a. Receipts from Social Security payroll taxes.

Relatively Faster Growth in Earnings of Higher-Income Taxpayers

In CBO's baseline projections, earnings from wages and salaries are expected to increase faster for higher-income people than for others during the next decade—as has been the case for the past several decades—causing a larger share of income to be subject to higher income tax rates. For example, the share of wages earned by the top one-fifth of workers is projected to increase by about 4 percentage points, from 57 percent to 61 percent, between 2015 and 2026. Over the next 10 years, CBO projects, faster growth in earnings for higher-income people would boost estimated individual income tax revenues relative to GDP by about 0.3 percentage points; that increase would be partially offset by a projected decrease in payroll tax receipts, as explained in the section about payroll taxes.

Retirement Income

As the population ages, taxable distributions from tax-deferred retirement accounts will tend to grow more rapidly than GDP. CBO expects the retirement of members of the baby-boom generation to cause a gradual increase in distributions from tax-deferred retirement accounts,

Table 4-2.

Payroll Tax Revenues Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Social Security	770	796	829	859	888	917	949	984	1,020	1,058	1,098	1,139	4,442	9,741
Medicare	234	248	260	271	282	294	306	319	333	348	364	380	1,413	3,157
Unemployment Insurance	51	47	45	41	42	42	47	49	51	51	56	58	217	482
Railroad Retirement	6	6	6	6	6	7	7	7	7	7	7	7	32	68
Other Retirement[a]	4	4	4	4	4	5	5	6	6	6	7	7	22	54
Total	**1,065**	**1,101**	**1,143**	**1,182**	**1,222**	**1,264**	**1,314**	**1,365**	**1,417**	**1,471**	**1,531**	**1,593**	**6,126**	**13,503**

Source: Congressional Budget Office.

a. Consists largely of federal employees' contributions to the Federal Employees Retirement System and the Civil Service Retirement System.

including individual retirement accounts, 401(k) plans, and traditional defined benefit pension plans. Under current law, CBO projects, those growing taxable distributions would boost revenues relative to GDP by 0.2 percentage points over the next decade.

Other Factors

CBO anticipates that over the next decade, other factors would have smaller, offsetting effects on individual income tax revenues. The Consolidated Appropriations Act, 2016, retroactively extended—in some cases, permanently—many tax provisions that reduced tax liabilities and that had been routinely extended in previous years. Those changes in law reduced individual income tax revenues by more in 2016 than in future years, contributing slightly to the projected increase in revenues after 2016. However, that increase is roughly offset in CBO's projections by a decline in realizations of capital gains relative to the size of the economy—most of which occurs in CBO's baseline over the 2017–2020 period. The amounts of those realizations have been at relatively high levels recently, and CBO anticipates they will slowly return to levels consistent with their historical average share of GDP (after accounting for differences in applicable tax rates).

Payroll Taxes

Receipts from payroll taxes, which fund social insurance programs, totaled about $1.1 trillion in 2015, or 6.0 percent of GDP. Under current law, CBO projects, those receipts would slowly fall to 5.8 percent of GDP by 2026. The main reason for that decline is the expectation that wages and salaries will continue to grow faster for higher-earning taxpayers than for other taxpayers, which will push an increasing share of such earnings above the maximum amount per taxpayer that is subject to Social Security taxes. (That amount, which is indexed to growth in average earnings for all workers, is $118,500 in 2016.)

Sources of Payroll Tax Receipts

The two largest sources of payroll taxes are those that are dedicated to Social Security and Part A of Medicare (the Hospital Insurance program). Much smaller amounts come from unemployment insurance taxes (most of which are imposed by states but produce amounts that are classified as federal revenues); employers' and employees' contributions to the Railroad Retirement System; and other contributions to federal retirement programs, mainly those made by federal employees (see Table 4-2). The premiums that Medicare enrollees pay for Part B (the Medical Insurance program) and Part D (prescription drug benefits) are voluntary payments and thus are not counted as tax revenues; rather, they are considered offsets to spending and appear on the spending side of the budget as offsetting receipts.

Social Security and Medicare payroll taxes are calculated as a percentage of a worker's earnings. Almost all workers are in employment covered by Social Security, and the associated tax is usually 12.4 percent of earnings, with the employer and employee each paying half. It applies only up to a certain amount of a worker's annual earnings (the taxable maximum). The Medicare tax applies to all earnings (with no taxable maximum) and is levied at a rate of 2.9 percent; the employer and employee each pay half of that amount. Since the beginning of 2013, an additional Medicare tax of 0.9 percent has been levied on the amount of an individual's earnings over $200,000 (or $250,000 in combined earnings for married couples filing a joint income tax return), bringing the total Medicare tax on such earnings to 3.8 percent.

Slight Decline in Projected Receipts Relative to GDP

Although wages and salaries, the main tax bases for payroll taxes, are projected to be a relatively stable share of GDP over the next decade, payroll tax receipts are projected to decline slightly relative to GDP for two reasons. Most important, payroll taxes are expected to decrease relative to earnings (including wages, salaries, and proprietors' income) because a growing share of earnings is anticipated to be above the taxable maximum amount for Social Security taxes.[2] The share of covered earnings above the taxable maximum amount is projected to rise to more than 20 percent in 2026, 4 percentage points more than the share in 2015.

In addition, receipts from unemployment insurance taxes are projected to decline slightly relative to wages and salaries and GDP between 2015 and 2020. Those receipts grew rapidly from 2010 through 2012, as states raised their tax rates and tax bases to replenish unemployment insurance trust funds that had been depleted because of high unemployment. Unemployment insurance receipts have fallen in each of the past three years, and CBO expects them to further decline to more typical levels relative to GDP in coming years.

Corporate Income Taxes

In 2015, receipts from corporate income taxes totaled $344 billion, or 1.9 percent of GDP—near the 50-year average. CBO expects corporate tax receipts to fall by about $17 billion in 2016, to 1.8 percent of GDP, largely because of the recent extension of several expired tax provisions. After 2016, those receipts in CBO's baseline projections remain relatively stable as a percentage of GDP through 2020 and then decline to 1.6 percent of GDP by 2026. That pattern over the next decade is the net effect of three main factors: a projected decline in domestic economic profits relative to GDP; an expected increase in the use of certain strategies that many corporations employ to reduce their tax liabilities; and a temporary increase in receipts resulting from a phaseout of provisions that allow firms with large amounts of investment in equipment to immediately deduct from their taxable income a portion of the costs of those investments.

Receipts in 2016

CBO expects corporations' income tax payments, net of refunds, to decline by about 5 percent this year, to $327 billion—even though the agency projects that domestic economic profits will decline by only about 2 percent and that GDP will rise by about 4 percent. Because revenues from corporate income taxes are projected to fall even as GDP rises, those revenues are projected to decline slightly relative to GDP—to 1.8 percent.

That projected decline in corporate income tax receipts relative to domestic economic profits results mostly from the retroactive and prospective extension—enacted in the Consolidated Appropriations Act, 2016—of various provisions that reduce tax liabilities. The largest part of the projected revenue decline in 2016 stems from the extension of rules that allow businesses with large amounts of investment to accelerate their deductions for those investments. That extension allows firms to continue deducting 50 percent of investments in equipment (and certain other property) that they made in 2015 or will make in 2016 or 2017 on the tax returns filed for each of those years, as opposed to allocating the total costs of those investments over specified numbers of years.[3] Those partial-expensing provisions are then scheduled to phase out, after which firms would deduct the total cost of those investments more evenly over time. Because those partial-expensing and other provisions were not initially extended when they expired at the end of 2014, many companies paid higher estimated taxes during calendar year 2015 than were ultimately required after the provisions were extended. Now that firms know in advance that the provisions have been extended for 2016, CBO expects that firms will lower their estimated payments this year relative to those they made in 2015.

Receipts After 2016

Under current law, receipts from corporate income taxes would remain at about 1.8 percent of GDP from 2017 through 2020, CBO projects, and decline thereafter to about 1.6 percent of GDP by 2026. Three factors explain that general pattern: a projected decline in domestic economic profits relative to GDP; an expected increase in

2. Because of the progressive rate structure of the income tax, the increase in the share of earnings above the Social Security taxable maximum is projected to produce an increase in individual income tax receipts that will more than offset the decrease in payroll tax receipts.

3. By contrast, businesses with relatively small amounts of investment in new equipment have been allowed to fully deduct those costs in the year in which the equipment is placed in service. The maximum amount of those deductions has changed over time. That provision was made permanent by the Consolidated Appropriations Act, 2016, with a maximum annual deduction of $500,000 in 2015, an amount that will be adjusted annually for inflation.

the use of certain strategies that some corporations employ to reduce their tax liabilities; and a three-year phaseout of the partial-expensing provisions after 2017 that is projected to temporarily increase receipts relative to their 2017 amount.

Decline in Domestic Economic Profits Relative to GDP. CBO projects that domestic economic profits—the closest measure of the corporate income tax base in CBO's economic forecast—will decline significantly relative to GDP over the next decade. They are expected to decline because of rising labor costs and rising interest payments on businesses' debt over the next several years, and because in later years CBO projects that nonlabor income will grow less rapidly than output, reversing an unusual trend seen since 2000 (see Chapter 2). In isolation, the decline in profits in relation to GDP causes projected corporate income tax revenues to fall relative to GDP by about 0.3 percentage points over the next decade.

Greater Use of Tax-Minimizing Strategies. Other factors that contribute to the projected decline in corporate tax revenues relative to GDP include two strategies that CBO—on the basis of an analysis of historical trends and a recent uptick in certain activity—expects some corporations to increasingly employ to reduce their tax liabilities. One such strategy is to decrease the share of business activity that occurs in C corporations (which are taxed under the corporate income tax) while increasing the share that occurs in pass-through entities, such as S corporations (which are taxed directly under the individual income tax rather than the corporate tax, increasing individual income tax receipts).[4] Another strategy is to increase the amount of corporate income that is shifted out of the United States through a combination of methods such as setting more aggressive transfer prices, increasing the use of intercompany loans, undertaking corporate inversions, and through other techniques.[5]

CBO expects that the increasing adoption of such strategies will result in progressively larger reductions in corporate tax receipts over the next 10 years. By 2026, in CBO's baseline, that increasing erosion of the corporate tax base lowers corporate income tax receipts by roughly 5 percent compared with collections in 2016, or by almost 0.1 percentage point relative to GDP. CBO projects that half of that difference is attributable to the shifting of additional income out of the United States and half to increases in the share of business activity occurring in pass-through entities.

Phaseout of Partial-Expensing Provisions. Although the partial-expensing provisions are scheduled under current law to continue unchanged from calendar year 2016 to 2017, they are scheduled to phase out from 2018 to 2020, causing associated deductions in CBO's baseline to decline relative to the size of the economy.[6] That factor causes projected revenues to rise as a share of GDP over the period spanning fiscal years 2018 through 2020 (as compared with the amount in 2017) by about 0.2 percentage points. That increase would roughly equal the decreases in revenues relative to the size of the economy during those years that result from the decline of domestic economic profits relative to GDP and the expanded use of certain tax-minimizing strategies.

However, the partial-expensing provisions affect the timing but not the overall magnitude of investment deductions; so over the long term, the deductions claimed in any year are similar whether or not the partial-expensing provisions are permanently in place. Hence, the increase in revenues relative to GDP that occurs between 2018 and 2020 as a result of the phaseout of the partial-expensing provisions would be offset, under current law, by a reduction of a similar amount in later years. Consequently, the overall effect of those changes to the rate at which firms can deduct their investments over time will have little

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

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

6. The Consolidated Appropriations Act, 2016, retroactively and prospectively extended for three years, generally for property placed in service through the end of calendar year 2017, the ability of firms to expense 50 percent of their equipment investment. The law also phased out the ability of firms to use the provisions over the 2018–2020 period, allowing firms to expense 40 percent of such investment in 2018 and 30 percent in 2019, after which the partial-expensing provisions are scheduled to expire.

Table 4-3.

Smaller Sources of Revenues Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Excise Taxes														
Highway	39	38	40	41	41	40	40	40	40	39	39	39	202	398
Tobacco	14	14	14	13	13	13	13	12	12	12	12	11	66	126
Aviation	14	14	15	16	16	17	17	18	19	19	20	21	81	179
Alcohol	10	10	10	10	11	11	11	11	11	11	12	12	53	109
Health insurance providers	11	11	1	13	15	15	16	17	18	19	20	21	60	156
Other	11	9	9	11	10	11	13	14	14	15	15	16	55	129
Subtotal	98	97	90	104	106	107	110	112	114	116	118	120	517	1,097
Federal Reserve Remittances	96	113	69	46	34	36	40	44	49	53	59	64	225	493
Customs Duties	35	36	37	39	41	43	45	46	48	51	54	58	205	463
Estate and Gift Taxes	19	20	21	22	23	23	24	25	26	27	29	30	113	250
Miscellaneous Fees and Fines														
Universal Service Fund fees	9	10	11	12	12	12	12	12	12	12	13	13	58	119
Other fees and fines	40	51	53	49	49	52	55	58	60	62	64	66	259	569
Subtotal	50	61	63	61	61	64	67	70	72	75	77	79	316	689
Total	**299**	**327**	**280**	**272**	**264**	**274**	**287**	**298**	**310**	**322**	**337**	**351**	**1,376**	**2,993**

Source: Congressional Budget Office.

This table shows all sources of revenues other than individual and corporate income taxes and payroll taxes.

effect on projected receipts relative to GDP in 2026 compared with those in 2017.

Smaller Sources of Revenues

The remaining sources of federal revenues are remittances from the Federal Reserve System to the Treasury, excise taxes, customs duties, estate and gift taxes, and miscellaneous fees and fines. Revenues from those sources totaled $299 billion in 2015, or 1.7 percent of GDP (see Table 4-3). CBO expects that those receipts will edge up to 1.8 percent of GDP in 2016 and then, under current law, would decline to 1.3 percent of GDP by 2018 and remain at that level through 2026. Most of those movements reflect projected remittances from the Federal Reserve, which will rise in 2016 as a result of recently enacted legislation and then fall as the central bank's interest expenses increase and the size and composition of its portfolio return to more typical conditions.

Remittances From the Federal Reserve System

The income produced by the various activities of the Federal Reserve System, minus the cost of generating that income and the cost of the system's operations, is remitted to the Treasury and counted as revenues. The largest component of such income is what the Federal Reserve earns as interest on its holdings of securities. Over the past eight years, the central bank has quintupled the size of its asset holdings through purchases of Treasury securities and mortgage-backed securities issued by Fannie Mae, Freddie Mac, and the Government National Mortgage Association (known as Ginnie Mae). Those purchases raised remittances of the Federal Reserve from $34 billion (0.2 percent of GDP) in 2008 to just under $100 billion in 2014 and 2015 (an average of 0.6 percent of GDP).

CBO expects remittances to increase to $113 billion in 2016. That increase is the result of recently enacted legislation (the Fixing America's Surface Transportation Act, also called the FAST Act, P.L. 114-94) that requires the Federal Reserve to remit most of its surplus account to the Treasury and to reduce dividends paid to large member banks on their capital stock in the Federal Reserve. CBO expects those changes to increase remittances by $22 billion for fiscal year 2016 (which was largely reflected in higher remittances made in late

December 2015) and by much smaller annual amounts thereafter, for a total of $63 billion over the 2016–2026 period. That transfer of surplus funds to the Treasury has no practical effect on the fiscal status of the federal government, however. If the surplus funds had continued to be held at the Federal Reserve and were invested in Treasury securities, the interest generated would have been remitted to the Treasury anyway; the location of the funds has no significant economic importance.

Beginning in 2017, remittances are projected to decline sharply, falling to $69 billion that year and to $34 billion by 2019. Much of the expected drop in 2017 reflects the temporary nature of most of the increase in remittances in 2016 that resulted from the FAST Act. However, part of the drop in 2017, and most of it thereafter, reflects a projected increase in the rate at which the Federal Reserve pays interest to the financial institutions that hold deposits on reserve, thus increasing its interest expenses. CBO also projects an increase in interest rates on Treasury securities in the next several years, which will increase earnings for the Federal Reserve—but only gradually as it purchases new securities that earn higher yields. (See Chapter 2 for a discussion of CBO's forecasts of monetary policy and interest rates in the coming decade.) After 2019, CBO projects, the size and composition of the Federal Reserve's portfolio, along with its remittances to the Treasury, would gradually return to conditions more in line with historical experience. Remittances would equal the 2000–2009 average of 0.2 percent of GDP by the end of the forecast period, according to CBO's projections.

Excise Taxes

Unlike taxes on income, excise taxes are levied on the production or purchase of a particular type of good or service. In CBO's baseline projections, almost 90 percent of excise tax receipts over the coming decade come from taxes related to highways, tobacco and alcohol, aviation, and health insurance. Receipts from excise taxes are projected to decrease slightly as a share of GDP over the next decade, from 0.5 percent in 2016 to 0.4 percent in 2026, largely because of declines in receipts from taxes on gasoline and tobacco.

Highway Taxes. About 40 percent of excise tax receipts currently come from highway taxes—primarily taxes on the consumption of gasoline, diesel fuel, and blends of those fuels with ethanol, as well as on the retail sale of trucks. Annual receipts from highway taxes, which are largely dedicated to the Highway Trust Fund, are projected to stay between $38 billion and $41 billion between 2016 and 2026. Because of the scheduled expiration at the end of 2016 of tax credits for certain alcohol fuel mixtures, highway receipts are projected to increase by about $3 billion between 2016 and 2018, but they then decline in CBO's baseline in every year after 2018, steadily falling as a percentage of GDP.

CBO's projection for a general decline in highway revenues, excluding the effects of the expiring tax credits, is the net effect of falling receipts from taxes on gasoline and rising receipts from taxes on diesel fuel and trucks. Gasoline consumption is expected to decline because improvements in vehicles' fuel economy (resulting largely from increases in the government's fuel economy standards) will probably more than offset increases in the number of miles that people drive. Over the decade, miles driven largely reflects projected population growth, but it is also affected by other factors. In particular, for 2016 and 2017, the recent decline in gasoline prices is expected to boost miles driven more than would otherwise occur, such that the increase in miles driven offsets the effect of improving fuel economy in those years. That effect is subsequently expected to reverse because of rising gasoline prices. Increasing fuel economy will likewise reduce the consumption of diesel fuel per mile driven—but not by enough, according to CBO's projections, to offset an increase in the total number of miles driven by diesel-powered trucks as the economy continues to expand.

Under current law, most of the federal excise taxes used to fund highway programs are scheduled to expire on September 30, 2022. In general, CBO's baseline incorporates the assumption that expiring tax provisions will follow the schedules set forth in current law. However, the Balanced Budget and Emergency Deficit Control Act of 1985 (P.L. 99-177) requires that CBO's baseline incorporate the assumption that expiring excise taxes dedicated to trust funds (including most of the highway taxes) will be extended.[7]

Tobacco and Alcohol Taxes. Taxes on tobacco products will generate $14 billion in revenues in 2016, CBO projects. That amount is projected to decrease by roughly

7. Because the excise tax credits for alcohol fuel mixtures do not reduce revenues to the Highway Trust Fund, they are not assumed to be extended in CBO's baseline projections.

2 percent a year over the next decade, as the decline in tobacco consumption that has been occurring for many years continues. By contrast, receipts from taxes on alcoholic beverages, which are expected to total $10 billion in 2016, are projected to rise at an average rate of between 1 percent and 2 percent a year through 2026, also continuing past trends in alcohol consumption.

Aviation Taxes. Under current law, most aviation-related taxes are scheduled to expire on March 31, 2016, but CBO's baseline projections are required to incorporate the assumption that they, like the highway taxes described above, will be extended. According to CBO's projections, if those taxes were extended, receipts from taxes on airline tickets, aviation fuels, and various aviation-related transactions would increase from $14 billion in 2016 to $21 billion in 2026, yielding an average annual rate of growth of about 4 percent. That growth is close to the projected increase of GDP over that period, in part because the largest component of aviation excise taxes (a tax on airline tickets) is levied not on the number of units transacted (as gasoline taxes are, for example) but as a percentage of the dollar value of transactions—which causes receipts to increase as both real (inflation-adjusted) economic activity and prices increase.

Tax on Health Insurance Providers. Under the Affordable Care Act, health insurers are subject to an excise tax. The law specifies the total amount of tax to be assessed, and that total is divided among insurers according to their share of total premiums charged. However, several categories of health insurers—such as self-insured plans, federal and state governments, and tax-exempt providers—are fully or partially exempt from the tax. Revenues from the tax, which began to be collected in 2014, are projected to total $11 billion in 2016 but fall to about $1 billion in 2017 as a result of recent legislation that placed a one-year moratorium on that tax for calendar year 2017. Receipts from the tax, under current law, would reach about $13 billion in 2018 and rise steadily thereafter to about $21 billion by 2026, CBO estimates.

Other Excise Taxes. Other excise taxes are projected to generate a total of about $9 billion in revenues in 2016 and $129 billion in revenues from 2017 to 2026. About three-fifths of that 10-year total stems from three charges instituted by the Affordable Care Act: an annual fee imposed on manufacturers and importers of brand-name drugs (projected to raise revenues by $31 billion over 10 years); a 2.3 percent tax on manufacturers and importers of certain medical devices, which is scheduled under current law to be reinstated in 2018 following a recently enacted postponement of two years ($29 billion); and a tax that will go into effect in 2020, also after a recently enacted two-year postponement, on certain health insurance plans with high premiums ($20 billion).[8]

Customs Duties, Estate and Gift Taxes, and Miscellaneous Fees and Fines

Customs duties, which are assessed on certain imports, have totaled 0.2 percent of GDP in recent years, amounting to $35 billion in 2015. CBO projects that, under current law, those receipts would continue at that level relative to GDP throughout the next decade.

Receipts from estate and gift taxes in 2015 totaled $19 billion, or 0.1 percent of GDP. CBO projects that, under current law, those receipts would remain at that same percentage of GDP through 2026.

Miscellaneous fees and fines measured $50 billion (0.3 percent of GDP) in 2015. Under current law, those fees and fines would continue to average 0.3 percent of GDP from 2016 through 2026, CBO projects.

Tax Expenditures

Many exclusions, deductions, preferential rates, and credits in the individual income tax, payroll tax, and corporate income tax systems cause revenues to be much lower over the projection period than they would otherwise be for any underlying structure of tax rates. Some of those provisions, called tax expenditures, resemble federal spending in that they provide financial assistance for particular activities or to entities or groups of people.

Like conventional federal spending, tax expenditures contribute to the federal budget deficit. They also influence people's choices about working, saving, and investing, and they affect the distribution of income. The Congressional Budget and Impoundment Control Act of 1974 defines tax expenditures as "those revenue losses

8. The excise tax on high-cost health insurance plans also increases the amounts CBO projects for revenues from individual income and payroll taxes because businesses are expected to respond to the tax by shifting to lower-cost insurance plans—thereby reducing nontaxable labor compensation and increasing taxable compensation. In addition, business taxes are affected by a provision of the Consolidated Appropriations Act, 2016, that allows the excise tax paid by a business to be deductible from its taxable income.

attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability."[9] That law requires the federal budget to list tax expenditures, and each year the staff of the Joint Committee on Taxation and the Treasury's Office of Tax Analysis each publish estimates of individual and corporate income tax expenditures.[10]

Tax expenditures are more similar to the largest benefit programs than they are to discretionary spending programs: Tax expenditures are not subject to annual appropriations, and any person or entity that meets the legal requirements can receive the benefits. Because of their budgetary treatment, however, tax expenditures are much less transparent than spending on benefit programs.

Magnitude of Tax Expenditures

Tax expenditures have a major impact on the federal budget. CBO projects the magnitude of tax expenditures on the basis of the estimates prepared by JCT. However, JCT's estimates were published before the enactment of the Consolidated Appropriations Act, 2016, which extended many expiring tax provisions that are also tax expenditures. (CBO's baseline projections incorporate the direct effects on revenues of that legislation.) Excluding the effects of those extensions, CBO projects that the more than 200 tax expenditures in the individual and corporate income tax systems will total almost $1.5 trillion in fiscal year 2016—or 7.9 percent of GDP—if their effects on payroll taxes as well as on income taxes are included.[11] That amount equals nearly half of all federal revenues projected for 2016 and exceeds projected spending on Social Security, defense, or Medicare (see Figure 4-3). CBO estimates that if the effects of the recently enacted extensions were incorporated into the estimates, the total magnitude of tax expenditures in 2016 would be significantly larger, but by no more than 1 percentage point of GDP.

