

Revenue Options

In 2018, the federal government collected \$3.3 trillion in revenues, equal to 16.4 percent of the nation's gross domestic product (GDP). Individual income taxes were the largest source of revenues, accounting for 51 percent of the total. Social insurance taxes (primarily payroll taxes collected to support Social Security and Medicare) accounted for 35 percent. Six percent of the total was from corporate income taxes. Other receipts made up the remaining 8 percent (see Figure 4-1).

The Congressional Budget Office estimates that revenues would be greater if not for tax expenditures—so called because they resemble federal spending to the extent that they provide financial assistance for specific activities, entities, or groups of people through special exclusions, exemptions, or deductions from gross income or special credits, preferential tax rates, or deferrals of tax liability. More than 200 tax expenditures are provided under the individual and corporate income tax system. Those tax expenditures cause revenues to be lower than they would be otherwise for any given schedule of tax rates.¹

Trends in Revenues

Over the past 50 years, total federal revenues have averaged 17.4 percent of GDP—ranging from a high of 20.0 percent in 2000 to a low of 14.6 percent in 2009 and 2010 (see Figure 4-2). That variation in total revenues as a share of GDP has primarily resulted from fluctuations in receipts of individual income tax payments and, to a lesser extent, in collections of corporate income taxes.

In CBO's baseline, which projects federal spending and revenues over a 10-year period and incorporates the assumption that current law will generally remain

unchanged, total revenues increase from 16.5 percent of GDP in 2019 to 18.5 percent of GDP in 2028. Revenues are projected to rise steadily from 2019 through 2025, reaching 17.5 percent of GDP, and then to increase sharply following the scheduled expiration of many temporary provisions of Public Law 115-97 (originally called the Tax Cuts and Jobs Act and referred to as the 2017 tax act in this volume) on December 31, 2025. (See Box 4-1 for an overview of the provisions contained in the 2017 tax act.)

Individual and Corporate Income Taxes

From 1968 to 2018, revenues from individual income taxes have ranged from slightly more than 6 percent of GDP (in 2010) to slightly less than 10 percent of GDP (in 2000). Since the 1960s, corporate income taxes have fluctuated between about 1 percent and about 4 percent of GDP.

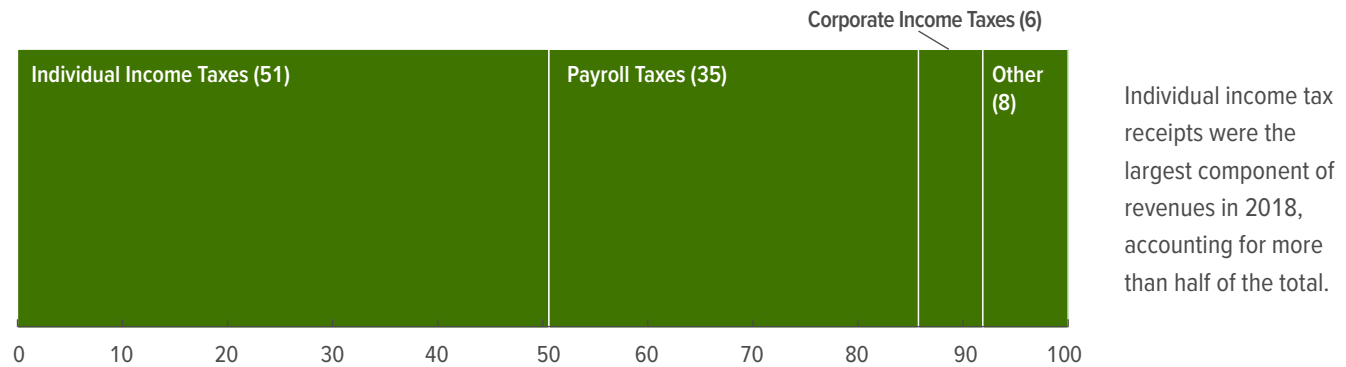
The variation in revenues generated by individual and corporate income taxes has stemmed in part from changes in economic conditions and from how those changes have interacted with the tax code. For example, in the absence of legislated tax reductions, receipts from individual income taxes tend to grow as a share of GDP because of a phenomenon known as real bracket creep, which occurs when income rises faster than prices, pushing an ever-larger share of income into higher tax brackets. Although certain parameters of the tax code—including tax brackets—are indexed, or adjusted to include the effects of inflation, income can still be subject to higher tax rates if it grows faster than prices. In addition, because some parameters of the tax system are not indexed, taxes can increase as a share of GDP even if incomes are not rising faster than prices. During economic downturns, corporate profits generally fall as a share of GDP, causing corporate tax revenues to shrink, and declines in household income tend to push a greater share of total income into lower tax brackets, resulting in lower revenues from individual income taxes. Thus, total income tax revenues automatically rise as a share of GDP

1. For a more thorough discussion of tax expenditures, see Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2018–2022*, JCX-81-18 (October 4, 2018), <https://tinyurl.com/ybqzbo7q>; and Congressional Budget Office, *The Distribution of Major Tax Expenditures in the Individual Income Tax System* (May 2013), www.cbo.gov/publication/43768.

Figure 4-1.

Composition of Revenues, 2018

Percentage of Total Revenues



Source: Congressional Budget Office, using data from the Office of Management and Budget.

Other sources of revenues include excise taxes, estate and gift taxes, earnings of the Federal Reserve System, customs duties, and miscellaneous fees and fines.

when the economy is strong and decline in relation to GDP when the economy is weak.

Social Insurance Taxes

Social insurance taxes, by contrast, have been a relatively stable source of federal revenues. From the 1960s through the 1980s, receipts from those taxes increased as a share of GDP because of increases in their rates, in the number of people paying the taxes, and in the share of wages subject to the taxes. For most of the past three decades, legislation has not had a substantial effect on social insurance taxes, and the primary base for those taxes—wages and salaries—has varied less as a share of GDP than have other sources of income. In 2011 and 2012, however, a temporary reduction in the Social Security tax rate caused receipts from social insurance taxes to drop; when that provision expired at the end of 2012, social insurance receipts as a share of GDP returned to their historical level—close to 6 percent of GDP.

Other Revenue Sources

Revenues from other taxes and fees declined in relation to the size of the economy over the 1968–2018 period, mainly because receipts from excise taxes—which are levied on goods and services such as gasoline, alcohol, tobacco, and air travel—have decreased as a share of GDP over time. That decline is chiefly attributable to the fact that those taxes are usually levied on the basis of

the quantity of goods sold rather than their cost, and the rates and fees have generally not kept up with inflation.

Method Underlying Revenue Estimates

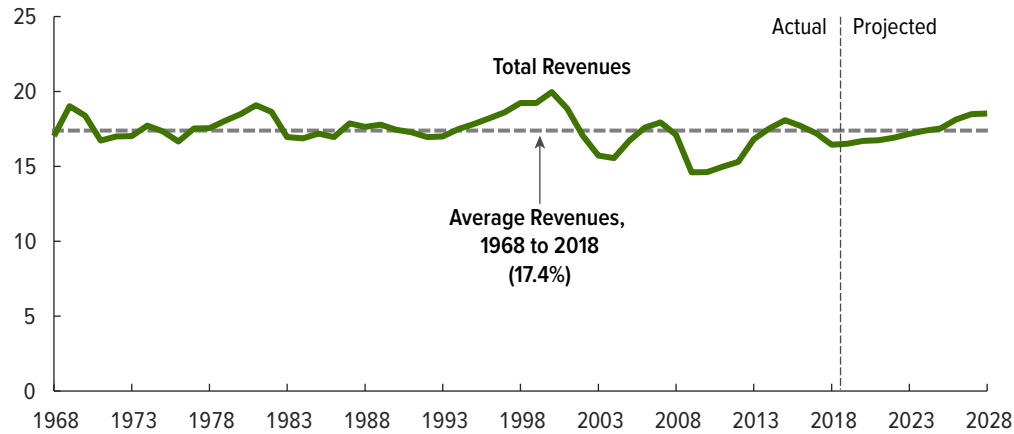
Although CBO prepared or contributed to the revenue estimates for a few options in this chapter, nearly all of the estimates were prepared by the Joint Committee on Taxation (JCT), which provides CBO with revenue estimates for legislation dealing with income, estate and gift, excise, or payroll taxes that is under consideration by the Congress. JCT and CBO's revenue estimates measure the budgetary effects of options against CBO's April 2018 baseline, which reflects the assumption that current laws will generally remain in effect—specifically, that scheduled changes in provisions of the tax code will take effect and no additional changes to those provisions will be enacted.² Almost all of the estimates in the chapter are based on a scenario in which the option would become

2. For more information on JCT's methodology for estimating revenues, see Joint Committee on Taxation, *Summary of Economic Models and Estimating Practices of the Staff of the Joint Committee on Taxation*, JCT-46-11 (September 19, 2011), <http://go.usa.gov/xkMyd>. As specified in the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's baseline reflects the assumption that expiring excise taxes dedicated to trust funds will be extended (unlike other expiring tax provisions, which are assumed to follow the schedules set forth in current law). For more information on CBO's baseline, see Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), www.cbo.gov/publication/53651.

Figure 4-2.

Revenues

Percentage of Gross Domestic Product



If current laws generally remained unchanged, revenues would gradually rise over the next decade—increasing from 16.5 percent of gross domestic product in 2019 to 18.5 percent by 2028.

Source: Congressional Budget Office.

The projected values shown are from Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2028), www.cbo.gov/publication/53651.

effective in January 2019. For certain options, new and novel administrative procedures would have to be set up in order to collect a tax; in those cases, the estimates are based on a scenario in which the option would become effective in January 2020. For each year in the projection period, the estimate represents the effect of the option on federal revenues in that fiscal year. Although taxes on wages are generally withheld as the income is earned, therefore increasing federal revenues in that same year, taxes on other income and the effects of deductions and credits generally do not affect federal revenues until taxpayers file their tax returns in the following calendar year.

The estimates in this chapter account for certain broader effects of the options. Estimates for some of the options include revenue offsets to capture the effect of a given option on the income bases for other taxes. The estimates generally also reflect changes in the behavior of households and businesses that would generate budgetary savings or costs, except for those changes that would affect total output in the economy. Some revenue options would affect outlays as well as revenues and so include an estimate of that outlay effect. The estimate for each option in this chapter reflects the effects of that option in isolation. If combined, the options might interact with one another in ways that could alter their effects on revenues and their impact on households and the economy.

Baseline

The estimates presented in this chapter show how projected revenues in CBO's April 2018 baseline would change if any of the options was implemented. That baseline accounts for the 2017 tax act, which included some provisions that are scheduled to expire over the course of the baseline's 10-year projection period. As a result, the revenue estimates for some options exhibit patterns that reflect the effects of those provisions and their expiration on the baseline. The tax act also made substantial changes to the tax code. Because it is difficult to anticipate how people, businesses, and various other entities will respond to those changes, the baseline projections are more uncertain than they would have been if the tax act had not been enacted.

Expiring Provisions. The 2017 tax act's expiring provisions include changes to the rates and structure of individual income taxes and to various tax expenditures; those provisions are scheduled to expire at the end of 2025. The tax act temporarily decreased individual income tax rates and changed the width of income tax brackets in a way that generally increased the number of taxpayers subject to lower income tax rates. Those lower rates temporarily reduce the value of some tax expenditures, and estimates for options that would change such tax expenditures reflect those changes in their value. The

Box 4-1.

Major Provisions of the 2017 Tax Act

The 2017 tax act made important changes to the tax system that apply to both businesses and individuals. They included changes to corporate and individual tax rates and to how businesses and individuals calculate their taxable income.

The 2017 tax act changed individual income taxes by lowering statutory tax rates but also broadening the tax base through various provisions. Most of the provisions involving individual income taxes expire at the end of 2025. Those temporary provisions include:

- A reduction in individual income tax rates,
- A reduction in the amount of income subject to the alternative minimum tax,
- Changes to the standard deduction and itemized deductions, and
- The replacement of personal and dependent exemptions with an expansion of the child tax credit and a new tax credit for other dependents.

In addition, the 2017 tax act made numerous changes to tax provisions that affect corporate and noncorporate businesses. Those changes include:

- A reduction in the corporate income tax rate to 21 percent,
- Modifications to the taxation of foreign income earned by U.S. corporations,
- An expansion of the tax base (that is, the total amount of income subject to tax) through the elimination of certain tax deductions,
- A provision that allows businesses to more rapidly deduct the costs of certain investments, and
- The creation of a new deduction for certain owners of pass-through businesses (businesses whose profits are not taxed directly through the corporate income tax but are “passed through” to the business’s owners, who pay income taxes on their share of the profits).

2017 tax act also increased the standard deduction and made changes to itemized deductions. Together, those changes are estimated to reduce the number of itemizers from 49 million in 2017 to 18 million in 2018. The effects of the temporary reduction in the number of itemizers are reflected in the revenue estimates for options that limit itemized deductions.

Other expiring tax provisions affected the taxation of businesses. The 2017 tax act temporarily increased the percentage of the cost of investment in equipment that businesses can deduct in the year the investment is made. Until that increase is phased out at the end of 2027, it reduces taxable income against which other business deductions can be claimed. If that increase was extended permanently, then revenue estimates for options that would increase the tax rate on such income would be lower in subsequent years. Another provision of the tax act allowed many owners of pass-through entities (businesses, such as partnerships, whose profits are “passed through” to their owners) to claim a deduction equal to 20 percent of qualified business income through 2025. That temporary deduction also reduces taxable income

under the individual income tax. If the deduction was extended permanently, the revenue estimates for options that would raise tax rates on that income would be lower in subsequent years.

Uncertainty. All revenue projections are uncertain because they depend on projections of the economy that influence the projections of wages and salaries, corporate profits, and other income. For example, if productivity growth was lower than forecast, receipts would be lower than projected in the baseline and, as a result, the revenue effects of options in this chapter would be different from the estimates shown. The April 2018 baseline is particularly uncertain because of the significant changes to the tax code introduced by the 2017 tax act. For example, there is uncertainty about how households and businesses will respond to changes in incentives to work, save, and invest in the United States and, as noted above, how households and businesses might react to the scheduled expiration of certain provisions. Other causes of uncertainty include the scope and content of regulations that have yet to be promulgated by the Treasury Department and the policies that state governments and

foreign countries might change in response to the act. Because of all of those sources of uncertainty, revenues may deviate significantly from the baseline projections; as a result, the revenues raised by any option in this chapter could be significantly different from the estimates shown. Each option contains a discussion of the specific sources of uncertainty associated with the estimates.

Offsets Applied to Revenue Estimates

Conventional budget estimates incorporate the assumption that total output in the economy is fixed. Therefore, the estimate for any option that would increase an excise tax (or any other indirect tax imposed at an intermediate stage of production and sale) or the employer contribution for payroll taxes must reflect a reduction in the amount of income subject to income and payroll taxes. The revenue estimates for options in this chapter that increase indirect taxes or employer contributions for payroll taxes include an offset that accounts for that reduction.³ The estimates reflect those adjustments in addition to accounting for the behavioral effects that are typically incorporated in every revenue estimate.

Excise Tax Offset. A higher excise tax would reduce the taxable income of households and businesses. The resulting reduction in income and payroll tax receipts would partially offset the increase in excise taxes. For each additional dollar of excise tax receipts raised in 2019, JCT applies an offset that reduces income and payroll taxes by \$0.217, for a net increase of \$0.783 in total tax receipts. The offset rate for each subsequent year reflects the tax regime that is in place that year.⁴

The specific set of individuals and businesses whose income would decline because of an excise tax increase depends on who bears the burden of that increase. For example, if businesses that produced the taxed good were unable to pass the additional cost of the excise tax

on to consumers by raising prices, their income would fall, which, in turn, would reduce the revenues collected through direct taxes on that income.

Payroll Tax Offset. An increase in employers' contributions to payroll taxes would reduce taxable wages and benefits. The resulting reduction in individual income and payroll tax receipts would partially offset the increase in payroll taxes. Because options for changing payroll taxes may have different effects on people in different parts of the income distribution, the offset applied is particular to the payroll tax change that is being estimated. In a given year, the offset rate is a function of the tax regime that is in place that year.

The estimates account for a reduction in taxable wages and benefits because they incorporate the assumption that total compensation remains unchanged. Total compensation comprises taxable wages and benefits, nontaxable benefits, and employers' contributions to payroll taxes. If total compensation remains unchanged, then increases in employers' contributions to payroll taxes must reduce other forms of compensation. Decreases in taxable wages and benefits would reduce the base for individual income and payroll taxes.

Accounting for Changes in Behavior

The revenue estimates in this chapter generally reflect changes in the behavior of households and businesses. (The estimates do not, however, incorporate macroeconomic effects—that is, behavioral changes that affect total output in the economy, such as changes in the labor supply or in private investment resulting from changes in fiscal policy.)⁵ An increase in taxes on alcoholic beverages, for example, is projected to result in a decline in alcohol consumption, and an increase in Social Security tax rates would prompt employers to change the composition of compensation, shifting from taxable compensation to forms of nontaxable compensation. The revenue estimates for those options incorporate such behavioral responses. In the first example, the decline in consumption would cause the increase in revenues to be smaller than it would be without that behavioral response, and in the second example, the change in compensation would cause individual income tax receipts to fall at the same time that payroll tax revenues rose.

3. For information on JCT's methodology in estimating income and payroll tax offsets to excise taxes, see Joint Committee on Taxation, *The Income and Payroll Tax Offset to Changes in Excise Tax Revenues*, JCX-59-11 (December 23, 2011), <https://tinyurl.com/yaa7d856>. For information on JCT's methodology in estimating offsets to payroll taxes, see Joint Committee on Taxation, *The Income and Payroll Tax Offset to Changes in Payroll Tax Revenues*, JCX-89-16 (November 18, 2016), <https://tinyurl.com/yapdo8vc>.

4. See Joint Committee on Taxation, *New Income and Payroll Tax Offsets to Changes in Excise Tax Revenues for 2018–2028*, JCX-8-18 (March 27, 2018), <https://tinyurl.com/y7pz2qzr>.

5. Under some circumstances, cost estimates for legislation would take such effects into account. For more information, see Chapter 1 of this report.

Accounting for Outlays

Some revenue options would affect outlays as well as revenues. For example, if the amount of a refundable tax credit exceeds a person's income tax liability before the credit is applied, the government pays part or all of the excess to that person, and that payment is recorded as an outlay in the budget. Thus, options that would change the eligibility for or amount of a refundable tax credit would generally cause a change in outlays. Changes in other provisions of tax law could also affect the allocation of refundable credits between outlays and receipts. For instance, if tax rates are increased but the eligibility requirements for and amounts of refundable tax credits remain the same, the total cost of refundable credits generally does not change. However, the portion of the refundable credits that offsets tax liabilities increases because the tax liabilities that can be offset are greater, and the portion of the credits classified as outlays falls correspondingly. For simplicity in presentation, the revenue estimates for options that would affect refundable tax credits represent the net effects on revenues and outlays combined.

Options that would expand the base for Social Security taxes would affect outlays as well. If options would require some or all workers to contribute more to the Social Security system, those workers would receive larger benefits when they retired or became disabled. For nearly all such options in this report, CBO anticipates that a change in Social Security benefit payments would be small from 2019 through 2028; therefore, the estimates for those options do not include those effects on outlays. One exception, however, is Option 20, which would increase the amount of earnings subject to the Social Security tax. In that case, the effects on Social Security outlays over the 10-year projection period would be greater; they are shown separately in the table for that option.

