continue to average 0.2 percent of GDP from 2018 through 2028, 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 than they would otherwise be for any underlying structure of tax rates. Many of those provisions are called tax expenditures because they are similar to government spending programs, in that they supply financial assistance for particular activities or to certain 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 Act of 1974 (P.L. 93–344) defines tax expenditures as "those revenue losses 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."[5] That law requires the federal budget to list tax expenditures, and every year JCT and the Treasury's Office of Tax Analysis each publish estimates of individual and corporate income tax expenditures.[6]

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 estimates that in fiscal year 2017, before the 2017 tax act and subsequent legislation took effect, the more than 200 tax expenditures in the individual and corporate income tax systems totaled almost $1.7 trillion—or 8.9 percent of GDP—if their effects on payroll taxes as well as on income taxes are included.[7] That amount equaled more than half of all federal revenues received in 2017 and exceeded spending on Social Security, defense, or Medicare (see Figure 3-3).

Tax expenditures are likely to be smaller beginning in 2018 as a result of the 2017 tax act—but estimates of their magnitude are not yet available. CBO projects those amounts on the basis of estimates prepared by JCT, and JCT's estimates incorporating the effects of the 2017 tax act and subsequent legislation have not yet been released.

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 would be smaller than the sum of the separate tax expenditures for each deduction: That is because all taxpayers would claim the standard deduction if there were no itemized deductions—but if only one or a few deductions were removed, many taxpayers would still choose to itemize. However, the progressive structure of the tax brackets ensures that the opposite would be the case with income

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

6. 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 2016–2020,* JCX-3–17 (January 2017), https://go.usa.gov/xQ3gn. 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 Treasury'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 2019: Analytical Perspectives* (February 2018), pp. 153–194, https://go.usa.gov/xQ3gV (PDF, 4.2 MB).

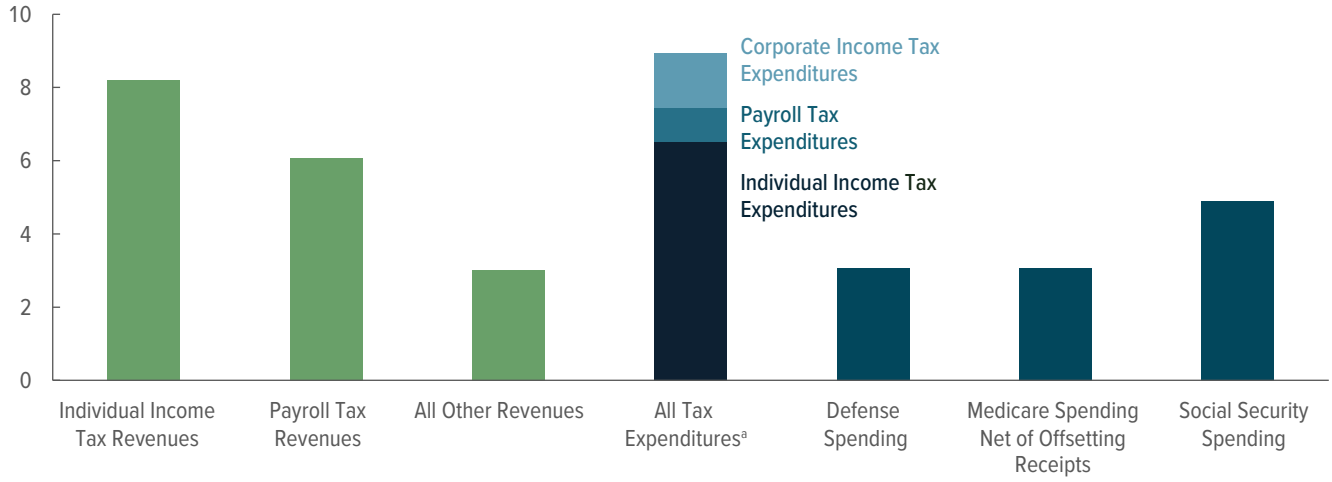
7. Most estimates of tax expenditures include only their effects on individual and corporate income taxes. However, tax expenditures can also reduce the amount of income subject to payroll taxes. JCT has previously estimated the effect on payroll taxes of the provision that excludes employers' contributions 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), https://go.usa.gov/xQaa9. 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 3-3.