A simple total of the estimates for specific tax expenditures does not account for the interactions among them if they are considered together. For instance, the total tax expenditure for all itemized deductions taken as a group would be smaller than the sum of the separate tax expenditures for each deduction; the reason is that, if the entire group of deductions did not exist, more taxpayers would claim the standard deduction instead of itemizing deductions than would be the case if any single deduction did not exist. However, the progressive structure of the tax brackets ensures that the opposite would be the case with income exclusions; that is, the tax expenditure for all exclusions considered together would be greater than the sum of the separate tax expenditures for each exclusion. Currently, those and other factors are approximately offsetting, so the total amount of tax expenditures roughly equals the sum of all of the individual tax expenditures.

However, the total amount of tax expenditures does not represent the increase in revenues that would occur if all tax expenditures were eliminated, because repealing a tax provision would change incentives and lead taxpayers to modify their behavior in ways that would diminish the impact of the repeal on revenues. For example, if preferential tax rates on realizations of capital gains were eliminated, taxpayers would reduce the amount of capital gains they realized; as a result, the amount of additional

9. Sec. 3(3) of the Congressional Budget and Impoundment Control Act of 1974 (codified at 2 U.S.C. §622(3) (2006)).

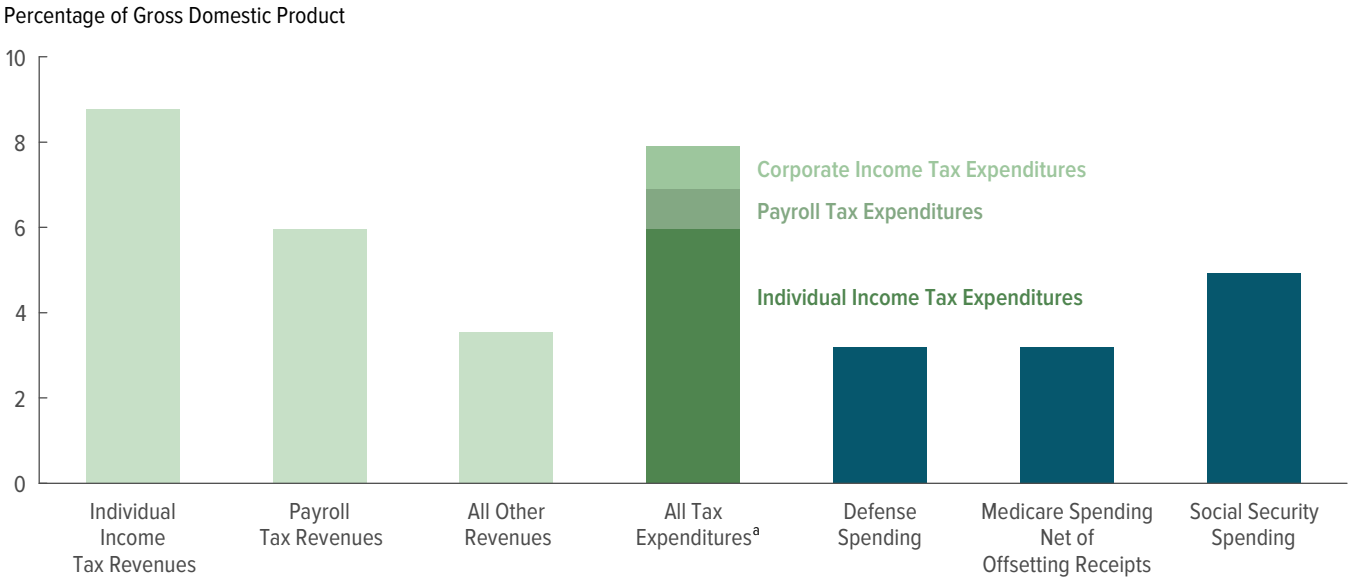
10. For this analysis, CBO follows JCT's definition of tax expenditures as deviations from a "normal" income tax structure. For the individual income tax, that structure incorporates existing regular tax rates, the standard deduction, personal exemptions, and deductions of business expenses. For the corporate income tax, that structure includes the top statutory tax rate, defines income on an accrual basis, and allows for cost recovery according to a specified depreciation system. For more information, see Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2015–2019,* JCX-141R-15 (December 2015), http://go.usa.gov/cUK2G. Unlike JCT, CBO includes estimates of the largest payroll tax expenditures. As defined by CBO, a normal payroll tax structure includes the existing payroll tax rates as applied to a broad definition of compensation—which consists of cash wages and fringe benefits. The Office of Management and Budget's definition of tax expenditures is broadly similar to JCT's. See Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2016: Analytical Perspectives* (February 2015), pp. 219–262, http://go.usa.gov/cPrHC (PDF, 5.24 MB).

11. Most estimates of tax expenditures include only their effects on individual and corporate income taxes. However, tax expenditures can also reduce the amount of income subject to payroll taxes. JCT has previously estimated the effect on payroll taxes of the provision that excludes employers' contributions for health insurance premiums from their workers' taxable income. See Joint Committee on Taxation, *Background Materials for Senate Committee on Finance Roundtable on Health Care Financing*, JCX-27-09 (May 2009), http://go.usa.gov/cUKTR. Tax expenditures that reduce the tax base for payroll taxes will eventually decrease spending for Social Security by reducing the earnings base on which Social Security benefits are calculated.

Figure 4-3.

Revenues, Tax Expenditures, and Selected Components of Spending in 2016

Tax expenditures, projected to total $1.5 trillion in 2016, cause revenues to be lower than they would be otherwise and, like spending programs, contribute to the federal deficit.



Source: Congressional Budget Office, using estimates by the staff of the Joint Committee on Taxation, which were prepared before the enactment of the Consolidated Appropriations Act, 2016, and do not include the effects of that law.

a. This total is the sum of the estimates for all of the separate tax expenditures and does not account for any interactions among them. However, CBO estimates that in 2016, the total of all tax expenditures roughly equals the sum of each considered separately. Furthermore, because estimates of tax expenditures are based on people's behavior with the tax expenditures in place, the estimates do not reflect the amount of revenue that would be raised if those provisions of the tax code were eliminated and taxpayers adjusted their activities in response to the changes. The outlay portions of refundable tax credits are included in tax expenditures. Those payments would be reported in the budget as "other mandatory spending," a category not shown in this figure.

revenues that would be produced by eliminating the preferential rates would be smaller than the estimated size of the tax expenditure.

Economic and Distributional Effects of Tax Expenditures

Tax expenditures are generally designed to further goals deemed important by lawmakers. For example, expenditures for health insurance costs, pension contributions, and mortgage interest payments may help promote a healthier population, adequate financial resources for retirement and greater national saving, and stable communities of homeowners. But tax expenditures also have a broad range of effects that may not always further those intended goals. They may lead to an inefficient allocation of economic resources by encouraging more consumption of the goods and services that receive preferential treatment, and they may subsidize an activity that would have taken place even without the tax incentives. Moreover, by providing benefits for particular activities or to entities or groups of people, tax expenditures increase the extent of federal involvement in the economy. Tax expenditures also reduce the amount of revenues collected for any given set of statutory tax rates—and therefore require higher rates to collect any particular amount of revenues. All else being equal, those higher tax rates lessen people's incentives to work and save, thus decreasing output and income.

Tax expenditures are distributed unevenly across the income scale. When measured in dollars, much more of the tax expenditures go to higher-income households than to lower-income households. As a percentage of people's income, tax expenditures are greater for the highest-income and lowest-income households than for households in the middle of the income distribution.[12]

12. For a detailed analysis, see Congressional Budget Office, *The Distribution of Major Tax Expenditures in the Individual Income Tax System* (May 2013), www.cbo.gov/publication/43768.

The Largest Tax Expenditures

CBO estimates that, excluding the effects of recently enacted legislation, the 10 largest tax expenditures would account for almost three-quarters of the total budgetary effects of all tax expenditures in fiscal year 2016 and would total 6.2 percent of GDP over the period from 2017 to 2026.[13] Those 10 tax expenditures fall into four categories: exclusions from taxable income, itemized deductions, preferential tax rates, and tax credits.

Exclusions From Taxable Income. Exclusions of certain types of income from taxation account for the greatest share of total tax expenditures. The largest items in that category are employers' contributions to their employees' health care, health insurance premiums, and premiums for long-term-care insurance; contributions to and earnings of pension funds (minus pension benefits that are included in taxable income); and profits earned abroad, which certain corporations may exclude from their taxable income until those profits are returned to the United States.[14]

The exclusion of employers' health insurance contributions is the single largest tax expenditure in the tax code; including effects on payroll taxes, that exclusion is projected to equal 1.5 percent of GDP over the 2017–2026 period (see Figure 4-4). The exclusion of pension contributions and earnings has the next-largest impact, resulting in tax expenditures, including effects on payroll taxes, that are estimated to total 1.2 percent of GDP over the same period.[15] Over the coming decade, tax expenditures for the deferral of corporate profits earned abroad are projected to equal 0.6 percent of GDP.

Itemized Deductions. Itemized deductions for certain types of payments allow taxpayers to further reduce their taxable income. Tax expenditures for deductions for state and local taxes (on nonbusiness income, sales, real estate, and personal property) are projected to equal 0.6 percent of GDP between 2017 and 2026. (That estimate excludes the effect of recent legislation, which permanently extended the option to deduct state and local sales taxes instead of state and local income taxes.) Tax expenditures for interest paid on mortgages for owner-occupied residences and for charitable contributions are projected to equal 0.6 percent and 0.3 percent of GDP, respectively, over that period.

Preferential Tax Rates. Under the individual income tax, preferential tax rates apply to some forms of income, including dividends and long-term capital gains.[16] Tax expenditures for the preferential tax rates on dividends and long-term capital gains are projected to total 0.6 percent of GDP between 2017 and 2026.[17]

13. Those 10 tax expenditures are the ones whose budgetary effects, according to JCT's estimates, will equal more than 0.25 percent of GDP over the 2015–2019 period. CBO combined the components of certain tax expenditures that JCT reported separately, such as tax expenditures for different types of charitable contributions. Furthermore, because JCT only provided estimates for the 2015–2019 period, CBO also extrapolated JCT's estimates through 2026 to cover the full budget window. (Those extrapolated estimates would not precisely match estimates produced by JCT.) See Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2015–2019*, JCX-141R-15 (December 2015), http://go.usa.gov/cUK2G.

14. JCT previously also considered the exclusion for Medicare benefits (net of premiums paid) to be a tax expenditure but no longer does so. For a more detailed explanation, see Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2015–2019*, JCX-141R-15 (December 2015), p. 20, http://go.usa.gov/cUK2G.

15. That total includes amounts from defined benefit and defined contribution plans offered by employers; it does not include amounts from self-directed individual retirement arrangements or from Keogh plans that cover partners and sole proprietors, although contributions to and earnings accrued in those plans are also excluded from taxable income until withdrawal.

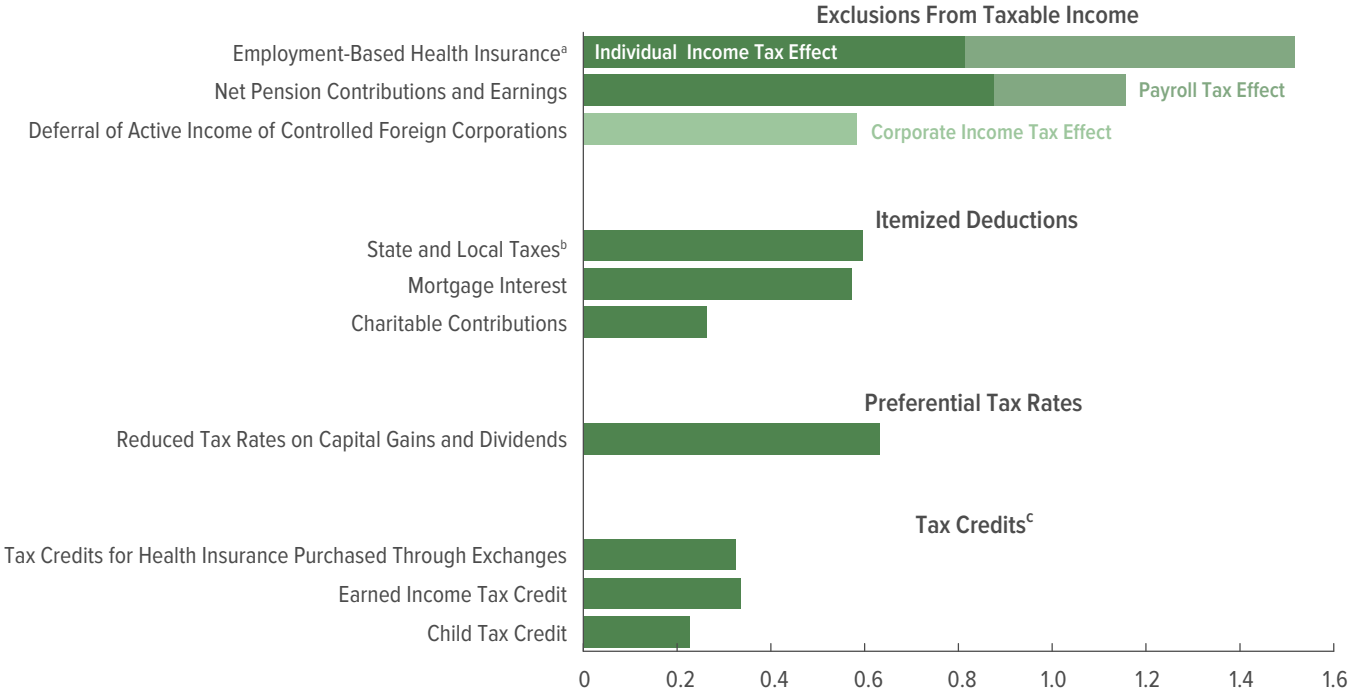
16. Not all analysts agree that lower tax rates on investment income constitute tax expenditures. Although such tax preferences are tax expenditures relative to a pure income tax, which is the benchmark used by JCT and the Office of Management and Budget in calculating tax expenditures, they are not tax expenditures relative to a pure consumption tax because investment income generally is excluded from taxation under a consumption tax.

17. Taxpayers with income over certain thresholds—$200,000 for single filers and $250,000 for married couples filing joint returns—face a surtax equal to 3.8 percent of their investment income (including capital gains and dividend income, as well as interest income and some passive business income). That surtax effectively reduces the preferential tax rate on dividends and capital gains. JCT treats the surtax as a negative tax expenditure—that is, as a deviation from the tax system that increases rather than decreases taxes—and it is not included in the figures presented here.

Figure 4-4.

Budgetary Effects of the Largest Tax Expenditures From 2017 to 2026

Percentage of Gross Domestic Product



Source: Congressional Budget Office, using estimates by the staff of the Joint Committee on Taxation, which were prepared before the enactment of the Consolidated Appropriations Act, 2016, and do not include the effects of that law.

These effects are calculated as the sum of the tax expenditures over the 2017–2026 period divided by the sum of gross domestic product over the same 10 years. Because estimates of tax expenditures are based on people's behavior with the tax expenditures in place, the estimates do not reflect the amount of revenue that would be raised if those provisions of the tax code were eliminated and taxpayers adjusted their activities in response to the changes.

a. Includes employers' contributions for health care, health insurance premiums, and long-term-care insurance premiums.

b. Consists of nonbusiness income, sales, real estate, and personal property taxes paid to state and local governments.

c. Includes effect on outlays.

Tax Credits. Tax credits reduce eligible taxpayers' tax liability. Nonrefundable tax credits cannot reduce a taxpayer's income tax liability to less than zero, but refundable tax credits may provide direct payments to taxpayers who do not owe any income taxes.

The Affordable Care Act provides refundable tax credits, called premium assistance credits, to help low- and moderate-income people purchase health insurance through exchanges. Tax expenditures for those credits are projected to total 0.3 percent of GDP over the next decade.

The other largest refundable credits are the earned income tax credit and the child tax credit. Both credits were significantly expanded in 2001 and again in later years. Certain expansions were scheduled to expire at the end of December 2017; however, recently enacted legislation made those expansions in both credits permanent. Before the permanent extensions of those expansions, the tax expenditures for the earned income tax credit were projected to be 0.3 percent of GDP, and expenditures for the child tax credit were projected to be 0.2 percent of GDP over the 2017–2026 period. The projected size of expenditures for those credits, taken together, would be larger, probably by less than 0.1 percentage point of GDP, if the effects of the permanent extensions were included.

Accuracy of CBO's Revenue Projections

In analyzing its previous baseline projections of revenues since 1982, CBO found that, on average, the agency's projections have been a bit too high—more so for projections spanning six years than for those spanning two—owing mostly to the difficulty of predicting when economic downturns will occur.[18] The overall accuracy of CBO's revenue projections has been similar to that of the projections of other government agencies.

Projection errors have tended to be larger for longer horizons than for shorter ones. CBO's six-year revenue projections—those that estimate revenues for the fifth fiscal year after the year in which they are released—have, on average, overestimated revenues by 5.3 percent. The mean absolute error of those projections is 10.4 percent, and the projections had a standard deviation around the actual values of 12.1 percent.[19] A mean absolute error of that magnitude would correspond to an error of about $420 billion in the revenue estimate for 2021 in the current baseline. The preponderance of overestimates for that longer horizon results in part from the fact that many of the six-year periods encompassed a recession that reduced economic activity and tax revenues below projected amounts.

Both measures of accuracy that CBO used show some signs of stabilizing at the six-year horizon, measuring not much higher than those calculated for the five-year horizon. However, the general accuracy of CBO's forecasts extending beyond six years may not become clearer until well into the future, when enough such forecasts have been produced to allow for a comprehensive assessment.

CBO's six-year forecasts of revenues as a share of GDP have a standard deviation around the actual values of 1.1 percentage points and a mean absolute error of 0.9 percentage points. In CBO's current baseline projections, revenues for 2021, the sixth year of the projection, total 18.0 percent of GDP. On the basis of the mean absolute error of past forecasts, revenues for that year might be expected to be as low as 17.1 percent of GDP or as high as 18.9 percent if no changes are made to current law. (The actual error for that particular projection might still fall outside that range.)

18. The analysis discussed in this section summarizes the more detailed analysis in Congressional Budget Office, *CBO's Revenue Forecasting Record* (November 2015), www.cbo.gov/publication/50831.

19. Unlike the mean error, the mean absolute error is the average of the errors without regard to direction—the negative signs are removed from underestimates before averaging—so errors in different directions do not offset one another. The standard deviation around the actual values, the calculation of which involves squaring the errors (thus removing the negative signs), also measures the size of errors without regard to direction; but by squaring the errors, it places a greater weight on larger deviations. (For those reasons, that measure is also known as the root mean square error.) About two-thirds of the forecasts will have misestimates within a range of plus or minus 1 standard deviation if the errors of a given set of forecasts are normally distributed around a mean error of zero—that is, if the misestimates are roughly symmetrically distributed around zero and there are more relatively small errors than large ones.

APPENDIX

A

Changes in CBO's Baseline Since August 2015

The Congressional Budget Office anticipates that in the absence of further legislation affecting spending and revenues, the budget deficit for fiscal year 2016 will total $544 billion. That amount is $130 billion greater than the $414 billion deficit CBO projected in August 2015, when the agency last reported on its baseline (see Table A-1).[1] Much of the projected increase in the deficit stems from legislation enacted since the August update; CBO estimates that the effects of those laws will boost this year's deficit by $164 billion. Changes related to CBO's economic forecast add another $17 billion to the deficit projected for 2016; other, technical, factors reduce the gap by $51 billion.

CBO now projects that the cumulative deficit for the 2016–2025 period would be about $1.5 trillion higher than shown in its August projections—$8.6 trillion rather than $7.0 trillion—if current laws generally remained the same. In the baseline described in this report, for all years of the projection period after 2016, revenues are lower and outlays are higher than the amounts projected in the August baseline. On net, about half of the total increase in the cumulative deficit arises from the enactment of new legislation, but CBO's updated economic forecast and other, technical, factors also increase the deficit projected for each year through 2025.[2]

Legislative Changes to Projections

The largest changes in CBO's projections of the deficit since August—both for the current year and for the 2016–2025 period—stem from a few laws enacted toward the end of 2015. The Consolidated Appropriations Act, 2016 (Public Law 114-113), had by far the greatest effect, but three other laws also had notable influence on CBO's projections: the Fixing America's Surface Transportation Act (also called the FAST Act, P.L. 114-94), the Bipartisan Budget Act of 2015 (P.L. 114-74), and the National Defense Authorization Act for Fiscal Year 2016 (often called the 2016 NDAA, P.L. 114-92). Other legislation enacted between August and the end of 2015 had small effects on CBO's baseline projections.

The $164 billion addition to the deficit for 2016 that arises from new legislation stems mostly from an estimated $134 billion reduction in revenues for that year. The increase in the cumulative deficit over 10 years is split more evenly between revenues and outlays: The new laws added an estimated $749 billion to the projected 10-year cumulative deficit—reducing projected revenues by $425 billion (or 1.0 percent) and increasing projected outlays by $324 billion (or 0.7 percent).

Changes to Revenues

The enactment of the Consolidated Appropriations Act, 2016, led CBO to lower projected revenues by $523 billion for the 2016–2025 period, although that change was partially offset by the effects of two other laws: the

1. See Congressional Budget Office, *An Update to the Budget and Economic Outlook: 2015 to 2025* (August 2015), www.cbo.gov/publication/50724. 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 (P.L. 93-344). 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 thereafter will grow from the 2021 amounts at the rate of inflation. Certain discretionary appropriations are not constrained by the caps, such as those designated for overseas contingency operations. In CBO's baseline, those appropriations grow in future years at the rate of inflation. CBO's baseline is not intended to predict budgetary outcomes. Rather, it serves as a benchmark against which to measure the potential effects of changes in laws governing taxes and spending.

2. Some late changes to CBO's economic forecast have not yet been incorporated into the budget projections, but they would probably not materially affect the overall outlook.

Table A-1.