Combining Options

The revenue estimates for each option in this chapter reflect the effects of that option in isolation. If the option was combined with other changes to the tax code, as it would be if it was part of a broader legislative proposal, then its effects would interact with those of the other changes and the estimate for the provision would reflect those interactions. In that case, the estimated revenue effects could be quite different from the revenue estimates for the option in isolation.

Options in This Chapter

This chapter presents 40 options that are grouped into several categories according to the part of the tax system they would target: individual income tax rates, the individual income tax base, individual income tax credits, payroll taxes, taxation of income from businesses and other entities, taxation of income from worldwide business activity, excise taxes, other taxes and fees, and tax enforcement. The chapter generally does not include options that would target portions of the tax system that were substantially modified as part of the 2017 tax act because CBO generally did not include in this report options that would repeal recently enacted legislation. For each option in this chapter, there is a discussion of the advantages and disadvantages of increasing revenues through that approach.

Options for Raising Revenues

With one exception, the options included in this chapter would increase revenues by raising tax rates, imposing a new tax on income, or broadening the base for an existing tax. One option would instead raise revenues by increasing funding for the Internal Revenue Service's (IRS's) enforcement of tax law.

Options for Raising Existing Tax Rates or Fees. The chapter contains options to increase revenues by raising tax rates on individual income, corporate income, and income subject to payroll taxes. It also contains options that would increase tax rates or fees on various products to which an excise tax is currently applied.

Options for Imposing a New Tax or Fee. Other options in this chapter would raise revenues by introducing new taxes or fees on income, consumption, or certain activities. Those activities include financial transactions and the emission of greenhouse gases.

Options for Broadening the Tax Base. The tax base is broadened when taxes are extended to more people or applied to additional types or amounts of income. Extensions of the tax base are generally achieved by either eliminating or limiting existing tax expenditures. There are three main types of tax expenditures discussed in this chapter.

- *Tax exclusions* reduce the amount of income that filers must report on tax returns. Examples are the exclusions from taxable income of employment-based health insurance, net pension contributions

and earnings, capital gains on assets transferred at death, and a portion of Social Security and Railroad Retirement benefits.

- *Tax deductions* are expenses that are subtracted from reported income in the calculation of taxable income. Examples are itemized deductions for certain taxes paid to state and local governments, mortgage interest payments, and charitable contributions.
- *Tax credits* reduce a taxpayer's tax liability. Credits can be either nonrefundable (meaning that they only offset the taxpayer's tax liability) or refundable (meaning that if they exceed the taxpayer's tax liability, the taxpayer receives a payment from the government). An example of a nonrefundable tax credit is the Lifetime Learning tax credit. Examples of refundable tax credits are the earned income tax credit and the additional child tax credit.

Some of the options presented in this chapter would eliminate current exclusions or deductions. Others would create new limits on tax expenditures or tighten existing limits on tax expenditures—for example, by restricting the set of filers who could receive any benefit from a given tax expenditure.

Option for Increasing Funding for IRS Enforcement.

The chapter contains one option that would lift the statutory cap on discretionary spending in order to provide additional funding to the IRS for tax law enforcement. Such adjustments to the statutory cap are allowed under the Budget Control Act of 2011 (as modified by the Bipartisan Budget Act of 2018) for program integrity initiatives, including expansions of the IRS's enforcement activities. The option is included in this volume because it is estimated to raise more in revenues than it costs. Because of the budget guidelines—as specified by the Balanced Budget Act of 1997—used by the Congress, an increase in offsetting receipts resulting from a change in appropriations generally will not be scored for budget enforcement purposes.⁶ However, if an appropriation bill

or another bill containing increased funding for program integrity is enacted, CBO will incorporate the revenue effects of that provision in its next projection of the budget deficit.

Discussion of Options

For each option in this chapter, the text provides background information, describes the possible policy change or changes, presents and explains the estimated effects on revenues, and discusses the advantages and disadvantages of increasing revenues through that approach. The chapter contains one option—the option to reduce tax preferences for employment-based health insurance—that is structured differently from the other options in this chapter. That option would entail a variety of changes to current law, and the amount of federal savings it generated and the consequences for stakeholders—beneficiaries, employers, health care providers, insurers, and states—would depend crucially on the details of those changes.

Although some advantages are specific to particular options, others apply more broadly to all options that would increase revenues in the same manner. For example, options that would increase the rates of existing taxes would generally be simpler to implement than most other changes to the tax code. And options that would broaden the tax base by standardizing the treatment of similar activities would generally increase economic efficiency because they would reduce the extent to which taxpayers' decisions were influenced by tax considerations.

Some general disadvantages also apply to all options that would raise revenues in the same manner. For example, options that would increase individual income tax rates or payroll tax rates would reduce the returns from working (that is, after-tax wages), which would make other activities more attractive relative to working. Similarly, options that would increase taxes on business income would reduce the returns from business investment and thus result in decreased investment.

6. Specifically, Guideline 3 and Guideline 14 address the budgetary effects of increased funding for administrative activities. For more on scorekeeping guidelines, see House Committee on the

Budget, *A Compendium of Laws and Rules of the Congressional Budget Process* (August 2015), <https://go.usa.gov/xUMVF> (PDF, 4.6 MB).

Revenues—Option 1

Increase Individual Income Tax Rates

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues												
Raise all tax rates on ordinary income by 1 percentage point	55.2	82.5	86.9	91.4	95.9	100.4	105.2	95.3	94.1	98.5	411.9	905.4
Raise ordinary income tax rates in the four highest brackets by 1 percentage point	13.5	20.6	22.0	23.3	24.7	26.0	27.5	22.3	20.9	22.2	104.1	222.9
Raise ordinary income tax rates in the two highest brackets by 1 percentage point	7.2	11.0	11.6	12.3	13.0	13.7	14.4	13.2	13.1	13.9	55.1	123.4

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

The estimates include the effects on outlays resulting from changes in refundable tax credits.

Background

The 2017 tax act included a number of temporary changes to the individual income tax. For calendar years 2018 through 2025, taxable ordinary income earned by most individuals is subject to the following seven statutory rates: 10 percent, 12 percent, 22 percent, 24 percent, 32 percent, 35 percent, and 37 percent. (Taxable ordinary income is all income subject to the individual income tax other than most long-term capital gains and dividends, minus allowable adjustments, exemptions, and deductions.) At the end of 2025, nearly all of the modifications to the individual income tax system made by the 2017 tax act are scheduled to expire, and the rates will revert to those under pre-2018 tax law. Beginning in 2026, the statutory rates will be 10 percent, 15 percent, 25 percent, 28 percent, 33 percent, 35 percent, and 39.6 percent.

As specified by the tax code, different statutory tax rates apply to different portions of people's taxable ordinary income. Tax brackets—the income ranges to which the different rates apply—vary depending on taxpayers' filing status (see the table on the next page). For 2018, for example, a person filing singly with taxable income of \$40,000 would pay a tax rate of 10 percent on the first \$9,525 of taxable income, 12 percent on the next \$29,175, and 22 percent on the remaining \$1,300. The starting points for those income ranges are adjusted, or

indexed, each year to include the effects of inflation. The 2017 tax act permanently changed the measure used to adjust for inflation from the consumer price index for all urban consumers (CPI-U) to a “chained” version of the CPI-U, which grows more slowly. Like the tax rates, the tax brackets will revert to those in effect under pre-2018 law (adjusted for inflation using the chained CPI-U) in 2026.

Income in the form of dividends and long-term capital gains (those realized on assets held for more than a year) is taxed under a separate rate schedule, with a maximum statutory rate of 20 percent. Income from all capital gains and dividends, along with other investment income received by higher-income taxpayers, is also subject to an additional tax of 3.8 percent.

Taxpayers who are subject to the alternative minimum tax (AMT) face statutory rates of 26 percent and 28 percent. (Over certain income ranges, the effective rate on each additional dollar of income is higher than the statutory rate. The AMT works in parallel with the regular income tax; it is similarly structured but has fewer exemptions, deductions, credits, and rates. Households must calculate the amount they owe under both the AMT and the regular income tax and pay the larger of the two amounts.) However, the AMT does not affect most of the highest-income taxpayers because the highest

Starting Points for Tax Brackets (2018 dollars)		Statutory Tax Rate on Ordinary Taxable Income (Percent)
Single Filers	Joint Filers	2018
0	0	10
9,525	19,050	12
38,700	77,400	22
82,500	165,000	24
157,500	315,000	32
200,000	400,000	35
500,000	600,000	37

statutory rate under the AMT is only 28 percent, and many deductions allowed under the regular income tax are also allowed under the AMT. The 2017 tax act significantly limited the reach of the AMT for calendar years 2018 through 2025 by increasing the amount of income that is exempt from the AMT and by limiting the deduction for state and local taxes under the regular income tax.

In 2016, the IRS reported that \$6.6 trillion in income was taxed at ordinary rates, generating \$1.4 trillion in revenues from 114 million returns. Almost a quarter (\$1.6 trillion) of that income was taxed at the four highest rates, and about a tenth (\$750 billion) was taxed at the two highest rates. Taxable income is projected to grow at a rate similar to gross domestic product between now and 2028, despite a drop in 2026, when temporary provisions of the 2017 tax act that affect the amount of income that is taxable are scheduled to expire. Those temporary provisions, which boost taxable income on net, include the repeal of personal exemptions, the limitation of certain itemized deductions, and an increase in the standard deduction.

Options

This option consists of three alternative approaches for increasing statutory rates under the individual income tax. Those alternatives are as follows:

- Raise all tax rates on ordinary income (income subject to the regular rate schedule) by 1 percentage point.
- Raise all tax rates on ordinary income in the top four brackets (24 percent and over from 2018 through 2025, and 28 percent and over after 2025) by 1 percentage point.

- Raise all tax rates on ordinary income in the top two brackets (35 percent and over) by 1 percentage point.

Effects on the Budget

If implemented, the first alternative would increase revenues by a total of \$905 billion from 2019 through 2028, according to estimates by the staff of the Joint Committee on Taxation (JCT). Under that alternative, for example, in 2019, the top rate of 37 percent would increase to 38 percent, and in 2026, the top rate of 39.6 percent would increase to 40.6 percent.

The second and third alternatives would target specific individual income tax rates. Because those alternatives would affect smaller groups of taxpayers, they would raise significantly less revenue. Boosting rates only on ordinary income in the top four brackets by 1 percentage point would raise revenues by \$223 billion from 2019 through 2028, according to JCT—much less than the first alternative. Boosting rates only on ordinary income in the top two brackets by 1 percentage point would raise even less revenue—\$123 billion over that period, in JCT’s estimation. The AMT would not significantly limit the effect of that increase in regular tax rates because most people who are subject to the top rate in the regular income tax are not subject to the AMT.

The growth in revenues under all approaches would be boosted from 2018 through 2025 by the temporary changes included in the 2017 tax act. Most notably, because the 2017 tax act sharply limits the reach of the AMT from 2018 through 2025, the share of taxpayers affected by changes in ordinary income tax rates will increase during that period. Consequently, raising tax rates would raise more revenues before 2026 than after.

The estimates shown here incorporate the effects of two behavioral responses among taxpayers: shifting income from taxable forms to nontaxable or tax-deferred forms and not reporting some income. Those behaviors could include tax planning to reduce income subject to higher tax rates, tax avoidance transactions, and tax evasion. For example, an increase in the ordinary income tax rate might result in an increased use of deferred compensation or an attempt to characterize ordinary income as capital gains income. However, the estimates do not incorporate changes in how much people would work or save in response to higher tax rates. For example, an increase in tax rates would discourage people from working because it would lower after-tax wages and salaries.

The estimates for this option are uncertain for two key reasons. First, the estimates rely on the Congressional Budget Office's 10-year projections of the economy and of individual income under current law. Those projections are inherently uncertain, but they are particularly uncertain because they reflect recently enacted changes to the tax system by the 2017 tax act. Second, the estimates rely on estimates of how taxpayers would shift income and change reported income in response to the change in tax rates. Those estimates are based on observed responses to prior changes to tax rates, which might

differ from the responses to tax-rate changes considered here.

Other Effects

As a way to boost revenues, an increase in tax rates would offer some administrative advantages over other types of tax increases because it would require only minor changes to the current tax system. Furthermore, by boosting rates only on income in higher tax brackets, the second and third alternatives would increase the progressivity of the tax system: Those alternatives would impose a larger burden on people with more financial resources than on people with fewer resources.

Rate increases also would have drawbacks, however. Higher tax rates would reduce people's incentive to work and save. In addition, higher tax rates would cause economic resources to be allocated less efficiently than they would be under current law. That is because taxpayers would shift income from taxable to nontaxable or tax-deferred forms (by substituting tax-exempt bonds for other investments, for example, or by opting for more tax-exempt fringe benefits instead of cash compensation) or increase spending on tax-deductible items relative to other items (such as by paying more toward their home mortgage interest and spending less on other things).

RELATED OPTION: Revenues, "Raise the Tax Rates on Long-Term Capital Gains and Qualified Dividends by 2 Percentage Points and Adjust Tax Brackets" (page 207)

RELATED CBO PUBLICATIONS: *The Distribution of Household Income and Federal Taxes, 2013* (June 2016), www.cbo.gov/publication/51361; *Average Federal Tax Rates in 2007* (June 2010), www.cbo.gov/publication/42870; *The Individual Alternative Minimum Tax* (January 2010), www.cbo.gov/publication/41810; *Analyzing the Economic and Budgetary Effects of a 10 Percent Cut in Income Tax Rates* (December 2005), www.cbo.gov/publication/17507

Revenues—Option 2

Raise the Tax Rates on Long-Term Capital Gains and Qualified Dividends by 2 Percentage Points and Adjust Tax Brackets

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Raise rates on long-term capital gains and dividends by 2 percentage points	1.8	7.1	7.0	7.1	7.4	7.7	7.8	7.8	7.9	8.2	30.4	69.6	
Also align top two brackets to match the third and sixth brackets applicable to ordinary income	1.9	7.8	7.8	8.0	8.3	8.6	8.7	8.6	7.9	8.3	33.8	75.9	
Also align top two brackets to match the third and fifth brackets applicable to ordinary income	2.0	8.5	8.5	8.7	9.0	9.3	9.5	9.4	8.1	8.5	36.7	81.4	

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

When individuals sell an asset for more than the price at which they obtained it, they generally realize a capital gain that is subject to taxation. Most taxable capital gains are realized from the sale of corporate stocks, other financial assets, real estate, and unincorporated businesses. Under current law, long-term capital gains (those realized on assets held for more than a year) are usually taxed at lower rates than other sources of income, such as wages and interest. Since 2003, qualified dividends, which include most dividends, have been taxed at the same rates as long-term capital gains. Generally, qualified dividends are paid by domestic corporations or certain foreign corporations (including, for example, foreign corporations whose stock is traded in one of the major securities markets in the United States).

As specified by the tax code, different statutory tax rates apply to different portions of people's long-term capital gains and qualified dividends, depending on the tax brackets in which each portion lies. (Tax brackets are ranges of total taxable income and vary depending on taxpayers' filing status.) Tax brackets are adjusted, or indexed, each year to include the effects of inflation. The brackets for 2018 are shown in the table on the next page.

Consider, for example, a person filing singly in 2018 with taxable income of \$40,000, of which \$5,000 is long-term capital gains and \$35,000 is ordinary income—that is, all income subject to the individual income tax from sources other than long-term capital gains and qualified dividends. Because no tax on long-term capital gains is due on taxable income up to \$38,600, such a person would not pay any capital gains tax on the \$35,000 in ordinary income and the first \$3,600 of his or her gains, but the remaining \$1,400 in gains would be taxed at the 15 percent rate.

The 2017 tax act lowered most tax rates on ordinary income and modified the tax brackets that apply to that income but did not change the rates or tax brackets applicable to long-term capital gains and qualified dividends. As a result, the starting points for the 15 percent and the 20 percent brackets shown in the table above do not match the starting points for any of the income brackets used to determine taxes on ordinary income. (See Revenues, Option 1, "Increase Individual Income Tax Rates" for a description of those brackets.) However, that is true only through the end of 2025, when the changes to the tax treatment of ordinary income expire. Beginning in 2026, the starting points for the 15 percent and 20 percent rates for capital gains and qualified dividends will match the starting points for tax brackets

Starting Points for Tax Brackets (2018 dollars)		Statutory Tax Rate on Long-Term Capital Gains and Qualified Dividends (Percent)
Single Filers	Joint Filers	2018
0	0	0
38,600	77,200	15
425,800	479,000	20

applicable to ordinary income, as under pre-2018 law. No tax will be payable on capital gains and dividends in the first two tax brackets applicable to ordinary income; the starting point for the 15 percent rate on gains and dividends will match the starting point for the third tax bracket applicable to ordinary income, and the starting point for the 20 percent rate will match the starting point for the top tax bracket applicable to ordinary income.

The marginal tax rate (that is, the percentage of an additional dollar of income that is paid in taxes) on long-term capital gains and qualified dividends may be higher than the statutory rate for some higher-income taxpayers as a result of other provisions of the tax code. First, certain long-term gains and qualified dividends are included in net investment income, which is subject to the Net Investment Income Tax of 3.8 percent. Second, the expiration of certain provisions of the 2017 tax act at the end of 2025 will have implications for the computation of marginal tax rates, even though those expiring provisions do not explicitly refer to capital gains and dividends. For example, a provision that reduced the total value of certain itemized deductions claimed by higher-income taxpayers was temporarily eliminated by the 2017 tax act. When that provision comes back into effect in 2026, it will increase the share of income that is taxed.

In 2015, according to the Internal Revenue Service, about 15 million taxpayers realized net positive capital gains totaling \$725 billion. The Congressional Budget Office projects that in 2019, approximately 16 million taxpayers will earn net positive capital gains totaling \$955 billion. CBO estimates that those taxpayers will owe about \$180 billion in taxes on those gains. Under current law, CBO projects that income from capital gains and dividends will grow more slowly than other sources of income from 2019 through 2028. That slower growth reflects the expectation that income from capital gains and dividends will return to levels consistent with their historical average share of gross domestic product.

Option

This option consists of three alternatives. The first alternative would raise the statutory tax rates on long-term capital gains and dividends by 2 percentage points but would not change the income brackets used to compute those tax rates. Both the second and the third alternative would combine that 2 percentage-point increase with changes to the income brackets that apply to long-term capital gains and qualifying dividends.

The second alternative would set the starting point for the 17 percent rate to be the same as the starting point for the third tax bracket applicable to ordinary income (for 2018, \$38,700 for single filers and \$77,400 for married couples filing jointly). The starting point for the 22 percent rate would match the starting point for the second-highest tax bracket for ordinary income (for 2018, \$200,000 for single filers and \$400,000 for joint filers).

The third alternative would make the same change to the starting point for the 17 percent rate, but the 22 percent rate for long-term capital gains and dividends would share its starting point with the third-highest tax bracket for ordinary income (for 2018, \$157,500 for single filers and \$315,000 for joint filers). None of the three alternatives would change other provisions of the tax code that affect taxes on capital gains and dividends.

Effects on the Budget

The staff of the Joint Committee on Taxation (JCT) estimates that the first alternative would raise federal revenues by \$70 billion from 2019 through 2028. The second and third alternatives would raise revenues by \$76 billion and \$81 billion, respectively, over the same period, according to JCT's estimates. Those estimates reflect people's responses to the higher rates: The tax base would decline as investors responded to higher tax rates by deferring realizations of accrued gains, and corporations—in response to investors' concerns—would issue smaller dividends.