Revenues, Tax Expenditures, and Selected Components of Spending in 2017

Tax expenditures, estimated to have been $1.7 trillion in 2017, 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. Estimates incorporating the effects of the 2017 tax act have not yet been released. Those changes in law will generally reduce the magnitude of tax expenditures beginning in 2018.

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 2017, 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.

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. In 2017, those and other factors were approximately offsetting, so the total amount of tax expenditures roughly equaled the sum of all of the individual tax expenditures.

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

The Largest Tax Expenditures in 2017

CBO estimates that the 10 largest tax expenditures accounted for almost three-quarters of the total budgetary effects of all tax expenditures in fiscal year 2017, totaling 6.1 percent of GDP.[8] Those 10 tax expenditures fell 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

8. CBO combined the components of certain tax expenditures that JCT reported separately, such as tax expenditures for different types of charitable contributions.

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.[9]

- 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 estimated to have equaled 1.5 percent of GDP in 2017.
- The exclusion of pension plan contributions and earnings has the next largest impact, resulting in tax expenditures that are estimated to have totaled 1.2 percent of GDP last year, including effects on payroll taxes.[10]
- Tax expenditures for the deferral of corporate profits earned abroad are estimated to have equaled 0.6 percent of GDP in 2017.

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 estimated to have equaled 0.5 percent of GDP in 2017.
- Tax expenditures for interest paid on mortgages for owner-occupied residences are estimated to have been 0.3 percent of GDP last year.
- Tax expenditures for charitable contributions are also estimated to have equaled 0.3 percent of GDP in 2017.

Preferential Tax Rates and Tax Credits. Under the individual income tax, preferential tax rates apply to some forms of income, including dividends and long-term capital gains.[11] Tax credits also reduce eligible taxpayers' tax liability. Nonrefundable tax credits cannot reduce a taxpayer's income tax liability to less than zero, whereas refundable tax credits may result in direct payments to taxpayers who do not owe any income taxes.

- Tax expenditures for the preferential tax rates on dividends and long-term capital gains are estimated to have totaled 0.7 percent of GDP in 2017.[12]
- The Affordable Care Act provides a refundable tax credit, called the premium tax credit, to help low- and moderate-income people purchase health insurance through exchanges. Tax expenditures for those credits are estimated to have totaled 0.3 percent of GDP in 2017.
- The tax expenditure for the earned income tax credit is estimated to have been 0.4 percent of GDP last year.
- The tax expenditure for the child tax credit was also estimated to have been 0.3 percent of GDP in 2017.

Effect of the 2017 Tax Act on Tax Expenditures

The 2017 tax act made many changes that affect the magnitude of tax expenditures, though in many cases those changes are temporary. Some of those changes modify the rules for eligibility or the amount of tax expenditures. But the 2017 tax act also contained changes to other provisions in the tax code with indirect consequences for the total amount of tax expenditures. Neither JCT nor the Treasury Department has estimated tax expenditures under the new law, so a comprehensive

9. 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, https://go.usa.gov/xQ3gT.

10. 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.

11. 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 Treasury Department 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.

12. 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 reduces the preferential treatment of 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.

evaluation of the size of tax expenditures is not possible at this time. CBO expects that, on balance, the changes made by the tax act will reduce tax expenditures. But even with those reductions, tax expenditures will continue to have a substantial impact on the federal budget.

Ways in Which Tax Expenditures Will Be Reduced. The 2017 tax act directly limited some of the largest tax expenditures for calendar years 2018 through 2025, broadening the tax base. For example, a new limit was placed on the itemized deduction for state and local taxes (including income, sales, and property taxes), and the limit on the amount of debt for owner-occupied housing for which the mortgage interest is deductible was lowered.

Some changes made by the 2017 act will indirectly reduce tax expenditures. The act almost doubled the standard deduction, which will significantly curtail tax expenditures for itemized deductions. That change will reduce the value of claiming itemized deductions relative to claiming the standard deduction for all taxpayers. In many cases, the reduction will cause taxpayers to switch from itemizing their deductions to claiming the standard deduction. CBO expects that the larger standard deduction, in conjunction with the limits on itemized deductions, will reduce the number of taxpayers who itemize deductions by more than half.

Furthermore, by lowering both individual and corporate statutory tax rates, the act will reduce the size of most tax expenditures. That effect occurs because tax expenditures are measured as the revenue loss from special exclusions and deductions and preferential rates, and the revenue loss generally falls as the statutory rates fall. (Tax expenditures for tax credits, however, are largely unchanged by rate structure.)