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

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
Deficit in CBO's August 2015 Baseline	-414	-416	-454	-596	-687	-767	-885	-895	-886	-1,008	-2,566	-7,007
Legislative Changes												
Changes to Revenues												
Individual income taxes	-56	-29	-24	-21	-9	-4	-8	-10	-13	-15	-139	-190
Corporate income taxes	-96	-52	-40	-27	*	7	-6	-15	-23	-28	-215	-280
Payroll taxes	*	*	*	*	*	1	1	1	1	1	*	4
Other	18	-10	2	1	1	5	5	6	6	7	11	41
All Changes in Revenues	-134	-91	-62	-48	-8	8	-7	-19	-29	-36	-343	-425
Changes in Outlays												
Mandatory outlays												
Refundable tax credits	0	-1	-1	22	22	22	22	22	23	23	42	154
Military retirement	0	2	2	3	3	3	4	4	4	5	10	30
Medicare	5	1	-2	-3	-3	-2	-1	1	2	-19	-2	-21
Strategic Petroleum Reserve	0	0	*	*	*	*	*	-2	-2	-2	-1	-8
Pension Benefit Guaranty Corporation	0	0	*	-1	-1	-1	-1	-1	-1	-4	-2	-8
Other	*	*	-1	-3	-1	*	-1	-1	-2	-8	-5	-17
Subtotal, mandatory	5	3	-2	18	20	22	23	24	24	-6	43	130
Discretionary outlays												
Defense	2	1	-5	-5	-4	-5	-5	-5	-5	-6	-11	-37
Nondefense	23	24	15	6	5	4	4	4	4	4	74	93
Subtotal, discretionary	25	25	10	1	1	*	-1	-1	-1	-2	63	56
Debt service	1	4	7	12	14	16	17	20	22	25	38	137
All Changes in Outlays	30	31	16	31	35	37	39	42	45	17	143	324
Increase (-) in the Deficit From Legislative Changes	**-164**	**-123**	**-78**	**-78**	**-43**	**-29**	**-46**	**-61**	**-74**	**-53**	**-487**	**-749**
Economic Changes												
Changes in Revenues												
Individual income taxes	-8	-11	-13	-16	-24	-36	-43	-49	-55	-61	-72	-317
Corporate income taxes	-27	-29	-27	-22	-20	-18	-18	-20	-24	-27	-125	-232
Payroll taxes	3	*	-5	-13	-19	-23	-27	-30	-33	-36	-33	-182
Other	-1	1	4	-2	-4	-5	-7	-8	-8	-9	-3	-40
All Changes in Revenues	-33	-39	-40	-53	-67	-82	-95	-108	-120	-132	-233	-771
Changes in Outlays												
Mandatory outlays												
Medicaid	-2	-3	-3	-3	-4	-4	-5	-5	-6	-6	-15	-41
Unemployment compensation	-2	-4	-4	-3	-3	-3	-3	-3	-3	-4	-16	-31
Social Security	*	-4	-4	-3	-3	-2	-1	-2	-4	-5	-13	-27
Outer Continental Shelf	2	2	2	2	2	2	2	2	2	2	8	17
Medicare	*	-1	-1	-2	-2	-2	-2	-2	-2	-2	-6	-16
Other	-1	-4	-4	-3	-3	-3	-3	-3	-3	-3	-15	-29
Subtotal, mandatory	-3	-14	-15	-13	-12	-11	-11	-13	-17	-16	-56	-126
Discretionary outlays	0	-1	-2	-3	-3	-4	-4	-4	-4	-4	-8	-27
Net interest outlays												
Debt service	*	*	1	2	2	4	6	8	11	14	5	47
Effect of rates and inflation	-14	-9	-16	-20	-24	-25	-28	-29	-32	-33	-82	-228
Subtotal, net interest	-13	-9	-15	-19	-21	-21	-22	-21	-21	-20	-77	-181
All Changes in Outlays	-16	-23	-32	-34	-37	-36	-37	-38	-42	-40	-142	-334
Increase (-) in the Deficit From Economic Changes	**-17**	**-16**	**-9**	**-19**	**-30**	**-46**	**-58**	**-69**	**-79**	**-93**	**-92**	**-437**

Continued

Table A-1. Continued

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

Billions of Dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2016-2020	Total 2016-2025
						Technical Changes						
Changes in Revenues												
Individual income taxes	20	12	13	13	6	9	10	11	12	12	64	117
Corporate income taxes	5	*	-7	-11	-14	-16	-14	-14	-14	-15	-27	-101
Payroll taxes	-3	*	-1	*	-4	-5	-6	-7	-8	-8	-7	-41
Other	6	2	1	*	*	-2	-3	-3	-3	-3	8	-5
All Changes in Revenues	28	13	6	1	-12	-15	-13	-13	-13	-14	37	-30
Changes in Outlays												
Mandatory outlays												
Medicaid	6	10	14	16	18	21	23	25	27	28	64	187
Veterans' compensation and pensions	5	8	9	12	14	16	20	21	21	25	47	152
Social Security	-2	-3	-6	-7	-10	-12	-13	-14	-15	-15	-28	-97
Fannie Mae and Freddie Mac	-23	-1	-1	-1	-1	*	-1	-1	-1	-1	-27	-30
Medicare	4	2	5	4	4	4	3	-3	-4	8	20	28
Other	-17	-2	6	13	9	2	3	2	*	-1	10	17
Subtotal, mandatory	-27	15	27	37	35	31	36	30	29	45	87	258
Discretionary outlays	-3	-4	*	1	1	2	2	2	2	2	-5	3
Net interest outlays												
Debt service	*	-1	*	1	2	4	6	8	10	12	1	41
Other	7	10	11	7	*	-1	-1	-1	-2	*	35	31
Subtotal, net interest	7	9	10	8	2	3	5	7	8	12	36	72
All Changes in Outlays	-23	20	37	46	38	36	42	39	39	59	118	333
Increase (-) or Decrease in the Deficit From Technical Changes	**51**	**-7**	**-31**	**-45**	**-50**	**-51**	**-55**	**-52**	**-51**	**-73**	**-81**	**-363**
						All Changes						
Increase (-) in the Deficit	**-130**	**-146**	**-118**	**-142**	**-123**	**-126**	**-159**	**-182**	**-204**	**-218**	**-659**	**-1,549**
Deficit in CBO's January 2016 Baseline	-544	-561	-572	-738	-810	-893	-1,044	-1,077	-1,089	-1,226	-3,225	-8,556
Memorandum:												
Changes in Revenues	-139	-117	-96	-100	-87	-88	-115	-139	-162	-182	-540	-1,226
Changes in Outlays	-9	28	22	42	37	38	44	43	42	37	120	323

Source: Congressional Budget Office.

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

FAST Act, which CBO projects will increase revenues by $66 billion over the next 10 years, and the Bipartisan Budget Act of 2015, which is projected to increase revenues by $32 billion over the same period.

Among other actions, the Consolidated Appropriations Act, 2016, retroactively and prospectively extended, for two years or longer and sometimes in modified form, several provisions that had reduced corporate and individual income taxes and, to a much lesser extent, excise taxes; those provisions had expired at the end of calendar year 2014 or were scheduled to expire within the next several years. According to estimates by the staff of the Joint Committee on Taxation (JCT), the largest such reductions in revenues over the 2016–2025 period stem from permanent extensions of certain tax provisions, including a modified form of the research and experimentation tax credit ($113 billion), a provision that allows businesses to defer certain foreign financing income ($78 billion), a modified form of a provision that allows businesses with relatively small amounts of investment to take an immediate deduction for that investment ($77 billion), and a provision that offers people who itemize their deductions the option of deducting either state and local sales taxes

or state and local income taxes from their taxable income ($42 billion).

The largest near-term effects on revenues stem from the extension for 2014 through 2017, and then a phase-out over the next three years, of the provision allowing businesses with large investments in equipment to immediately expense some of those investments. According to JCT's estimates, that change would reduce revenues by $151 billion over the 2016–2019 period and then increase them by $140 billion over the 2020–2025 period, for a net reduction of $11 billion over the next decade.

Less than one-fifth of the revenue reduction projected for the 2016–2025 period that is attributable to the Consolidated Appropriations Act, 2016, will be offset by the effects of the FAST Act and the Bipartisan Budget Act of 2015. The FAST Act, which authorized funding for federal highway programs, also requires the Federal Reserve to reduce its surplus account and remit the difference to the Treasury.[3] In addition, the FAST Act lowered the rate at which the Federal Reserve pays dividends to large member banks on capital contributed as a condition of membership. The Bipartisan Budget Act of 2015 also includes several provisions that affect revenues, including tax compliance initiatives aimed at partnerships.

Changes to Outlays

Since August, CBO has boosted its estimate of 2016 outlays by $30 billion ($5 billion in mandatory spending and $25 billion in discretionary spending) as a result of new legislation. CBO also anticipates that outlays would be higher for the full projection period than it projected in August, mainly as a result of increased spending for refundable tax credits and higher debt-service costs stemming from enacted legislation.

Mandatory Spending. Recent legislative activity led CBO to boost its estimates of mandatory outlays by $5 billion for 2016 and by $130 billion for the 10-year projection period, largely because of the extension of certain refundable tax credits.

Refundable Tax Credits. The Consolidated Appropriations Act, 2016, permanently extended the American Opportunity Tax Credit and expansions of the child tax credit and earned income tax credit that were first enacted in 2009 and that had been set to expire at the end of 2017.[4] Those changes will increase outlays by $159 billion over the 2016–2025 period (and reduce revenues by $39 billion over the same period), according to estimates by JCT. Other provisions of the law, mainly dealing with tax compliance, will reduce outlays for refundable tax credits by about $5 billion over the 2016–2025 period, JCT estimates.

Military Retirement. The 2016 NDAA made changes to the way retirement benefits are calculated for certain members of the uniformed services. Among the differences are a reduction in the multiplier used to set retirement annuities (which will reduce the amount of those annuities) and an option for future retirees to exchange part of their annuity stream for a lump-sum payment at the time they separate from service. Over the long term, those changes will reduce mandatory spending. However, because future annuities will be smaller, the contributions that the Department of Defense will make to the Military Retirement Fund to cover the future cost of retirement benefits for current service members will also be smaller. Because those contributions are recorded as offsetting receipts to the Military Retirement Fund, reductions in them cause a net increase in mandatory spending.[5] As a result, CBO's projections of mandatory spending over the 2016–2025 period increased by about $30 billion.

Medicare. Several new laws led CBO to lower its cumulative projection of Medicare spending by $21 billion for the 2016–2025 period from the amount it published in

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

4. Refundable tax credits reduce a filer's income tax liability overall; if the credit exceeds the rest of the filer's income tax liability, the government pays all or some portion of that excess to the taxpayer. See Congressional Budget Office, *Refundable Tax Credits* (January 2013), www.cbo.gov/publication/43767.

5. Because the contributions to the Military Retirement Fund are subject to annual appropriation acts, any changes to those contributions and their associated mandatory offsetting receipts are generally not counted for budget enforcement purposes when legislation is being considered.

August. The largest effect is attributable to the Bipartisan Budget Act of 2015, which modified the timing of certain Medicare Part B premium receipts and limited payments for certain outpatient hospital items and services. That act also replaced the varied-percentage cuts in payments to most providers (the result of a budgetary action known as sequestration) in 2023 and 2024 with a 2 percent annual reduction (as exists under current law for 2016 through 2022), and it extended those statutory, across-the-board reductions through September 2025, at a rate of 4 percent.

Strategic Petroleum Reserve. Together, the Bipartisan Budget Act of 2015 and the FAST Act direct the Department of Energy to sell a total of 124 million barrels of oil from the Strategic Petroleum Reserve over the 2018–2025 period. CBO expects that the receipts from those sales will total about $8 billion during that period.[6]

Pension Benefit Guaranty Corporation. The Bipartisan Budget Act of 2015 made changes to pension-funding rules, premium rates, and the timing of premium payments. CBO projects that those changes will decrease mandatory spending by $8 billion over the 2016–2025 period. The changes with the largest budgetary effects for that period increased the premium rates paid by employers to the Pension Benefit Guaranty Corporation (a change that CBO estimates would increase premium payments by $4 billion) and accelerated the payment date of premiums that would have been paid in 2026 (for a $3 billion increase). Those changes decreased CBO's projection of mandatory spending because such premiums are considered offsetting collections.

Discretionary Spending. New legislation also prompted changes in CBO's baseline projections for discretionary spending, boosting projected outlays by $25 billion for the current year and by a total of $56 billion over the 2016–2025 period. For that period, CBO projects $37 billion less in defense spending but $93 billion more in nondefense spending than it projected in August.

The Bipartisan Budget Act of 2015 adjusted the caps on budget authority for defense and nondefense programs, raising the cap for each category by $25 billion for 2016 and by $15 billion for 2017 relative to the limits as originally set in the Budget Control Act of 2011 (P.L. 112-25) and subsequently reduced by the automatic spending reductions described in that act. The Bipartisan Budget Act of 2015, however, did not provide the actual appropriations for 2016—those were provided in the Consolidated Appropriations Act, 2016, which also provided appropriations for categories of spending that are not constrained by the caps established in the Budget Control Act of 2011, such as overseas contingency operations (OCO), disaster relief, emergency requirements, and program integrity initiatives.[7]

Defense Spending. Three changes affected CBO's projections of defense outlays: First, the additional 2016 funding provided by the Consolidated Appropriations Act, 2016, and the cap increase for 2017 boost projected outlays over the next several years. But two other changes reduced projected outlays over the 10-year period. The actual appropriations for 2016 shifted toward slower-spending categories (such as procurement and research and development) and away from faster-spending categories (such as operations and maintenance and military personnel). And OCO funding in 2016 is $6.5 billion less than the amount CBO projected in its August baseline (that amount was extrapolated from the appropriations provided for 2015). In the current baseline, that lower funding is extrapolated through 2026, thus reducing projected spending in each year. As a result of those three factors, defense outlays are projected to be slightly higher in 2016 and 2017 but lower by $4 billion to $6 billion annually thereafter.

Nondefense Spending. Recent legislation results in higher nondefense outlays in all years in CBO's current baseline projections. From 2016 to 2018, those outlays are $62 billion above the amount projected in August, mostly because of the increase in actual and projected appropriations that are constrained by the caps established in the Budget Control Act of 2011.

6. As those pieces of legislation were being considered, CBO estimated, on the basis of its March 2015 baseline, that such receipts would total $11 billion for the period. Since then, however, oil prices have fallen significantly, as has CBO's projection for the price of oil over the next decade.

7. Program integrity initiatives are aimed at reducing improper benefit payments in one or more of the following programs: Disability Insurance, Supplemental Security Income, Medicare, Medicaid, and the Children's Health Insurance Program. For more information on the discretionary caps established in the Budget Control Act of 2011, see Congressional Budget Office, *Final Sequestration Report for Fiscal Year 2016* (December 2015), www.cbo.gov/publication/51038.

For the full 10-year period, nondefense outlays in the baseline are higher by $93 billion. In addition to the cap increases, some changes in funding levels for categories of spending not constrained by the caps contribute to that revision in projected outlays:

- The 2016 OCO appropriation for nondefense activities is nearly $6 billion more than the sum provided in the previous year. That increase in funding, when extrapolated through 2025, boosts projected outlays in CBO's baseline by about $50 billion, relative to the August projections.

- The FAST Act increased spending authority for certain surface transportation programs and authorized increases in obligation limitations.[8] Hence, as part of the appropriations for 2016, those obligation limitations were increased by about $3 billion; that increase is extrapolated through the end of the projection period in CBO's baseline. As a result, additional spending on surface transportation programs—which is not constrained by the caps established by the Budget Control Act of 2011—increased CBO's projection of nondefense discretionary outlays by about $15 billion from 2016 through 2025.

- In the other direction, funding designated as an emergency requirement is nearly $5 billion less in 2016 than the amount provided for 2015; extrapolating that difference reduces projected outlays in CBO's baseline by about $45 billion over the 2016–2025 period.

Debt Service. All told, the changes that CBO made to its projections of revenues and outlays because of recently enacted legislation increased its projection of the cumulative deficit for the 2016–2025 period by $612 billion (excluding debt-service costs). The resulting growth in the estimate of federal borrowing led CBO to raise its projection of outlays for interest payments on federal debt by $137 billion through 2025.

8. An obligation limitation is a provision of law or legislation that restricts or reduces the availability of budget authority that would have become available under another law. Spending for most surface transportation programs is governed by obligation limitations set in appropriation acts.

Economic Changes to Projections

CBO's economic forecast from early December, which underlies the budget projections in this report, incorporated updated projections of gross domestic product (GDP), the unemployment rate, interest rates, inflation, and other factors that affect federal spending and revenues. In total, that economic forecast led the agency to increase its estimate of the deficit by $17 billion for the current year and by $437 billion for the 10-year period.[9]

Changes to Revenues

The economic forecast underlying the current projections led CBO to reduce its revenue projections by $33 billion (or 0.9 percent) for 2016 and by $771 billion (or 1.9 percent) for the 2016–2025 period, from the amounts in the previous baseline. The chief cause is CBO's expectation of slower growth in economic output over the 10-year projection period.

Since August, CBO reduced its estimate of nominal GDP by about 2 percent, on average, over the 2016–2025 period. Lower projections for GDP led to lower projections for associated income—much of it taxable—including wages and salaries, corporate profits, and proprietors' income. Those changes led CBO to lower its projections of receipts from each of the three major revenue sources over the 2016–2025 period: In its projections, receipts of individual income taxes fell by $317 billion (or 1.5 percent), corporate income taxes fell by $232 billion (or 5.3 percent), and payroll taxes fell by $182 billion (or 1.4 percent).

Changes to Outlays

As a result of the economic forecast underlying the current projections, CBO reduced its estimates of outlays by $16 billion for 2016 and by $334 billion for the 2016–2025 period. That 10-year change is almost entirely the

9. As noted in the Summary, CBO did not have enough time to incorporate into its budget projections the most recent updates to its economic forecast, which accounted for legislation enacted in December and for other developments through the end of that month. A preliminary analysis suggests that if CBO had incorporated those updates into its budget projections, as it will in March, projected revenues would be between $100 billion and $200 billion (or 0.2 percent to 0.4 percent) higher over the 2016–2026 period than they are currently projected to be. Projected outlays also would be affected, but probably to a lesser extent. CBO will also make technical estimating changes in its March projections that could be larger than those amounts, in either direction.

result of projections of lower spending for mandatory programs and of reduced net interest costs.

Mandatory Spending. Revisions to the economic forecast led CBO to reduce its projections of mandatory spending by $3 billion for 2016 and by $126 billion for the 2016–2025 period. The largest changes occurred in CBO's projections for Medicaid, unemployment compensation, Social Security, royalties from leases on the Outer Continental Shelf, and Medicare.

Medicaid. Reductions in the prices projected for most medical services and in projected labor costs for health care workers, combined with a downward revision to the unemployment rate (which lowers projected Medicaid enrollment), have reduced CBO's baseline projections of Medicaid spending by $41 billion (or 0.9 percent) for the 2016–2025 period.

Unemployment Compensation. CBO's forecast of the unemployment rate over the next 10 years was revised downward by about 0.5 percentage points for 2016 through 2018 and by an average of about 0.2 percentage points for 2019 through 2025. In addition, the labor force is projected to shrink by about 350,000 participants each year because of the lower participation rate projected for the next few years and, to a smaller extent, because of lower projected population growth. CBO also projects that wage growth will be slower than it previously anticipated. Combined, those changes are projected to reduce outlays for unemployment compensation by $31 billion over the 2016–2025 period.

Social Security. CBO now projects that Social Security beneficiaries will receive a cost-of-living adjustment of 0.9 percent in January 2017, an increase that is 0.6 percentage points less than CBO's estimate in August. That reduction is partially offset by an increase in projected cost-of-living adjustments for 2018 through 2021. Taken together, those changes reduce estimated benefit payments over the 2016–2025 period by $32 billion. When combined with other smaller changes, which boost CBO's estimate of initial benefit amounts for new retirees, the baseline projections of Social Security spending over the 2016–2025 period have declined by a total of $27 billion (or 0.2 percent).

Outer Continental Shelf. When CBO prepared its economic projections in early December 2015, the agency expected that crude oil prices would be lower in each year than it had expected in August. As a result, royalties from leases in the Outer Continental Shelf are $17 billion lower for the 2016–2025 period than they were in the August projections. A reduction in royalties leads to an increase in outlays.

Medicare. Under current law, payment rates for much of Medicare's fee-for-service sector (such as hospital care and services provided by home health agencies and skilled nursing facilities) are updated automatically. Those updates are tied to changes in the prices of the labor, goods, and services that health care providers purchase, coupled with an adjustment for economywide gains in productivity (the ability to produce the same output using fewer inputs, such as hours of labor, than before) over a 10-year period. In general, CBO's projections show a smaller difference between price growth and productivity growth than the agency forecast in August. Consequently, CBO now anticipates lower payment rates for Medicare services than it did in August—a change that decreases outlays in CBO's baseline projections for the 2016–2025 period by $16 billion (or 0.2 percent).

Net Interest. Since August, CBO has revised its projections of net interest costs because of changes in the agency's forecasts for interest rates and inflation as well as changes in its projections of government borrowing that result from changes in the economic outlook (labeled in Table A-1 on page 108 as debt service). Together, those revisions led CBO to reduce—by $181 billion—its baseline projection for net interest spending for the period from 2016 through 2025, mostly because of the revisions related to interest rates and inflation.

Specifically, CBO expects that interest rates on most Treasury securities will be lower (by an average of about 0.2 percentage points) throughout the period. The agency also has markedly reduced (by about 0.6 percentage points) its estimate of inflation for 2016, which results in a lower projection of the cost of Treasury inflation-protected securities, but has left its estimate of inflation over the 2017–2025 period mostly unchanged. Overall, those and other changes to CBO's economic forecast since last August have led the agency to project net interest outlays that are $14 billion lower for 2016 and $228 billion lower for the 2016–2025 period.

In addition, the economic forecast led CBO to increase its projection of the total deficit for the 2016–2025 period by $390 billion (the net effect of updates to projections of revenues and outlays). Because of the greater borrowing associated with larger deficits, CBO has increased its projections of debt-service costs for the 2016–2025 period by $47 billion.

Technical Changes to Projections

Technical changes, which are those that are not related to recently enacted legislation or to revised economic factors, also affect CBO's baseline projections for revenues and outlays. Such changes caused CBO to reduce its estimate of the 2016 deficit by $51 billion but to increase its estimate of the 10-year deficit by $363 billion. Nearly equal changes to estimates of revenues and outlays contributed to the decline in the estimated deficit for the current year; however, almost all of the projected increase in the cumulative deficit for 2016 through 2025 stems from an increase in CBO's projection of outlays.

Changes to Revenues

Overall, CBO modified its August 2015 revenue projections by relatively small amounts to incorporate various technical adjustments. As a result, the agency increased its 2016 revenue projections by $28 billion (or 0.8 percent), but reduced the cumulative revenue projections for the 2016–2025 period by $30 billion (or 0.1 percent).

Most significantly, CBO reduced its projections of corporate income tax receipts for technical reasons by $101 billion over the 2016–2025 period. That change largely reflects an increase in CBO's projections of certain tax deductions as a share of domestic economic profits—the measure of profits from the Bureau of Economic Analysis that is projected as a part of CBO's economic outlook; those deductions have amounted to a larger percentage of domestic economic profits in recent years than CBO had expected, and CBO now expects the recent trend to continue. The higher projected tax deductions lower CBO's projections of taxable profits and tax receipts.

Those reductions were partially offset by the net effect of changes to the projections of individual income and payroll taxes. The most significant technical change in that regard was to increase the rate of growth of wages and salaries for higher-income taxpayers relative to the growth of such income for other taxpayers—anticipating a greater difference in those growth rates than CBO had previously incorporated into its projections. That adjustment, which reflects a reexamination of recent trends, causes a greater share of total wages and salaries in CBO's updated projections to be taxed at higher income tax rates. However, that same adjustment pushes more wages and salaries in CBO's projections above the maximum amount per taxpayer that is subject to the Social Security payroll tax (currently $118,500). As a result of that and other changes, for the 2016–2025 period, CBO raised its projections of receipts from individual income taxes by $117 billion and lowered its projections of receipts from payroll taxes by $41 billion.

Changes to Outlays

As a result of technical updates to spending estimates for various programs and to estimates for certain offsetting receipts, CBO lowered its estimate of 2016 outlays by $23 billion (largely as a result of the recording of cash receipts from Fannie Mae and Freddie Mac). In the other direction, CBO raised its projection of outlays for the 2016–2025 period by $333 billion (or 0.7 percent), mostly because of higher projections of mandatory outlays.

Mandatory Spending. Technical revisions have reduced the amount of spending projected for the current year by $27 billion. For the 2016–2025 period, technical updates increased the total projection for mandatory spending by $258 billion.

Medicaid. CBO's 10-year projections of spending for Medicaid are $187 billion (or 4 percent) higher than the agency estimated in August 2015. That change is largely attributable to an increase in the projection of spending for newly eligible enrollees under the Affordable Care Act (ACA). Actual enrollment and spending for that category in 2015 exceeded CBO's prior estimates, and the agency has significantly boosted its projections of enrollment and spending for the 2016–2025 period. CBO now projects that in 2025 about 14.5 million people who will be eligible for Medicaid as a result of the ACA will enroll in the program; in August, CBO had estimated that number at about 11.5 million. Similarly, CBO projects that spending for those newly eligible enrollees will be about $114 billion in 2025; its August 2015 projection was $97 billion.

Veterans' Compensation and Pensions. CBO has made significant changes to projections for veterans' disability compensation, increasing mandatory outlays by about $152 billion (or 14 percent) over the 2016–2025 period. Veterans' disability compensation is driven by two factors: the number of veterans receiving compensation and the amount of the average benefit payment. On the basis of its observation of sustained trends, CBO boosted its projection of the number of veterans receiving disability compensation for the 10-year projection period by 400,000. In addition, updated information from the Department of Veterans Affairs showed that, on average, benefit payments for disability compensation have risen by about 5 percent per year over the past decade—a faster rate of increase than CBO had used in its earlier projections. CBO's current baseline reflects monthly disability payments that are, on average, about $150 higher per veteran.

Social Security. CBO has reduced its projections of outlays for Social Security over the 2016–2025 period by $97 billion (or 0.8 percent). Two-thirds of that reduction is in Old-Age and Survivors Insurance (OASI); the other third is in Disability Insurance (DI). About half of the reduction in OASI outlays stems from updated population projections, which reduced the number of people eligible for benefits. Most of the remaining change occurred because CBO is now projecting slightly slower growth in the share of older people who will receive OASI benefits, based on recent trends. The reduction in DI outlays is based primarily on recent data showing smaller caseloads than previously projected.

Fannie Mae and Freddie Mac. Because the government placed Fannie Mae and Freddie Mac into conservatorship in 2008 and now controls their operations, CBO considers their activities governmental and includes the budgetary effects of their activities in its projections as if they were federal agencies. On that basis, for the 10-year period after the current fiscal year, CBO projects subsidy costs of their new activities using procedures that are similar to those specified in the Federal Credit Reform Act of 1990 for determining the costs of federal credit programs—but with adjustments to reflect the associated market risk. The Administration, in contrast, considers Fannie Mae and Freddie Mac to be outside the federal government for budgetary purposes and records cash transactions between those entities and the Treasury as federal outlays or receipts. (In CBO's view, those transactions should be considered intragovernmental.)