The second alternative would raise more revenues than the first because some gains and dividends taxable at the rate of 17 percent would instead be taxed at the rate of 22 percent. The third alternative would raise more revenues still because it would shift additional gains and dividends from the 17 percent rate to the 22 percent rate.

JCT's estimates are based on a scenario in which there would be no delay between the active consideration of legislation increasing the tax rates and the effective date of that increase. As a result, taxpayers would have no opportunity to change their behavior in anticipation of the change in the tax rates. If, instead, there was a gap between the consideration and the implementation of the legislation, then some taxpayers would accelerate the sale of various assets to occur before the higher rates were put in place. If this option, with an effective date of January 1, 2019, was changed to include such a gap, then the realization of gains from those accelerated sales would occur in 2018. In that case, compared with the estimates for the option, revenues would be higher in 2019, when tax returns for 2018 would be filed, and would be lower in later years. The magnitude of that shift would vary with the length of time between active consideration and the effective date.

The estimates for the option are uncertain because both the underlying projections of capital gains and dividend income and the estimated responses to the change in the tax rates are uncertain. Projections of capital gains and dividends rely on CBO's projections of economic activity, investment, and the stock market, all of which are inherently uncertain. Those projections are particularly uncertain because they reflect recently enacted changes to the tax system by the 2017 tax act. The estimates are also influenced by predictions of how the increase in tax rates would induce taxpayers to defer the realizations of accrued gains and corporations to reduce their issuance of dividends. Those predictions are based on observed responses to prior changes in tax rates, which might differ from the responses to changes considered here.

Other Effects

One advantage of raising tax rates on long-term capital gains and dividends is that it would reduce taxpayers' incentive to characterize labor compensation and profits as capital gains. Such mischaracterization occurs under current law even though the tax code and regulations governing taxes contain numerous provisions that attempt to limit it. Reducing the incentive to

mischaracterize compensation and profits as capital gains would reduce the resources devoted to circumventing the rules.

Another argument for this option is that it would make taxation more progressive. Most capital gains are realized by people with significant wealth and income. Therefore, raising tax rates on long-term capital gains would impose, on average, a larger burden on people with significant financial resources than on people with fewer resources. However, older people, particularly retirees, also realize a substantial amount of capital gains. Although such people have greater wealth and income than younger people, on average, their lifetime income is not necessarily greater.

The second and third alternatives of this option would offer the additional advantage of simplifying the tax code. Under either of those alternatives, the thresholds for the 15 percent and 20 percent tax rates on capital gains would be aligned with the starting points of the brackets for ordinary income immediately, rather than in 2026.

A disadvantage of the option is that the higher tax rates on long-term capital gains and dividends would influence investment decisions by increasing the tax burden on some equity-financed corporate investments. Profits from those investments are taxed twice—once under the corporate income tax and then a second time, either when the profits are paid out as dividends or when they are retained and taxed later as capital gains on the sale of corporate stock. The increased tax burden would discourage investment funded through new issues of corporate stock and would also exacerbate an existing bias that favors debt-financed investment by businesses over equity-financed investments. It would also encourage the formation and expansion of noncorporate businesses, whose profits are taxed only once.

Another argument against implementing the option is related to the fact that, because capital gains are taxed when an asset is sold, taxation encourages people to defer the sale of their capital assets, or, in some instances, to never sell some of the assets during their lifetime. In the former case, the taxation of capital gains is postponed; in the latter case, it is avoided altogether because, if the asset is bequeathed and then sold by the heir, the capital gain is the difference between the sale price and the fair-market value as of the date of the previous owner's

death (which is typically much smaller than what it would otherwise be). By raising tax rates on long-term capital gains and dividends, this option could further encourage people to hold on to their investments only

for tax reasons, which could reduce economic efficiency by preventing some of those assets from being put to more productive uses.

RELATED OPTIONS: Revenues, “Increase Individual Income Tax Rates” (page 204), “Change the Tax Treatment of Capital Gains From Sales of Inherited Assets” (page 219), “Expand the Base of the Net Investment Income Tax to Include the Income of Active Participants in S Corporations and Limited Partnerships” (page 223), “Tax Carried Interest as Ordinary Income” (page 225), “Increase the Corporate Income Tax Rate by 1 Percentage Point” (page 266), “Impose a Tax on Financial Transactions” (page 298), “Tax Gains From Derivatives as Ordinary Income on a Mark-to-Market Basis” (page 301)

RELATED CBO PUBLICATIONS: *The Distribution of Asset Holdings and Capital Gains* (August 2016), www.cbo.gov/publication/51831; *The Distribution of Household Income and Federal Taxes, 2013* (June 2016), www.cbo.gov/publication/51361; *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options* (December 2014), www.cbo.gov/publication/49817; *The Distribution of Major Tax Expenditures in the Individual Income Tax System* (May 2013), www.cbo.gov/publication/43768; Tim Dowd, Robert McClelland, and Athiphat Muthitacharoen, *New Evidence on the Tax Elasticity of Capital Gains*, Working Paper 2012-09 (June 2012), www.cbo.gov/publication/43334

Revenues—Option 3

Eliminate or Modify Head-of-Household Filing Status

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues												
Eliminate head-of-household filing status	10.7	15.8	16.6	17.6	18.5	19.3	20.5	16.2	14.7	15.3	79.2	165.3
Limit head-of-household filing status to unmarried people with a qualifying child under 17	4.2	6.2	6.6	7.0	7.3	7.8	8.2	6.6	6.1	6.3	31.3	66.2

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

On their tax returns, people must indicate their filing status, which has implications for the amount of taxes they owe. Those who are not married generally file as single or as a head of household. Married people choose between filing jointly with their spouse and filing separately. In 2016, the most common filing status was single (48 percent), followed by married filing jointly (36 percent), head of household (14 percent), and married filing separately (2 percent).

A head of household receives several tax preferences that are not available to other unmarried individuals. Like other taxpayers, heads of households reduce their taxable income by claiming the standard deduction—which is a flat dollar amount—or by itemizing and deducting certain expenses, such as state and local taxes and charitable contributions. However, heads of households are eligible for a larger standard deduction (\$18,000 in 2018) than other unmarried individuals (whose standard deduction is \$12,000 in 2018).

Moreover, lower tax rates apply to a greater share of income earned by heads of households than other unmarried individuals. As specified by the tax code, different statutory tax rates apply to different portions of people's taxable ordinary income. (Taxable ordinary income is all income subject to the individual income tax other than most long-term capital gains and dividends, minus allowable adjustments, exemptions, and deductions.) For heads of households, compared with other unmarried taxpayers, a greater portion of income is taxed at the two lowest rates. Through the end of 2025, those

rates are 10 percent and 12 percent. After 2025, they will be 10 percent and 15 percent. Other statutory rates are scheduled to rise as well.

Heads of households also qualify for some tax preferences at higher levels of income than those who file as single. For example, the saver's credit—which reduces taxes on up to 50 percent of contributions to certain retirement savings plans for low- and moderate-income taxpayers—begins to phase out at higher levels for heads of households than for single filers. After 2025, the personal and dependent exemptions (which were temporarily repealed by the 2017 tax act but will become effective again in 2026) and certain itemized deductions will also start to phase out at higher levels of income for heads of households than for single filers.

To qualify as a head of household, unmarried people must pay most of the costs of maintaining the household in which they have resided with a qualifying person for over half the year. The rules for claiming a qualifying person vary. In addition to meeting certain residency and relationship criteria, a child claimed as a qualifying person must be under the age of 19, under 24 and a full-time student, or permanently and totally disabled. Other dependent relatives, who also must meet residency and relationship criteria, must receive more than half their support from the head of household and have gross income below a specified amount (\$4,150 in 2018).

In 2016, about 22 million unmarried taxpayers claimed head-of-household filing status on their tax returns. Of

those taxpayers, nearly 19 million lived with a qualifying child.

Option

This option consists of two alternatives. The first alternative would eliminate the head-of-household filing status. The second would retain that status but limit it to taxpayers who pay more than half the costs of maintaining the household in which they have resided with a qualifying child under the age of 17.

Effects on the Budget

According to the staff of the Joint Committee on Taxation (JCT), eliminating the head-of-household filing status completely would raise \$165 billion in revenues from 2019 through 2028. Limiting the head-of-household filing status to taxpayers with qualifying children under the age of 17 would raise \$66 billion over that period, in JCT's estimation.

After 2025, the revenue estimates are lower, on net, than they would be if the amount of the standard deduction was not scheduled to decline. The lower standard deduction will decrease the tax benefits of filing as a head of household, causing fewer people to choose that filing status and thus reducing the revenue gains from repealing it or restricting eligibility for it. To some extent, that effect is offset by an increase in individual income tax rates in 2026, which would result in greater revenue gains after 2025; however, because most heads of households are already in relatively low rate brackets, those increases in tax rates have a smaller effect on the revenue estimates than the reduction in the standard deduction. (In 2016, 90 percent of filers claiming head-of-household status were subject to the two lowest statutory tax rates or did not owe any taxes on their ordinary income, and 82 percent claimed the standard deduction.)

There are several sources of uncertainty in the estimates. Those uncertain factors include the growth rate of personal income, the demographic characteristics of the U.S. population, and tax compliance. For example, the revenues raised by either alternative would probably be higher than estimated if the personal income of heads of households grew at a faster rate than the Congressional Budget Office currently projects, causing those taxpayers to be subject to higher statutory tax rates than anticipated. Revenues would also be higher than estimated if the number of single taxpayers reporting qualifying people in their home differed from current projections:

The revenue gains from the option—especially the first alternative—would be higher, for example, if the number of single parents grew at a faster pace than is currently anticipated. Similarly, the gains in revenues would be lower if fewer taxpayers claimed the status than projected.

Other Effects

One argument in favor of the option is that the head-of-household filing status imposes marriage penalties. Marriage penalties occur when the combined amount of taxes paid by two unmarried people increases when they marry—most often when both spouses earn similar amounts of income. Thus, marriage penalties favor unmarried couples over married couples. For head-of-household filers, the standard deduction and the maximum amount of taxable income subject to the two lowest income tax rates are equal to more than half of those amounts for married couples filing joint returns. By contrast, the amounts for single filers are set at half the amounts for joint filers. Requiring all unmarried people to file as single would cause unmarried couples to be treated more similarly to married couples. Neither alternative, however, would eliminate marriage penalties entirely. For example, suppose that two unmarried people claimed head-of-household filing status, and both were eligible for the earned income tax credit (EITC)—a tax preference available only to taxpayers with income below a certain threshold. If those two people married, their combined income would make them ineligible for the EITC. In that case, under either alternative, they would both have to file as single when they were not married but would still incur a marriage penalty (through the loss of the EITC) when they wed. However, the size of that penalty would be smaller than if they had been able to file as heads of households before their marriage.

A closely related argument in favor of the option is that marriage penalties may create incentives for people to either remain unmarried or marry and misreport their filing status as a head of household. Although most research shows that marriage penalties have only a slight effect on people's decision to marry, studies of EITC compliance find that misreporting of marital status is one of the larger sources of erroneous claims. Eliminating or restricting the head-of-household filing status would reduce married people's incentives to misreport their filing status.

An argument for eliminating the head-of-household filing status, as the first alternative would, is that the criteria for eligibility are complicated: The rules are difficult for taxpayers to understand and difficult for the Internal Revenue Service to verify. That complexity probably also contributes to taxpayers' misreporting of their filing status on tax returns. By limiting the status to parents with children under the age of 17, the second alternative would help simplify the tax system by using the same age restrictions that apply to children claimed for the child tax credit. However, other complicated criteria would still be retained—in particular, the rules having to do with household maintenance and support, which require taxpayers to maintain extensive records of their expenses throughout the year.

An argument against eliminating or restricting the head-of-household filing status is that unmarried people living with a child or other dependent in their own home require more income to cover subsistence expenses than other unmarried people. The filing status is a way to provide assistance to low- and moderate-income taxpayers with dependent children or other relatives, though those benefits extend to higher-income taxpayers as well. Although the second alternative would preserve many taxpayers' ability to claim the head-of-household

filing status, it would eliminate assistance for other taxpayers with similar needs—those whose dependents are age 17 or older.

Another argument against the option (especially the first alternative) concerns its effects on custodial parents who have existing child-support arrangements with the noncustodial parents of their children. Filing as a head of household provides at least one child-related tax benefit to a custodial parent who agrees to allow the noncustodial parent to claim the child tax credit and, after 2025, the dependent exemption. Some divorced parents may have negotiated child-support agreements that were based on the splitting of those child-related tax benefits. In those circumstances, the loss of the head-of-household filing status would make the custodial parent's after-tax income lower than anticipated when the support agreement was signed. If either of the alternatives was implemented, some affected parents might agree to adjust the support payments to reflect the change in tax law, but others might not have the same opportunity to renegotiate the terms of the support agreement. To reduce the burden on divorced parents, policymakers could retain the head-of-household filing status (either temporarily or permanently) for taxpayers with child-support agreements in place prior to enactment of the option.

RELATED CBO PUBLICATION: *Effective Marginal Tax Rates for Low- and Moderate-Income Workers in 2016* (November 2015), www.cbo.gov/publication/50923

Revenues—Option 4

Curtail the Deduction for Charitable Giving

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Limit deductibility to charitable contributions in excess of 2 percent of adjusted gross income	2.7	13.6	14.3	15.0	15.6	16.1	16.6	19.6	30.3	31.7	61.2	175.6	
Limit deductibility to cash contributions	2.6	13.1	13.5	14.0	14.5	14.9	15.4	16.6	20.2	20.9	57.7	145.7	

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

Current law allows taxpayers who itemize to deduct the value of their contributions to qualifying charitable organizations. (Taxpayers whose deductible expenses are less than the standard deduction can minimize their tax liability by claiming the standard deduction instead.) By lowering the after-tax cost of donating to charities, the deduction provides an added incentive to donate.

Two restrictions apply to the deduction. First, deductible charitable contributions may not exceed a certain percentage of a taxpayer's adjusted gross income (AGI). (AGI includes income from all sources not specifically excluded by the tax code, minus certain deductions.) The 2017 tax act temporarily increased that percentage from 50 percent to 60 percent for cash contributions through the end of 2025 but retained the 50 percent limit for other types of contributions. In 2026, that temporary provision will expire, and subsequent deductions of both cash and noncash charitable contributions may not exceed 50 percent of a taxpayer's AGI. The second restriction, which was temporarily lifted by the 2017 tax act but will resume in 2026, reduces the total value of certain itemized deductions—including the deduction for charitable donations—if the taxpayer's AGI exceeds certain thresholds (\$315,100 for taxpayers filing singly and \$378,100 for taxpayers filing jointly in 2026). Those thresholds will be adjusted, or indexed, to include the effects of inflation.

Deductions for charitable contributions accounted for 3 percent of AGI among those who itemized on their

2016 tax returns. Taxpayers claimed \$234 billion in charitable contributions, \$169 billion of which was in the form of cash, on 37 million tax returns. Because of temporary changes enacted in the 2017 tax act, including an increase in the standard deduction, the Congressional Budget Office projects that the number of taxpayers who itemize will fall by more than 60 percent beginning in 2018 and the total value of itemized deductions will fall by about 35 percent. Absent those legislated changes, the amount of itemized deductions was projected to grow slightly faster than income.

Option

This option consists of two alternatives that would curtail the deduction for charitable donations. Under the first alternative, only the amount of a taxpayer's contributions that exceeded 2 percent of his or her AGI would be deductible. Under the second alternative, the deduction would be eliminated for noncash contributions. Both alternatives would be limited to taxpayers who itemize, and higher-income taxpayers would still be subject to the additional reduction in the total value of certain deductions after 2025.

Effects on the Budget

The first alternative would increase revenues by \$176 billion from 2019 through 2028, the staff of the Joint Committee on Taxation (JCT) estimates. The second alternative would increase revenues by \$146 billion over that period, according to JCT. Under both alternatives, the increase in revenues would be larger after the expansion of the standard deduction and decrease in statutory

individual income tax rates under the 2017 tax act expire. Following the decrease in the standard deduction, more taxpayers will itemize deductions instead of claiming the standard deduction; as a result, either alternative would affect more taxpayers. Higher tax rates will also increase the value of itemized deductions.

The estimates incorporate taxpayers' responses to the two alternatives. Taxpayers would alter their charitable donations because of the changes in those donations' deductibility. Under the first alternative, people who contribute less than 2 percent of their AGI would no longer have a tax incentive to donate, and many of them would reduce their contributions. That alternative would also encourage taxpayers who had planned to make gifts over several years to combine donations in a single tax year to qualify for the deduction. Under the second alternative, a taxpayer would have less incentive to make in-kind contributions, though taxpayers could sell the items they would have donated and donate the proceeds. (Sales of capital assets would, however, be subject to the capital gains tax.) Those responses make the estimated increase in revenues under either alternative smaller than it would be otherwise.

The estimates are uncertain for two key reasons. First, the estimates rely on CBO's 10-year projections of the economy and individual income under current law. Those projections are inherently uncertain, but they are particularly uncertain because they reflect recently enacted changes to the tax system by the 2017 tax act. Second, the effects of either alternative would depend on how taxpayers altered their charitable giving in response to the increased after-tax cost of giving. The estimates are based on how taxpayers have responded to prior changes in the after-tax cost of giving, which may differ from the response to the changes considered here.

Other Effects

An argument in favor of this option is that, even if they could not be deducted, a significant share of charitable donations would probably still be made. Therefore,

allowing taxpayers to deduct charitable contributions is economically inefficient because it results in a large loss of federal revenues for a very small increase in charitable giving. People who make small donations are often less responsive to the tax incentive to make charitable contributions than people who make large contributions. For taxpayers who contribute more than 2 percent of their AGI to charity, the first alternative would maintain the current tax incentive to increase their donations but at much less cost to the federal government. And because most charitable contributions are made in cash, the second alternative would largely maintain the incentive to make donations.

Another advantage of this option is that it would simplify the tax code. Limiting the deduction to contributions in excess of 2 percent of AGI would match the treatment of unreimbursed employee expenses, such as job-related travel costs and union dues, that applied in the past and will apply again after 2025. The option would also increase tax compliance. Deductions of smaller contributions—those amounting to less than \$250—are more likely to be erroneous because they do not require the same degree of documentation as deductions of larger contributions. Moreover, the value of in-kind contributions may be overvalued by taxpayers and is difficult for the government to verify.

A disadvantage of this option is that it would cause charitable giving to decline, albeit by only a small amount, JCT and CBO estimate. Although people who make larger donations would still have an incentive to give under the first alternative, they would have slightly lower after-tax income because of the smaller deduction and therefore might reduce their contributions (although by a lesser percentage than people making smaller donations). Under the second alternative, taxpayers would have less incentive to donate goods and services. Taxpayers might consequently shift away from making those types of donations, even if charitable organizations would prefer in-kind donations instead of cash.