Ways in Which Tax Expenditures Will Be Increased. The 2017 tax act expanded other tax expenditures. For example, for the years 2018 through 2025, the nonrefundable child credit is doubled, the refundable portion of the child tax credit is increased, and a smaller credit is broadened to cover dependents who were not previously eligible for the credit.[13] And the act also allows for a more generous capital recovery, which will increase the tax expenditures for depreciation of property.

Economic Effects of Tax Expenditures

Tax expenditures are generally designed to further societal goals. For example, the tax 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. However, tax expenditures have a broad range of effects that do not always further societal goals.

First, tax expenditures may lead to an inefficient allocation of economic resources. They do so by subsidizing activity—such as buying a home—that might have taken place without the tax incentives and by encouraging more consumption of the goods and services that receive preferential treatment. For example, the tax expenditures mentioned above may prompt people to be less cost-conscious in their use of health care services than they would be in the absence of the tax expenditure for health insurance costs; to reallocate existing savings from accounts that are not tax-preferred to retirement accounts, rather than add to their savings; and to purchase more expensive homes, investing too much in housing and too little elsewhere relative to what they would do if all investments were treated equally.

Second, by providing benefits related to specific activities, entities, or groups of people, tax expenditures increase the size and scope of federal involvement in the economy. Indeed, adding tax expenditures to conventional federal outlays makes the federal government appear notably larger relative to GDP.

Third, tax expenditures reduce the amount of revenue that is collected for any given set of statutory tax rates—and thereby require higher rates to collect a chosen amount of revenue. All else being equal, those higher tax rates lessen people's incentives to work and save, and therefore decrease output and income.

At the same time, some tax expenditures more directly affect output and income. For example, the preferential rate on capital gains and dividends raises the after-tax return on some forms of saving, which tends to increase saving and boost future output. As another example, the increase in take-home pay arising from the earned income tax credit appears to encourage work effort by some people.

13. For some taxpayers, the tax reduction provided by those larger tax credits will be more than offset by the temporary repeal of personal exemptions, which will raise taxable income. However, personal exemptions, along with the standard deduction and tax rates on ordinary income, are not considered tax expenditures.

Fourth, tax expenditures have mixed effects on the societal goal of limiting the complexity of the tax code. On the one hand, most tax expenditures, such as itemized deductions and tax credits, require that taxpayers keep additional records and make additional calculations, increasing the complexity of the tax code. On the other hand, some exclusions from taxable income simplify the tax code by eliminating recordkeeping requirements and the need for certain calculations. For example, in the absence of the exclusion for capital gains on assets transferred at death, taxpayers would need to calculate the appreciation in the value of their assets since the original purchase—a calculation that would require records of the purchase of assets acquired by deceased benefactors, perhaps many decades earlier.

Fifth, tax expenditures affect the distribution of the tax burden in ways that may not always be recognized, both among people at different income levels and among people who have similar income but differ in other ways.

Uncertainty Surrounding the Revenue Outlook

Revenue projections are inherently uncertain, and even if no changes were made to current law, actual outcomes would undoubtedly differ in some ways from CBO's projections. The agency attempts to construct its 11-year revenue projections so that they fall in the middle of the distribution of possible outcomes. Hence, actual revenues could turn out to be higher or lower than CBO projects.

In analyzing its previous baseline projections of revenues since 1982, CBO found that projected revenues for the second year (which is often called the budget year and usually began about six months after the projections were released) and the sixth year were too high, on average, mainly because of the difficulty of predicting when economic downturns would occur. The overall accuracy of CBO's revenue projections has been similar to that of the projections of other government agencies. Since 1982, the mean absolute error—that is, the average of all errors without regard for whether they were positive or negative—has been 5.0 percent for CBO's budget-year projections and 10.0 percent for the sixth-year projections.[14] Percentage errors of those amounts would equal about $175 billion in 2019 and $425 billion in 2023.

14. Those errors include CBO's projections that were prepared from 1982 through the most recent fiscal years for which actual receipts are available for each projection horizon: 2016 for the budget-year projections and 2012 for the sixth-year projections. For a more detailed analysis, see Congressional Budget Office, *CBO's Revenue Forecasting Record* (November 2015), www.cbo.gov/publication/50831. That analysis encompassed actual results through fiscal year 2013.