In its baseline, CBO treats the current fiscal year differently, in order to provide its best estimate of the amount that the Treasury ultimately will report as the federal deficit for 2016. Toward that end, CBO's baseline includes an estimate of net cash payments from Fannie Mae and Freddie Mac to the Treasury this year (that is, adopting the Administration's treatment for 2016), but it retains the risk-adjusted projections of subsidy costs for later years. CBO estimates that net payments from Fannie Mae and Freddie Mac to the Treasury will total $20 billion in 2016 (on the basis of the entities' most recent quarterly financial releases); those payments are recorded in the budget as offsetting receipts (reductions in outlays). By comparison, CBO's August 2015 baseline showed an estimated subsidy cost—that is, additional outlays—of about $3 billion for their activities in 2016. All told, that mostly conceptual difference reduces 2016 outlays in the baseline by $23 billion.

For 2017 through 2025, CBO's baseline follows the agency's customary approach of showing the estimated subsidy costs of mortgage guarantees provided and by loans purchased by Fannie Mae and Freddie Mac. To reflect market risk, those estimates are calculated on a fair-value basis. For the 2017–2025 period, CBO now estimates that those subsidy costs will total $11 billion—about $7 billion less than it projected in August. CBO expects that Fannie Mae and Freddie Mac will guarantee fewer mortgages over the next decade and that those mortgages will have lower associated fair-value costs.

Medicare. CBO increased its projection of Medicare outlays by $28 billion for the 2016–2025 period as a result of technical revisions. Most of that increase stems from the Centers for Medicare & Medicaid Services' release in November 2015 of its annual update of actuarial rates, premium rates, and deductibles for Part B of Medicare. Incorporating those data led CBO to reduce its projections of premiums paid for Part B, thus boosting the net spending projected for Medicare.

Other Mandatory Programs. Technical updates to other mandatory programs led CBO to lower its outlay projections by $17 billion for 2016 but raise them by the same amount for the entire projection period. Increased

outlays for the Supplemental Nutrition Assistance Program ($11 billion) and unemployment compensation ($11 billion) are the largest contributors to that 10-year total change. Partially offsetting those increases, CBO and JCT decreased, by $7 billion over the 2016–2025 period, estimated outlays for federal subsidies for health insurance purchased through the ACA's exchanges and for related spending. The spending decrease stems from a reduction of 4 million in the number of people estimated to receive subsidies in 2016 through enrollment in the exchanges.[10] Smaller increases and decreases to projections of outlays for a variety of other mandatory programs increase projected outlays by an additional $2 billion over the 2016–2025 period.

10. CBO and JCT estimate that about 11 million people, on average, will use subsidies to purchase insurance through an exchange during calendar year 2016. Additionally, the agencies project that about 2 million people will not be eligible for subsidies, but will purchase coverage through an exchange, for a total of 13 million people enrolled in coverage purchased through exchanges. Previously, in the March 2015 baseline projections, CBO and JCT projected that about 15 million people would receive exchange subsidies, on average, in 2016 and that an additional 6 million people would purchase unsubsidized coverage through an exchange, for a total of 21 million people enrolled in coverage purchased through exchanges. As discussed in Chapter 3, the enrollment projections and other factors underlying the estimates of exchange subsidies for years after 2016 have not been updated since March 2015, except to incorporate the effects of enacted legislation.

Discretionary Spending. As a result of technical updates, CBO's estimates of discretionary spending for 2016 are $3 billion lower than those in the August baseline; however, for the 2016–2025 period, such updates increase projected outlays by $3 billion. The largest changes over the 10-year period arise from a lower estimated negative subsidy rate (and thus higher outlays) related to mortgage guarantees provided by the Federal Housing Administration and from higher projected outlays for diplomatic and consular programs of the Department of State.

Net Interest. CBO's estimate of net interest outlays increased by $7 billion for 2016 and by $72 billion for the 2016–2025 period as a result of technical updates.

Higher debt-service costs—mostly resulting from larger deficits attributable to technical changes in CBO's baseline for revenues and outlays—add $41 billion to net interest outlays in CBO's baseline over the 10-year period.

In addition, CBO's estimate of interest outlays increased by $31 billion over the 2016–2025 period mostly because the agency now projects smaller receipts from the financing accounts associated with the government's credit programs (mostly stemming from a reduction in the projected volume of federal student loans).

APPENDIX

B

How Changes in Economic Projections Might Affect Budget Projections

The federal budget is highly sensitive to economic conditions. Revenues depend on the amount of income that is subject to taxation, including wages and salaries, other income received by individuals, and corporate profits. Those types of income generally rise or fall with overall economic activity, although not necessarily in proportion. In addition, the Treasury regularly refinances portions of the government's outstanding debt—and issues more debt to finance new deficits—at market interest rates. Thus, the amount that the federal government spends for interest on its debt is directly tied to those rates. And spending for many mandatory programs is affected by inflation, either explicitly through cost-of-living adjustments or in other ways.

To show how the economic outlook can affect projections of the federal budget, the Congressional Budget Office has constructed simplified "rules of thumb." The rules provide a rough sense of how differences in individual economic variables, taken in isolation, would affect the budget totals. Changes in any single variable, however, would quite likely affect many other variables in ways that would depend crucially on the cause of the original change and on the general economic conditions prevailing at the time. Estimating that full set of effects would require a more comprehensive analysis that could not be summarized in a simple rule.

The rules of thumb have been developed for three variables:

- Growth of real (inflation-adjusted) gross domestic product (GDP),
- Interest rates, and
- Inflation.

All three rules of thumb reflect alternative assumptions about economic conditions beginning in January 2016. CBO's rule of thumb for the growth of real GDP shows the effects of growth rates that are 0.1 percentage point lower each year than the rates that underlie the agency's baseline budget projections. (The budget projections are summarized in Chapter 1, and the economic projections are described in Chapter 2.) The rule of thumb for interest rates shows the effects of rates that are 1 percentage point higher each year than the rates used in the baseline; because inflation is held equal to its baseline projection in this rule of thumb, the results show the effects of higher real interest rates. Finally, the rule of thumb for inflation shows the effects of inflation that is 1 percentage point higher each year than is projected in the baseline.

Each rule of thumb is roughly symmetrical. Thus, if economic growth was 0.1 percentage point higher than in CBO's baseline, or if interest rates or inflation were 1 percentage point lower, the effects would be about the same as those shown here, but with the opposite sign.[1]

In addition to being symmetrical, the rules are also roughly scalable for moderate differences in growth rates. For example, a difference in economic growth of 0.2 percentage points in each year, rather than 0.1 percentage point, would change the deficit by about twice as much—but such a calculation would be less useful for a substantially different rate of economic growth.

CBO chose variations of 0.1 percentage point and 1 percentage point solely for simplicity. Those differences do not necessarily indicate the extent to which actual economic performance might differ from CBO's projections. For example, CBO's analysis of its economic forecasts from the past three decades found that the standard deviation of its five-year forecasts for the annual average

1. Interest rates on short-term Treasury securities could not be much lower in the near term. Rates on three-month Treasury securities were 0.04 percent in the last quarter of 2015, and CBO forecasts that they will remain below 1 percent through most of this calendar year.

growth of real GDP around the annual average growth rates of actual GDP was 1.2 percentage points. (If the nature of those differences is the same in the future as in the past, then CBO's current forecast for the next five years will, roughly speaking, have a two-thirds chance of being within a range of 1.2 percentage points above or below the actual amount.) Similarly, the standard deviation of its five-year forecasts for the annual average rate of inflation around the actual annual average rate of inflation was 0.6 percentage points.[2]

Slower Growth of Real GDP

Stronger economic growth improves the budget's bottom line, and weaker growth worsens it. The first rule of thumb illustrates the effects of economic growth that is slightly weaker than expected. A change in the rate of real economic growth could affect inflation, unemployment, wage rates, and interest rates; however, this rule of thumb does not include the effects of changes in those variables.

CBO's economic forecast includes growth of real GDP averaging 2.6 percent for the next two calendar years, dropping to an average of 2.0 percent from 2018 to 2026. If 0.1 percentage point was subtracted from each of those rates, by 2026 GDP would be roughly 1 percent smaller than the amount underlying CBO's baseline.

Slower growth of GDP would have several effects on the budget. If growth was 0.1 percentage point lower per year, it would result in less growth in taxable income and thus lower tax revenues—$2 billion less in 2016 and $58 billion less in 2026 (see Table B-1). With a smaller amount of revenues, the federal government would need to borrow more and thus would incur higher interest costs. Additional payments to service federal debt would be very small during the first few years of the projection period but larger in later years, reaching $10 billion by 2026. Mandatory spending, however, would be affected only slightly by such a decline in economic growth—in the form of higher outlays for the refundable portions of the earned income and child tax credits.[3]

All told, if growth of real GDP each year was 0.1 percentage point lower than in CBO's baseline projections, annual deficits would be larger by amounts that would climb to $69 billion by 2026, CBO estimates. The cumulative deficit for 2017 through 2026 would be $327 billion higher.

Higher Interest Rates

The second rule of thumb illustrates the sensitivity of the budget to changes in interest rates, which affect the flow of interest payments to and from the federal government. When the budget is in deficit, the Treasury must borrow additional funds from the public to cover the shortfall. Moreover, each year the Treasury refinances a substantial portion of the nation's outstanding debt at market interest rates. Those rates also help determine how much the Federal Reserve remits to the Treasury. Changes in interest rates could affect economic growth, the allocation of taxable income, unemployment, and inflation; however, this rule of thumb does not include the effects of changes in those variables.

If interest rates on all types of Treasury securities were 1 percentage point higher each year through 2026 than is projected in the baseline and all other economic variables were unchanged, the government's interest costs would be substantially larger. The difference would amount to only $16 billion in 2016 because most marketable government debt is in the form of securities that have maturities greater than one year. As the Treasury replaced maturing securities, however, the budgetary effects of higher interest rates would mount. Added costs from higher interest rates on the debt projected in CBO's baseline would reach $200 billion in 2026 under this scenario (see Table B-1).

As part of its conduct of monetary policy, the Federal Reserve buys and sells Treasury and other securities, including, over the past several years, a large amount of mortgage-backed debt. The Federal Reserve also pays interest on reserves (deposits that banks hold at the central bank). The interest that the Federal Reserve earns on its portfolio of securities and the interest that it pays on reserves affect its remittances to the Treasury, which are counted as revenues. If all interest rates were 1 percentage point higher for the coming decade than CBO projects, the Federal Reserve's remittances would be smaller for a number of years because higher interest payments on reserves would outstrip additional interest earnings on its portfolio. However, over time, the current holdings in the portfolio would mature

2. See Congressional Budget Office, *CBO's Economic Forecasting Record: 2015 Update* (February 2015), www.cbo.gov/publication/49891.

3. Tax credits reduce a taxpayer's income tax liability; if a refundable credit exceeds a taxpayer's other liability, all or a portion of the excess is refunded to the taxpayer and recorded as an outlay in the budget.

Table B-1.

How Selected Economic Changes Might Affect CBO's Baseline Budget Projections

Billions of Dollars

												Total	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2017-2021	2017-2026
Growth Rate of Real GDP Is 0.1 Percentage Point Lower per Year													
Change in Revenues	-2	-5	-9	-14	-19	-24	-30	-36	-43	-50	-58	-70	-286
Change in Outlays													
Mandatory spending	*	*	*	*	*	*	*	1	1	1	1	1	4
Debt service	*	*	*	1	1	2	3	5	6	8	10	5	37
Total	*	*	*	1	2	3	4	5	7	9	11	6	41
Increase (-) in the Deficit	**-2**	**-5**	**-10**	**-15**	**-20**	**-26**	**-33**	**-41**	**-49**	**-59**	**-69**	**-76**	**-327**
Interest Rates Are 1 Percentage Point Higher per Year													
Change in Revenues	-21	-26	-21	-15	-11	-7	-3	1	4	6	8	-80	-64
Change in Outlays													
Higher interest rates	16	43	64	83	102	121	138	155	169	184	200	414	1,261
Debt service	*	2	5	10	16	22	30	38	47	57	69	56	297
Total	16	45	70	94	118	143	168	193	217	242	269	470	1,558
Increase (-) in the Deficit	**-38**	**-71**	**-91**	**-109**	**-129**	**-150**	**-171**	**-192**	**-213**	**-236**	**-260**	**-549**	**-1,622**
Inflation Is 1 Percentage Point Higher per Year													
Change in Revenues	-5	23	64	109	156	207	261	320	384	454	529	559	2,507
Change in Outlays													
Discretionary spending[a]	0	1	1	2	3	4	12	23	36	50	65	12	196
Mandatory spending	*	14	34	60	89	121	159	195	234	286	340	318	1,532
Higher interest rates[b]	23	59	84	106	129	152	174	195	215	235	256	530	1,605
Debt service	*	2	4	7	10	14	18	23	29	35	43	37	186
Total	24	75	123	176	232	291	363	437	514	605	704	897	3,519
Increase (-) in the Deficit	**-29**	**-52**	**-58**	**-67**	**-76**	**-84**	**-101**	**-117**	**-130**	**-152**	**-175**	**-337**	**-1,012**
Memorandum:													
Deficit in CBO's January 2016 Baseline	-544	-561	-572	-738	-810	-893	-1,044	-1,077	-1,089	-1,226	-1,366	-3,575	-9,378

Source: Congressional Budget Office.

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

a. Most discretionary spending through 2021 is governed by caps established by the Budget Control Act of 2011; in CBO's baseline, that spending would not be affected by changes in projected inflation.

b. The change in outlays attributable to higher interest rates in this scenario differs from the estimate in the scenario for interest rates because the principal of inflation-protected securities issued by the Treasury grows with inflation.

and be replaced with higher-yielding investments; CBO projects that by 2023 the Federal Reserve's remittances would be larger if interest rates were higher than projected. Overall, rates that were 1 percentage point higher than in CBO's baseline (all else being equal) would cause revenues from the Federal Reserve's remittances to be $64 billion smaller between 2017 and 2026.

The larger deficits generated by the increase in interest rates would require the Treasury to borrow more than is projected in the baseline. That extra borrowing would raise the cost of servicing the debt by amounts that would reach $69 billion in 2026.

In sum, if interest rates were 1 percentage point higher than projected in CBO's baseline, the deficit would worsen progressively over the projection period by amounts increasing from $38 billion in 2016 to $260 billion in 2026. The cumulative deficit would be $1.6 trillion higher over the 2017–2026 period.

Higher Inflation

The third rule of thumb shows the budgetary effects of inflation that is 1 percentage point higher, for all price and wage indexes, than is projected in CBO's baseline—with no differences in other economic variables except for interest rates, as described below. Although higher inflation increases both revenues and outlays, the net effect would be substantially larger budget deficits. Changes in inflation could also lead to changes in economic growth and unemployment; however, this rule of thumb does not include the effect of changes in those variables.

Effects on Revenues

Larger increases in wage rates and prices generally lead to greater labor income, profits, and other income, which in turn generate larger collections of individual income taxes, payroll taxes, and corporate income taxes. The parameters in the individual income tax system that affect most taxpayers—including the income thresholds for both the regular and alternative minimum tax brackets, the standard deduction, and personal exemptions—are indexed for inflation. Therefore, the share of taxpayers' income that is taxed at certain rates does not change very much when income increases because of higher inflation, so tax collections tend to rise roughly proportionally with income under those circumstances. However, some parameters of the individual income tax system are not indexed for inflation: For example, the income thresholds for the surtax on investment income are fixed in nominal dollars, so if income rose because of higher inflation, the surtax would apply to a larger share of taxpayers' income.

For the payroll tax, rates are mostly the same across income levels, and the maximum amount of earnings subject to the Social Security tax rises (after a lag) with average wages in the economy; therefore, higher wage inflation leads to a roughly proportional increase in payroll tax revenues. Similarly, although the brackets under the corporate income tax are not indexed for inflation, nearly all corporate profits are taxed at the top rate; consequently, an increase in profits resulting from higher inflation generates a roughly proportional increase in corporate tax revenues. All told, inflation that was 1 percentage point higher than CBO projects in each year would add $2.5 trillion to projected revenues in CBO's baseline between 2016 and 2026.

Effects on Mandatory Spending

Higher inflation, however, would also increase the cost of a number of mandatory spending programs, adding $1.5 trillion to projected spending. Benefits for many mandatory programs are automatically adjusted each year to reflect increases in prices. Specifically, benefits paid for Social Security, federal employees' retirement programs, disability compensation for veterans, Supplemental Nutrition Assistance Program, Supplemental Security Income, the refundable portion of the earned income tax credit, and the child nutrition programs, among others, are adjusted (with a lag) for changes in the consumer price index or one of its components. Many of Medicare's payment rates are also adjusted annually for inflation. Spending for some other programs, such as Medicaid, is not formally indexed to price changes but tends to grow with inflation because the costs of providing benefits under those programs increase as prices rise. In addition, to the extent that initial benefit payments to participants in retirement and disability programs are linked to wages, increases in nominal wages resulting from higher wage inflation boost future outlays for those programs.

Effects on Discretionary Spending

Higher inflation would raise CBO's baseline projections of future spending for discretionary programs, but only by a modest amount. Two components of CBO's discretionary baseline would be affected by this rule of thumb.

First, the Budget Control Act of 2011 (Public Law 112-25), as modified by subsequent legislation, imposes caps on most discretionary budget authority through 2021, and CBO's baseline incorporates the assumption that appropriations for most purposes will be equal to those caps. Higher inflation would not alter the statutory caps and thus would have no effect on CBO's projections of spending constrained by those limits. For the years following 2021—when caps will no longer be in place—CBO's baseline projections incorporate the assumption that the discretionary funding subject to the caps will increase with inflation. As a result, inflation that was 1 percentage point higher than in the baseline would boost projected outlays from 2022 through 2026 by a total of $150 billion.

Although the caps on discretionary appropriations are not indexed for inflation, higher inflation would diminish the amount of goods that could be acquired and the benefits and services that could be provided under those fixed caps.[4] If, over time, higher inflation led lawmakers

4. In CBO's baseline, the caps for 2017 and 2018 remain close to the total amount specified for 2016; the caps grow by about 2.5 percent a year from 2019 through 2021.

to adjust the discretionary caps, the effect on spending and on the deficit would be greater.

Second, higher inflation would slightly increase discretionary outlays in CBO's baseline over the 2017–2026 period because the law specifies that the caps may be adjusted to accommodate appropriations for certain purposes. In 2016, those adjustments include $74 billion designated for overseas contingency operations, $7 billion in funding provided for disaster relief, $1.5 billion for initiatives aimed at enhancing program integrity by reducing improper payments from certain benefit programs, and nearly $1 billion in funding for emergencies. CBO's baseline extrapolates the funding provided for those purposes in future years based on the amounts appropriated for 2016, with adjustments for inflation; if inflation was 1 percentage point higher, projected outlays for those purposes would increase by $46 billion between 2017 and 2026. Altogether, if inflation was 1 percentage point higher, CBO's projections of discretionary outlays would rise by $196 billion over the 10-year period.

Effects on Net Interest Costs

Inflation also has an impact on outlays for net interest because it affects interest rates. If inflation was 1 percentage point higher than CBO projects, for example, then interest rates would be 1 percentage point higher (all else being equal). As a result, new federal borrowing would incur higher interest costs, and outstanding inflation-indexed securities would be more costly for the federal government. In addition, higher interest rates would first reduce and then increase revenues from the Federal Reserve's remittances to the Treasury (as explained in the section on higher interest rates). The direct effect of such higher rates is that $1.6 trillion of additional interest costs would be added to CBO's baseline projection of outlays. In addition, the effects of higher inflation would increase debt by $826 billion over the 10-year period and therefore boost interest costs by another $186 billion.

Total Effects

If inflation each year was 1 percentage point higher than the rate underlying CBO's baseline, total revenues and outlays over the 10-year period would be about 6 percent and 7 percent greater, respectively, than is projected in the baseline. Over the 2017–2026 period, the deficit would be $1.0 trillion higher (see Table B-1).

APPENDIX

C

The Automatic Stabilizers in the Federal Budget

Federal revenues and outlays regularly respond to cyclical movements in the economy in ways that tend to dampen those movements. When the economy is operating below its potential, personal income is less and other tax bases are smaller than they would have been if the economy was operating at its potential; as a result, federal revenues are lower as well. Meanwhile, outlays for unemployment insurance benefits and some other transfer programs are higher. Those changes in revenues and outlays tend to encourage private spending. By contrast, when the economy is operating above its potential, revenues are higher and transfer payments lower than they would have been if the economy was operating at its potential—changes that tend to restrain private spending. Those cyclical components of revenues and outlays are known as automatic stabilizers because they occur without any legislated changes in tax and spending policies and because they tend to dampen the magnitude of cyclical fluctuations in the economy.

The Congressional Budget Office estimates the automatic stabilizers in order to inform policymakers and analysts about the extent to which changes in the budget deficit are caused by cyclical developments in the economy and thus are likely to prove temporary. The automatic stabilizers are measured as the estimated effects of the cyclical components of gross domestic product (GDP) and the unemployment rate on federal revenues and outlays—and thus on federal budget deficits.[1] Those cyclical components are the difference or gap between GDP and potential (maximum sustainable) GDP and the gap between the rate of unemployment and the underlying long-term rate of unemployment.[2]

On the basis of CBO's current economic and budgetary projections, which incorporate the assumption that current law generally will not change, the agency projects that the automatic stabilizers would add to the budget deficit and support economic activity by small amounts throughout the period from 2016 to 2026. The automatic stabilizers are projected to shrink over the next three years as the GDP gap narrows and the unemployment rate falls below CBO's estimate of the underlying long-term rate of un-employment. In later years, CBO projects, the GDP gap and the unemployment gap would return to their average values, which would cause the automatic stabilizers to grow again, though their contributions to the budget deficit would remain small. (See Chapter 2 for a discussion of CBO's economic projections for the next 10 years.)

How Large Were the Automatic Stabilizers Last Year?

In fiscal year 2015, the automatic stabilizers added $141 billion to the federal budget deficit, an amount equal to 0.8 percent of potential GDP, according to CBO's analysis (see Table C-1 and Table C-2).[3] (The estimated sizes of the automatic stabilizers in different years are presented as percentages of potential rather than actual GDP because potential GDP excludes fluctuations that are attributable to the business cycle.) It was the first time since the conclusion of the last recession that the automatic stabilizers added less than 1 percent of potential GDP to the deficit (see Figure C-1 on page 128).

1. CBO's estimates of the automatic stabilizers reflect the assumption that discretionary spending and interest payments do not respond automatically to the business cycle. For a description of the methods that CBO uses to estimate automatic stabilizers, see Frank Russek and Kim Kowalewski, *How CBO Estimates Automatic Stabilizers*, Working Paper 2015-07 (Congressional Budget Office, November 2015), www.cbo.gov/publication/51005.

2. The underlying long-term rate of unemployment is CBO's estimate of the rate that would occur when output was at its potential.

3. For CBO's previous estimates of the automatic stabilizers, see Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025* (January 2015), Appendix D, www.cbo.gov/publication/49892. CBO's revisions to those estimates stem from the July 2015 annual revision of the national income and product accounts by the Bureau of Economic Analysis, changes to CBO's economic estimates and projections, and technical improvements in CBO's approach to estimating automatic stabilizers.

Table C-1.