RELATED OPTION: Revenues, "Eliminate Itemized Deductions" (page 216)

RELATED CBO PUBLICATIONS: *Options for Changing the Tax Treatment of Charitable Giving* (May 2011), www.cbo.gov/publication/41452; *The Estate Tax and Charitable Giving* (July 2004), www.cbo.gov/publication/15823; *Effects of Allowing Nonitemizers to Deduct Charitable Contributions* (December 2002), www.cbo.gov/publication/14230

Revenues—Option 5

Eliminate Itemized Deductions

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	37.4	71.7	76.5	80.9	84.6	87.7	90.6	201.1	286.5	295.1	351.1	1,312.0

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

When preparing their income tax returns, taxpayers may choose either to take the standard deduction—which is a flat dollar amount—or to itemize and deduct certain expenses, such as state and local taxes, mortgage interest, charitable contributions, and some medical expenses. Taxpayers benefit from itemizing when the value of their deductions exceeds the amount of the standard deduction. (For 2018, that amount ranged from \$12,000 for a single filer to \$24,000 for a married couple filing jointly.) The fact that those expenses are deductible reduces the cost of incurring them, so, in effect, the itemized deductions serve as subsidies for undertaking deductible activities. Most of the tax savings from itemized deductions constitute a “tax expenditure” by the federal government. (Tax expenditures resemble federal spending by providing financial assistance for specific activities, entities, or groups of people.)

The tax code imposes several limits on the amount of itemized deductions taxpayers can claim. For 2018, taxpayers cannot deduct more than \$10,000 in state and local taxes, nor can they deduct home mortgage interest on loan amounts in excess of \$750,000. For some types of expenses (such as medical expenses), only the amount that exceeds a certain percentage of the taxpayer’s adjusted gross income (AGI) can be deducted. (AGI includes income from all sources not specifically excluded by the tax code, minus certain deductions.)

Many tax rules relating to deductions will change in 2026, when most changes to the individual income tax system made by the 2017 tax act expire. The size of the standard deduction will be reduced by roughly 50 percent, making itemization a better choice for many taxpayers. Several restrictions on deductions that were put in place by the act will no longer be in effect.

The limit on state and local taxes will be removed, and the limitation on mortgage interest will revert to the higher amount (\$1.1 million) set by pre-2018 tax law. Additionally, several itemized deductions (such as the deductions for unreimbursed employee expenses and tax preparation fees) that were temporarily eliminated by the 2017 act will be reinstated. And a provision that reduced the total value of certain itemized deductions by 3 percent of the amount by which a taxpayer’s AGI exceeded a specified threshold will come back into effect. The net effect of those changes will be to increase the number of taxpayers who itemize and the amount of deductions they claim.

In 2015, almost 45 million taxpayers itemized their deductions, according to the Internal Revenue Service. Their itemized deductions totaled almost \$1.3 trillion; by comparison, if those taxpayers had claimed the standard deduction, their taxable income would have been \$800 billion higher. The change in taxes from itemized deductions depends on the taxpayer’s marginal tax rate (the percentage of an additional dollar of income that is paid in taxes). For instance, \$10,000 in deductions reduces tax liability by \$1,500 for someone in the 15 percent tax bracket and by \$2,800 for someone in the 28 percent tax bracket. As a result of temporary changes enacted by the 2017 tax act, the Congressional Budget Office projects that the number of itemizers will fall by more than 60 percent from 2017 to 2018 and the value of those itemized deductions will fall by about 35 percent. Absent those legislated changes, the amount of itemized deductions was projected to grow slightly faster than income.

Option

This option would eliminate all itemized deductions. As a result, all taxpayers who would otherwise itemize

deductions would have to claim the standard deduction, which generally would be of less value to them. Taxpayers who would have claimed the standard deduction would be unaffected by the change.

Effects on the Budget

If implemented, this option would increase revenues by \$1.312 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. That estimate incorporates expected reductions in spending by taxpayers on deductible activities. For example, taxpayers would be likely to decrease their charitable contributions and mortgage indebtedness under this option.

The increase in revenues from this option would rise sharply after most changes to the individual income tax system made by the 2017 tax act expire at the end of 2025, for two reasons. As noted above, the expiration of those changes will substantially increase the number of taxpayers who itemize and the amount of deductions they claim. Consequently, the increase in revenues from eliminating deductions would be much larger in later years. Second, marginal tax rates are generally higher after 2025 than under the 2017 tax act.

The estimated increase in revenues from this option is uncertain because both the underlying projection of itemized deductions and the estimated response to the change in the tax treatment of those deductions are uncertain. Projections of spending on deductible items are inherently uncertain because they are based on CBO's projections of the economy over the next decade. That uncertainty is compounded because the projections reflect the effects of the 2017 tax, which are also quite uncertain. Finally, the estimates rely on expectations of how taxpayers will change their behavior in response to changes in the tax treatment of itemized deductions. Those expectations are based on observed responses to past changes, which might differ from the response to tax changes considered here.

Other Effects

One argument for eliminating itemized deductions is that their availability encourages spending on deductible activities because of the tax benefits those activities provide; that tendency can lead to an inefficient allocation of economic resources. For example, the mortgage interest deduction distorts the housing market by prompting people to take out larger mortgages and buy more expensive houses, which pushes up home prices. People

therefore invest less in other assets than they would if all investments were treated equally. And the deduction for state and local taxes encourages state and local governments to raise taxes and provide more services than they otherwise would (although some research indicates that total spending by state and local governments is not sensitive to that incentive). Eliminating itemized deductions would remove such incentives to spend more on certain goods or activities. Reducing taxpayers' engagement in some activities for which expenses can be deducted under current law—in particular, activities that primarily benefit those taxpayers—could improve the allocation of resources. However, reducing engagement in other activities for which expenses can be deducted—in particular, activities that offer widespread benefits—could worsen the allocation of resources. An oft-cited example of tax-deductible spending in the latter category is contributions to charitable organizations.

Another argument for eliminating itemized deductions is that taxpayers with higher income benefit more from those deductions because they have more expenses that can be deducted, which makes them more likely to itemize, and because the per-dollar tax benefit of those deductions depends on a taxpayer's marginal tax rate, which rises with income. CBO estimates that in calendar year 2013 (the most recent year for which estimates are available), more than 80 percent of the tax expenditures resulting from the three largest itemized deductions—for state and local taxes, mortgage interest, and charitable contributions—accrued to households with income in the highest quintile (or one-fifth) of the population (with 30 percent going to households in the top 1 percent of the population). In 2013, the tax benefit of those three deductions equaled 0.1 percent of after-tax income for households in the lowest income quintile, 0.4 percent for the middle quintile, 2.5 percent for the highest quintile, and 3.9 percent for the top percentile. Hence, reducing or eliminating them would increase the progressivity of the tax code—that is, it would increase average tax rates by more for higher-income taxpayers than for lower-income taxpayers.

A third argument for this option is that eliminating itemized deductions would simplify the tax code. Taxpayers would no longer have to keep records of their deductible expenses or enumerate them on the tax form.

An argument against this option is that some deductions are intended to yield a measure of taxable income that

more accurately reflects a person's ability to pay taxes. For example, the deductions for payments of interest on money borrowed to purchase taxable investments, known as the investment interest expense deduction, allow people to subtract the costs they incurred to earn the income that is being taxed. And taxpayers with high medical expenses, casualty and theft losses, or state and local taxes have fewer resources than taxpayers with the same amount of income and smaller expenses or losses (all else being equal). Under this option, taxpayers would not be able to subtract those expenses from their taxable income.

Another argument against this option is that eliminating itemized deductions would disrupt many existing financial arrangements, especially in the housing market. Many homeowners have purchased homes under the presumption that they would be able to deduct much of the interest on their mortgages and their property taxes. Eliminating those deductions would make it more difficult for homeowners to meet their obligations. And such a change would also reduce the amount new homebuyers would be willing to pay, which would lower the prices of homes, on average. Lower housing prices would create further stress on the finances of existing owners.

RELATED OPTION: Revenues, "Curtail the Deduction for Charitable Giving" (page 214)

RELATED CBO PUBLICATIONS: *The Distribution of Major Tax Expenditures in the Individual Income Tax System* (May 2013), www.cbo.gov/publication/43768; Larry Ozzane, *Taxation of Owner-Occupied and Rental Housing*, Working Paper 2012-14 (November 2012), www.cbo.gov/publication/43691; *Options for Changing the Tax Treatment of Charitable Giving* (May 2011), www.cbo.gov/publication/41452; *The Deductibility of State and Local Taxes* (February 2008), www.cbo.gov/publication/41647

Revenues—Option 6

Change the Tax Treatment of Capital Gains From Sales of Inherited Assets

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	1.4	5.1	7.0	8.7	10.3	11.8	13.3	14.5	15.6	17.3	32.5	104.9

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

When people sell an asset for more than the price at which they obtained it, they realize a net capital gain. That net gain is typically calculated as the sales price minus the asset's adjusted basis—generally the price at the time it was initially acquired plus the cost of any subsequent improvements, minus any deductions for depreciation. Net capital gains are included in taxable income in the year in which the sale occurs.

The tax treatment of capital gains resulting from the sale of inherited assets is different. To calculate the gains on inherited assets, taxpayers generally use the asset's fair-market value at the time of the owner's death—often referred to as stepped-up basis—instead of the adjusted basis derived from the asset's value when the decedent initially acquired it. As a result, when the heir sells the asset, capital gains taxes are assessed only on the change in the asset's value after the owner's death. Any appreciation in value that occurred while the decedent owned the asset is not included in taxable income and therefore is not subject to capital gains taxation. (However, the estate may be subject to the estate tax.)

Generally, capital gains resulting from the sale of inherited assets are taxed at the long-term capital gains rate that applies to assets held for more than one year, regardless of how long the heir has held the asset. There is not enough publicly available information to measure the share of long-term capital gains that results from sales of inherited assets. However, in total, 11 million taxpayers reported \$635 billion in net long-term capital gains on their 2016 tax returns, and 8 million taxpayers reported \$334 billion in net long-term capital losses. The Congressional Budget Office projects that income from capital gains will decline between 2019 and 2021 and then increase between 2022 and 2028.

Option

Under this option, taxpayers would generally adopt the adjusted basis of the decedent—known as carryover basis—on assets they inherit. As a result, the decedent's unrealized capital gain would be taxed at the heirs' tax rate when they eventually sell the assets. (For bequeathed assets that would be subject to both the estate tax and the capital gains tax, this option would adjust the basis of some of those assets to minimize the extent to which both taxes would apply to the appreciation in value.)

Effects on the Budget

If implemented, this option would increase revenues by \$105 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. That estimate incorporates the response by some heirs to the change in the tax treatment of the sales of inherited assets. For an asset that rose in value before the owner's death, replacing stepped-up basis with carryover basis would increase the total amount of taxable capital gains realized when the asset is sold by the heir (unless the asset's value dropped after the owner's death by an amount equal to or greater than the appreciation that occurred while the owner was alive). As a result, heirs might choose to delay the sales of inherited assets (as they might for assets they purchased themselves) to defer capital gains taxes and thereby reduce their tax liability.

The estimate for this option is uncertain for two primary reasons. First, the estimate relies on CBO's economic projections, including those of the value of assets at their owners' death and of capital gains realizations, and such projections are inherently uncertain. Second, the estimate reflects taxpayers' anticipated responses to the change in the tax treatment of inherited assets, including delays in the sales of those assets, which are also uncertain.

Other Effects

One advantage of this option is that it would encourage people to shift investments to more productive uses during their lifetimes, rather than retaining those assets so that their heirs can benefit from the tax advantages offered by the stepped-up basis. The option, however, would not completely eliminate the incentive to delay the sale of assets solely for the tax advantages. An alternative approach would be to treat transfers of assets through bequest as a sale at the time of the transfer, making the capital gains taxable in that year. However, that method might force the owner to sell some portion of the assets at an inopportune time to pay the tax, which could be particularly problematic for nonliquid assets.

Another advantage is that using carryover basis to determine capital gains would decrease people's incentives to devote resources to tax planning rather than to more productive activities. For example, it would lessen the

advantages of using certain tax shelters that allow people to borrow against their assets so that they can fund their current consumption and, after their death, the loan can be repaid with proceeds from the sale of their assets.

A disadvantage of this option is that heirs would find it difficult to determine the original value of the asset when the decedent had not adequately documented the basis of the asset. Additional provisions could be enacted to make it easier to value an asset, though they would probably reduce the amount of revenues raised. For example, heirs could have the choice of using carryover basis or setting the basis of an inherited asset at a specified percentage of the asset's value at the time they inherit it. Alternatively, to minimize the costs of recordkeeping, appreciated assets in estates that are valued below a certain threshold could be exempted from the carryover basis treatment (and the heirs could continue to use the stepped-up basis).

RELATED OPTION: Revenues, “Raise the Tax Rates on Long-Term Capital Gains and Qualified Dividends by 2 Percentage Points and Adjust Tax Brackets” (page 207)

RELATED CBO PUBLICATIONS: *The Distribution of Asset Holdings and Capital Gains* (August 2016), www.cbo.gov/publication/51831; *Federal Estate and Gift Taxes* (December 2009), www.cbo.gov/publication/41851

Revenues—Option 7

Eliminate the Tax Exemption for New Qualified Private Activity Bonds

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	0.1	0.6	1.3	2.0	2.7	3.5	4.3	5.1	5.8	6.5	6.7	31.8

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

The U.S. tax code permits state and local governments to finance certain projects by issuing bonds whose interest payments are exempt from federal income taxes. As a result, those bonds pay lower rates of interest than they would if the interest payments were taxable. For the most part, proceeds from tax-exempt bonds are used to finance public projects, such as the construction of highways and schools. In some cases, however, state and local governments issue tax-exempt bonds to finance private-sector projects. Such bonds—known as qualified private activity bonds—may be used to fund private projects that provide at least some public benefits. Eligible projects include the construction or repair of infrastructure and certain activities, such as building schools and hospitals, undertaken by nonprofit organizations. (Those organizations are sometimes called 501(c)(3) entities after the section of the tax code that authorizes them.)

In 2015, a total of approximately \$102 billion in qualified private activity bonds was issued by the 50 states, and slightly less than half (45 percent) of the proceeds were used for new investment. The remaining proceeds were used to issue new bonds that replaced existing bonds. At that time, Standard and Poor's reported that the yield on high-grade municipal bonds—a reasonable proxy for qualified private activity bonds—was 3.5 percent, well below the yield on corporate bonds of comparable creditworthiness (3.9 percent).

Option

This option would eliminate the tax exemption for new qualified private activity bonds beginning in 2019.

Effects on the Budget

The option would increase revenues by \$32 billion from 2019 through 2028, according to estimates by the staff

of the Joint Committee on Taxation. Federal revenues raised by this option would initially be small but would grow over time. That is because the interest income from any type of bond depends on the bond's outstanding principal amount and the rate of interest it pays. As the volume of debt rises, interest income increases as well (barring a drop in interest rates, which could lead existing debt to be refinanced at lower rates). And interest rates are projected to rise over the 2019–2028 period, which would cause the interest income that would become subject to tax under the option to grow even more rapidly. Hence, the effect on federal revenues is expected to increase.

Estimates of the federal revenues that would be raised through this option are uncertain. The estimates rely on the Congressional Budget Office's projections of interest rates over the next decade, which are inherently uncertain. The estimates also depend on several types of behavioral responses to this option—specifically, taxpayers' willingness to purchase bonds of state and local governments that no longer offer tax-free interest income, and those governments' willingness to incur such debt.

Other Effects

One argument for this option is that eliminating the tax exemption for new qualified private activity bonds would improve economic efficiency in some cases. For example, the owners of some of the infrastructure facilities that benefit from the tax exemption can capture—through fees and other charges—much of the value of the services they provide. Therefore, such investments probably would take place without a subsidy. In those instances, providing a tax exemption for the investments is inefficient because the exemption shifts resources from taxpayers to private investors without generating any additional public benefits. As another example, some private-sector

projects funded through qualified private activity bonds might provide public benefits that are small relative to the existing tax exemption. In such cases, the subsidy could lead to investment in projects whose total value (counting private as well as public benefits) is less than their costs.

Another argument in favor of this option is that it would encourage nonprofit organizations to be more selective when choosing projects and, in general, to operate more efficiently. Nonprofit organizations do not pay federal income taxes on their investment income. Many nonprofit universities, hospitals, and other institutions use tax-exempt debt to finance projects that they could fund by selling their own assets. By holding on to those assets, they can earn an untaxed return that is greater than the interest they pay on their tax-exempt debt. Eliminating the tax exemption for the debt-financed projects of nonprofit organizations would put those projects on an even footing with projects financed through sales of assets. Further, the tightening of nonprofit organizations' financial constraints that would result from eliminating the tax exemption would encourage those organizations to operate more cost-effectively. As a consequence, however, nonprofits with few assets that they could liquidate to cover an increase in the cost of financing might be forced to curtail or even cease operations.

A disadvantage of this option is that some projects that would not be undertaken without a tax exemption might provide sufficient public benefits to warrant a subsidy. For example, although some privately funded roads specifically benefit the owners and operators (who can collect tolls from users), they also have broad social benefits (because they are part of a larger transportation

network). State and local governments are increasingly looking to the private sector to undertake projects of that sort, and supporters of qualified private activity bonds argue that eliminating the tax exemption would remove an important source of funding for them.

However, if lawmakers wished to continue to support investments in infrastructure and other projects undertaken by the private sector, they could do so more efficiently by subsidizing those investments directly rather than through the tax system. Tax-exempt financing is inefficient for two reasons. First, the reduction in borrowing costs for issuers of tax-exempt bonds is less than the amount of federal revenues forgone through the tax exemption. (The interest rate on tax-exempt debt is determined by the market-clearing tax-exempt bond buyer, whose bond purchase establishes the price at which the amount of debt purchased by investors just matches the volume brought to market by tax-exempt borrowers. The market-clearing tax-exempt bond buyer is typically in a lower marginal income tax bracket—and hence willing to accept a lower tax-free rate of return—than the average tax-exempt bond buyer, who determines the amount of federal revenues forgone as a result of the tax exemption.) Second, the amount of the subsidy is determined by the tax code and does not vary among projects according to federal priorities. Lawmakers could, instead, provide a direct subsidy by guaranteeing loans or making loans available for certain private-sector projects at below-market rates of interest. By offering a direct subsidy rather than providing one through the tax system, the federal government could both select the types of projects receiving support and determine the amount of the subsidy.

RELATED CBO PUBLICATIONS: *Federal Support for Financing State and Local Transportation and Water Infrastructure* (October 2018), www.cbo.gov/publication/54549; testimony of Joseph Kile, Assistant Director for Microeconomic Studies, before the Senate Committee on Finance, *The Status of the Highway Trust Fund and Options for Paying for Highway Spending* (June 18, 2015), www.cbo.gov/publication/50297; testimony of Joseph Kile, Assistant Director for Microeconomic Studies, before the Panel on Public-Private Partnerships, House Committee on Transportation and Infrastructure, *Public-Private Partnerships for Highway Projects* (March 5, 2014), www.cbo.gov/publication/45157; *Federal Grants to State and Local Governments* (March 2013), www.cbo.gov/publication/43967; testimony of Frank Sammartino, Assistant Director for Tax Analysis, before the Senate Committee on Finance, *Federal Support for State and Local Governments Through the Tax Code* (April 25, 2012), www.cbo.gov/publication/43047; *Using Public-Private Partnerships to Carry Out Highway Projects* (January 2012), www.cbo.gov/publication/42685; *Tax Arbitrage by Colleges and Universities* (April 2010), www.cbo.gov/publication/21198; *Subsidizing Infrastructure Investment With Tax-Preferred Bonds*, A Joint CBO/JCT Study (October 2009), www.cbo.gov/publication/41359; *Nonprofit Hospitals and Tax Arbitrage* (attachment to a letter to the Honorable William "Bill" M. Thomas, December 6, 2006), www.cbo.gov/publication/18257

Revenues—Option 8

Expand the Base of the Net Investment Income Tax to Include the Income of Active Participants in S Corporations and Limited Partnerships

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	9.4	15.4	16.9	18.4	19.8	21.1	22.3	23.8	25.2	26.6	79.9	198.9

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

In addition to the individual income tax, high-income taxpayers face two taxes on certain types of income above specified thresholds. The first—the Additional Medicare Tax—is a 0.9 percent tax on wages and self-employment income in excess of \$250,000 for married taxpayers who file joint returns, \$125,000 for married taxpayers who file separate returns, and \$200,000 for single and head-of-household filers. The 2.9 percent Medicare Hospital Insurance tax also applies to all wages and self-employment income; as a result, high-income individuals are subject to a total Medicare-related tax on wages and self-employment income of 3.8 percent.

