

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:

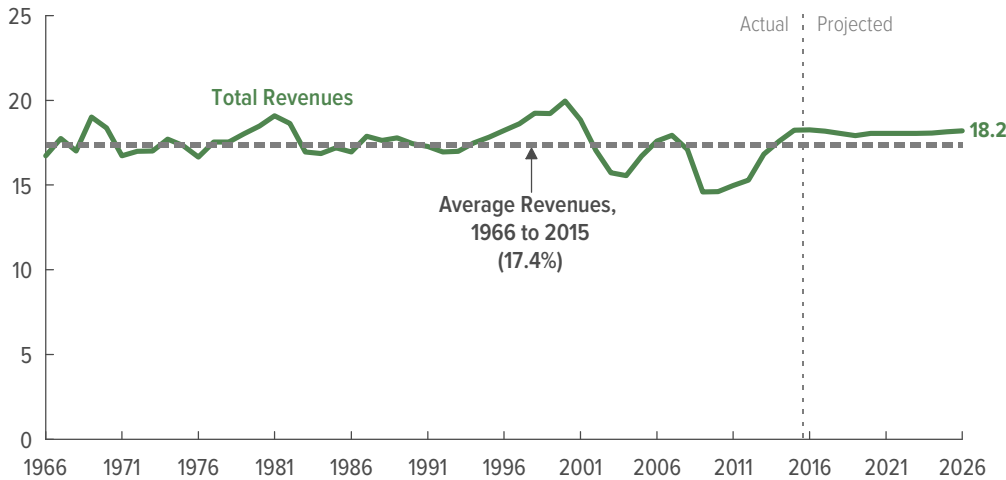
- *Individual income tax receipts* are projected to increase relative to GDP in each year because of real bracket creep, an expected increase in the share of wages and salaries earned by higher-income taxpayers, rising distributions from tax-deferred retirement accounts, and other factors.
- *Remittances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

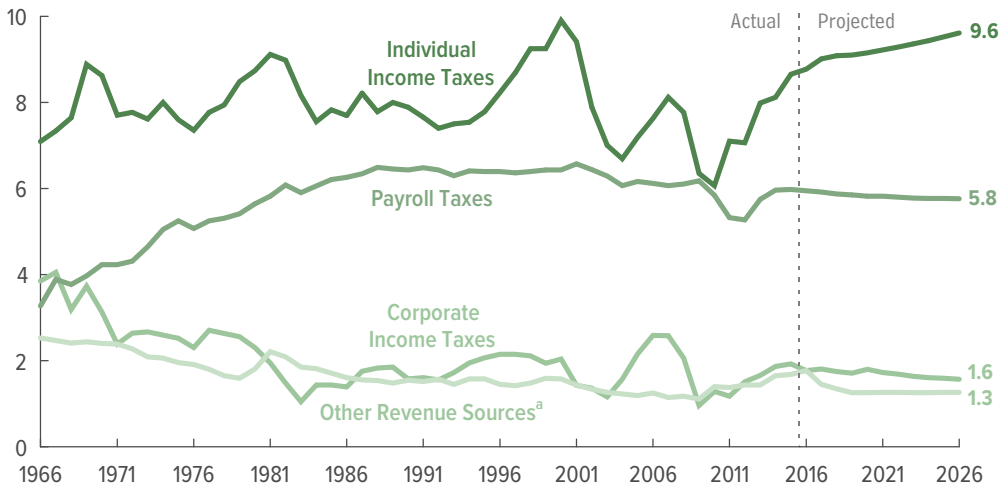
The tax rules that form the basis of CBO's projections include an array of exclusions, deductions, preferential rates, and credits that reduce revenues for any given level of tax rates, in both the individual and corporate income tax systems. Some of those provisions are called tax expenditures because, 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,												Total	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2017-2021	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,												Total	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2017-2021	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.

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.

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

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

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.

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

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,												Total	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2017-2021	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 remit-

ted 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).