Deficit or Surplus With and Without CBO's Estimate of Automatic Stabilizers, and Related Estimates, in Billions of Dollars

	Deficit (-) or Surplus With Automatic Stabilizers	– Automatic Stabilizers	= Deficit (-) or Surplus Without Automatic Stabilizers	Revenues and Outlays Without Automatic Stabilizers		GDP Gap[a]	Unemployment Gap (Percent)[b]
				Revenues	Outlays		
1965	-1	3	-4	115	119	8	-0.7
1966	-4	10	-13	123	137	33	-1.7
1967	-9	10	-19	142	161	31	-2.0
1968	-25	9	-34	148	182	27	-2.0
1969	3	12	-8	180	188	31	-2.4
1970	-3	5	-7	192	200	8	-1.9
1971	-23	-4	-19	192	211	-12	-0.2
1972	-23	-2	-21	210	231	-3	-0.1
1973	-15	11	-26	222	248	39	-0.9
1974	-6	10	-16	257	273	26	-1.2
1975	-53	-19	-34	295	329	-61	1.2
1976	-74	-25	-49	315	365	-59	1.8
1977	-54	-14	-39	365	404	-36	1.1
1978	-59	*	-59	399	458	-4	**
1979	-41	9	-50	457	506	14	-0.4
1980	-74	-18	-56	532	588	-61	0.6
1981	-79	-30	-49	621	670	-66	1.2
1982	-128	-72	-56	670	726	-201	3.0
1983	-208	-97	-110	667	777	-238	4.1
1984	-185	-29	-156	685	841	-79	1.8
1985	-212	-8	-204	736	940	-35	1.2
1986	-221	-4	-217	768	985	-18	1.0
1987	-150	-7	-143	858	1,002	-27	0.4
1988	-155	12	-167	899	1,066	31	-0.3
1989	-153	27	-180	968	1,148	74	-0.7
1990	-221	18	-239	1,017	1,256	42	-0.5
1991	-269	-48	-221	1,098	1,319	-154	0.8
1992	-290	-68	-222	1,146	1,369	-170	1.7
1993	-255	-65	-190	1,208	1,397	-170	1.5
1994	-203	-56	-147	1,307	1,454	-149	0.9
1995	-164	-55	-108	1,405	1,513	-170	0.3
1996	-107	-61	-46	1,512	1,558	-174	0.2
1997	-22	-26	4	1,611	1,606	-80	**
1998	69	-2	71	1,729	1,658	-12	-0.5
1999	126	39	87	1,797	1,710	107	-0.7

Continued

Table C-1. Continued

Deficit or Surplus With and Without CBO's Estimate of Automatic Stabilizers, and Related Estimates, in Billions of Dollars

	Deficit (-) or Surplus With Automatic Stabilizers	– Automatic Stabilizers	= Deficit (-) or Surplus Without Automatic Stabilizers	Revenues and Outlays Without Automatic Stabilizers		GDP Gap[a]	Unemployment Gap (Percent)[b]
				Revenues	Outlays		
2000	236	78	158	1,960	1,802	217	-1.0
2001	128	27	101	1,975	1,873	23	-0.7
2002	-158	-64	-94	1,910	2,004	-215	0.7
2003	-378	-102	-275	1,871	2,146	-319	1.0
2004	-413	-61	-352	1,929	2,281	-169	0.6
2005	-318	-22	-296	2,171	2,467	-59	0.2
2006	-248	2	-250	2,407	2,658	-8	-0.2
2007	-161	-11	-149	2,587	2,736	-74	-0.4
2008	-459	-65	-393	2,585	2,978	-238	0.4
2009	-1,413	-291	-1,122	2,333	3,455	-992	3.6
2010	-1,294	-343	-952	2,413	3,364	-922	4.7
2011	-1,300	-304	-996	2,518	3,514	-820	4.0
2012	-1,087	-235	-852	2,610	3,462	-648	3.2
2013	-680	-239	-440	2,951	3,392	-698	2.5
2014	-485	-202	-283	3,181	3,464	-585	1.5
2015	-439	-141	-298	3,370	3,668	-423	0.6
2016	-544	-89	-455	3,462	3,917	-294	-0.1
2017	-561	-34	-528	3,552	4,080	-124	-0.4
2018	-572	-3	-570	3,643	4,213	-21	-0.3
2019	-738	-9	-729	3,757	4,487	-33	**
2020	-810	-31	-779	3,943	4,722	-88	0.2
2021	-893	-41	-852	4,109	4,961	-109	0.2
2022	-1,044	-42	-1,002	4,278	5,280	-114	0.2
2023	-1,077	-43	-1,034	4,455	5,490	-119	0.2
2024	-1,089	-45	-1,045	4,646	5,691	-124	0.2
2025	-1,226	-47	-1,180	4,855	6,035	-129	0.2
2026	-1,366	-49	-1,318	5,074	6,391	-135	0.2

Source: Congressional Budget Office, using data from the Office of Management and Budget.

Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in GDP and unemployment.

Shaded amounts are actual deficits or surpluses.

GDP = gross domestic product; * = between zero and $500 million; ** = between -0.05 percent and 0.05 percent.

a. The GDP gap equals actual or projected GDP minus CBO's estimate of potential GDP (the maximum sustainable output of the economy).

b. The unemployment gap equals the actual or projected rate of unemployment minus the underlying long-term rate of unemployment.

Table C-2.

Deficit or Surplus With and Without CBO's Estimate of Automatic Stabilizers, and Related Estimates, as a Percentage of Potential Gross Domestic Product

	Deficit (-) or Surplus With Automatic Stabilizers	– Automatic Stabilizers	= Deficit (-) or Surplus Without Automatic Stabilizers	Revenues and Outlays Without Automatic Stabilizers		GDP Gap[a]	Unemployment Gap (Percent)[b]
				Revenues	Outlays		
1965	-0.2	0.4	-0.6	16.3	17.0	1.1	-0.7
1966	-0.5	1.3	-1.8	16.5	18.3	4.4	-1.7
1967	-1.1	1.3	-2.3	17.6	19.9	3.9	-2.0
1968	-2.9	1.0	-3.9	16.9	20.8	3.1	-2.0
1969	0.3	1.2	-0.9	18.9	19.8	3.3	-2.4
1970	-0.3	0.4	-0.7	18.5	19.2	0.8	-1.9
1971	-2.0	-0.4	-1.7	17.0	18.6	-1.1	-0.2
1972	-1.9	-0.2	-1.7	17.2	18.9	-0.3	-0.1
1973	-1.1	0.8	-2.0	16.9	18.8	3.0	-0.9
1974	-0.4	0.7	-1.1	17.6	18.7	1.8	-1.2
1975	-3.2	-1.1	-2.1	17.7	19.7	-3.6	1.2
1976	-4.0	-1.3	-2.7	17.1	19.7	-3.2	1.8
1977	-2.6	-0.7	-1.9	17.7	19.6	-1.8	1.1
1978	-2.6	*	-2.6	17.5	20.1	-0.2	*
1979	-1.6	0.3	-1.9	17.9	19.8	0.6	-0.4
1980	-2.6	-0.6	-2.0	18.6	20.6	-2.2	0.6
1981	-2.5	-0.9	-1.5	19.4	20.9	-2.1	1.2
1982	-3.6	-2.0	-1.6	19.1	20.7	-5.7	3.0
1983	-5.5	-2.6	-2.9	17.7	20.6	-6.3	4.1
1984	-4.6	-0.7	-3.9	17.0	20.9	-2.0	1.8
1985	-4.9	-0.2	-4.7	17.1	21.8	-0.8	1.2
1986	-4.9	-0.1	-4.8	16.9	21.6	-0.4	1.0
1987	-3.1	-0.1	-3.0	17.9	20.8	-0.6	0.4
1988	-3.0	0.2	-3.3	17.5	20.8	0.6	-0.3
1989	-2.8	0.5	-3.3	17.6	20.9	1.3	-0.7
1990	-3.8	0.3	-4.1	17.3	21.4	0.7	-0.5
1991	-4.3	-0.8	-3.5	17.5	21.0	-2.5	0.8
1992	-4.4	-1.0	-3.4	17.4	20.7	-2.6	1.7
1993	-3.7	-0.9	-2.7	17.3	20.1	-2.4	1.5
1994	-2.8	-0.8	-2.0	17.8	19.8	-2.0	0.9
1995	-2.1	-0.7	-1.4	18.1	19.5	-2.2	0.3
1996	-1.3	-0.8	-0.6	18.5	19.1	-2.1	0.2
1997	-0.3	-0.3	0.1	18.8	18.8	-0.9	*
1998	0.8	*	0.8	19.3	18.5	-0.1	-0.5
1999	1.3	0.4	0.9	19.1	18.2	1.1	-0.7

Continued

Table C-2. Continued

Deficit or Surplus With and Without CBO's Estimate of Automatic Stabilizers, and Related Estimates, as a Percentage of Potential Gross Domestic Product

	Deficit (-) or Surplus With Automatic Stabilizers	– Automatic Stabilizers	= Deficit (-) or Surplus Without Automatic Stabilizers	Revenues and Outlays Without Automatic Stabilizers		GDP Gap[a]	Unemployment Gap (Percent)[b]
				Revenues	Outlays		
2000	2.4	0.8	1.6	19.7	18.1	2.2	-1.0
2001	1.2	0.3	1.0	18.7	17.8	0.2	-0.7
2002	-1.4	-0.6	-0.8	17.2	18.1	-1.9	0.7
2003	-3.2	-0.9	-2.4	16.1	18.4	-2.7	1.0
2004	-3.4	-0.5	-2.9	15.7	18.6	-1.4	0.6
2005	-2.5	-0.2	-2.3	16.8	19.1	-0.5	0.2
2006	-1.8	*	-1.8	17.6	19.4	-0.1	-0.2
2007	-1.1	-0.1	-1.0	18.0	19.0	-0.5	-0.4
2008	-3.1	-0.4	-2.6	17.2	19.9	-1.6	0.4
2009	-9.2	-1.9	-7.3	15.1	22.4	-6.4	3.6
2010	-8.2	-2.2	-6.1	15.3	21.4	-5.9	4.7
2011	-8.0	-1.9	-6.1	15.5	21.7	-5.1	4.0
2012	-6.5	-1.4	-5.1	15.6	20.8	-3.9	3.2
2013	-4.0	-1.4	-2.6	17.2	19.7	-4.1	2.5
2014	-2.7	-1.1	-1.6	17.9	19.5	-3.3	1.5
2015	-2.4	-0.8	-1.6	18.5	20.1	-2.3	0.6
2016	-2.9	-0.5	-2.4	18.4	20.8	-1.6	-0.1
2017	-2.9	-0.2	-2.7	18.3	21.0	-0.6	-0.4
2018	-2.8	*	-2.8	18.1	20.9	-0.1	-0.3
2019	-3.5	*	-3.5	17.9	21.4	-0.2	*
2020	-3.7	-0.1	-3.6	18.1	21.7	-0.4	0.2
2021	-3.9	-0.2	-3.8	18.1	21.9	-0.5	0.2
2022	-4.4	-0.2	-4.2	18.1	22.3	-0.5	0.2
2023	-4.4	-0.2	-4.2	18.1	22.3	-0.5	0.2
2024	-4.3	-0.2	-4.1	18.1	22.2	-0.5	0.2
2025	-4.6	-0.2	-4.4	18.2	22.6	-0.5	0.2
2026	-4.9	-0.2	-4.7	18.3	23.0	-0.5	0.2

Source: Congressional Budget Office, using data from the Office of Management and Budget.

Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in GDP and unemployment.

Shaded amounts are actual deficits or surpluses.

GDP = gross domestic product; * = between -0.05 percent and 0.05 percent.

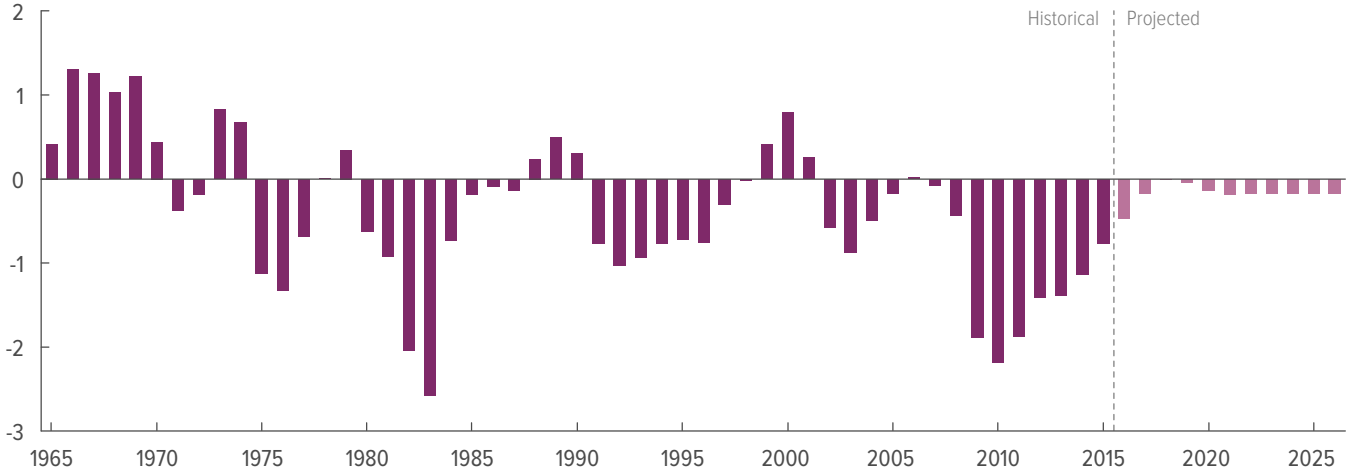
a. The GDP gap equals actual or projected GDP minus CBO's estimate of potential GDP (the maximum sustainable output of the economy), expressed as a percentage of potential GDP.

b. The unemployment gap equals the actual or projected rate of unemployment minus the underlying long-term rate of unemployment.

Figure C-1.

Contribution of Automatic Stabilizers to Budget Deficits and Surpluses

Percentage of Potential Gross Domestic Product



Source: Congressional Budget Office.

Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in gross domestic product and unemployment.

Potential gross domestic product is CBO's estimate of the maximum sustainable output of the economy.

Data are fiscal year values.

How Large Would the Automatic Stabilizers Be Over the Next Decade?

CBO expects that, if current law generally did not change, the automatic stabilizers would be much smaller in future years than they were in the seven preceding years, reflecting the projected declines in the GDP gap and the unemployment gap. For this fiscal year, the agency projects that the automatic stabilizers will add $89 billion to the federal budget deficit, an amount equal to 0.5 percent of potential GDP, after adding, on average, an amount equal to 1.5 percent of potential GDP over the period from 2009 to 2015. In later years, the automatic stabilizers are projected to shrink further—to essentially zero in 2018 and 2019—and then to increase slightly, adding to the deficit an amount equal to 0.2 percent of potential GDP, as the GDP and unemployment gaps return to their average values of –0.5 percent and 0.2 percent, respectively.[4]

How Large Would Budget Deficits Without the Automatic Stabilizers Be Over the Next Decade?

Removing CBO's estimate of the automatic stabilizers from the federal budget deficit yields an estimate of what the deficit would be if GDP was at its potential, the unemployment rate was at its underlying long-term rate, and all other factors were unchanged. The budget deficit without the automatic stabilizers can help analysts evaluate the extent to which changes in the deficit are not caused by cyclical developments in the economy and thus are likely to prove enduring.[5]

If current law generally does not change, CBO projects, the budget deficit without the automatic stabilizers will equal 2.4 percent of potential GDP in fiscal year 2016, up from 1.6 percent in 2015 but still well below the values in the period from 2008 through 2013 (see Figure C-2). The increase between 2015 and 2016 results almost entirely from a projected rise in outlays without automatic stabilizers in relation to potential GDP.

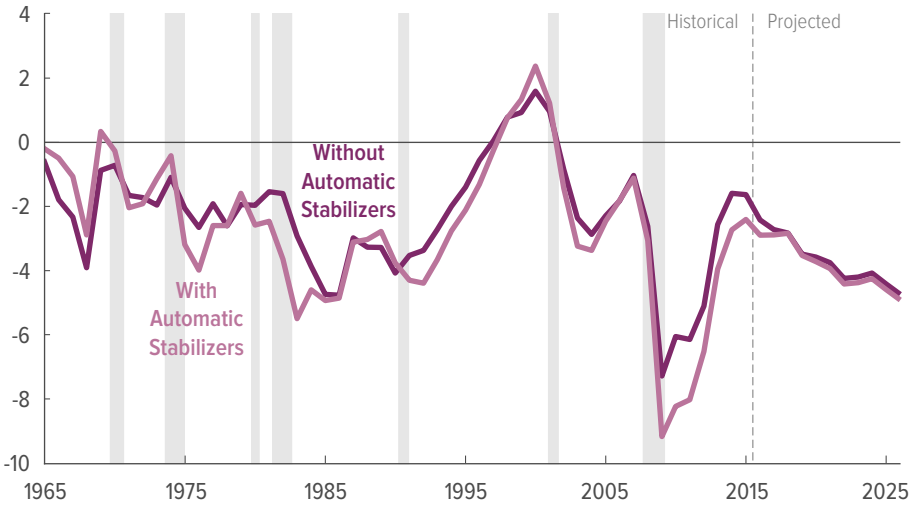
4. The average GDP gap is based on CBO's estimate that output has been that much lower than potential output, on average, over the period from 1961 to 2009. For further discussion, see Congressional Budget Office, *Why CBO Projects That Actual Output Will Be Below Potential Output on Average* (February 2015), www.cbo.gov/publication/49890. CBO's estimate of the average unemployment gap is consistent with its estimate of the average GDP gap.

5. The budget deficit without automatic stabilizers has also been called the cyclically adjusted or structural deficit.

Figure C-2.

Budget Deficits and Surpluses With and Without Automatic Stabilizers

Percentage of Potential Gross Domestic Product



The estimated deficit without automatic stabilizers has tended to increase during recessions and early in recoveries in part as a result of legislation enacted to boost the economy.

Source: Congressional Budget Office, using data from the Office of Management and Budget.

Automatic stabilizers are automatic changes in revenues and outlays that are attributable to cyclical movements in gross domestic product and unemployment.

Potential gross domestic product is CBO's estimate of the maximum sustainable output of the economy.

Data are fiscal year values.

For the decade after 2016, CBO's current-law projections show ongoing increases in the budget deficit without the automatic stabilizers. By 2026, the projected budget deficit without the automatic stabilizers equals 4.7 percent of potential GDP, and the deficit with the automatic stabilizers equals 4.9 percent of potential GDP. Essentially all of the anticipated 10-year increase in the deficit without the automatic stabilizers can be attributed to increases in mandatory spending without automatic stabilizers and increases in net interest payments that are only partly offset by a decline in discretionary spending (all measured as a percentage of potential GDP).

Why Do Budget Deficits Appear Cyclical Even After the Estimated Effects of the Automatic Stabilizers Are Filtered Out?

Despite the exclusion of the estimated effects of the business cycle, the deficit without the automatic stabilizers appears to be correlated with the business cycle. In particular, the deficit without the automatic stabilizers tends to increase during times of recession and early in recoveries. One reason for that correlation is that during times of recession or high unemployment, policymakers often legislate changes to support the weak economy, such as cutting taxes and increasing government spending, that increase the deficit (or reduce the surplus). Those changes require legislation, so their budgetary effects are not automatic, and they are not viewed as automatic stabilizers. During the past decade, for instance, lawmakers have enacted the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010; the American Recovery and Reinvestment Act of 2009; the Emergency Economic Stabilization Act of 2008; and the Housing and Economic Recovery Act of 2008. Another reason for the correlation is that CBO's methods for estimating the automatic stabilizers may only partly remove the budgetary effects of certain changes, such as large fluctuations in the stock market, that have not had a sufficiently regular relationship to business cycles to be viewed as mostly cyclical.

APPENDIX

D

Trust Funds

The federal government uses several accounting mechanisms to link earmarked receipts (that is, money designated for a specific purpose) with corresponding expenditures. Those mechanisms include trust funds (such as the Social Security trust funds), special funds (such as the fund that the Department of Defense uses to finance its health care program for military retirees), and revolving funds (such as the Federal Employees' Group Life Insurance fund). When the receipts designated for those funds exceed the amounts needed for expenditures, the funds are credited with nonmarketable debt instruments known as Government Account Series (GAS) securities, which are issued by the Treasury. At the end of fiscal year 2015, there was $5.0 trillion in such securities outstanding, 90 percent of which was held by trust funds.[1]

The federal budget has numerous trust funds, although most of the money credited to such funds goes to fewer than a dozen of them. By far the largest trust funds are Social Security's Old-Age and Survivors Insurance (OASI) Trust Fund, the funds dedicated to the government's retirement programs for its civilian and military personnel, and Medicare's Hospital Insurance (HI) Trust Fund (see Table D-1).

Ordinarily, when a trust fund receives cash that is not needed immediately to pay benefits or cover other expenses, the Treasury issues GAS securities in that amount to the fund and then uses the extra income to reduce the amount of new federal borrowing that is necessary to finance government activities. In other words, in the absence of changes to other tax and spending policies, the government borrows less from the public than it would without that extra net income. The reverse happens when revenues for a trust fund program fall short of expenses.

The balance of a trust fund at any given time is a measure of the historical relationship between the related program's receipts and expenditures. That balance (in the form of GAS securities) is an asset for the individual program, such as Social Security, but a liability for the rest of the government. The resources to redeem a trust fund's securities—and thereby pay for benefits or other spending—in some future year must be generated through taxes, income from other government sources, or borrowing from the public in that year. Trust funds have an important legal meaning in that their balances are a measure of the amounts that the government has the legal authority to spend for certain purposes under current law, but they have little relevance in an economic or budgetary sense unless the limits of that authority are reached.[2]

To assess how all federal activities, taken together, affect the economy and financial markets, it is useful to include the cash receipts and expenditures of trust funds in the budget totals along with the receipts and expenditures of other federal programs. Therefore, the Congressional Budget Office, the Office of Management and Budget, and other fiscal analysts generally focus on the total deficit in that unified budget, which includes the transactions of trust funds.

1. Debt issued in the form of GAS securities is included in a measure of federal debt called gross debt. Because such debt is intragovernmental in nature, however, it is not included in the measure called debt held by the public. (For a discussion of different measures of federal debt, see Chapter 1.)

2. For example, if the Disability Insurance Trust Fund's balance declined to zero and current revenues were insufficient to cover benefits specified in law, the Social Security Administration would no longer be permitted to pay full benefits when they were due. For additional discussion, see Noah P. Meyerson, *Social Security: What Would Happen If the Trust Funds Ran Out?* Report for Congress RL33514 (Congressional Research Service, August 28, 2014), available from U.S. House of Representatives, Committee on Ways and Means, *2014 Green Book*, Chapter 1: Social Security, "Social Security Congressional Research Service Reports" (accessed January 15, 2016), http://go.usa.gov/cCXcG.

Table D-1.

Trust Fund Balances Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Social Security												
Old-Age and Survivors Insurance	2,767	2,787	2,789	2,768	2,748	2,706	2,632	2,522	2,374	2,186	1,952	1,671
Disability Insurance[a]	42	44	60	78	64	38	6	0	0	0	0	0
Subtotal	2,808	2,831	2,849	2,846	2,812	2,744	2,639	2,522	2,374	2,186	1,952	1,671
Civilian Retirement[b]	750	903	918	932	947	961	975	989	1,003	1,017	1,031	1,044
Military Retirement	531	590	659	747	837	933	1,037	1,143	1,261	1,393	1,529	1,674
Medicare												
Hospital Insurance (Part A)[a]	195	190	192	203	201	192	177	139	105	76	25	0
Supplementary Medical Insurance (Part B)	66	70	73	83	84	85	86	87	90	95	95	101
Subtotal	262	260	265	286	284	277	262	226	194	170	120	101
Highway and Mass Transit[a]	8	66	54	41	26	10	0	0	0	0	0	0
Unemployment Insurance	29	40	49	54	58	58	61	64	66	66	69	72
Airport and Airway	13	13	13	15	16	16	16	18	19	19	19	20
Railroad Retirement (Treasury holdings)[c]	3	3	3	3	3	3	3	3	3	3	3	3
Other[d]	119	125	125	126	128	130	133	135	138	142	146	150
Total Trust Fund Balance	**4,523**	**4,830**	**4,935**	**5,050**	**5,111**	**5,133**	**5,126**	**5,100**	**5,058**	**4,995**	**4,868**	**4,735**
Memorandum:												
Railroad Retirement (Non-Treasury holdings)[c]	24	23	22	21	21	20	19	18	18	17	17	16

Source: Congressional Budget Office.

These balances are for the end of the fiscal year and include securities invested in Treasury holdings.

a. In keeping with the rules in section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's baseline incorporates the assumption that scheduled payments will continue to be made in full after the trust fund has been exhausted, although there is no legal authority to make such payments. Because the manner by which those payments continued would depend on future legislation, CBO shows zero rather than a cumulative negative balance in the trust fund after the exhaustion date.

b. Includes Civil Service Retirement, Foreign Service Retirement, and several smaller retirement trust funds.

c. The Railroad Retirement and Survivors' Improvement Act of 2001 established the National Railroad Retirement Investment Trust, which is allowed to invest in non-Treasury securities such as stocks and corporate bonds.

d. Consists primarily of trust funds for federal employees' health and life insurance, Superfund, and various insurance programs for veterans.

According to CBO's current baseline projections, the balances held by federal trust funds will increase by $307 billion in 2016. That increase is abnormally large because about $140 billion of deposits that were not credited to the Civil Service Retirement Trust Fund during the impasse over the debt limit last year were credited to the fund after the debt limit was suspended in November 2015; thus, those deposits add to the inflows into the fund this year.

Under current law, income credited to the trust funds is also projected to exceed outlays in each year from 2017 through 2020; however, each year thereafter, spending from the trust funds is projected to exceed income by an increasing amount. All told, CBO projects a cumulative net decrease in trust fund balances of $456 billion over the 2017–2026 period (see Table D-2).