The second tax faced by high-income taxpayers—the Net Investment Income Tax (NIIT)—is a 3.8 percent tax on qualifying investment income, such as interest, dividends, capital gains, rents, royalties, and passive income from businesses not subject to the corporate income tax. Taxpayers are subject to the NIIT if their modified adjusted gross income (MAGI) exceeds certain thresholds: \$250,000 for married taxpayers who file joint returns, \$125,000 for married taxpayers who file separate returns, and \$200,000 for everybody else. (For purposes of the NIIT, MAGI is the total of adjusted gross income and income earned abroad, which is typically excluded from taxable income.) For some taxpayers, qualifying investment income is greater than the amount by which MAGI exceeds the applicable threshold; in such cases, the tax applies only to the excess MAGI.

For virtually all labor and capital income that is derived from the activities of sole proprietorships, general partnerships, and C corporations (businesses that are subject to the corporate income tax) and that is above the income thresholds, the combination of Medicare-related

taxes and the NIIT results in a uniform 3.8 percent marginal tax rate. (The marginal tax rate is the percentage of an additional dollar that is paid in taxes.) That income includes the net profits of sole proprietors and general partners, which are subject to Medicare-related taxes, and the interest, dividends, and capital gains paid by C corporations to their bondholders or shareholders, which are subject to the NIIT.

Income generated by other forms of businesses—specifically, limited partnerships (wherein certain partners are not liable for the debts of the business in excess of their initial investment) and S corporations (which are not subject to the corporate income tax because they meet certain criteria defined in subchapter S of the tax code)—may be excluded from both taxes under certain circumstances. If a high-income taxpayer is a passive investor in such a business (that is, if he or she does not actively participate in its operations), his or her share of the firm's net profits is subject to the NIIT. Most limited partners and some S corporation owners are passive investors and thus fall into that category. But if a high-income taxpayer is actively involved in running such a business, as some limited partners and most owners of S corporations are, his or her share of the firm's net profits is not subject to either the Additional Medicare Tax or the NIIT. (If the taxpayer receives a salary from the firm, however, that income would be subject to the Additional Medicare Tax.)

The Treasury Department has estimated that in 2013, 58 percent of S corporation income and 18 percent of partnership income was nonqualifying investment income. The Congressional Budget Office estimates that of the nonqualifying S corporation income, roughly three-quarters was received by S corporation owners who

had incomes above the NIIT thresholds (approximately 600,000 taxpayers in 2012). Because the NIIT thresholds are not adjusted for inflation, the amount of non-qualifying investment income above those thresholds—an amount subject to neither the Additional Medicare Tax nor the NIIT—has grown faster than total individual income since 2012, and that pattern is projected to continue.

Option

This option would impose the NIIT on all income derived from business activity that is subject to the individual income tax but not to the Additional Medicare Tax, regardless of the business's organizational form or the taxpayer's level of participation in the business's operations.

Effects on the Budget

The staff of the Joint Committee on Taxation estimates that implementing this option would increase revenues by \$199 billion between 2019 and 2028. That estimate is subject to uncertainty. For example, it relies on CBO's economic projections of the economy over the next decade under current law, which are uncertain. In addition, it relies on projections of businesses' organizational structures, which were made more uncertain by recent changes to tax law. Also, the estimate reflects certain anticipated behavioral changes by taxpayers, and accounting for those behavioral changes adds more uncertainty to the estimate.

Other Effects

An advantage of this option is that it would allow businesses with different organizational structures to be treated in a more uniform way for tax purposes. Entrepreneurs would therefore be more likely to select

the form of organization that best suited their business rather than the form that minimized their tax liability. The option would also reduce the incentive for high-income owners of S corporations to reduce their Medicare-related taxes by accepting a salary that is less than the value of the labor they contribute. Finally, it would encourage people to base decisions about actively participating in running an S corporation or limited partnership on whether such participation would strengthen their business, not on whether it would avoid an additional tax liability.

A disadvantage of the option is that it would probably reduce total investment by the businesses that are affected by it. For example, if actively involved owners of an S corporation subject to the NIIT expanded their business, their after-tax return would be lower under this option than under current law. In some cases, it would probably be too low to justify the expansion. That argument implies that the NIIT should apply to fewer (or no) sources of income, not more.

An alternative approach would be to impose the Self-Employment Contributions Act tax (of which the Hospital Insurance tax is a part) and the Additional Medicare Tax on business income that is not subject to either the Additional Medicare Tax or the NIIT. In that scenario, the owners of all businesses except C corporations would be deemed self-employed and would be taxed in the same manner. If that approach was enacted, this option's goal of taxing business income more uniformly would be accomplished, and there would be no reason to subject that income to the NIIT. (See Revenues, Option 22, "Tax All Pass-Through Business Owners Under SECA and Impose a Material Participation Standard.")

RELATED OPTION: Revenues, "Tax All Pass-Through Business Owners Under SECA and Impose a Material Participation Standard" (page 261)

RELATED CBO PUBLICATION: *Taxing Businesses Through the Individual Income Tax* (December 2012), www.cbo.gov/publication/43750

Revenues—Option 9

Tax Carried Interest as Ordinary Income

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	1.0	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.5	1.5	6.7	14.0

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

Investment funds—such as private equity, real estate, and hedge funds—are often organized as partnerships. Those partnerships typically have two types of partners: general partners and limited partners. General partners determine the partnership’s investment strategy, seek contributions of capital and loans to acquire assets, manage those assets, and eventually sell them. Limited partners contribute capital to the partnership but do not participate in its management. General partners can invest their own capital in the partnership as well, but such investments usually represent a small share (between 1 percent and 5 percent) of the total capital invested.

General partners typically receive two types of compensation for managing a fund: a management fee tied to some percentage of the fund’s assets and “carried interest” tied to some percentage of the fund’s profits. For example, general partners may receive a management fee equal to 2 percent of the invested assets plus a 20 percent share of the profits as carried interest if returns from the fund exceed a threshold. The fee, less the fund’s expenses, is subject to ordinary income tax and the self-employment tax. By contrast, carried interest associated with gains from the sale of an asset held for more than three years is usually taxed at the rate that applies to long-term capital gains, which is typically much lower than that for ordinary income, and that carried interest is also not subject to the self-employment tax.

Income from carried interest is not separately reported by taxpayers and is therefore not directly measured. Income from investment funds and from carried interest generally grows more rapidly than the economy during booms and more slowly than the economy during recessions. (Additional background information and data related

to carried interest can be found in Joint Committee on Taxation 2007.)

Option

This option would treat carried interest that general partners receive for performing investment management services as labor income, taxable at ordinary income tax rates and subject to the self-employment tax. Income those partners receive as a return on their own capital contribution would not be affected.

Effects on the Budget

If implemented, the change would produce an estimated \$14 billion in revenues from 2019 through 2028, according to the staff of the Joint Committee on Taxation. That estimate takes into account the anticipated responses of general partners, who would probably restructure their compensation to lower their taxes. For example, to make an investment requiring \$100 million, the general partner could secure a \$20 million interest-free nonrecourse loan (a loan secured by a pledge of collateral but for which the borrower is not personally liable) from the limited partners to invest in the fund, and the limited partners could separately invest \$80 million directly in the fund. If the assets of the investment fund were sold for a profit after three or more years, the gains realized by the general partner on the \$20 million loan would equal 20 percent of the fund’s total gains. The general partner would then claim that income as a capital gain subject to the same lower tax rates as carried interest under current law. However, even if compensation agreements between limited partners and general partners were restructured in that manner, federal receipts would still rise, although by less than they would if restructuring was not feasible. That is because, under current law, the general partner is required to treat the forgone interest on the nonrecourse loan as income and

pay tax on it at the higher ordinary rate. The revenue estimates shown above reflect the likelihood and the consequences of such restructuring.

The estimate for this option is uncertain because of uncertainty surrounding estimates of income from carried interest. The estimate also depends on the Congressional Budget Office's economic projections, which are inherently uncertain. General partners typically earn carried interest only when their fund generates a return in excess of a threshold, and their likelihood of earning that return depends on economic conditions. Additionally, there is uncertainty about the degree to which general partners would be able to employ strategies such as the use of nonrecourse loans to avoid recognizing carried interest as ordinary income.

Other Effects

An argument in favor of this option is that carried interest could be considered performance-based compensation for management services. By taxing carried interest as ordinary income, this option would make the treatment of carried interest consistent with that of many other forms of performance-based compensation, such as bonuses, royalties, and most stock options. In particular, the option would equalize the tax treatment of income that general partners received for performing investment management services and the income

earned by corporate executives who do similar work. (For example, many corporate executives direct investment, arrange financing, purchase other companies, or spin off components of their enterprises, yet profits from those investment activities are not counted as individual capital gains for those executives and are therefore not taxed at preferential rates.)

An argument against this option is that a portion of the profits generated by the sale of an investment fund might be attributable to intangible assets, which are independent of the services provided by the general partner. By taxing the full carried interest—even the portion attributable to intangible assets—as labor income instead of capital gains, this option would treat general partners of investment funds differently from general partners in other industries. An alternative approach would be to allow a fraction of carried interest to continue to be treated as capital gains.

Another argument against the option is that, by reducing the expected after-tax compensation of general partners, it would reduce their incentive to start investment funds. That reduced incentive, in turn, could diminish innovation and possibly make private equity markets—and consequently businesses—less efficient. It is not clear, however, to what extent the current treatment of carried interest promotes innovation and market efficiency.

RELATED OPTIONS: Revenues, “Increase Individual Income Tax Rates” (page 204), “Raise the Tax Rates on Long-Term Capital Gains and Qualified Dividends by 2 Percentage Points and Adjust Tax Brackets” (page 207)

RELATED CBO PUBLICATION: Testimony of Peter R. Orszag, Director, before the House Committee on Ways and Means, *The Taxation of Carried Interest* (September 6, 2007), www.cbo.gov/publication/19113

WORK CITED: Joint Committee on Taxation, *Present Law and Analysis Relating to Tax Treatment of Partnership Carried Interests*, JCX-41-07 (July 10, 2007), <https://tinyurl.com/yawwn7kv> (PDF, 494 KB)

Revenues—Option 10

Include Disability Payments From the Department of Veterans Affairs in Taxable Income

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Include all disability payments in taxable income	0.7	7.6	8.2	8.8	9.9	10.0	9.8	10.8	13.1	13.7	35.2	92.7	
Include disability payments in taxable income only for veterans with a disability rating of 20 percent or less	*	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	1.6	4.4	

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

* = between zero and \$50 million.

Background

The goal of the Department of Veterans Affairs (VA) disability system is to compensate veterans for earnings lost as a result of service-connected disabilities. By law, that compensation is meant to equal the average reduction in earnings experienced by civilian workers with similar medical conditions or injuries.

Compensable service-connected disabilities are medical problems incurred or aggravated during active duty, although not necessarily during the performance of military duties. Applicable conditions range widely in severity and type, from scars and hypertension to the loss of one or more limbs. The amount of a veteran's base payment is linked to his or her composite disability rating, which can account for multiple disabilities and is expressed from zero to 100 percent in increments of 10 percentage points. Lower ratings generally reflect that veterans' disabilities are less severe; in 2017, about one in three recipients of disability compensation were rated as either 10 percent or 20 percent disabled. Beneficiaries do not have to demonstrate that their conditions have reduced their earnings or interfere with their daily functioning.

Disability compensation is not means-tested (that is, restricted to those with income below a certain amount), and payments are exempt from federal and state income taxes. Veterans who have a job are eligible for benefits, and most working-age veterans who receive disability

benefits are employed. Payments are in the form of monthly annuities and typically continue until the beneficiary's death. Because disability benefits are based on VA's calculation of average earnings lost as a result of specific conditions, payments do not reflect disparities in earnings that might result from differences in veterans' education, training, occupation, or motivation to work.

Although the number of veterans in the total population is declining, the number receiving VA disability payments has risen each year. Both the share of veterans receiving disability payments and the average amount of those payments have increased. Today, about 20 percent of veterans receive disability compensation; in 2000, only 9 percent of all veterans did. In 2017, VA paid about 4.6 million veterans an average of \$15,400 each in disability benefits. Of those veterans, 1.3 million had a disability rating of 20 percent or less; their average payment was \$2,200.

Option

This option consists of two alternative approaches to taxing VA disability benefits under the individual income tax. The first alternative would include all such disability payments in taxable income. The second alternative would include disability payments in taxable income only for veterans with a disability rating of 20 percent or less.

Effects on the Budget

The staff of the Joint Committee on Taxation (JCT) estimates that, if implemented, the first alternative would increase federal revenues by \$93 billion from 2019 through 2028. The second alternative would raise federal revenues by a smaller amount—\$4 billion—over that period, according to JCT’s estimates.

The total benefits included in taxable income would be much larger under the first alternative than under the second alternative. As a result, the second alternative would raise federal revenues by a much smaller amount. Estimates of both alternatives reflect the scheduled increase in individual income tax rates that begins in 2026.

The estimates are uncertain for two main reasons. First, they rely on the Congressional Budget Office’s projections of the veteran population and disability compensation, which are inherently uncertain. Second, they rely on estimates of how individuals would respond to the change in tax policy. Those estimates are based on observed responses to prior changes in policy, which might differ from the response to this option.

Other Effects

An argument in favor of the option is that including disability payments in taxable income would increase the equity of the tax system. Taxing VA disability payments

would make tax liabilities similar among taxpayers with comparable amounts of combined income (from disability payments, earnings, and other sources). Eliminating income exclusions in the tax system moves the system toward one in which people in similar financial and family circumstances face similar tax rates. Further, military disability retirement pay—a type of disability compensation received by those who retired from service because of a disability—is included in taxable income unless it is related to combat injuries. Including VA disability benefits in taxable income would make the treatment of the two types of benefits more similar.

An argument against this option is that VA disability payments are connected to military service, which is unlike civilian employment because it confers distinctive benefits to society and imposes special risks on service members. By that logic, enhancements to pay and benefits for service members—including the current exclusion of disability compensation from taxation—could be seen as a way to recognize the hardships of military service. However, veterans are entitled to disability payments even for medical conditions unrelated to military duties, as long as those conditions were incurred while the individuals were serving on active duty. By contrast, disability benefits received by civilian workers for non-work-related injuries are taxable if the employer paid the premiums.

RELATED OPTIONS: Mandatory Spending, “Narrow Eligibility for Veterans’ Disability Compensation by Excluding Certain Disabilities Unrelated to Military Duties” (page 107); Revenues, “Include Employer-Paid Premiums for Income Replacement Insurance in Employees’ Taxable Income” (page 229)

RELATED CBO PUBLICATION: *Veterans’ Disability Compensation: Trends and Policy Options* (August 2014), www.cbo.gov/publication/45615

Revenues—Option 11

Include Employer-Paid Premiums for Income Replacement Insurance in Employees' Taxable Income

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	19.2	34.9	34.4	33.8	33.1	34.1	35.2	36.4	39.8	40.9	155.4	341.9

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

To the extent that the option would affect Social Security payroll taxes, a portion of the revenues would be off-budget. In addition, the option would increase outlays for Social Security by a small amount. The estimates do not include those effects on outlays.

Background

Benefits that replace income for the unemployed, injured, or disabled are currently subject to different tax treatments. Whereas unemployment benefits are fully taxable, benefits paid through workers' compensation programs (for work-related injuries or illnesses) are tax-exempt. (The taxes and premiums that employers pay for those types of benefits are deductible and are not included in employees' taxable income.) Disability benefits (for non-work-related injuries) may be taxable, depending on who paid the premiums for the disability insurance. If the employer paid the premiums, the benefits are taxable (although the recipient's tax liability can be partly offset by special income tax credits for the elderly or disabled). If the employee paid the premiums out of after-tax income, the benefits are generally not taxable.

One broadly available form of income replacement insurance is unemployment insurance. In 2017, the taxes that employers paid under the Federal Unemployment Tax Act and to various state unemployment programs totaled \$46 billion. However, there is no comprehensive information on the premiums and taxes for or the value of programs that provide insurance against lost wages and salaries because those programs are structured in various ways. The overall value of that insurance is expected to be a small fraction of the amount of covered wages and salaries. In the Congressional Budget Office's projections, total wages and salaries grow by an average of 4 percent each year over the next 10 years, from \$8 trillion in 2017 to \$13 trillion in 2028.

Option

This option would gradually eliminate any tax on income replacement benefits over a five-year period but would immediately include in employees' taxable income the value of several taxes, insurance premiums, and other contributions paid by employers. Specifically, all of the following would be subject to the individual income tax and the payroll taxes for Social Security and Medicare: the taxes that employers pay under the Federal Unemployment Tax Act and to various state unemployment programs, 50 percent of the premiums that employers pay for workers' compensation (excluding the portion covering medical expenses), and the portion of insurance premiums or contributions to pension plans that employers pay to fund disability benefits.

Effects on the Budget

This option would increase revenues by \$342 billion over the 2019–2028 period, the staff of the Joint Committee on Taxation estimates. The revenue effect falls between 2020 and 2023 as the tax on income replacement benefits is phased out. Over the long term, gains in revenues would result almost entirely from the inclusion of workers' compensation premiums in employees' taxable income. The slightly higher estimated revenues in 2027 and 2028 reflect, in part, the expiration of lower individual income tax rates.

This option would increase employees' taxable earnings and therefore the wage base from which Social Security benefits are calculated. That change, in turn, would increase federal spending for Social Security. Between 2019 and 2028, that increase would be slight. However, it would grow after 2028 as more people whose premiums were taxed retired and began collecting Social

Security benefits. The estimates shown above do not include the effects of such increased federal spending on outlays.

The estimate for this option is uncertain because there is uncertainty about the total size of the programs that provide income replacement benefits. The estimate also depends on CBO's projections of wages and salaries under current law. Those projections are inherently uncertain. The estimate further relies on projections of individuals' choices about accepting available work and responses to the change in the taxation of income replacement insurance, which are likewise uncertain.

Other Effects

An advantage of this option is that it would eliminate many of the disparities that currently exist in the tax treatment of different kinds of income replacement insurance. For example, people who are unable to work because of an injury would not be taxed differently on the basis of whether their injury was related to their most recent job or a previous one. Another advantage of the option is that it would spread the tax burden among all workers covered by such insurance rather than placing the burden solely on beneficiaries, as is presently the case with unemployment insurance and employer-paid disability insurance. The effect on covered workers would be relatively small: Their after-tax earnings would fall, on average, by less than one-half of one percent. However,

the effect would be greatest among low-wage workers, some of whom might work fewer hours or be less likely to seek work as a result.

A disadvantage of the option is that it would discourage unemployed individuals from accepting available work because, if unemployment benefits were no longer taxable, their disposable income would be higher while they were unemployed than is the case under current law. Research shows that higher after-tax unemployment benefits tend to lengthen periods of unemployment, particularly among those who have no savings and cannot obtain loans after they lose their job. (However, the increase in disposable income would also allow unemployed people more time to find a job that best matched their skill set.)