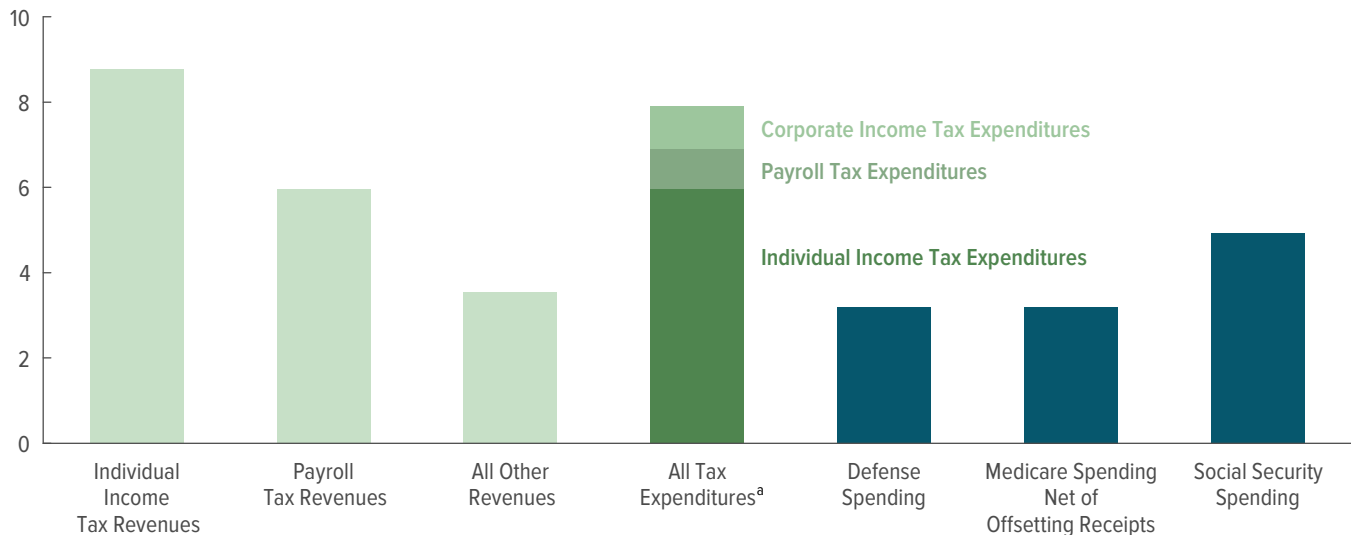
11. Most estimates of tax expenditures include only their effects on individual and corporate income taxes. However, tax expenditures can also reduce the amount of income subject to payroll taxes. JCT has previously estimated the effect on payroll taxes of the provision that excludes employers' contributions 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.

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.

- 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

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>.

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

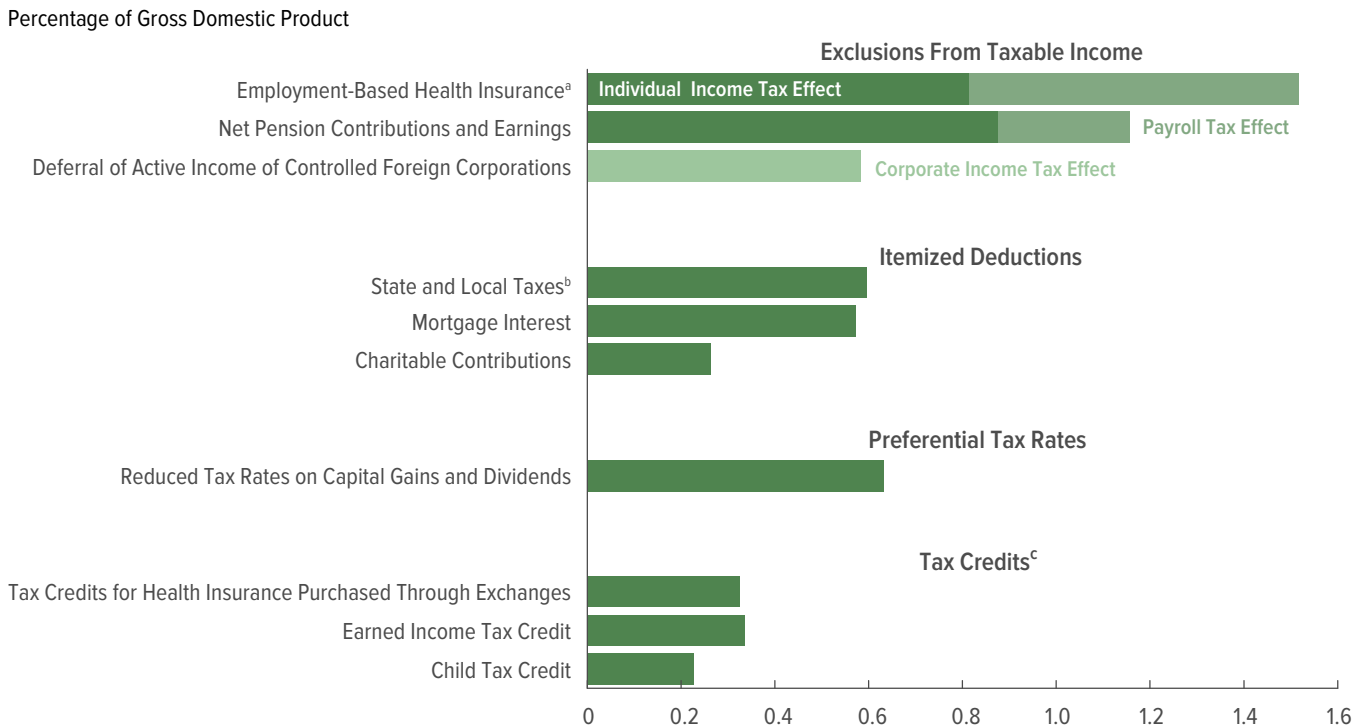
15. That total includes amounts from defined benefit and defined contribution plans offered by employers; it does not include amounts from self-directed individual retirement arrangements or from Keogh plans that cover partners and sole proprietors, although contributions to and earnings accrued in those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



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.