Some of the trust funds' income is in the form of intragovernmental transfers. Examples of such transfers include interest credited to the trust funds, payments from general funds to cover most of the costs of payments for outpatient services (including payments to physicians) and prescription drugs under Parts B and D of Medicare, and the government's share of payments for federal employees' retirement. Such transfers shift resources from one category of the budget to another, but they do not directly change the total deficit or the government's borrowing needs. Intragovernmental transfers are projected to total $709 billion in 2016 and to exceed $1.1 trillion in 2026. With those transfers excluded and only income from sources outside the government (such as payroll taxes and Medicare premiums) counted, the trust fund programs will add $402 billion to the federal

Table D-2.

Trust Fund Deficits or Surpluses Projected in CBO's Baseline

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
Social Security														
Old-Age and Survivors Insurance	54	20	2	-21	-20	-42	-74	-110	-148	-188	-233	-281	-154	-1,116
Disability Insurance[a]	-28	2	16	18	-14	-27	-31	-35	-38	-41	-44	-48	-38	-245
Subtotal	25	23	18	-3	-34	-68	-105	-145	-187	-230	-277	-329	-192	-1,361
Civilian Retirement[b]	-126	152	15	15	14	14	14	14	14	14	14	13	72	141
Military Retirement	48	59	68	88	90	97	104	106	118	132	136	146	447	1,084
Medicare														
Hospital Insurance (Part A)[a]	-7	-5	2	11	-2	-8	-16	-37	-35	-29	-51	-68	-14	-233
Supplementary Medical Insurance (Part B)	-2	3	3	11	*	1	1	1	3	5	*	6	16	31
Subtotal	-9	-2	5	21	-2	-7	-15	-36	-32	-24	-50	-62	3	-201
Highway and Mass Transit[a]	-3	58	-12	-13	-14	-16	-18	-19	-21	-22	-24	-24	-74	-184
Unemployment Insurance	8	10	9	5	4	*	3	3	2	*	3	3	21	32
Airport and Airway	*	*	*	1	1	*	*	1	1	*	*	1	4	7
Other[c]	-5	5	1	1	2	2	3	3	3	4	4	4	8	26
Total Trust Fund Deficit (-) or Surplus	**-61**	**307**	**105**	**116**	**61**	**22**	**-15**	**-75**	**-101**	**-126**	**-195**	**-248**	**288**	**-456**
Intragovernmental Transfers to Trust Funds[d]	657	709	722	745	788	836	880	945	981	1,006	1,072	1,128	3,971	9,104
Net Budgetary Impact of Trust Fund Programs	**-718**	**-402**	**-617**	**-629**	**-727**	**-814**	**-895**	**-1,020**	**-1,082**	**-1,133**	**-1,267**	**-1,376**	**-3,683**	**-9,561**

Source: Congressional Budget Office.

Negative numbers indicate that the trust fund transactions add to total budget deficits.

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

a. CBO projects that the balance of this trust fund will be exhausted during the 2017–2026 period. However, in keeping with the rules in section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's baseline incorporates the assumption that scheduled payments will continue to be made in full after the trust fund has been exhausted, although there is no legal authority to make such payments. The manner by which those payments continued would depend on future legislation.

b. Includes Civil Service Retirement, Foreign Service Retirement, and several smaller retirement trust funds.

c. Consists primarily of trust funds for railroad workers' retirement, federal employees' health and life insurance, Superfund, and various insurance programs for veterans.

d. Includes interest paid to trust funds, payments from the Treasury's general fund to the Supplementary Medical Insurance Trust Fund, the government's share of payments for federal employees' retirement, lump-sum payments to the Civil Service and Military Retirement Trust Funds, taxes on Social Security benefits, and smaller miscellaneous payments.

deficit in 2016. They are projected to add to deficits throughout the 2017–2026 period by amounts that grow from $617 billion in 2017 to $1.4 trillion in 2026.

Without legislative action to address shortfalls, balances in three trust funds are projected to be exhausted during that period: the Highway Trust Fund (in 2021), Social Security's Disability Insurance (DI) Trust Fund (in 2022), and Medicare's HI trust fund (in 2026).

Social Security Trust Funds

Social Security provides benefits to retired workers, their families, and some survivors of deceased workers through the OASI program; it also provides benefits to some people with disabilities and their families through the DI program. Those benefits are financed mainly through payroll taxes that are collected on workers' earnings at a rate of 12.4 percent—6.2 percentage points of which are paid by the worker and 6.2 percentage points by the employer. Since January 2000, 10.6 percentage points

of the payroll tax have been credited to the OASI trust fund and 1.8 percentage points to the DI trust fund. The Bipartisan Budget Act of 2015 (Public Law 114-74) temporarily increased the share allocated to the DI trust fund, to 2.37 percentage points for calendar years 2016 through 2018. In those years, 10.03 percentage points of the payroll tax will be credited to the OASI trust fund.

Old-Age and Survivors Insurance

The OASI trust fund, which held $2.8 trillion in GAS securities at the end of 2015, is by far the largest of all federal trust funds. CBO projects that the fund's annual income, excluding interest on those securities, will decline from $702 billion last year to $699 billion in 2016 as a result of the payroll tax reallocation enacted in the Bipartisan Budget Act of 2015. Under current law, income received by the fund would increase over the remainder of the period, growing to nearly $1.1 trillion by 2026, CBO estimates (see Table D-3).[3] Expenditures from the fund are projected to be greater than and to grow faster than noninterest income each year over that period, rising from $769 billion in 2016 to $1.4 trillion in 2026. With expenditures growing by an average of about 6 percent a year and noninterest income (mostly from payroll taxes) increasing by an average of about 4 percent a year, the annual cash flows of the OASI program, excluding interest credited to the trust fund, would add to federal deficits in every year of the coming decade by amounts reaching $346 billion in 2026, CBO estimates. With interest receipts included, the OASI trust fund is projected to show a surplus in 2016 and 2017; however, by 2018, even with interest receipts taken into account, the trust fund is projected to start recording deficits that will reach $281 billion in 2026 (see Figure D-1).[4]

Disability Insurance

The DI trust fund is much smaller than the OASI fund; its balance at the end of 2015 was $42 billion. In CBO's current baseline, the annual income of the DI fund, excluding interest, jumps from $115 billion in 2015 to $148 billion in 2016 as a larger share of Social Security payroll taxes is credited to that fund. It then grows to $170 billion in 2018 but drops when the temporary increase in the payroll tax allocation expires at the end of that calendar year. The fund's income is projected to grow gradually beginning in 2021 and to reach $171 billion in 2026 (see Table D-3). As with the OASI fund, annual expenditures from the DI fund are projected to increase steadily over the next decade, but at a slower rate—about 4 percent—rising from $147 billion in 2016 to $219 billion in 2026. Under current law, annual noninterest income to the DI fund would exceed expenditures from 2016 through 2018 because of the payroll tax reallocation, but the DI trust fund would add to the federal deficit each year thereafter, CBO estimates. Even with interest receipts included, the trust fund is projected to run an annual deficit starting in 2019 (see Figure D-1).

Under current law, the balance of the DI fund is expected to be exhausted in 2022.[5] If the outlays were limited thereafter to revenues credited to the trust fund, then in 2022 they would be 19 percent below the amounts scheduled under the law, CBO estimates.

Trust Funds for Federal Employees' Retirement Programs

After Social Security, the largest trust fund balances at the end of 2015 were held by various civilian employee retirement funds (a total of $750 billion) and by the Military Retirement Trust Fund ($531 billion).[6] Unlike the Social Security and Medicare trust funds, those retirement funds are projected to run surpluses throughout the coming decade, growing from a combined total of $83 billion in 2017 to $159 billion in 2026; about 90 percent of the increased annual surplus is attributable to the Military Retirement Trust Fund (see Table D-2 on page 133).

As a result, in CBO's current baseline, the balance of the military retirement fund increases rapidly over the coming decade, reaching nearly $1.7 trillion in 2026. That

3. Although it is an employer, the federal government does not pay taxes. However, it makes an intragovernmental transfer from the general fund of the Treasury to the OASI and DI trust funds to cover the employer's share of the Social Security payroll tax for federal workers. That transfer is included in the income line in Table D-3.

4. According to CBO's most recent long-term projections, which are consistent with the 10-year baseline projections that were issued in March 2015 (modified to account for the payroll tax reallocation enacted in the Bipartisan Budget Act of 2015), the balance of the OASI trust fund will be exhausted in calendar year 2030. See Congressional Budget Office, *CBO's 2015 Long-Term Projections for Social Security: Additional Information* (December 2015), www.cbo.gov/publication/51047.

5. CBO projected that the DI trust fund would be exhausted in 2021 in *CBO's 2015 Long-Term Projections for Social Security: Additional Information* (December 2015), www.cbo.gov/publication/51047. Recent data have shown that DI caseloads are smaller than anticipated, so CBO has revised its projection of outlays for benefits, resulting in a later exhaustion date.

6. Those civilian retirement funds include the Civil Service Retirement Trust Fund, the Foreign Service Retirement Trust Fund, and several smaller retirement funds.

Table D-3.

Balances Projected in CBO's Baseline for the OASI, DI, and HI Trust Funds

Billions of Dollars

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2017-2026
OASI Trust Fund														
Beginning-of-Year Balance	2,713	2,767	2,787	2,789	2,768	2,748	2,706	2,632	2,522	2,374	2,186	1,952	n.a.	n.a.
Income (Excluding interest)	702	699	719	748	805	845	876	910	945	982	1,021	1,061	3,993	8,910
Expenditures	-741	-769	-802	-854	-911	-973	-1,037	-1,105	-1,175	-1,248	-1,326	-1,407	-4,577	-10,838
Noninterest Deficit	-39	-70	-83	-106	-106	-128	-161	-195	-230	-266	-305	-346	-584	-1,927
Interest received	93	90	85	85	86	87	87	85	82	78	72	64	430	811
Total Deficit (-) or Surplus	54	20	2	-21	-20	-42	-74	-110	-148	-188	-233	-281	-154	-1,116
End-of-Year Balance	**2,767**	**2,787**	**2,789**	**2,768**	**2,748**	**2,706**	**2,632**	**2,522**	**2,374**	**2,186**	**1,952**	**1,671**	**n.a.**	**n.a.**
DI Trust Fund[a]														
Beginning-of-Year Balance	70	42	44	60	78	64	38	6	0	0	0	0	n.a.	n.a.
Income (Excluding interest)	115	148	163	170	144	138	143	148	153	159	165	171	758	1,555
Expenditures	-146	-147	-149	-154	-161	-167	-175	-183	-192	-201	-209	-219	-806	-1,811
Noninterest Deficit (-) or Surplus	-31	1	14	15	-17	-29	-32	-35	-38	-41	-44	-48	-48	-256
Interest received	3	2	2	3	3	2	1	0	0	0	0	0	11	11
Total Deficit (-) or Surplus	-28	2	16	18	-14	-27	-31	-35	-38	-41	-44	-48	-38	-245
End-of-Year Balance	**42**	**44**	**60**	**78**	**64**	**38**	**6**	**0**	**0**	**0**	**0**	**0**	**n.a.**	**n.a.**
HI Trust Fund[a]														
Beginning-of-Year Balance	202	195	190	192	203	201	192	177	139	105	76	25	n.a.	n.a.
Income (Excluding interest)	269	285	299	313	326	341	356	373	391	409	429	450	1,636	3,688
Expenditures	-284	-299	-306	-311	-338	-358	-381	-418	-431	-443	-483	-517	-1,693	-3,986
Noninterest Deficit (-) or Surplus	-15	-14	-7	2	-11	-17	-24	-45	-41	-34	-54	-68	-58	-299
Interest received	9	9	9	9	9	9	8	8	6	5	3	0	44	66
Total Deficit (-) or Surplus	-7	-5	2	11	-2	-8	-16	-37	-35	-29	-51	-68	-14	-233
End-of-Year Balance	**195**	**190**	**192**	**203**	**201**	**192**	**177**	**139**	**105**	**76**	**25**	**0**	**n.a.**	**n.a.**

Source: Congressional Budget Office.

Balances shown are invested in Government Account Series securities issued by the Treasury.

DI = Disability Insurance; HI = Hospital Insurance; OASI = Old-Age and Survivors Insurance; n.a. = not applicable.

a. In keeping with the rules in section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's baseline incorporates the assumption that scheduled payments will continue to be made in full after the trust fund has been exhausted, although there is no legal authority to make such payments. Because the manner by which those payments continued would depend on future legislation, CBO shows zero rather than a cumulative negative balance in the trust fund after the exhaustion date. For the same reason, this table shows zero interest received rather than an interest payment, which implicitly reflects the assumption that future legislation would not require the funds to pay financing costs.

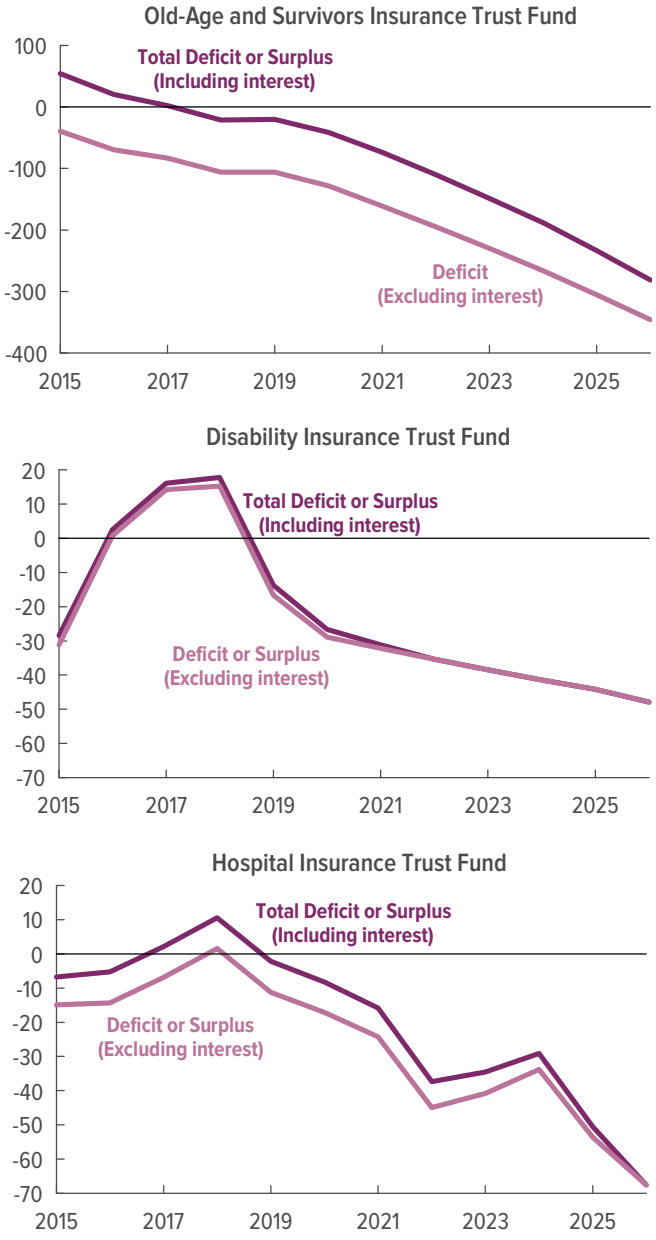
growth is primarily attributable to additional payments that the Treasury is expected to make to the fund to reduce the amount of its unfunded liabilities.

The balance of the Civil Service Retirement Trust Fund, the largest of the civilian retirement trust funds, was affected by the impasse over the debt limit last year. During the impasse, certain deposits were not credited to the fund (thereby resulting in a net outflow for fiscal year 2015), and the balance of the combined civilian retirement funds dropped from $876 billion at the end of 2014 to $750 billion in 2015. Those deposits were credited to the fund in December (after the debt limit was suspended again), contributing to a projected boost in the balance of the combined funds to $903 billion at the end of this year. The civilian retirement funds are projected to grow gradually over the next decade and total $1.0 trillion by the end of 2026.

Figure D-1.

Annual Deficits or Surpluses Projected in CBO's Baseline for the OASI, DI, and HI Trust Funds

Billions of Dollars



Source: Congressional Budget Office.

DI = Disability Insurance; HI = Hospital Insurance; OASI = Old-Age and Survivors Insurance.

Medicare Trust Funds

Payments to hospitals and for other services covered by Medicare are made from two trust funds. The HI Trust Fund is used to make payments to hospitals and providers of post-acute care services under Part A of the Medicare program, and the Supplementary Medical Insurance (SMI) Trust Fund is used to make payments for outpatient services (including physicians' services) and prescription drugs under Parts B and D of Medicare.[7]

Hospital Insurance

The HI trust fund, which had a balance of $195 billion at the end of 2015, is the larger of the two Medicare trust funds. The fund's income is derived largely from the Medicare payroll tax (2.9 percent of workers' earnings, divided equally between the worker and the employer); in 2015, those taxes accounted for 89 percent of the $269 billion in noninterest income credited to the HI trust fund. An additional 8 percent came from part of the income taxes on Social Security benefits collected from beneficiaries with relatively high income. The remaining 4 percent of noninterest income credited to the HI trust fund consisted of premiums paid by beneficiaries; amounts recovered from overpayments to providers; fines, penalties, and other amounts collected by the Health Care Fraud and Abuse Control program; and other transfers and appropriations. In addition, the trust fund is credited with interest on its balances; that interest amounted to $9 billion in 2015.

The fund's noninterest income is projected to increase from $285 billion in 2016 to $450 billion in 2026—an average annual increase of about 5 percent. But annual expenditures from the HI fund are projected to grow more rapidly—at an average annual rate of close to 6 percent—rising from $299 billion in 2016 to $517 billion in 2026. CBO estimates that if current laws governing the program remained in place, expenditures would outstrip noninterest income in all years through 2026 except for 2018, producing annual deficits that were relatively small in the first half of the period but that would rise to $54 billion in 2025, the final year before the fund was exhausted.[8] Even including interest receipts, the trust fund is projected to run deficits in most years during the baseline period (see Table D-3 and Figure D-1).

7. Part C of Medicare (known as Medicare Advantage) specifies the rules under which private health care plans can assume responsibility for, and be compensated for, providing benefits covered under Parts A, B, and D.

8. The small surplus in 2018 occurs because a shift in the timing of payments to private Medicare plans will result in one fewer payment during fiscal year 2018: Because October 1, 2017, falls on a Sunday, the payments to private Medicare plans for that month will be made on September 29. (The same type of shift occurs from 2017 to 2016, from 2023 to 2022, and from 2024 to 2023.)

Supplementary Medical Insurance

The SMI trust fund contains two separate accounts: one that pays for physicians' services and other health care provided on an outpatient basis under Part B of Medicare and one that pays for prescription drug benefits under Part D. The funding mechanisms used for the two accounts differ slightly:

- The Part B portion of the SMI fund is financed primarily through transfers from the general fund of the Treasury and through monthly premium payments from Medicare beneficiaries. The basic monthly premium for the SMI program is set to cover approximately 25 percent of the program's spending (with adjustments to maintain a contingency reserve to cover unexpected spikes in spending); beneficiaries with relatively high income pay a higher premium. The amount that will be transferred from the general fund equals about three times the amount expected to be collected from basic premiums after the amount collected from the income-related premiums and fees from drug manufacturers are deducted.

- The Part D portion of the SMI fund is financed mainly through transfers from the general fund, monthly premium payments from beneficiaries, and transfers from states (which are based on the number of people in a state who would have received prescription drug coverage under Medicaid in the absence of Part D). The basic monthly premium for Part D is set to cover 25.5 percent of the program's estimated spending if all participants paid it. But low-income people who receive subsidies available under Part D are not required to pay Part D premiums, so receipts are projected to cover less than 25.5 percent of the program's costs even though higher-income participants in Part D pay an income-related premium. The amount transferred from the general fund is set to cover total expected spending for benefits and administrative costs net of the amounts transferred from states and collected from basic and income-related premiums.

Unlike the HI trust fund's income, most of the income to the SMI fund (other than interest) does not come from a specified set of revenues collected from the public. Rather, the amounts credited to those accounts from the general fund of the Treasury are automatically adjusted to cover the differences between the program's spending and specified revenues. (In 2015, for example, $263 billion was transferred from the general fund to the SMI fund, accounting for about three-quarters of its income.) Thus, the balance in the SMI fund cannot be exhausted.

The SMI fund currently holds $66 billion in GAS securities; those holdings are projected to reach $101 billion in 2026.

Highway Trust Fund

The Highway Trust Fund comprises two accounts: the highway account, which funds construction of highways and highway safety programs, and the transit account, which funds mass transit programs. Revenues credited to the Highway Trust Fund are derived primarily from excise taxes on gasoline and certain other motor fuels.[9] Almost all spending from the fund is controlled by limitations on obligations set in appropriation acts.

Over the past nine years, spending has exceeded the fund's revenues by a total of $74 billion. Since 2008, lawmakers have authorized a series of transfers to the Highway Trust Fund to avoid delaying payments to state and local governments. Most recently, the Fixing America's Surface Transportation Act (also called the FAST Act, P.L. 114-94) transferred $70 billion to the Highway Trust Fund, mostly from the general fund of the Treasury, in December 2015 as the fund balance neared exhaustion. Including that amount, transfers since 2008 have totaled almost $143 billion.

Spending from the fund is projected to total $53 billion in 2016 while revenues and interest credited to the fund are expected to total $41 billion. For its baseline spending projections, CBO assumes that future limitations on obligations will be equal to the amounts set in the appropriation act for 2016, adjusted annually for inflation. The FAST Act extended the authorization for surface transportation programs funded by the Highway Trust Fund through 2020 and taxes credited to the trust fund through 2022. In CBO's baseline, which is based on the assumption that both funding and taxes are extended beyond those dates, the Highway Trust Fund is able to meet all obligations through 2020 but becomes exhausted in 2021.

9. The other revenues credited to the Highway Trust Fund come from excise taxes on trucks and trailers, on truck tires, and on the use of certain kinds of vehicles.

APPENDIX

E

CBO's Economic Projections for 2016 to 2026

The tables in this appendix expand on the information in Chapter 2 by showing the Congressional Budget Office's economic projections for each year from 2016 to 2026 (by calendar year in Table E-1 and by fiscal year in Table E-2). For years after 2020, CBO did not attempt to forecast the frequency or size of fluctuations in the business cycle. Instead, the values shown in these tables for 2021 to 2026 reflect CBO's projections of underlying trends in key variables such as growth of the labor force, hours worked, capital formation, and productivity; federal tax and spending policies under current law; and the persistent effects of the 2007–2009 recession and subsequent weak economic recovery.

Table E-1.

CBO's Economic Projections, by Calendar Year

	Estimated, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						Percentage Change From Year to Year						
Gross Domestic Product												
Real (Inflation-adjusted)	2.4	2.5	2.6	2.2	1.8	1.9	2.1	2.1	2.0	2.0	2.0	2.0
Nominal	3.5	4.1	4.4	4.2	3.8	3.9	4.1	4.1	4.1	4.1	4.1	4.1
Inflation												
PCE price index	0.3	1.1	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE price index[a]	1.3	1.5	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index[b]	0.1	1.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Core consumer price index[a]	1.8	2.0	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GDP price index	1.1	1.6	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
Employment Cost Index[c]	2.3	2.6	3.2	3.4	3.4	3.3	3.2	3.2	3.2	3.1	3.1	3.2
						Calendar Year Average						
Unemployment Rate (Percent)	5.3 [d]	4.7	4.4	4.6	4.8	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Payroll Employment (Monthly change, in thousands)[e]	228 [d]	172	124	81	54	61	78	75	73	74	74	74
Interest Rates (Percent)												
Three-month Treasury bills	0.1 [d]	0.7	1.6	2.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Ten-year Treasury notes	2.1 [d]	2.8	3.5	3.8	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Tax Bases (Percentage of GDP)												
Wages and salaries	43.6	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9
Domestic economic profits	9.2	8.7	8.6	8.3	8.0	7.8	7.7	7.6	7.5	7.5	7.4	7.5
Tax Bases (Billions of dollars)												
Wages and salaries	7,835	8,210	8,572	8,932	9,274	9,627	10,015	10,428	10,863	11,316	11,786	12,276
Domestic economic profits	1,657	1,626	1,676	1,695	1,698	1,718	1,758	1,807	1,861	1,924	1,997	2,095
Nominal GDP (Billions of dollars)	17,957	18,689	19,505	20,325	21,102	21,923	22,823	23,766	24,746	25,764	26,831	27,942

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

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. Actual value for 2015.

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

Table E-2.