Another argument against the option is that it would not eliminate all disparities in how income replacement benefits are treated. For example, the income-replacement portion of adjudicated awards and out-of-court settlements for injuries not related to work and not covered by insurance would remain entirely exempt from taxation. Likewise, the extended unemployment benefits that the federal government sometimes provides during economic downturns would never be taxed, because no amount corresponding to an employer's contribution would ever have been included in the recipients' taxable income.

RELATED OPTIONS: Revenues, "Include Disability Payments From the Department of Veterans Affairs in Taxable Income" (page 227), "Increase Taxes That Finance the Federal Share of the Unemployment Insurance System" (page 264)

RELATED CBO PUBLICATION: *Unemployment Insurance in the Wake of the Recent Recession* (November 2012), www.cbo.gov/publication/43734

Revenues—Option 12

Reduce Tax Subsidies for Employment-Based Health Insurance

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Replace the Excise Tax With a Limit on the Income and Payroll Tax Exclusions for Employment-Based Health Insurance Set at the 50th Percentile of Premiums												
Change in Mandatory Outlays	0	0	0	1	3	4	5	6	6	7	4	32
Change in Revenues ^a	0	0	0	51	76	84	93	111	122	132	127	670
Decrease (-) in the Deficit	0	0	0	-50	-73	-81	-88	-104	-116	-125	-123	-638
Replace the Excise Tax With a Limit on the Income and Payroll Tax Exclusions for Employment-Based Health Insurance Set at the 75th Percentile of Premiums												
Change in Mandatory Outlays	0	0	0	1	1	1	2	3	3	3	2	15
Change in Revenues ^a	0	0	0	19	28	32	37	46	51	57	47	270
Decrease (-) in the Deficit	0	0	0	-19	-26	-31	-35	-43	-48	-54	-45	-256
Replace the Excise Tax With a Limit on Only the Income Tax Exclusion for Employment-Based Health Insurance Set at the 50th Percentile of Premiums												
Change in Mandatory Outlays	0	0	0	1	1	1	2	3	2	3	2	14
Change in Revenues ^a	0	0	0	35	50	56	62	76	83	90	86	452
Decrease (-) in the Deficit	0	0	0	-34	-49	-55	-60	-73	-81	-87	-83	-438

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

This option would take effect in January 2022.

a. Estimates include the effects on Social Security payroll tax receipts, which are classified as off-budget.

Overview of the Issue

The federal tax system provides preferential treatment for health insurance that people buy through an employer. That treatment applies to payments and contributions made both by employers and by employees. Unlike cash compensation, employers' payments for their employees' health insurance premiums are excluded from income and payroll taxes. In most cases, the amount that workers pay for their own share of health insurance premiums is also excluded from income and payroll taxes. Contributions made to certain accounts by employers to pay for employees' health care costs are excluded from income and payroll taxes as well. In all, that favorable tax treatment cost the federal government about \$300 billion in forgone revenues in 2018, and that cost will probably rise over time as the price of health care increases. Although a new excise tax will go into effect in 2022, somewhat reducing the tax exclusions' consequences, those exclusions will continue to have significant implications for the federal budget.

Further reducing the tax exclusion for employment-based health insurance—as outlined in this option—would raise federal revenues. However, it also would reduce the number of people with employment-based coverage, boost enrollment in the health insurance marketplaces established under the Affordable Care Act, and increase the number of people without insurance. Total spending on health care would be lower than it would have been otherwise because fewer people would have insurance.

Current Law. The federal tax system subsidizes employment-based health insurance both by excluding employers' premium payments from income and payroll taxes and by allowing employees at firms that offer "cafeteria plans"—which allow workers to choose between a taxable benefit, such as cash wages, and non-taxable fringe benefits—to pay their share of premiums without that share's being subject to income or payroll taxes. The tax system also subsidizes health care costs not covered by insurance by excluding from income and payroll taxes the contributions made to various accounts

that employees can use to cover those costs. Examples include employees' contributions to flexible spending arrangements (FSAs), employers' contributions to health reimbursement arrangements (HRAs), and employers' and employees' contributions to health savings accounts (HSAs). On average, people with higher income (and thus higher tax rates) or more expensive health insurance plans receive larger subsidies.

The favorable tax treatment of employment-based health benefits is the federal government's largest single tax expenditure. (Tax expenditures are exclusions, deductions, preferential rates, deferrals, and credits in the tax system that resemble federal spending in that they provide financial assistance for specific activities, entities, or groups of people.) Including effects on both income taxes and payroll taxes, those exclusions are projected to equal 1.5 percent of gross domestic product in 2018.

The excise tax that is scheduled to start in 2022 will effectively reduce the tax subsidy for employment-based health insurance. It will be levied on employment-based health benefits—consisting of employers' and employees' currently taxable and tax-excluded contributions for health insurance premiums and contributions to FSAs, HRAs, or HSAs—whose value exceeds certain thresholds. The excise tax will thus curtail the current open-ended tax exclusions. Even when the excise tax is in effect, however, employment-based health insurance will still receive a significant tax subsidy, and that subsidy will still be larger for people with higher income.

The excise tax will equal 40 percent of the difference between the total value of tax-excluded contributions and the applicable threshold. The Congressional Budget Office and the staff of the Joint Committee on Taxation (JCT) project that some employers will change their offers of coverage to reduce their exposure to the tax. In the agencies' projections, which do not account for such changes, roughly 15 percent of people enrolled in an employment-based plan in 2022 have some taxable and tax-excluded contributions in excess of the thresholds. That share is projected to increase to roughly 25 percent by 2028. (However, CBO and JCT expect people's responses to the tax to reduce that share, as discussed below.)

In 2022, the thresholds are projected to be \$9,800 for individual coverage and \$28,300 for family coverage.

(Those thresholds will be slightly higher for retirees who are 55 to 64 years old and for workers in certain high-risk professions. Further adjustments will be made for age, sex, and other characteristics of an employer's workforce.) After 2022, the thresholds will be indexed to the growth of the chained consumer price index for all urban consumers (chained CPI-U), which measures inflation in a way that accounts for individuals' changing consumption as prices increase. Because health insurance premiums will probably continue to rise faster than inflation, the excise tax will most likely affect a growing number of people over time. As a result, revenues stemming from the tax are projected to rise from \$8 billion in 2022 to \$39 billion in 2028.

Effects of Current Law. The tax exclusions currently in effect encourage the use of employment-based insurance, making it likelier that healthy people will buy health insurance (which lowers the average cost of insurance and helps to limit a phenomenon known as adverse selection). At the same time, the subsidy for health insurance provided by the exclusion is likely to increase total spending on health care. Another effect is that higher-income workers receive larger subsidies than lower-income workers do.

Encouraging the Use of Employment-Based Insurance. By subsidizing employment-based health insurance, the tax exclusions encourage firms to offer it and workers to enroll in it. Such insurance would be attractive to employers and employees in any case because it pools risks within groups of workers and their families and reduces the administrative costs of marketing insurance policies and collecting premiums. But the tax exclusions give employment-based insurance additional appeal. In 2017, according to the Medical Expenditure Panel Survey, 85 percent of private-sector employees worked for an employer that offered health insurance coverage; 77 percent of those employees were eligible for that coverage (the rest were ineligible for various reasons, such as working only part time); and 73 percent of the eligible workers chose to enroll in the plan offered by their employer.

Reducing Adverse Selection. A major problem that can occur in insurance markets is adverse selection, in which less healthy people are likelier to buy health insurance (or to buy certain types of plans) than healthier people are. Adverse selection occurs because insurance provides more benefit to enrollees with above-average costs—and

is therefore more attractive to them—and less benefit to people with below-average costs. As premiums increase to cover the less healthy enrollees, the healthier ones may stop buying insurance, which results in another price increase—a spiral that may continue until the market is very small or nonexistent. Adverse selection also can reduce markets' efficiency by making it harder for insurers to predict costs for a group of potential enrollees.

Employment-based health insurance and the tax subsidies that encourage its use limit adverse selection in several ways. Employers generally select a workforce on the basis of criteria other than health care costs, so most workforces consist of a mix of healthier and less healthy people. Pooling risks across such a workforce reduces the variability of average health care spending for the group. Also, once employers offer health insurance, they tend to pay a large share of premiums in order to encourage employees to enroll—making the employees' share small in relation to their expected health care costs, encouraging them to buy insurance, and reducing adverse selection. The tax exclusions also limit adverse selection by reducing the after-subsidy price of insurance, encouraging even the healthy to enroll.

Increasing Total Health Care Spending. For workers and their families who enroll in such coverage, the tax subsidies for employment-based health insurance encourage more spending on health care than would be the case without subsidies. That occurs because the subsidies encourage workers to favor health care over other goods and services that they could purchase and also because the tax exclusions encourage employers to compensate their workers with a combination of health insurance coverage and cash wages rather than entirely with cash wages (which the employees would be unlikely to spend on health care to the same extent). Furthermore, the tax exclusions are currently open-ended (and will be until the excise tax takes effect in 2022). That is, their value increases with an insurance plan's premium, encouraging people to enroll in plans that cover a greater number of services, cover more expensive services, or require enrollees to pay a smaller share of costs. As a result, people use more health care—and health care spending is higher—than would otherwise be the case.

That effect may have been lessened somewhat in recent years because employment-based insurance plans that require workers to pay a higher share of health costs have become more common. For example, 29 percent of

people with employment-based coverage were enrolled in a high-deductible health plan in 2017, up from 8 percent in 2008.

Subsidizing Workers With Different Income Differently.

Another concern about the tax exclusions is that they subsidize workers with different amounts of income differently. The value of the exclusions is generally larger for workers with higher income, partly because those workers face higher income tax rates (although they may face lower rates of payroll taxation) and partly because they are more likely to work for an employer that offers coverage. Because larger subsidies go to higher-income workers, who are more likely to buy insurance even without the tax exclusions, and smaller subsidies go to lower-income workers, who are less likely to buy coverage, the exclusions are an inefficient means of increasing the number of people who have health insurance, and they are regressive in the sense that they provide larger benefits to people with higher income.

The forthcoming excise tax will somewhat reduce the regressive nature of the tax exclusions. The excise tax will be levied on insurers and on employers who offer their own insurance plans, but economic theory and empirical evidence suggest that the cost will be passed on to workers. CBO and JCT expect that, in many cases, the tax burden will shift when employers and workers decide to avoid paying the tax by switching to health plans with premiums below the thresholds. In those cases, the money that would otherwise have been used to pay for the more expensive premiums would generally increase either workers' wages or employers' profits, both of which are taxable. Because workers with higher income will pay higher marginal tax rates on those increased wages, the regressive nature of the tax exclusions will be reduced. When employers and workers do not shift to lower-cost health plans to avoid the excise tax, the costs of that tax will be spread equally among affected workers, JCT and CBO expect. However, workers with higher income are more likely to be enrolled in high-cost plans and thus more likely to have their subsidies reduced by the excise tax. Nevertheless, most workers will have health benefits whose value is below the thresholds and therefore will be largely unaffected by the excise tax. Consequently, the existing tax subsidies and the new excise tax will continue to subsidize employment-based health insurance and to provide larger subsidies to higher-income people.

Key Design Choices That Would Affect Savings

Lawmakers who wanted to design laws to reduce the tax subsidies for employment-based health insurance could take various approaches. In general, reducing the tax subsidies for employment-based health insurance would tend to lower the number of people with such insurance. It also would increase out-of-pocket payments by people enrolled in employment-based insurance, which would decrease spending on health care and increase the financial burden on people with substantial health problems. The precise effect, however, would depend on the specific features of any policy change.

Lawmakers could cancel the excise tax that is scheduled to take effect under current law and instead subject contributions for health insurance premiums, along with contributions to various health-related accounts, to income or payroll taxation. If lawmakers did that, they would have to decide whether to tax all of the contributions or only some of them. For example, the exclusions could be retained, but with an upper limit that applied to all taxpayers, or the exclusions could be phased down for higher-income people. Such limits also could be allowed to vary according to other characteristics of employees—such as age, sex, or occupation—that are associated with average health care costs. (The forthcoming excise tax includes several adjustments of that sort. For instance, the threshold above which health care costs are taxed is higher for some groups of people whose average costs are high because they work in dangerous occupations.)

Lawmakers also would need to decide whether to subject the contributions to income taxation, payroll taxation, or both. On average, enrollees in employment-based plans face slightly higher federal income tax rates than payroll tax rates. Specifically, CBO and JCT estimate that those workers' average marginal income tax rate—that is, the rate that applies to the last dollar of their earnings—would be about 18 percent in 2022, whereas their average marginal payroll tax rate (including both the employer's and the employee's shares of payroll taxes) would be about 14 percent. Therefore, subjecting contributions to income taxation would raise slightly more revenues than subjecting them to payroll taxation, all else being equal, and doing both would raise the most revenues.

Even if the average income tax rate and the average payroll tax rate for enrollees in employment-based plans were the same, subjecting contributions to income

taxation and payroll taxation would have very different effects on the tax liability of people in different income groups. Higher-income people are likely to have higher marginal income tax rates but lower marginal payroll tax rates than lower-income people. Among people with employment-based insurance, therefore, subjecting contributions to income taxation would raise the tax liability of higher-income people more than that of lower-income people. The opposite would be true if contributions were subject to payroll taxation.

Subjecting contributions to taxation would increase the after-tax price of people's employment-based health insurance and therefore reduce insurance coverage. However, CBO and JCT estimate that subjecting contributions to income taxation would yield smaller reductions in the number of people with health insurance than subjecting contributions to payroll taxation would (provided that the same upper limit applied in each case). As discussed above, for lower-income people, the average marginal tax rate is smaller for income taxes than for payroll taxes. Therefore, lower-income people would face smaller increases in the after-tax price of their employment-based health insurance if the contributions were subject to income taxation than if contributions were subject to payroll taxation. Consequently, lower-income people would be less likely to forgo insurance if their contributions were subject to income taxation rather than payroll taxation. At the same time, because higher-income people, on average, face a higher marginal income tax rate than marginal payroll tax rate, more higher-income people would forgo insurance if their contributions were subject to income taxation than if they were subject to payroll taxation. However, that reduction in insurance coverage for higher-income people would be smaller than the reduction for lower-income people. (Higher-income people are less responsive to price changes in health insurance because they tend to have more assets to protect and higher demand for health care services.)

Specific Alternatives and Estimates

CBO and JCT analyzed three alternatives for reducing the tax subsidies for employment-based health insurance. Each alternative would take effect in 2022 and would replace the excise tax on high-cost plans with a limit on the tax exclusions. The first and second alternatives would limit the exclusions from income and payroll taxation; the third would limit the exclusion from income taxation but continue the unlimited exclusion from

payroll taxation. Those policy changes would increase the tax liability and affect the behavior of people with high premiums for employment-based health plans, but the specific increases in taxes and changes in behavior would be different under each approach.

Each alternative was estimated using CBO and JCT's microsimulation models. Those models use a combination of detailed survey and administrative data to construct a nationally representative sample of employers and individuals in order to estimate the national distribution of health insurance coverage and taxes under current law and different policy scenarios. The advantage of using those models is that they simulate how employers and individuals make decisions about what type of health insurance coverage to offer and purchase on the basis of their income, firm or family size, expected health care spending, and the relative price and generosity of each health insurance option available to them. The models are also interactive in that they allow the choices firms and individuals make to affect the choices of other firms and individuals within the model. That allows the models to estimate the initial effects of a policy change and the subsequent behavioral responses to those changes. For example, if the costs of employment-based health insurance increased because of a change in the tax treatment of employers' premium contributions, microsimulation models are particularly useful for capturing the alternative insurance options and subsidies available to workers and for estimating the changes in coverage that would result from that type of price increase. As a result of those features, microsimulation models can better approximate the full range of behavioral responses that different types of employers and individuals would make in response to policy changes, as compared with other types of static economic models.

Replace the Excise Tax With a Limit on the Income and Payroll Tax Exclusions Set at the 50th Percentile of Premiums. The first alternative would eliminate the excise tax and instead impose a limit on the extent to which employers' and employees' contributions for health insurance premiums—and to FSAs, HRAs, and HSAs—could be excluded from income and payroll taxation. Specifically, starting in 2022, contributions that exceeded \$7,800 a year for individual coverage and \$18,500 for family coverage would be included in employees' taxable income—that is, they would be subject to both income and payroll taxes. Those limits, which are equal to the estimated 50th percentile of

health insurance premiums paid by or through employers in 2020, would be indexed for inflation by means of the chained CPI-U, a measure of inflation that attempts to account for the effects of substitution on changes in the cost of living. The same limits would apply to the deduction for health insurance available to self-employed people. Because the limits would be lower than the thresholds scheduled to take effect for the excise tax—for example, \$9,800 for individual coverage in 2022—federal tax subsidies would be lower as well.

This alternative would decrease cumulative federal deficits by \$638 billion by 2028, CBO and JCT project. On a net basis, \$51 billion in additional revenues would be collected in 2022, and that amount would grow to \$132 billion by 2028. The increasing amount of revenues that would be collected under this alternative would be the result of indexing the exclusion thresholds to the chained CPI-U, which would increase the threshold amounts at a lower rate than the projected growth of health insurance premiums. Over time, that would increase the share of insurance contributions subject to taxation. Those revenues would be slightly offset by \$32 billion of additional outlays—the majority of which would be attributable to more people enrolling in subsidized nongroup insurance. By reducing the appeal of employment-based health insurance, it also would cause about 3 million fewer people to have such coverage in 2028 than would have it under current law. Of those people, about 2 million would buy coverage directly through the nongroup market (that is, either in the health insurance marketplaces or from insurers outside of the marketplaces); fewer than 500,000 would enroll in Medicaid; and about 1 million would be uninsured. (Those numbers do not add up to the total because of rounding.)

The reduction in the deficit would stem from several changes in revenues and outlays that partially offset one another. Income and payroll tax revenues would rise by \$841 billion through 2028 because the number of people with employment-based coverage would decline and because many of those who retained such coverage would receive a smaller benefit from the tax exclusion. (For example, in 2028, the capped tax exclusions would reduce the combined federal income and payroll tax liability of policyholders with employment-based coverage by an average of \$4,450; that reduction would be \$6,242 under current law.) Because large employers are required by law to provide health insurance to their employees

or pay certain penalties, additional penalty payments by large employers that no longer offered health insurance coverage to their employees also would increase revenues, although only by a small amount. However, additional tax credits for coverage purchased through the marketplaces would reduce revenues, as would the repeal of the excise tax. In all, revenues through 2028 would be \$670 billion higher than under current law. The alternative also would boost federal outlays by \$32 billion through 2028, primarily because of increased subsidies for insurance purchased through the marketplaces, increased spending on Medicaid, and Medicare “disproportionate share hospital” payments to inpatient facilities that serve a higher percentage of low-income patients.

Replace the Excise Tax With a Limit on the Income and Payroll Tax Exclusions Set at the 75th Percentile of Premiums. Like the first alternative, the second alternative would eliminate the excise tax and impose limits on the extent to which contributions could be excluded from income and payroll taxation. Under this alternative, however, the limits would be higher: \$9,900 a year for individual coverage and \$25,000 for family coverage. Those limits are equal to the estimated 75th percentile of health insurance premiums paid by or through employers in 2020 and inflated by the chained CPI-U.