CBO's Economic Projections, by Fiscal Year

	Actual, 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
						Percentage Change From Year to Year						
Gross Domestic Product												
Real (Inflation-adjusted)	2.6	2.3	2.6	2.3	1.9	1.8	2.0	2.1	2.0	2.0	2.0	2.0
Nominal	3.6	3.8	4.3	4.3	3.9	3.8	4.1	4.1	4.1	4.1	4.1	4.1
Inflation												
PCE price index	0.5	0.9	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE price index[a]	1.3	1.4	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Consumer price index[b]	0.3	1.0	2.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Core consumer price index[a]	1.8	2.0	2.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GDP price index	1.1	1.5	1.7	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1
Employment Cost Index[c]	2.3	2.5	3.1	3.4	3.4	3.3	3.2	3.2	3.2	3.2	3.1	3.2
						Fiscal Year Average						
Unemployment Rate (Percent)	5.5	4.8	4.4	4.5	4.8	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Payroll Employment (Monthly change, in thousands)[d]	239	193	137	92	57	55	77	75	74	74	74	74
Interest Rates (Percent)												
Three-month Treasury bills	*	0.5	1.4	2.3	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Ten-year Treasury notes	2.2	2.6	3.3	3.8	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Tax Bases (Percentage of GDP)												
Wages and salaries	43.5	43.9	44.0	43.9	44.0	43.9	43.9	43.9	43.9	43.9	43.9	43.9
Domestic economic profits	9.4	8.8	8.6	8.4	8.1	7.9	7.7	7.6	7.5	7.5	7.4	7.5
Tax Bases (Billions of dollars)												
Wages and salaries	7,751	8,116	8,482	8,842	9,189	9,536	9,915	10,323	10,753	11,201	11,667	12,152
Domestic economic profits	1,669	1,631	1,664	1,695	1,695	1,711	1,748	1,794	1,846	1,909	1,977	2,068
Nominal GDP (Billions of dollars)	17,810	18,494	19,297	20,127	20,906	21,710	22,593	23,528	24,497	25,506	26,559	27,660

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

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.

APPENDIX

F

Historical Budget Data

This appendix provides historical data on revenues, outlays, and the deficit or surplus—in forms consistent with the projections in Chapters 1, 3, and 4—for fiscal years 1966 to 2015. The data, which come from the Congressional Budget Office and the Office of Management and Budget, are shown both in nominal dollars and as a percentage of gross domestic product. Some of the numbers have been revised since August 2015, when these tables were previously published on CBO's website (www.cbo.gov/publication/50724).

Federal revenues, outlays, the deficit or surplus, and debt held by the public are shown in Table F-1. Revenues, outlays, and the deficit or surplus have both on-budget and off-budget components. Social Security's receipts and outlays were placed off-budget by the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177). For the sake of consistency, Table F-1 shows the budgetary components of Social Security as off-budget before that year. The Postal Service was classified as off-budget by the Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239).

The major sources of federal revenues (including off-budget revenues) are presented in Table F-2. Payroll taxes include payments by employers and employees for Social Security, Medicare, Railroad Retirement, and unemployment insurance, as well as pension contributions by federal workers. Excise taxes are levied on certain products and services, such as gasoline, alcoholic beverages, and air travel. Estate and gift taxes are levied on assets when they are transferred. Miscellaneous receipts consist of earnings of the Federal Reserve System and income from numerous fees and charges.

Total outlays for major categories of spending (including off-budget outlays) appear in Table F-3. Spending controlled by the appropriation process is classified as discretionary. Spending governed by laws other than appropriation acts, such as laws that set eligibility requirements for certain programs, is considered mandatory. Offsetting receipts include the government's contributions to retirement programs for its employees, as well as fees, charges (such as Medicare premiums), and receipts from the use of federally controlled land and offshore territory. Net interest consists mostly of the government's interest payments on federal debt offset by its interest income.

Table F-4 divides discretionary spending into its defense and nondefense components. Table F-5 shows mandatory outlays for three major benefit programs—Social Security, Medicare, and Medicaid—and for other categories of mandatory spending. Income security programs provide benefits to recipients with limited income and assets; those programs include unemployment compensation, Supplemental Security Income, and the Supplemental Nutrition Assistance Program (formerly known as the Food Stamp program). Other federal retirement and disability programs provide benefits to federal civilian employees, members of the military, and veterans. The category of other mandatory programs includes the activities of the Commodity Credit Corporation, the Medicare-Eligible Retiree Health Care Fund, the subsidy costs of federal student loan programs, and the Children's Health Insurance Program.

Table F-1.

Revenues, Outlays, Deficits, Surpluses, and Debt Held by the Public Since 1966

			Deficit (-) or Surplus				
	Revenues	Outlays	On-Budget	Social Security	Postal Service	Total	Debt Held by the Public[a]
			In Billions of Dollars				
1966	130.8	134.5	-3.1	-0.6	n.a.	-3.7	263.7
1967	148.8	157.5	-12.6	4.0	n.a.	-8.6	266.6
1968	153.0	178.1	-27.7	2.6	n.a.	-25.2	289.5
1969	186.9	183.6	-0.5	3.7	n.a.	3.2	278.1
1970	192.8	195.6	-8.7	5.9	n.a.	-2.8	283.2
1971	187.1	210.2	-26.1	3.0	n.a.	-23.0	303.0
1972	207.3	230.7	-26.1	2.3	*	-23.4	322.4
1973	230.8	245.7	-15.2	0.2	-0.2	-14.9	340.9
1974	263.2	269.4	-7.2	0.3	-0.8	-6.1	343.7
1975	279.1	332.3	-54.1	-0.2	-1.1	-53.2	394.7
1976	298.1	371.8	-69.4	-5.4	-1.1	-73.7	477.4
1977	355.6	409.2	-49.9	-3.6	0.2	-53.7	549.1
1978	399.6	458.7	-55.4	-3.3	0.5	-59.2	607.1
1979	463.3	504.0	-39.6	-0.2	0.9	-40.7	640.3
1980	517.1	590.9	-73.1	-0.3	0.4	-73.8	711.9
1981	599.3	678.2	-73.9	-5.2	-0.1	-79.0	789.4
1982	617.8	745.7	-120.6	-6.8	0.6	-128.0	924.6
1983	600.6	808.4	-207.7	-0.4	-0.3	-207.8	1,137.3
1984	666.4	851.8	-185.3	-0.5	-0.4	-185.4	1,307.0
1985	734.0	946.3	-221.5	9.1	-0.1	-212.3	1,507.3
1986	769.2	990.4	-237.9	16.6	*	-221.2	1,740.6
1987	854.3	1,004.0	-168.4	17.7	-0.9	-149.7	1,889.8
1988	909.2	1,064.4	-192.3	35.4	-1.7	-155.2	2,051.6
1989	991.1	1,143.7	-205.4	53.1	0.3	-152.6	2,190.7
1990	1,032.0	1,253.0	-277.6	55.0	-1.6	-221.0	2,411.6
1991	1,055.0	1,324.2	-321.4	50.9	-1.3	-269.2	2,689.0
1992	1,091.2	1,381.5	-340.4	49.4	-0.7	-290.3	2,999.7
1993	1,154.3	1,409.4	-300.4	43.9	-1.4	-255.1	3,248.4
1994	1,258.6	1,461.8	-258.8	54.6	-1.1	-203.2	3,433.1
1995	1,351.8	1,515.7	-226.4	64.4	2.0	-164.0	3,604.4
1996	1,453.1	1,560.5	-174.0	66.8	0.2	-107.4	3,734.1
1997	1,579.2	1,601.1	-103.2	81.4	*	-21.9	3,772.3
1998	1,721.7	1,652.5	-29.9	99.0	-0.2	69.3	3,721.1
1999	1,827.5	1,701.8	1.9	122.7	-1.0	125.6	3,632.4
2000	2,025.2	1,789.0	86.4	149.8	-1.0	236.2	3,409.8
2001	1,991.1	1,862.8	-32.4	158.7	-2.0	128.2	3,319.6
2002	1,853.1	2,010.9	-317.4	157.4	-2.3	-157.8	3,540.4
2003	1,782.3	2,159.9	-538.4	161.5	0.7	-377.6	3,913.4
2004	1,880.1	2,292.8	-568.0	160.5	5.2	-412.7	4,295.5
2005	2,153.6	2,472.0	-493.6	179.4	4.1	-318.3	4,592.2
2006	2,406.9	2,655.1	-434.5	188.1	1.8	-248.2	4,829.0
2007	2,568.0	2,728.7	-342.2	182.5	1.1	-160.7	5,035.1
2008	2,524.0	2,982.5	-641.8	178.2	-5.1	-458.6	5,803.1
2009	2,105.0	3,517.7	-1,549.7	134.6	-2.4	-1,412.7	7,544.7
2010	2,162.7	3,457.1	-1,371.4	72.3	-4.7	-1,294.4	9,018.9
2011	2,303.5	3,603.1	-1,366.8	66.4	-0.8	-1,299.6	10,128.2
2012	2,450.0	3,537.0	-1,148.9	59.2	-2.7	-1,087.0	11,281.1
2013	2,775.1	3,454.6	-719.0	41.4	1.9	-679.5	11,982.7
2014	3,021.5	3,506.1	-514.1	32.0	2.5	-484.6	12,779.9
2015	3,248.7	3,687.4	-466.0	29.0	1.7	-438.7	13,116.6

Continued

Table F-1. Continued

Revenues, Outlays, Deficits, Surpluses, and Debt Held by the Public Since 1966

			Deficit (-) or Surplus				
	Revenues	Outlays	On-Budget	Social Security	Postal Service	Total	Debt Held by the Public[a]
			As a Percentage of Gross Domestic Product				
1966	16.7	17.2	-0.4	-0.1	n.a.	-0.5	33.7
1967	17.8	18.8	-1.5	0.5	n.a.	-1.0	31.8
1968	17.0	19.8	-3.1	0.3	n.a.	-2.8	32.2
1969	19.0	18.7	-0.1	0.4	n.a.	0.3	28.3
1970	18.4	18.7	-0.8	0.6	n.a.	-0.3	27.0
1971	16.7	18.8	-2.3	0.3	n.a.	-2.1	27.1
1972	17.0	18.9	-2.1	0.2	**	-1.9	26.4
1973	17.0	18.1	-1.1	**	**	-1.1	25.1
1974	17.7	18.1	-0.5	**	0.1	-0.4	23.1
1975	17.3	20.6	-3.4	**	0.1	-3.3	24.5
1976	16.6	20.8	-3.9	-0.3	0.1	-4.1	26.7
1977	17.5	20.2	-2.5	-0.2	**	-2.6	27.1
1978	17.5	20.1	-2.4	-0.1	**	-2.6	26.6
1979	18.0	19.6	-1.5	**	**	-1.6	24.9
1980	18.5	21.1	-2.6	**	**	-2.6	25.5
1981	19.1	21.6	-2.4	-0.2	**	-2.5	25.2
1982	18.6	22.5	-3.6	-0.2	**	-3.9	27.9
1983	17.0	22.8	-5.9	**	**	-5.9	32.1
1984	16.9	21.5	-4.7	**	**	-4.7	33.1
1985	17.2	22.2	-5.2	0.2	**	-5.0	35.3
1986	17.0	21.8	-5.2	0.4	**	-4.9	38.4
1987	17.9	21.0	-3.5	0.4	**	-3.1	39.5
1988	17.6	20.6	-3.7	0.7	**	-3.0	39.8
1989	17.8	20.5	-3.7	1.0	**	-2.7	39.3
1990	17.4	21.2	-4.7	0.9	**	-3.7	40.8
1991	17.3	21.7	-5.3	0.8	**	-4.4	44.0
1992	17.0	21.5	-5.3	0.8	**	-4.5	46.6
1993	17.0	20.7	-4.4	0.6	**	-3.8	47.8
1994	17.5	20.3	-3.6	0.8	**	-2.8	47.7
1995	17.8	20.0	-3.0	0.8	**	-2.2	47.5
1996	18.2	19.6	-2.2	0.8	**	-1.3	46.8
1997	18.6	18.9	-1.2	1.0	**	-0.3	44.5
1998	19.2	18.5	-0.3	1.1	**	0.8	41.6
1999	19.2	17.9	**	1.3	**	1.3	38.2
2000	20.0	17.6	0.9	1.5	**	2.3	33.6
2001	18.8	17.6	-0.3	1.5	**	1.2	31.4
2002	17.0	18.5	-2.9	1.4	**	-1.5	32.6
2003	15.7	19.1	-4.8	1.4	**	-3.3	34.5
2004	15.6	19.0	-4.7	1.3	**	-3.4	35.5
2005	16.7	19.2	-3.8	1.4	**	-2.5	35.6
2006	17.6	19.4	-3.2	1.4	**	-1.8	35.3
2007	17.9	19.1	-2.4	1.3	**	-1.1	35.2
2008	17.1	20.2	-4.4	1.2	**	-3.1	39.3
2009	14.6	24.4	-10.8	0.9	**	-9.8	52.3
2010	14.6	23.4	-9.3	0.5	**	-8.7	60.9
2011	15.0	23.4	-8.9	0.4	**	-8.5	65.9
2012	15.3	22.1	-7.2	0.4	**	-6.8	70.4
2013	16.8	20.9	-4.4	0.3	**	-4.1	72.6
2014	17.6	20.4	-3.0	0.2	**	-2.8	74.4
2015	18.2	20.7	-2.6	0.2	**	-2.5	73.6

Sources: Congressional Budget Office; Office of Management and Budget.

n.a. = not applicable (the Postal Service was not an independent agency until 1972); * = between -$50 million and $50 million; ** = between -0.05 percent and 0.05 percent.

a. End of year.

Table F-2.

Revenues, by Major Source, Since 1966

	Individual Income Taxes	Payroll Taxes	Corporate Income Taxes	Excise Taxes	Estate and Gift Taxes	Customs Duties	Miscellaneous Receipts	Total
				In Billions of Dollars				
1966	55.4	25.5	30.1	13.1	3.1	1.8	1.9	130.8
1967	61.5	32.6	34.0	13.7	3.0	1.9	2.1	148.8
1968	68.7	33.9	28.7	14.1	3.1	2.0	2.5	153.0
1969	87.2	39.0	36.7	15.2	3.5	2.3	2.9	186.9
1970	90.4	44.4	32.8	15.7	3.6	2.4	3.4	192.8
1971	86.2	47.3	26.8	16.6	3.7	2.6	3.9	187.1
1972	94.7	52.6	32.2	15.5	5.4	3.3	3.6	207.3
1973	103.2	63.1	36.2	16.3	4.9	3.2	3.9	230.8
1974	119.0	75.1	38.6	16.8	5.0	3.3	5.4	263.2
1975	122.4	84.5	40.6	16.6	4.6	3.7	6.7	279.1
1976	131.6	90.8	41.4	17.0	5.2	4.1	8.0	298.1
1977	157.6	106.5	54.9	17.5	7.3	5.2	6.5	355.6
1978	181.0	121.0	60.0	18.4	5.3	6.6	7.4	399.6
1979	217.8	138.9	65.7	18.7	5.4	7.4	9.3	463.3
1980	244.1	157.8	64.6	24.3	6.4	7.2	12.7	517.1
1981	285.9	182.7	61.1	40.8	6.8	8.1	13.8	599.3
1982	297.7	201.5	49.2	36.3	8.0	8.9	16.2	617.8
1983	288.9	209.0	37.0	35.3	6.1	8.7	15.6	600.6
1984	298.4	239.4	56.9	37.4	6.0	11.4	17.0	666.4
1985	334.5	265.2	61.3	36.0	6.4	12.1	18.5	734.0
1986	349.0	283.9	63.1	32.9	7.0	13.3	19.9	769.2
1987	392.6	303.3	83.9	32.5	7.5	15.1	19.5	854.3
1988	401.2	334.3	94.5	35.2	7.6	16.2	20.2	909.2
1989	445.7	359.4	103.3	34.4	8.7	16.3	23.2	991.1
1990	466.9	380.0	93.5	35.3	11.5	16.7	28.0	1,032.0
1991	467.8	396.0	98.1	42.4	11.1	15.9	23.6	1,055.0
1992	476.0	413.7	100.3	45.6	11.1	17.4	27.2	1,091.2
1993	509.7	428.3	117.5	48.1	12.6	18.8	19.4	1,154.3
1994	543.1	461.5	140.4	55.2	15.2	20.1	23.1	1,258.6
1995	590.2	484.5	157.0	57.5	14.8	19.3	28.5	1,351.8
1996	656.4	509.4	171.8	54.0	17.2	18.7	25.5	1,453.1
1997	737.5	539.4	182.3	56.9	19.8	17.9	25.4	1,579.2
1998	828.6	571.8	188.7	57.7	24.1	18.3	32.6	1,721.7
1999	879.5	611.8	184.7	70.4	27.8	18.3	34.9	1,827.5
2000	1,004.5	652.9	207.3	68.9	29.0	19.9	42.8	2,025.2
2001	994.3	694.0	151.1	66.2	28.4	19.4	37.7	1,991.1
2002	858.3	700.8	148.0	67.0	26.5	18.6	33.9	1,853.1
2003	793.7	713.0	131.8	67.5	22.0	19.9	34.5	1,782.3
2004	809.0	733.4	189.4	69.9	24.8	21.1	32.6	1,880.1
2005	927.2	794.1	278.3	73.1	24.8	23.4	32.7	2,153.6
2006	1,043.9	837.8	353.9	74.0	27.9	24.8	44.6	2,406.9
2007	1,163.5	869.6	370.2	65.1	26.0	26.0	47.5	2,568.0
2008	1,145.7	900.2	304.3	67.3	28.8	27.6	50.0	2,524.0
2009	915.3	890.9	138.2	62.5	23.5	22.5	52.1	2,105.0
2010	898.5	864.8	191.4	66.9	18.9	25.3	96.8	2,162.7
2011	1,091.5	818.8	181.1	72.4	7.4	29.5	102.8	2,303.5
2012	1,132.2	845.3	242.3	79.1	14.0	30.3	106.8	2,450.0
2013	1,316.4	947.8	273.5	84.0	18.9	31.8	102.6	2,775.1
2014	1,394.6	1,023.5	320.7	93.4	19.3	33.9	136.1	3,021.5
2015	1,540.8	1,065.3	343.8	98.3	19.2	35.0	146.3	3,248.7

Continued

Table F-2. Continued

Revenues, by Major Source, Since 1966

	Individual Income Taxes	Payroll Taxes	Corporate Income Taxes	Excise Taxes	Estate and Gift Taxes	Customs Duties	Miscellaneous Receipts	Total
				As a Percentage of Gross Domestic Product				
1966	7.1	3.3	3.8	1.7	0.4	0.2	0.2	16.7
1967	7.3	3.9	4.1	1.6	0.4	0.2	0.3	17.8
1968	7.6	3.8	3.2	1.6	0.3	0.2	0.3	17.0
1969	8.9	4.0	3.7	1.6	0.4	0.2	0.3	19.0
1970	8.6	4.2	3.1	1.5	0.3	0.2	0.3	18.4
1971	7.7	4.2	2.4	1.5	0.3	0.2	0.3	16.7
1972	7.8	4.3	2.6	1.3	0.4	0.3	0.3	17.0
1973	7.6	4.7	2.7	1.2	0.4	0.2	0.3	17.0
1974	8.0	5.1	2.6	1.1	0.3	0.2	0.4	17.7
1975	7.6	5.2	2.5	1.0	0.3	0.2	0.4	17.3
1976	7.4	5.1	2.3	0.9	0.3	0.2	0.4	16.6
1977	7.8	5.3	2.7	0.9	0.4	0.3	0.3	17.5
1978	7.9	5.3	2.6	0.8	0.2	0.3	0.3	17.5
1979	8.5	5.4	2.6	0.7	0.2	0.3	0.4	18.0
1980	8.7	5.6	2.3	0.9	0.2	0.3	0.5	18.5
1981	9.1	5.8	1.9	1.3	0.2	0.3	0.4	19.1
1982	9.0	6.1	1.5	1.1	0.2	0.3	0.5	18.6
1983	8.2	5.9	1.0	1.0	0.2	0.2	0.4	17.0
1984	7.5	6.1	1.4	0.9	0.2	0.3	0.4	16.9
1985	7.8	6.2	1.4	0.8	0.2	0.3	0.4	17.2
1986	7.7	6.3	1.4	0.7	0.2	0.3	0.4	17.0
1987	8.2	6.3	1.8	0.7	0.2	0.3	0.4	17.9
1988	7.8	6.5	1.8	0.7	0.1	0.3	0.4	17.6
1989	8.0	6.5	1.9	0.6	0.2	0.3	0.4	17.8
1990	7.9	6.4	1.6	0.6	0.2	0.3	0.5	17.4
1991	7.7	6.5	1.6	0.7	0.2	0.3	0.4	17.3
1992	7.4	6.4	1.6	0.7	0.2	0.3	0.4	17.0
1993	7.5	6.3	1.7	0.7	0.2	0.3	0.3	17.0
1994	7.5	6.4	2.0	0.8	0.2	0.3	0.3	17.5
1995	7.8	6.4	2.1	0.8	0.2	0.3	0.4	17.8
1996	8.2	6.4	2.2	0.7	0.2	0.2	0.3	18.2
1997	8.7	6.4	2.1	0.7	0.2	0.2	0.3	18.6
1998	9.3	6.4	2.1	0.6	0.3	0.2	0.4	19.2
1999	9.2	6.4	1.9	0.7	0.3	0.2	0.4	19.2
2000	9.9	6.4	2.0	0.7	0.3	0.2	0.4	20.0
2001	9.4	6.6	1.4	0.6	0.3	0.2	0.4	18.8
2002	7.9	6.4	1.4	0.6	0.2	0.2	0.3	17.0
2003	7.0	6.3	1.2	0.6	0.2	0.2	0.3	15.7
2004	6.7	6.1	1.6	0.6	0.2	0.2	0.3	15.6
2005	7.2	6.2	2.2	0.6	0.2	0.2	0.3	16.7
2006	7.6	6.1	2.6	0.5	0.2	0.2	0.3	17.6
2007	8.1	6.1	2.6	0.5	0.2	0.2	0.3	17.9
2008	7.8	6.1	2.1	0.5	0.2	0.2	0.3	17.1
2009	6.4	6.2	1.0	0.4	0.2	0.2	0.4	14.6
2010	6.1	5.8	1.3	0.5	0.1	0.2	0.7	14.6
2011	7.1	5.3	1.2	0.5	*	0.2	0.7	15.0
2012	7.1	5.3	1.5	0.5	0.1	0.2	0.7	15.3
2013	8.0	5.7	1.7	0.5	0.1	0.2	0.6	16.8
2014	8.1	6.0	1.9	0.5	0.1	0.2	0.8	17.6
2015	8.7	6.0	1.9	0.6	0.1	0.2	0.8	18.2

Sources: Congressional Budget Office; Office of Management and Budget.

* = between zero and 0.05 percent.

Table F-3.