The second alternative would decrease cumulative federal deficits by \$256 billion by 2028, CBO and JCT estimate. Specifically, it would increase revenues by \$270 billion and outlays by \$15 billion. Under this alternative, the government would collect, on a net basis, \$19 billion in additional revenues in 2022 and an additional \$57 billion in 2028 compared with current law. Fewer revenues would be collected under this alternative than under the first alternative because the tax exclusion threshold would be higher. The amount of additional annual revenues collected would grow substantially by 2028 because the thresholds would grow at a lower rate than the projected growth of health insurance premiums, and those revenues would be offset by \$15 billion in additional outlays. Also, like the first alternative, this one would reduce the appeal of employment-based health insurance, causing slightly more than 1 million fewer people to have such insurance in 2028 than would have it under current law. In that year, of those people affected by this alternative, slightly less than 1 million more people would buy coverage through the nongroup market, fewer than 500,000 people would enroll in Medicaid or

the Children’s Health Insurance Program, and fewer than 500,000 would be uninsured.

Replace the Excise Tax With a Limit on Only the Income Tax Exclusion Set at the 50th Percentile of Premiums. The third alternative would eliminate the excise tax and impose a limit on the extent to which contributions could be excluded from income taxation; exclusions for payroll taxation would remain unlimited. Specifically, starting in 2022, contributions that employers or workers made for health insurance—and for medical expenses through FSAs, HRAs, and HSAs—that exceeded \$7,800 a year for individual coverage and \$18,500 for family coverage would be included in employees’ taxable income and subject to income taxes. Those are the same limits as the ones described in the first alternative, and once again, they would be indexed for inflation by means of the chained CPI-U. As noted above, limiting the tax exclusion for income taxes only would raise more revenues, and reduce insurance coverage less, than would limiting the exclusion for payroll taxes only (as long as the same limit applied in each case).

The third alternative would decrease cumulative federal deficits by \$438 billion by 2028, CBO and JCT estimate: Revenues would be \$452 billion higher, and outlays would be \$14 billion higher. The amount of revenues collected would be lower than under the first alternative because health insurance contributions would still be exempt from payroll taxation. Outlays would offset revenues to a lesser degree than under the first and second alternatives because fewer people who gave up employment-based insurance would enroll in subsidized health insurance. This alternative would cause about 1.5 million fewer people to have employment-based insurance in 2028 than would have it under current law. Of those people, about 1 million would buy coverage through the nongroup market, fewer than 500,000 would enroll in Medicaid, and about 500,000 more would be uninsured.

Sources of Uncertainty

These estimates rely on the complex interaction of many variables and are therefore inherently uncertain. The stability of nongroup insurance markets under current law is one source of uncertainty. If the nongroup market was less stable than projected in CBO’s baseline, nongroup coverage would be more expensive and less attractive as an alternative to employment-based coverage.

Consequently, CBO and JCT would expect more employers to offer such coverage (and more employees to take up such offers). This would increase, all else being equal, the amount of revenues collected under each alternative because more people would be enrolled in employment-based insurance. If nongroup insurance markets remained stable, or if they became more competitive over time, fewer people would enroll in employment-based coverage, which would reduce the amount of revenues that would be collected under these alternatives.

These estimates are also sensitive to changes in the price of employment-based health insurance. For example, if premiums for such coverage grew faster than in CBO and JCT's baseline projections, all else being equal, fewer people would enroll in such coverage, but an increased number of plans and employers would have premiums above the excise tax's threshold under current law. Under the alternatives discussed here, higher growth in premiums would increase the revenues collected by the federal government because a higher share of workers would have premiums that exceeded the alternatives' thresholds for tax exclusions. However, because a smaller number of workers would have employment-based coverage both under current law and under the option if premiums for employment-based coverage grew at faster rates than in CBO and JCT's baseline projections, the net effect of the option on federal revenues could be higher or lower than the estimates presented here.

Another source of uncertainty is employers' willingness to continue offering health insurance coverage. In recent years, offers of employment-based health insurance have generally remained stable, on average. Employers' decisions to offer coverage are affected by a variety of factors, including the availability of alternative sources of coverage, changes in the after-tax price of such coverage, and competition in the labor market. Firms may become more willing to drop offers of employment-based coverage as each of those factors changes over time. If that were the case, the change in coverage resulting from this option and the associated reduction in the deficit would both be larger.

Changes in the larger economy, such as a recession that resulted in increased unemployment, could also affect these estimates. In such a scenario, fewer people would be enrolled in employment-based health coverage, which would reduce the amount of revenues that would be

collected under each alternative. By contrast, faster than expected economic growth could increase the number of people with employment-based coverage, thereby increasing the amount of taxes that would be collected under these alternatives.

Other Considerations

Reducing tax subsidies for employment-based health insurance would affect many aspects of health care in the United States, including the growth of health care costs, the health of the population, the decisions that employers and workers make about health insurance coverage, and the number of people without health insurance.

Effects on Health Care Costs. Replacing the excise tax with a limit on the tax exclusions that is lower than the excise tax thresholds would make health care spending lower than it would be under current law. The current tax subsidies for employment-based insurance give health insurance plans an incentive to cover more services, to cover more expensive services, and to require enrollees to pay a smaller share of the costs than would be the case otherwise. The excise tax will effectively scale back those tax subsidies. The alternatives examined here would increase taxes for a larger share of employment-based plans than the excise tax would—giving employers and their workers less incentive to buy expensive health insurance, reducing upward pressure on the price and use of health care, and encouraging more cost-effective use of care.

Effects on People's Health. By reducing the incentive to buy expensive coverage and increasing the incentive to buy insurance plans that require people to pay more out of pocket, all three of the alternatives analyzed here would reduce the amount of care received and worsen some people's health. That conclusion is supported by an experiment conducted by the RAND Corporation from 1974 to 1982 in which nonelderly participants were randomly assigned to health insurance plans (Newhouse and the Insurance Experiment Group 1993). The experiment showed that plans requiring more out-of-pocket payments reduced the use of both effective and less-effective care, as defined by a team of physicians. Differences in out-of-pocket requirements had no effect on most participants' health, but among the poorest and sickest participants, those who faced no requirements of that kind were healthier by some measures than those who did.

Effects on Employers' and Workers' Decisions About Health Care Coverage. By increasing the tax liability of people enrolled in high-cost employment-based plans more than the excise tax would, the alternatives considered here would probably increase the financial burden on some people with substantial health problems. In particular, some employers and workers would avoid the increased tax liability by shifting to plans with lower premiums and more limited benefits, which would increase costs the most for people who used the most services.

In general, workers with higher income face higher income tax rates and are more likely to enroll in plans with high premiums. Therefore, limiting the exclusion from income taxation, as the third alternative would do, would reduce that benefit more for people with higher income. The first and second alternatives, which would limit the exclusion not only for income taxation but also for payroll taxation, would still increase tax liabilities more for higher-income people, on average, because they tend to enroll in plans with higher premiums.

Under all three alternatives, employees of firms that had a less healthy workforce or that operated in an area with above-average health care costs would be more likely to see their tax liability increase. In higher-cost areas, those increases in people's tax liability might exert pressure on health care providers and insurers to reduce prices or decrease unnecessary care.

Although these alternatives would reduce total spending on health care, they would increase after-tax premiums for some people enrolled in employment-based insurance, particularly those whose premiums were above the limits imposed by each alternative and who therefore would be paying taxes on that portion of their premiums for the first time. In addition, because all three alternatives would impose a limit on the exclusion that was lower than the excise tax thresholds that are scheduled to go into effect under current law, employers would have a heightened incentive to keep premiums low, which could cause them to refrain from hiring older workers (who tend to spend more on health care and to raise average premiums) or to reduce the compensation of older workers. That effect would be particularly likely among employers with fewer employees over whom to spread risks.

Effects on the Number of Uninsured People. The tax increases in these alternatives would lead fewer employers to offer health insurance. Although most people whose employers stopped offering health insurance would instead buy coverage in the nongroup market, either in the health insurance marketplaces or elsewhere, CBO and JCT anticipate that some workers would forgo coverage.

RELATED CBO PUBLICATIONS: *Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2018 to 2028* (May 2018), www.cbo.gov/publication/53826; *The Distribution of Major Tax Expenditures in the Individual Income Tax System* (May 2013), www.cbo.gov/publication/43768

WORK CITED: Joseph P. Newhouse and the Insurance Experiment Group, *Free for All?: Lessons From the RAND Health Insurance Experiment* (RAND Corporation, 1993)

Revenues—Option 13

Further Limit Annual Contributions to Retirement Plans

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	5.4	8.0	8.5	8.8	9.3	9.9	11.0	13.0	14.2	15.1	40.0	103.3

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

To the extent that the option would affect Social Security payroll taxes, a portion of the revenues would be off-budget. In addition, the option would increase outlays for Social Security by a small amount. The estimates do not include those effects on outlays.

Background

Current law allows taxpayers to make contributions to certain types of tax-preferred retirement plans, up to a maximum annual amount that varies depending on the type of plan and the age of the taxpayer. The most common such plans are defined contribution plans (any plan that does not guarantee a particular benefit amount upon retirement) and individual retirement accounts (IRAs). Defined contribution plans are sponsored by employers. Some—most commonly, 401(k) plans—accept contributions by employees; others are funded entirely by the employer. IRAs are established and funded by the participants themselves.

Most of the tax savings associated with retirement plans arise because the investment income that accrues in the account is either explicitly or effectively exempt from taxation. That is clearest in the case of Roth retirement plans—both IRAs and 401(k)s. Contributions to such plans cannot be excluded from taxable income; instead, the participant benefits by not paying tax on the investment income, either as it accrues or when it is withdrawn. More traditional types of tax-preferred retirement plans allow participants to exclude contributions from their taxable income and defer the payment of taxes until they withdraw funds. If the taxpayer is subject to the same tax rate that applied when contributions were made, the value of the deduction is offset by the tax on withdrawals. The actual tax benefit is equivalent to that provided by Roth plans—effectively exempting investment income from taxation. (In the traditional structure, however, the tax benefit can be higher or lower than under a Roth plan, depending on the difference between the participant's tax bracket at the time contributions are made and when withdrawals are made.)

The value of the tax exemption for investment earnings increases with the participant's income tax rate. Thus, an employee in the 12 percent tax bracket saves 12 cents on each dollar of investment income accrued in his or her retirement plan; however, an employee in the 35 percent tax bracket avoids taxes equal to 35 cents per dollar of investment income. (For some forms of investment income, such as capital gains, lower tax rates apply in each tax bracket, and the savings are smaller.)

People under the age of 50 may contribute up to \$18,500 to 401(k) and similar employment-based plans in 2018; participants ages 50 and above are also allowed to make “catch-up” contributions of up to \$6,000, enabling them to make as much as \$24,500 in total contributions in 2018. In general, the limits on a person's contributions apply to all defined contribution plans combined. However, contributions to 457(b) plans, which are available primarily to employees of state and local governments, are subject to a separate limit. As a result, employees enrolled in both 401(k) and 457(b) plans can contribute the maximum amount to both plans; in 2018, some people's tax-preferred contributions can thus total as much as \$49,000. Employers may also contribute to their workers' defined contribution plans, up to a maximum of \$55,000 per person in 2018, less any contributions made by the employee.

In 2018, combined contributions to Roth and traditional IRAs are limited to \$5,500 for taxpayers under the age of 50 and \$6,500 for those ages 50 and above. The tax deduction for contributions to a traditional IRA is phased out above certain income thresholds if either the taxpayer or the taxpayer's spouse is covered by an employment-based plan (but nondeductible

contributions—which still enable a taxpayer to defer taxes on investment gains until they are withdrawn—are allowable at any income level). Allowable contributions to Roth IRAs are phased out above certain income levels, and no contributions are permitted at incomes above \$199,000 for married taxpayers who file joint returns, \$10,000 for married taxpayers who file separate returns, or \$135,000 for unmarried taxpayers. However, participants can circumvent those limits by making a non-deductible contribution to a traditional IRA and then converting the traditional IRA to a Roth IRA before any investment income can accrue. (The first use of such a conversion creates a tax liability on amounts already in the traditional IRA, but once those preexisting amounts are taxed, conversions of subsequent nondeductible contributions are tax-free.) Annual contribution limits for all types of plans are adjusted, or indexed, to include the effects of inflation, but only in \$500 increments (increments of \$1,000 in the case of the overall limit on contributions to defined contribution plans).

The Internal Revenue Service reported that 52 million individuals contributed to 401(k)-type plans in calendar year 2014, 8 percent of whom made the maximum allowable contribution. More recent information is available for IRAs: In 2015, almost 11 million individuals contributed to IRAs—40 percent of those to traditional IRAs and 60 percent to Roth IRAs. Of those contributing to traditional IRAs, 47 percent made the maximum allowable contribution, according to the Congressional Budget Office's estimates. Of those contributing to Roth IRAs, 34 percent contributed the maximum amount. Contributions to retirement plans generally increase with personal income, but the contribution limits increase only with inflation. Thus, the share of participants making the maximum allowable contribution tends to increase over time.

Option

Under this option, a participant's maximum allowable contributions would be reduced to \$16,500 per year for 401(k)-type plans and \$5,000 per year for IRAs, regardless of the person's age. The option would also require that all contributions to employment-based plans—including 457(b) plans—be subject to a single combined limit. Total allowable employer and employee contributions to a defined contribution plan would be reduced from \$55,000 per year to \$50,000. Finally, conversions of traditional IRAs to Roth IRAs would not be permitted

for taxpayers whose income is above the top threshold for making Roth contributions.

Effects on the Budget

The lower limits on contribution amounts would increase revenues by \$109 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. The constraints on Roth conversions would reduce revenues by \$6 billion over that period, for a total increase of \$103 billion. Higher estimates in the last three years reflect the expiration of lower individual income tax rates at the end of 2025.

The reduction in revenues associated with constraining Roth conversions largely reflects the loss of tax payments that would otherwise be due at the time existing balances in traditional IRAs were converted. But the longer-term effects on revenues of that aspect of the option would probably be different. The loss of Roth benefits for those above the threshold would result in the taxation of more investment income—whether because the investment income arising from nondeductible contributions would be taxed upon withdrawal from a traditional IRA, or because some individuals would shift their contributions to taxable accounts. Existing balances can be converted only once; thus, the revenues associated with conversions are expected to diminish over time until all participants who wish to convert their balances have done so. Similarly, the revenue loss from disallowing some conversions would also diminish over time. Eventually, the revenues gained by taxing more investment income would probably outweigh those lost from disallowing conversions.

The option would also affect federal outlays, but by much smaller sums. Reducing the amount that employers are allowed to contribute would lead to an increase in taxable wages—the base from which Social Security benefits are calculated—and thus would increase spending for Social Security by a small amount. (The estimates shown here do not account for those additional outlays.) The changes in contributions by employees would not affect the wage base for Social Security.

The estimate for this option is uncertain because it relies on projections and estimates that are uncertain. Specifically, it relies on projections of retirement plan contributions, which are based on CBO's economic projections of the economy over the next decade under current law, and on estimates of how taxpayers would

change their saving behavior in response to the change in contribution limits.

Other Effects

One argument in favor of this option centers on fairness. The option would reduce the disparity in tax benefits that exists between higher- and lower-income taxpayers, in two ways. First, taxpayers directly affected by the option would make fewer contributions and accrue less tax-preferred investment income, so the greater benefit of the exemption to those in higher tax brackets would be reduced. Second, the option would affect more higher-income taxpayers than lower-income taxpayers. Although the limits on 401(k) contributions affected only 8 percent of participants in calendar year 2014, 53 percent of those participants had income in excess of \$200,000 that year. The option also would level the playing field between those who currently benefit from higher contribution limits (people ages 50 and over and employees of state and local governments) and those subject to lower limits.

Also, the option's constraints on Roth conversions would reduce the complexity and improve the transparency of the tax system, making it easier for participants and nonparticipants alike to understand the tax ramifications of Roth accounts. Furthermore, the financial institutions managing the accounts would incur, and pass on to participants, fewer administrative costs. (Even greater transparency could be realized by eliminating the income thresholds and allowing everybody to contribute directly to a Roth IRA, but that would reduce revenues over the long term.)

The main argument against this option is that it would reduce the retirement saving of some lower- and moderate-income people. Eliminating the extra allowance for catch-up contributions in particular would adversely affect those ages 50 and over who might have failed to save enough for a comfortable retirement while raising their families. The amount that they could contribute to tax-preferred retirement accounts would be cut at precisely the time when reduced family obligations and impending retirement make them more likely to respond to tax incentives to save more.

In addition, further limiting total contributions to a defined contribution plan would create an incentive for some small businesses to terminate their plans (or not establish new ones) if the tax benefits to the owners of providing such plans were outweighed by the cost of administering them. To the extent that such plans were terminated, employees would then have to rely on IRAs, which would lead some to save less because of the lower contribution limits.

The net effect of the option on total private saving is uncertain. The majority of participants in tax-preferred plans contribute less than the maximum amount allowed under the option; the option would not affect their incentives to save. Among the remaining participants, however, the option's effects on such incentives would vary. CBO estimates that, overall, the option would reduce incentives to save among a small group of participants—those who contribute less than the current limit but more than the maximum amount allowed under the option. For taxpayers in that situation, each additional dollar saved above the option's limit (up to the current limit) would yield a smaller after-tax return than they would receive under current law. However, only 10 percent of participants in traditional IRAs (and a smaller percentage of participants in other types of plans) fell into that category in 2014. At the opposite end of the saving spectrum are people who currently contribute the maximum allowable amounts to tax-preferred retirement plans and contribute additional amounts to taxable accounts. The option would not reduce their after-tax return on each additional dollar saved because it would be in excess of the limit in either case. However, because the option would make their total after-tax retirement income lower than they currently anticipate, some of those people might choose to put more money in taxable accounts to make up for that loss, thereby increasing their saving. Low- and moderate-income people are more likely to fall into the group that would reduce their saving, whereas high-income people are more likely to fall into the group that would increase their saving, and it is not certain which effect would dominate.

RELATED OPTION: Revenues, “Tax Social Security and Railroad Retirement Benefits in the Same Way That Distributions From Defined Benefit Pensions Are Taxed” (page 242)

RELATED CBO PUBLICATION: *Use of Tax Incentives for Retirement Saving in 2006* (October 2011), www.cbo.gov/publication/42731

Revenues—Option 14

Tax Social Security and Railroad Retirement Benefits in the Same Way That Distributions From Defined Benefit Pensions Are Taxed

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	16.4	33.6	35.4	37.2	39.0	40.8	42.8	49.5	56.6	59.2	161.6	410.5

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

Under current law, approximately 70 percent of the benefits paid by the Social Security and Railroad Retirement programs are not subject to the federal income tax. For recipients with income below a specified threshold, none of those benefits are taxable. Most recipients fall into that category, which represents the first of three income-based tiers. If the sum of a recipient's adjusted gross income, tax-exempt interest, and half of either Social Security benefits or Social Security–equivalent Tier I Railroad Retirement benefits exceeds \$25,000 for single taxpayers or \$32,000 for couples who file jointly, up to 50 percent of the benefits are taxable. Above a higher threshold—\$34,000 for single filers and \$44,000 for joint filers—as much as 85 percent of the benefits are taxable. (Adjusted gross income includes income from all sources not specifically excluded by the tax code, minus certain deductions.)

By contrast, distributions from defined benefit plans are taxable except for the portion that represents the recovery of an employee's "basis"—that is, his or her after-tax contributions to the plan. In the year that distributions begin, the recipient determines the percentage of each year's payment that is considered to be the nontaxable recovery of previous after-tax contributions; that determination is based on the cumulative amount of those contributions and projections of his or her life expectancy. Once the recipient has recovered his or her entire basis, all subsequent pension distributions are fully taxed. Aside from their treatment under the tax system, defined benefit plans are quite similar to the Social Security and Railroad Retirement programs.