Outlays, by Major Category, Since 1966

		Mandatory			
	Discretionary	Programmatic Outlays[a]	Offsetting Receipts	Net Interest	Total
			In Billions of Dollars		
1966	90.1	43.4	-8.4	9.4	134.5
1967	106.5	50.9	-10.2	10.3	157.5
1968	118.0	59.7	-10.6	11.1	178.1
1969	117.3	64.6	-11.0	12.7	183.6
1970	120.3	72.5	-11.5	14.4	195.6
1971	122.5	86.9	-14.1	14.8	210.2
1972	128.5	100.8	-14.1	15.5	230.7
1973	130.4	116.0	-18.0	17.3	245.7
1974	138.2	130.9	-21.2	21.4	269.4
1975	158.0	169.4	-18.3	23.2	332.3
1976	175.6	189.1	-19.6	26.7	371.8
1977	197.1	203.7	-21.5	29.9	409.2
1978	218.7	227.4	-22.8	35.5	458.7
1979	240.0	247.0	-25.6	42.6	504.0
1980	276.3	291.2	-29.2	52.5	590.9
1981	307.9	339.4	-37.9	68.8	678.2
1982	326.0	370.8	-36.0	85.0	745.7
1983	353.3	410.6	-45.3	89.8	808.4
1984	379.4	405.5	-44.2	111.1	851.8
1985	415.8	448.2	-47.1	129.5	946.3
1986	438.5	461.7	-45.9	136.0	990.4
1987	444.2	474.2	-52.9	138.6	1,004.0
1988	464.4	505.0	-56.8	151.8	1,064.4
1989	488.8	546.1	-60.1	169.0	1,143.7
1990	500.6	625.6	-57.5	184.3	1,253.0
1991	533.3	702.0	-105.5	194.4	1,324.2
1992	533.8	717.7	-69.3	199.3	1,381.5
1993	539.8	736.8	-65.9	198.7	1,409.4
1994	541.3	786.0	-68.5	202.9	1,461.8
1995	544.8	817.5	-78.7	232.1	1,515.7
1996	532.7	857.6	-70.9	241.1	1,560.5
1997	547.0	895.5	-85.4	244.0	1,601.1
1998	552.0	942.9	-83.5	241.1	1,652.5
1999	572.1	979.4	-79.4	229.8	1,701.8
2000	614.6	1,032.4	-81.0	222.9	1,789.0
2001	649.0	1,096.8	-89.2	206.2	1,862.8
2002	734.0	1,196.3	-90.3	170.9	2,010.9
2003	824.3	1,283.4	-100.9	153.1	2,159.9
2004	895.1	1,346.4	-108.9	160.2	2,292.8
2005	968.5	1,448.1	-128.7	184.0	2,472.0
2006	1,016.6	1,556.1	-144.3	226.6	2,655.1
2007	1,041.6	1,627.9	-177.9	237.1	2,728.7
2008	1,134.9	1,780.3	-185.4	252.8	2,982.5
2009	1,237.5	2,287.8	-194.6	186.9	3,517.7
2010	1,347.2	2,110.2	-196.5	196.2	3,457.1
2011	1,347.1	2,234.9	-209.0	230.0	3,603.1
2012	1,286.1	2,258.8	-228.3	220.4	3,537.0
2013	1,202.1	2,336.4	-304.8	220.9	3,454.6
2014	1,178.7	2,375.8	-277.3	229.0	3,506.1
2015	1,165.2	2,555.3	-256.5	223.4	3,687.4

Continued

Table F-3. Continued

Outlays, by Major Category, Since 1966

		Mandatory			
	Discretionary	Programmatic Outlays[a]	Offsetting Receipts	Net Interest	Total
		As a Percentage of Gross Domestic Product			
1966	11.5	5.5	-1.1	1.2	17.2
1967	12.7	6.1	-1.2	1.2	18.8
1968	13.1	6.6	-1.2	1.2	19.8
1969	11.9	6.6	-1.1	1.3	18.7
1970	11.5	6.9	-1.1	1.4	18.7
1971	10.9	7.8	-1.3	1.3	18.8
1972	10.5	8.3	-1.2	1.3	18.9
1973	9.6	8.6	-1.3	1.3	18.1
1974	9.3	8.8	-1.4	1.4	18.1
1975	9.8	10.5	-1.1	1.4	20.6
1976	9.8	10.6	-1.1	1.5	20.8
1977	9.7	10.0	-1.1	1.5	20.2
1978	9.6	10.0	-1.0	1.6	20.1
1979	9.3	9.6	-1.0	1.7	19.6
1980	9.9	10.4	-1.0	1.9	21.1
1981	9.8	10.8	-1.2	2.2	21.6
1982	9.8	11.2	-1.1	2.6	22.5
1983	10.0	11.6	-1.3	2.5	22.8
1984	9.6	10.3	-1.1	2.8	21.5
1985	9.7	10.5	-1.1	3.0	22.2
1986	9.7	10.2	-1.0	3.0	21.8
1987	9.3	9.9	-1.1	2.9	21.0
1988	9.0	9.8	-1.1	2.9	20.6
1989	8.8	9.8	-1.1	3.0	20.5
1990	8.5	10.6	-1.0	3.1	21.2
1991	8.7	11.5	-1.7	3.2	21.7
1992	8.3	11.2	-1.1	3.1	21.5
1993	7.9	10.8	-1.0	2.9	20.7
1994	7.5	10.9	-1.0	2.8	20.3
1995	7.2	10.8	-1.0	3.1	20.0
1996	6.7	10.7	-0.9	3.0	19.6
1997	6.4	10.6	-1.0	2.9	18.9
1998	6.2	10.5	-0.9	2.7	18.5
1999	6.0	10.3	-0.8	2.4	17.9
2000	6.1	10.2	-0.8	2.2	17.6
2001	6.1	10.4	-0.8	2.0	17.6
2002	6.7	11.0	-0.8	1.6	18.5
2003	7.3	11.3	-0.9	1.4	19.1
2004	7.4	11.1	-0.9	1.3	19.0
2005	7.5	11.2	-1.0	1.4	19.2
2006	7.4	11.4	-1.1	1.7	19.4
2007	7.3	11.4	-1.2	1.7	19.1
2008	7.7	12.1	-1.3	1.7	20.2
2009	8.6	15.9	-1.4	1.3	24.4
2010	9.1	14.3	-1.3	1.3	23.4
2011	8.8	14.5	-1.4	1.5	23.4
2012	8.0	14.1	-1.4	1.4	22.1
2013	7.3	14.2	-1.8	1.3	20.9
2014	6.9	13.8	-1.6	1.3	20.4
2015	6.5	14.3	-1.4	1.3	20.7

Sources: Congressional Budget Office; Office of Management and Budget.

a. Excludes offsetting receipts.

Table F-4.

Discretionary Outlays Since 1966

	Defense	Nondefense	Total
		In Billions of Dollars	
1966	59.0	31.1	90.1
1967	72.0	34.5	106.5
1968	82.2	35.8	118.0
1969	82.7	34.6	117.3
1970	81.9	38.4	120.3
1971	79.0	43.5	122.5
1972	79.3	49.2	128.5
1973	77.1	53.3	130.4
1974	80.7	57.5	138.2
1975	87.6	70.4	158.0
1976	89.9	85.7	175.6
1977	97.5	99.6	197.1
1978	104.6	114.1	218.7
1979	116.8	123.2	240.0
1980	134.6	141.7	276.3
1981	158.0	149.9	307.9
1982	185.9	140.0	326.0
1983	209.9	143.4	353.3
1984	228.0	151.4	379.4
1985	253.1	162.7	415.8
1986	273.8	164.7	438.5
1987	282.5	161.6	444.2
1988	290.9	173.5	464.4
1989	304.0	184.8	488.8
1990	300.1	200.4	500.6
1991	319.7	213.6	533.3
1992	302.6	231.2	533.8
1993	292.4	247.3	539.8
1994	282.3	259.1	541.3
1995	273.6	271.2	544.8
1996	266.0	266.8	532.7
1997	271.7	275.4	547.0
1998	270.3	281.7	552.0
1999	275.5	296.7	572.1
2000	295.0	319.7	614.6
2001	306.1	343.0	649.0
2002	349.0	385.0	734.0
2003	404.9	419.4	824.3
2004	454.1	441.0	895.1
2005	493.6	474.9	968.5
2006	520.0	496.7	1,016.6
2007	547.9	493.7	1,041.6
2008	612.4	522.5	1,134.9
2009	656.7	580.8	1,237.5
2010	688.9	658.3	1,347.2
2011	699.4	647.7	1,347.1
2012	670.5	615.6	1,286.1
2013	625.8	576.4	1,202.1
2014	596.4	582.2	1,178.7
2015	582.2	583.0	1,165.2

Continued

Table F-4. Continued

Discretionary Outlays Since 1966

	Defense	Nondefense	Total
		As a Percentage of Gross Domestic Product	
1966	7.5	4.0	11.5
1967	8.6	4.1	12.7
1968	9.1	4.0	13.1
1969	8.4	3.5	11.9
1970	7.8	3.7	11.5
1971	7.1	3.9	10.9
1972	6.5	4.0	10.5
1973	5.7	3.9	9.6
1974	5.4	3.9	9.3
1975	5.4	4.4	9.8
1976	5.0	4.8	9.8
1977	4.8	4.9	9.7
1978	4.6	5.0	9.6
1979	4.5	4.8	9.3
1980	4.8	5.1	9.9
1981	5.0	4.8	9.8
1982	5.6	4.2	9.8
1983	5.9	4.1	10.0
1984	5.8	3.8	9.6
1985	5.9	3.8	9.7
1986	6.0	3.6	9.7
1987	5.9	3.4	9.3
1988	5.6	3.4	9.0
1989	5.5	3.3	8.8
1990	5.1	3.4	8.5
1991	5.2	3.5	8.7
1992	4.7	3.6	8.3
1993	4.3	3.6	7.9
1994	3.9	3.6	7.5
1995	3.6	3.6	7.2
1996	3.3	3.3	6.7
1997	3.2	3.2	6.4
1998	3.0	3.1	6.2
1999	2.9	3.1	6.0
2000	2.9	3.2	6.1
2001	2.9	3.2	6.1
2002	3.2	3.5	6.7
2003	3.6	3.7	7.3
2004	3.8	3.6	7.4
2005	3.8	3.7	7.5
2006	3.8	3.6	7.4
2007	3.8	3.4	7.3
2008	4.2	3.5	7.7
2009	4.6	4.0	8.6
2010	4.7	4.4	9.1
2011	4.5	4.2	8.8
2012	4.2	3.8	8.0
2013	3.8	3.5	7.3
2014	3.5	3.4	6.9
2015	3.3	3.3	6.5

Sources: Congressional Budget Office; Office of Management and Budget.

Table F-5.

Mandatory Outlays Since 1966

	Social Security	Medicare[a]	Medicaid	Income Security[b]	Other Retirement and Disability	Other Programs	Offsetting Receipts	Total	Memorandum: Major Health Care Programs (Net)[c]
					In Billions of Dollars				
1966	20.3	0	0.8	5.1	8.4	8.8	-8.4	35.0	0.8
1967	21.3	3.2	1.2	5.1	9.3	10.9	-10.2	40.7	3.7
1968	23.3	5.1	1.8	5.9	10.1	13.4	-10.6	49.1	6.2
1969	26.7	6.3	2.3	6.5	11.1	11.8	-11.0	53.6	7.7
1970	29.6	6.8	2.7	8.2	12.4	12.8	-11.5	61.0	8.6
1971	35.1	7.5	3.4	13.4	14.5	13.0	-14.1	72.8	9.6
1972	39.4	8.4	4.6	16.4	16.2	15.8	-14.1	86.7	11.6
1973	48.2	9.0	4.6	14.5	18.5	21.3	-18.0	98.0	12.2
1974	55.0	10.7	5.8	17.4	20.9	21.1	-21.2	109.7	14.8
1975	63.6	14.1	6.8	28.9	26.4	29.6	-18.3	151.1	19.1
1976	72.7	16.9	8.6	37.6	27.7	25.6	-19.6	169.5	23.6
1977	83.7	20.8	9.9	34.6	31.2	23.6	-21.5	182.2	28.5
1978	92.4	24.3	10.7	32.1	33.9	34.0	-22.8	204.6	32.5
1979	102.6	28.2	12.4	32.2	38.7	32.9	-25.6	221.4	37.9
1980	117.1	34.0	14.0	44.3	44.4	37.5	-29.2	262.1	45.0
1981	137.9	41.3	16.8	49.9	50.8	42.6	-37.9	301.6	54.8
1982	153.9	49.2	17.4	53.2	55.0	42.1	-36.0	334.8	62.7
1983	168.5	55.5	19.0	64.0	58.0	45.5	-45.3	365.2	70.2
1984	176.1	61.1	20.1	51.7	59.8	36.7	-44.2	361.3	76.1
1985	186.4	69.7	22.7	52.3	61.0	56.2	-47.1	401.1	86.7
1986	196.5	74.2	25.0	54.2	63.4	48.4	-45.9	415.8	93.4
1987	205.1	79.9	27.4	55.0	66.5	40.2	-52.9	421.2	100.8
1988	216.8	85.7	30.5	57.3	71.1	43.7	-56.8	448.2	107.4
1989	230.4	93.2	34.6	62.9	57.3	67.6	-60.1	485.9	117.3
1990	246.5	107.0	41.1	68.7	60.0	102.2	-57.5	568.1	136.9
1991	266.8	114.2	52.5	86.9	64.4	117.1	-105.5	596.5	154.6
1992	285.2	129.4	67.8	110.8	66.5	58.0	-69.3	648.4	184.0
1993	302.0	143.2	75.8	117.1	68.3	30.4	-65.9	670.9	203.7
1994	316.9	159.6	82.0	116.1	72.3	39.1	-68.5	717.5	223.9
1995	333.3	177.1	89.1	116.6	75.2	26.2	-78.7	738.8	246.0
1996	347.1	191.3	92.0	121.6	77.3	28.4	-70.9	786.7	263.3
1997	362.3	207.9	95.6	122.5	80.5	26.8	-85.4	810.1	283.0
1998	376.1	211.0	101.2	122.1	82.5	49.8	-83.5	859.3	291.5
1999	387.0	209.3	108.0	129.0	85.3	60.8	-79.4	900.0	296.3
2000	406.0	216.0	117.9	133.9	87.8	70.6	-81.0	951.4	313.3
2001	429.4	237.9	129.4	143.1	92.7	64.4	-89.2	1,007.6	347.1
2002	452.1	253.7	147.5	180.3	96.1	66.6	-90.3	1,106.0	378.9
2003	470.5	274.2	160.7	196.2	99.8	82.1	-100.9	1,182.5	410.8
2004	491.5	297.0	176.2	190.6	103.6	87.4	-108.9	1,237.5	445.7
2005	518.7	335.1	181.7	196.9	109.7	105.9	-128.7	1,319.4	481.2
2006	543.9	376.8	180.6	200.0	113.1	141.6	-144.3	1,411.8	511.0
2007	581.4	436.1	190.6	203.1	122.4	94.2	-177.9	1,450.0	567.4
2008	612.1	456.0	201.4	260.7	128.9	121.3	-185.4	1,594.9	594.1
2009	677.7	499.9	250.9	350.2	137.7	371.4	-194.6	2,093.2	683.6
2010	700.8	520.5	272.8	437.3	138.4	40.5	-196.5	1,913.7	727.1
2011	724.9	559.6	275.0	404.1	144.2	127.2	-209.0	2,026.0	763.5
2012	767.7	551.2	250.5	353.6	143.5	192.2	-228.3	2,030.5	725.8
2013	807.8	585.2	265.4	339.5	152.5	185.9	-304.8	2,031.6	767.6
2014	844.9	599.8	301.5	310.9	157.5	161.2	-277.3	2,098.5	831.0
2015	881.9	633.7	349.8	301.8	161.5	226.7	-256.5	2,298.8	936.0

Continued

Table F-5. Continued

Mandatory Outlays Since 1966

	Social Security	Medicare[a]	Medicaid	Income Security[b]	Other Retirement and Disability	Other Programs	Offsetting Receipts	Total	Memorandum: Major Health Care Programs (Net)[c]
					As a Percentage of Gross Domestic Product				
1966	2.6	0	0.1	0.7	1.1	1.1	-1.1	4.5	0.1
1967	2.5	0.4	0.1	0.6	1.1	1.3	-1.2	4.9	0.4
1968	2.6	0.6	0.2	0.7	1.1	1.5	-1.2	5.5	0.7
1969	2.7	0.6	0.2	0.7	1.1	1.2	-1.1	5.5	0.8
1970	2.8	0.6	0.3	0.8	1.2	1.2	-1.1	5.8	0.8
1971	3.1	0.7	0.3	1.2	1.3	1.2	-1.3	6.5	0.9
1972	3.2	0.7	0.4	1.3	1.3	1.3	-1.2	7.1	1.0
1973	3.6	0.7	0.3	1.1	1.4	1.6	-1.3	7.2	0.9
1974	3.7	0.7	0.4	1.2	1.4	1.4	-1.4	7.4	1.0
1975	3.9	0.9	0.4	1.8	1.6	1.8	-1.1	9.4	1.2
1976	4.1	0.9	0.5	2.1	1.5	1.4	-1.1	9.5	1.3
1977	4.1	1.0	0.5	1.7	1.5	1.2	-1.1	9.0	1.4
1978	4.1	1.1	0.5	1.4	1.5	1.5	-1.0	9.0	1.4
1979	4.0	1.1	0.5	1.3	1.5	1.3	-1.0	8.6	1.5
1980	4.2	1.2	0.5	1.6	1.6	1.3	-1.0	9.4	1.6
1981	4.4	1.3	0.5	1.6	1.6	1.4	-1.2	9.6	1.7
1982	4.6	1.5	0.5	1.6	1.7	1.3	-1.1	10.1	1.9
1983	4.8	1.6	0.5	1.8	1.6	1.3	-1.3	10.3	2.0
1984	4.5	1.5	0.5	1.3	1.5	0.9	-1.1	9.1	1.9
1985	4.4	1.6	0.5	1.2	1.4	1.3	-1.1	9.4	2.0
1986	4.3	1.6	0.6	1.2	1.4	1.1	-1.0	9.2	2.1
1987	4.3	1.7	0.6	1.2	1.4	0.8	-1.1	8.8	2.1
1988	4.2	1.7	0.6	1.1	1.4	0.8	-1.1	8.7	2.1
1989	4.1	1.7	0.6	1.1	1.0	1.2	-1.1	8.7	2.1
1990	4.2	1.8	0.7	1.2	1.0	1.7	-1.0	9.6	2.3
1991	4.4	1.9	0.9	1.4	1.1	1.9	-1.7	9.8	2.5
1992	4.4	2.0	1.1	1.7	1.0	0.9	-1.1	10.1	2.9
1993	4.4	2.1	1.1	1.7	1.0	0.4	-1.0	9.9	3.0
1994	4.4	2.2	1.1	1.6	1.0	0.5	-1.0	10.0	3.1
1995	4.4	2.3	1.2	1.5	1.0	0.3	-1.0	9.7	3.2
1996	4.4	2.4	1.2	1.5	1.0	0.4	-0.9	9.9	3.3
1997	4.3	2.5	1.1	1.4	0.9	0.3	-1.0	9.5	3.3
1998	4.2	2.4	1.1	1.4	0.9	0.6	-0.9	9.6	3.3
1999	4.1	2.2	1.1	1.4	0.9	0.6	-0.8	9.5	3.1
2000	4.0	2.1	1.2	1.3	0.9	0.7	-0.8	9.4	3.1
2001	4.1	2.3	1.2	1.4	0.9	0.6	-0.8	9.5	3.3
2002	4.2	2.3	1.4	1.7	0.9	0.6	-0.8	10.2	3.5
2003	4.2	2.4	1.4	1.7	0.9	0.7	-0.9	10.4	3.6
2004	4.1	2.5	1.5	1.6	0.9	0.7	-0.9	10.2	3.7
2005	4.0	2.6	1.4	1.5	0.9	0.8	-1.0	10.2	3.7
2006	4.0	2.8	1.3	1.5	0.8	1.0	-1.1	10.3	3.7
2007	4.1	3.0	1.3	1.4	0.9	0.7	-1.2	10.1	4.0
2008	4.1	3.1	1.4	1.8	0.9	0.8	-1.3	10.8	4.0
2009	4.7	3.5	1.7	2.4	1.0	2.6	-1.4	14.5	4.7
2010	4.7	3.5	1.8	3.0	0.9	0.3	-1.3	12.9	4.9
2011	4.7	3.6	1.8	2.6	0.9	0.8	-1.4	13.2	5.0
2012	4.8	3.4	1.6	2.2	0.9	1.2	-1.4	12.7	4.5
2013	4.9	3.5	1.6	2.1	0.9	1.1	-1.8	12.3	4.7
2014	4.9	3.5	1.8	1.8	0.9	0.9	-1.6	12.2	4.8
2015	5.0	3.6	2.0	1.7	0.9	1.3	-1.4	12.9	5.3

Sources: Congressional Budget Office; Office of Management and Budget.

a. Excludes offsetting receipts.

b. Includes unemployment compensation, Supplemental Security Income, the refundable portion of the earned income and child tax credits, the Supplemental Nutrition Assistance Program, family support, child nutrition, and foster care.

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

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About This Document

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

CBO's Panel of Economic Advisers commented on an early version of the economic forecast underlying this report. Members of the panel are Katharine Abraham, Alan Auerbach, Markus Brunnermeier, Mary Daly, Steven Davis, Claudia Goldin, Robert Hall, Jan Hatzius, Anil Kashyap, Lawrence Katz, Donald Kohn, Nellie Liang, Gregory Mankiw, Jonathan Parker, Adam Posen, James Poterba, Valerie Ramey, Carmen Reinhart, Brian Sack, Robert Shimer, Justin Wolfers, and Mark Zandi. Troy Davig, Peter Hooper, Dale Jorgenson, Lawrence Summers, and John Walker 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/51129); and providing other support—are listed on the following pages.

Keith Hall
Director

January 2016

Economic Projections

The economic projections were prepared by the Macroeconomic Analysis Division, with contributions from analysts in other divisions. That work was supervised by 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, research assistance
Joshua Montes	Labor markets
Jeffrey Perry	Financial markets
John Seliski	Federal, state, and local government spending and revenues
Robert Shackleton	Potential output, productivity
Christopher Williams	Consumer spending, incomes
Shiqi Zheng	Housing, model and data management

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
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	Capital gains realizations, tax modeling
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, Navy procurement)
William Ma	Defense (operation and maintenance, procurement, compensation for radiation exposure and energy employees' occupational illness, other defense programs)
David Newman	Defense (military construction and family housing, military activities in Afghanistan), veterans' housing and education benefits, reservists' education benefits
David Rafferty	Military retirement
Dawn Sauter Regan	Defense (military personnel)
Matthew Schmit	Military health care
Dwayne Wright	Veterans' compensation and pensions, vocational and adaptive benefits

Health

Susan Yeh Beyer	Health insurance coverage
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
Jamease Kowalczyk	Medicare
Sean Lyons	Health insurance coverage
Paul Masi	Medicare, Federal Employees Health Benefits program
Sarah Masi	Health insurance exchanges, other programs
Kevin McNellis	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
Kyle Redfield	Health insurance coverage
Lara Robillard	Medicare
Robert Stewart	Medicaid, Children's Health Insurance Program, Indian Health Service
Ellen Werble	Prescription drugs, Public Health Service, National Institutes of Health
Zoe Williams	Medicare
Rebecca Yip	Medicare Part D, prescription drugs, Public Health Service

Income Security and Education

Christina Hawley Anthony	Unemployment insurance, training programs, Administration on Aging, Smithsonian Institution, arts and humanities
Elizabeth Cove Delisle	Housing assistance
Kathleen FitzGerald	Supplemental Nutrition Assistance Program and other nutrition programs
Jennifer Gray	Social Services Block Grant, children and families services programs, child nutrition and other nutrition programs
Justin Humphrey	Student loans, higher education
Leah Koestner	Elementary and secondary education, Pell grants
Susanne Mehlman	Temporary Assistance for Needy Families, Child Support Enforcement program, foster care, child care programs, Low Income Home Energy Assistance Program, refugee assistance
Noah Meyerson	Old-Age and Survivors Insurance, Social Security trust funds, Pension Benefit Guaranty Corporation
Emily Stern	Disability Insurance, Supplemental Security Income

Natural and Physical Resources

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

Natural and Physical Resources (Continued)

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, Federal Housing Administration and other housing credit programs
James Langley	Agriculture
Matthew Pickford	General government, legislative branch
Sarah Puro	Highways, mass transit, Amtrak, deposit insurance, credit unions
Jon Sperl	Pollution control and abatement
Aurora Swanson	Water resources, Fannie Mae and Freddie Mac, community and regional development, Federal Emergency Management Agency, Bureau of Indian Affairs
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
Amber Marcellino	Federal civilian retirement, historical data
Virginia Myers	Appropriation bills (Commerce, Justice, and Science; Financial Services and General Government)
Jeffrey Perry	Fannie Mae and Freddie Mac, Federal Housing Administration
Dan Ready	Various federal retirement programs, national income and product accounts, federal pay
Mitchell Remy	Fannie Mae and Freddie Mac, Federal Housing Administration

Other Areas and Functions (Continued)

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)

Long-Term Projections

The long-term projections were prepared by the Health, Retirement, and Long-Term Analysis Division and the Macroeconomic Analysis Division. That work was supervised by Julie Topoleski and Benjamin Page. Stephanie Hugie Barello and Michael Simpson prepared the long-term projections without macroeconomic feedback. Jonathan Huntley prepared the long-term projections with macroeconomic feedback.

Writing

Christina Hawley Anthony wrote the summary. Barry Blom wrote Chapter 1, with assistance from Nathaniel Frentz. Edward Gamber and Charles Whalen wrote Chapter 2. Christina Hawley Anthony, Megan Carroll, Meredith Decker, and Avi Lerner wrote Chapter 3. Mark Booth, Pamela Greene, Joshua Shakin, and David Weiner wrote Chapter 4. Amber Marcellino wrote Appendix A, with assistance from Mark Booth and Nathaniel Frentz. Dan Ready wrote Appendix B, with assistance from Nathaniel Frentz. John Seliski wrote Appendix C; Avi Lerner wrote Appendix D. Shiqi Zheng compiled Appendix E, and Amber Marcellino compiled Appendix F.

Review, Editing, and Publishing

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

Christine Bogusz, Kate Kelly, Loretta Lettner, Bo Peery, Benjamin Plotinsky, 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.

Sarah Puro coordinated the preparation of tables of baseline projections for selected programs, and Peter Huether, Leah Loversky, and Shiqi Zheng compiled supplemental economic and tax data—all posted with this report on the agency's website. Jeanine Rees and Simone Thomas coordinated the presentation of those materials.