In 2016, the Social Security Administration paid \$911 billion in Old-Age, Survivors, and Disability

Insurance benefits, and the Railroad Retirement Board paid \$7 billion in Tier I Social Security–equivalent benefits. Altogether, the taxable amount of those benefits was \$286 billion, as reported by the Internal Revenue Service, and taxes on that amount generated \$56 billion in revenues. Benefit payments are projected to rise through 2028 as the population ages and members of the baby-boom generation retire, causing the number of beneficiaries to grow faster than the population. The amount of benefit payments that is taxable will grow faster than overall payments because the thresholds for determining the taxable portion are not adjusted for inflation.

Option

This option would treat Social Security and Railroad Retirement benefits in the same way that defined benefit pensions are treated—by defining a basis and taxing those benefits that exceed that amount. For employed individuals, the basis would be the payroll taxes they contributed to those programs (but not the equal amount that their employers paid on their behalf). For self-employed people, the basis would be the portion (50 percent) of their self-employment taxes that was not deductible from their taxable income.

Effects on the Budget

Under this option, revenues would increase by \$411 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. That increase would be entirely due to higher taxes on the recipients of Social Security and Railroad Retirement benefits. Increases in revenues would be greater after temporary provisions of the 2017 tax act that lower ordinary rates and increase the standard deduction expire at the end of 2025.

The estimate reflects differences in the effects of the option among recipients of Social Security and Railroad Retirement benefits. The option would increase taxable income for many recipients both before and after they had fully recovered their past contributions to the system because the taxable portion of their benefits would increase. Some recipients would still not pay taxes on those benefits because they would have sufficient deductions and could make other adjustments, such that their overall taxable income would remain low enough for them to owe no federal income taxes.

The estimate for this option is uncertain because the underlying projection of Social Security and Railroad Retirement benefits is uncertain, as is the projection of payroll contributions that will determine both the benefit amount and the basis for future retirees. The estimate also relies on estimates of how taxpayers would shift their participation in the labor force in response to changes in their after-tax income from benefits.

Other Effects

An argument in favor of this option concerns equity. Taxing benefits from the Social Security and Railroad Retirement programs in the same way as those from defined benefit plans would make the tax system more equitable, in at least two ways. First, it would eliminate the preferential tax treatment that applies to Social Security benefits but not to pension benefits. For low- and middle-income taxpayers especially, that preference

can cause elderly people with similar income to face very different tax liabilities depending on the mixture of retirement benefits they receive. Second, the option would treat elderly and nonelderly taxpayers with comparable income the same way.

Another benefit of the option is that it could simplify the preparation of tax returns for people who pay taxes on Social Security benefits under current law. Taxpayers currently have to calculate the taxable portion of those benefits themselves. Under the option, the Social Security Administration—which would have information on their lifetime contributions and life expectancy—would compute the taxable amount of benefits and provide that information to beneficiaries each year.

This option also has drawbacks. It would have the greatest impact on people who depend entirely on Social Security or Railroad Retirement benefits for their support. In addition, raising taxes on Social Security and Railroad Retirement benefits would provide current retirees or people nearing retirement little or no opportunity to adjust their saving or retirement strategies to mitigate the impact. The option could be phased in, but that would result in smaller revenue gains. Finally, the option would increase the number of elderly people who have to file tax returns, and calculating the percentage of each recipient's benefits that would be excluded from taxation would impose an additional burden on the Social Security Administration.

RELATED OPTION: Revenues, “Further Limit Annual Contributions to Retirement Plans” (page 239)

RELATED CBO PUBLICATION: *Social Security Policy Options, 2015* (December 2015), www.cbo.gov/publication/51011

Revenues—Option 15

Eliminate Certain Tax Preferences for Education Expenses

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	3.8	19.3	19.4	19.6	19.8	20.1	20.4	21.0	21.8	22.2	81.9	187.6

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

The estimates include the effects on outlays resulting from changes in refundable tax credits.

Background

Federal support for higher education takes many forms, including grants, subsidized loans, and tax preferences. Those tax preferences include several types of tax-advantaged accounts that allow families to save for postsecondary education, as well as education-related credits and a deduction. The major credits and the deduction in effect in 2018 are the following:

- The American Opportunity Tax Credit (AOTC) covers qualifying educational expenses for up to four years of postsecondary education. In 2018, the AOTC can total as much as \$2,500 (100 percent of the first \$2,000 in qualifying expenses and then 25 percent of the next \$2,000). Up to 40 percent of the credit (or \$1,000) is refundable—that is, families whose income tax liability (before the credit is applied) is less than the total amount of the credit may receive a portion of the credit as a payment. The amount of the AOTC gradually declines with income for higher-income tax filers. In 2018, the AOTC is reduced for married couples who file jointly and have modified adjusted gross income (MAGI) between \$160,000 and \$180,000 and for single filers with MAGI between \$80,000 and \$90,000. (Adjusted gross income comprises income from all sources not specifically excluded by the tax code, minus certain deductions. To determine eligibility for education-related tax credits, it is modified by adding certain foreign income and foreign housing allowances that are excluded from taxable income.) Neither the credit amount nor the income thresholds are adjusted, or indexed, to include the effects of inflation.
- The nonrefundable Lifetime Learning tax credit provides up to \$2,000 for qualifying tuition and fees. (The credit equals 20 percent of each dollar of qualifying expenses up to a maximum of \$10,000.)

Only one Lifetime Learning credit may be claimed per tax return per year, but the expenses of more than one family member (a taxpayer, spouse, or dependent) may be included in the calculation. The Lifetime Learning credit can be used beyond the first four years of postsecondary education and by students taking less than half of a full-time course load. Taxpayers may not claim the Lifetime Learning credit and the AOTC for the same student in the same year. In 2018, the Lifetime Learning tax credit gradually declines with MAGI for joint filers whose MAGI is between \$114,000 and \$134,000 and for single filers whose MAGI is between \$57,000 and \$67,000. The income thresholds for those ranges are indexed.

- Tax filers may deduct from their taxable income up to \$2,500 per year for interest payments on student loans. That deduction is available regardless of whether a tax filer itemizes deductions. In 2018, the interest deduction for student loans gradually declines with MAGI for joint filers with MAGI between \$135,000 and \$165,000 and for single filers with MAGI between \$65,000 and \$80,000. Although the maximum deduction is not indexed to include the effects of inflation, the income thresholds for those ranges are indexed.

Over 10 million taxpayers claimed a total of \$18 billion in AOTC and Lifetime Learning tax credits on their 2016 tax returns. About 12 million taxpayers deducted a combined \$13 billion of student loan interest. The projected effects of the tax preferences depend on taxpayers' incomes and expenditures on higher education.

Option

This option would eliminate the AOTC and the Lifetime Learning tax credit beginning in 2019. The option

would also gradually eliminate the deductibility of interest expenses for student loans. Because students have borrowed money with the expectation that a portion of the interest would be deductible over the life of the loan, the interest deduction for student loans would be phased out in annual increments of \$250 over a 10-year period.

Effects on the Budget

If implemented, the option would raise revenues by \$188 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. Its effect on revenues would be greater after 2026 than in earlier years, following a scheduled increase in individual income tax rates and a reduction in the amounts of the standard deduction. Under current law, because the Lifetime Learning tax credit is not refundable and the AOTC is only partially so, the value of those credits will increase in 2026 for taxpayers who previously had no tax liability against which to apply the credits. In addition, the value of the deduction for student loan interest will increase because deductions are more valuable to taxpayers facing higher tax rates.

The estimate for this option is uncertain because the underlying projection of individual income tax revenues is uncertain. That projection relies on the Congressional Budget Office's projections of the economy and the distribution of income over the next decade under current law. Those projections are inherently uncertain, but they are particularly uncertain because they reflect recently enacted changes to the tax system by the 2017 tax act. In addition, the estimate relies on the number of students pursuing higher education and the costs of those programs in the future, which might differ from CBO's estimates in unexpected ways.

Other Effects

An argument in favor of the option is that current education-related tax benefits are not targeted to those who need assistance the most. Many low-income families do not have sufficient income tax liability to claim

all—or in some cases, any—of those benefits. However, the cost of higher education may impose a greater burden on those families as a proportion of their income. Further, some research indicates that lower-income individuals and families may be more sensitive to the cost of higher education than those with higher income and thus more likely to enroll in higher education programs if tuition and fees are subsidized.

A second argument in favor of the option is that providing education benefits through the income tax system results in benefits that are poorly timed and adds complexity to the process. Families must pay tuition and fees before they can claim the education benefits on their tax returns. By contrast, federal spending programs such as the Federal Pell Grant Program are designed to provide assistance when the money is needed—at the time of enrollment. Further, providing education assistance through various credits and deductions, each with slightly different eligibility rules and benefit amounts, might make it difficult for families to determine which tax preferences would be the most advantageous for their particular economic circumstances.

A drawback of this option is that it would reduce some households' assistance for educational expenses unless federal outlays for education assistance were increased. The option would increase the financial burden on families with postsecondary students—particularly middle-income families who do not qualify for current federal spending programs. Students might respond by attending lower-cost schools, adjusting the amount they borrow through student loans, or reducing the amount of schooling they pursue. Another drawback is that despite the current system's complexity—which creates overlapping tax benefits—some families might find it easier to claim benefits on their tax returns (on which they already provide information about their family structure and income) than to fill out additional forms for assistance through other federal programs.

RELATED OPTIONS: Mandatory Spending, “Eliminate or Reduce the Add-On to Pell Grants, Which Is Funded With Mandatory Spending” (page 26), “Reduce or Eliminate Subsidized Loans for Undergraduate Students” (page 31); Discretionary Spending, “Tighten Eligibility for Pell Grants” (page 179)

RELATED CBO PUBLICATIONS: *Distribution of Federal Support for Students Pursuing Higher Education in 2016* (June 2018), www.cbo.gov/publication/53732; *Federal Aid for Postsecondary Students* (June 2018), www.cbo.gov/publication/53736; *Options to Change Interest Rates and Other Terms on Student Loans* (June 2013), www.cbo.gov/publication/44318; *Refundable Tax Credits* (January 2013), www.cbo.gov/publication/43767; *Costs and Policy Options for Federal Student Loan Programs* (March 2010), www.cbo.gov/publication/21018; *Private and Public Contributions to Financing College Education* (January 2004), www.cbo.gov/publication/15178

Revenues—Option 16

Lower the Investment Income Limit for the Earned Income Tax Credit and Extend That Limit to the Refundable Portion of the Child Tax Credit

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	*	1.0	0.9	1.0	1.0	1.0	0.9	1.0	0.7	0.7	3.9	8.2

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

The estimates represent the change in the overall budget balance that would result from the sum of changes to revenues and outlays.

* = between zero and \$50 million.

Background

Low- and moderate-income people are eligible for certain refundable tax credits under the individual income tax if they meet specified criteria. Refundable tax credits differ from other tax preferences, such as deductions, in that their value may exceed the amount of income taxes that the person owes. Refundable tax credits thus can result in net payments from the government to a taxpayer: If the amount of a refundable tax credit exceeds a taxpayer's tax liability before that credit is applied, the government pays the excess to that person. Two refundable tax credits are available only to workers: the earned income tax credit (EITC) and the refundable portion of the child tax credit (referred to in the tax code as the additional child tax credit). In 2016, the number of taxpayers claiming the EITC and the refundable portion of the child tax credit were 27 million and 19 million, respectively.

To qualify for the EITC and the refundable portion of the child tax credit, people must meet several income requirements. First, they must have income from wages, salaries, or self-employment. Second, their adjusted gross income cannot exceed certain thresholds, which vary according to family characteristics. (Adjusted gross income is income from all sources not specifically excluded by the tax code, minus certain deductions. For purposes of determining eligibility for the child tax credit, adjusted gross income is modified by adding certain types of income excluded from taxable income.) For the EITC, the income thresholds for 2018 range from \$15,270 for an unmarried worker who does not have a qualifying child to \$54,884 for a married couple that files jointly and has three or more children. For the child tax credit, the income thresholds for taxpayers with

one child in 2018 are \$240,000 for an unmarried person and \$440,000 for joint filers; the thresholds increase with the number of children in the family. (After 2025, those thresholds will revert to their amounts under pre-2018 law. For example, among those with one child, the thresholds will be \$95,000 for unmarried workers and \$130,000 for joint filers.) Finally, eligibility for the EITC is restricted to filers with investment income that is \$3,500 or less in 2018. (Investment income comprises interest including tax-exempt interest, dividends, capital gains, royalties and rents from personal property, and returns from passive activities—that is, business pursuits in which the person is not actively involved.) For the EITC, the limitations on adjusted gross income and investment income are adjusted, or indexed, to include the effects of inflation. The income cutoff for the child tax credit, however, is not indexed.

According to the Internal Revenue Service (IRS), among taxpayers whose positive adjusted gross income was less than \$50,000 and who also reported investment income in 2016, the most prevalent form was taxable interest: About 16 percent of those taxpayers reported, on average, about \$110 in taxable interest income. (Some of those taxpayers probably had other forms of investment income, too.) That total, however, included the interest income of taxpayers over the age of 65. That age group contains the largest number of adult taxpayers reporting any interest income but also the smallest number claiming the two credits.

Option

This option would lower the EITC threshold for investment income to \$1,750. As under current law,

that threshold would be indexed to include the effects of inflation. Moreover, the option would extend that requirement to the refundable portion of the child tax credit.

Effects on the Budget

If implemented, the option would raise \$8 billion from 2019 through 2028, according to estimates by the staff of the Joint Committee on Taxation. The annual revenues raised by the option would begin to decline after certain provisions of the 2017 tax act expire at the end of 2025; however, those effects would not be fully observed until 2027, when taxpayers file their 2026 tax returns and claim the credits. The expiration of a temporary expansion of the refundable portion of the child tax credit will cause the maximum amount of the additional credit to fall from \$1,400 to \$1,000, and the expiration of other provisions will cause statutory tax rates to increase and the amount of the standard deduction to decline. As a result, there will be greater income tax liability for the nonrefundable portion of the child tax credit to offset, which will reduce the value of the refundable portion of the credit.

The budgetary effect of further reducing the threshold on investment income to less than \$1,750 would depend on a number of factors, including the distribution of investment income among those receiving credits and the average size of the credits received by the affected population under current law. As the threshold declined, for example, both the number of EITC claimants affected by the limitation and the average reduction in the credit received by the affected population would increase rapidly, in the Congressional Budget Office's assessment. One consideration is how people would respond to changes in the investment-income threshold. Some people would respond to those adjustments by shifting their investments to assets (such as cars) that do not immediately generate income or by changing the timing of the return from their investments (for example, by retaining stocks for longer periods in order to avoid

realizing capital gains in years that those realizations would affect their eligibility).

A key source of uncertainty in the estimate is that it depends on CBO's projections of various factors that determine the return on an investment. For example, in CBO's projections, personal interest income grows at an average annual rate of 8 percent from 2019 through 2023 and 4 percent for the remainder of the projection period. If interest rates were higher than CBO's current projections, then more taxpayers would be affected by the option.

Other Effects

The main argument for the option is that it would better target the credits to people without substantial means by denying them to people who have low earnings but have other resources to draw upon. Asset tests—requirements that recipients do not have savings in bank accounts, stocks, or other types of investments whose value is above a specified threshold—serve a similar role in some spending programs that provide benefits to lower-income populations. However, such tests would be difficult for the IRS to administer because the agency does not collect information on the amount of assets held by individuals. By contrast, the IRS does have extensive information on taxpayers' income from bank accounts and most other types of investments, and much of that information is accurate because it is reported independently to the agency by financial institutions as well as by taxpayers on their returns.

An argument against the option is that it would reduce people's incentive to save, especially if their income from investments was near the threshold amount and they could become (or remain) eligible for the credits under the option by making small reductions in their assets. The option would probably have little effect on people with very low income because they have little means to save and invest.

RELATED OPTION: Revenues, "Require Earned Income Tax Credit and Child Tax Credit Claimants to Have a Social Security Number That Is Valid for Employment" (page 248)

RELATED CBO PUBLICATIONS: *Effective Marginal Tax Rates for Low- and Moderate-Income Workers in 2016* (November 2015), www.cbo.gov/publication/50923; *The Distribution of Major Tax Expenditures in the Individual Income Tax System* (May 2013), www.cbo.gov/publication/43768; *Growth in Means-Tested Programs and Tax Credits for Low-Income Households* (February 2013), www.cbo.gov/publication/43934; *Refundable Tax Credits* (January 2013), www.cbo.gov/publication/43767

Revenues—Option 17

Require Earned Income Tax Credit and Child Tax Credit Claimants to Have a Social Security Number That Is Valid for Employment

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	0.1	2.6	2.5	2.5	2.4	2.3	2.3	2.5	3.1	3.2	10.1	23.6

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

The estimates represent the change in the overall budget balance that would result from the sum of changes to revenues and outlays.

Background

The earned income tax credit (EITC) and the child tax credit provide assistance to low- and moderate-income taxpayers. Both credits are refundable: If the amount of the credit is greater than the amount of income taxes owed by the taxpayer before the credit is applied, the government pays the excess to that person. (Whereas the EITC is fully refundable, the amount of the refundable portion of the child tax credit is capped.) The nonrefundable and refundable portions of the two tax credits totaled \$119 billion in 2016. Eligibility for the EITC and the refundable portion of the child tax credit is limited to people with income from wages, salaries, or self-employment.

Eligibility requirements for the two credits differ for noncitizens, however—especially the rules governing the provision of Social Security numbers. All EITC claimants and their qualifying children must have a Social Security number. For purposes of determining eligibility for the EITC, a noncitizen's Social Security number is considered invalid if it was issued by the Social Security Administration (SSA) solely to allow that individual to obtain benefits from a program entirely or partly financed by the federal government. That rule applies to both spouses, if claimants are married, and to claimants' qualifying children. As a result of that rule, many people who are not authorized to work in the United States (or whose children lack that authorization) are ineligible for the EITC.

However, some people can receive the EITC even though neither they nor their children possess a Social Security number that indicates they are authorized to work in the United States. Those individuals were issued Social

Security numbers before 2003 because they needed them to obtain drivers' licenses or to open bank accounts. SSA no longer issues Social Security numbers for such purposes, but the agency did not rescind the numbers obtained before the ban. Because those Social Security numbers were provided to people who were not applying for federal benefits, the numbers are considered to be valid for purposes of receiving the EITC.

By contrast, noncitizens can claim the child tax credit as long as they have either Social Security numbers (including those issued to individuals for the sole purpose of receiving government benefits) or individual taxpayer identification numbers, which are issued by the Internal Revenue Service (IRS) to anyone who is required to file a tax return but cannot obtain a Social Security number. Their qualifying children, however, must have a Social Security number, and that number is considered valid only if it was issued by SSA solely to people authorized to work in the United States. After 2025, the requirements for identification numbers for qualifying children will revert to those in effect before 2018: The qualifying child must have a Social Security number (although there are no restrictions on the reason for its issuance) or an individual taxpayer identification number.

The IRS has statutory authority to deny claims for the EITC and, to some extent, the child tax credit if those claims do not include valid Social Security numbers. Under certain circumstances, the IRS can rely on simpler and less costly methods than audits to correct taxpayers' errors. In particular, the IRS is authorized to use "mathematical and clerical error" (or simply "math error") procedures to automatically deny the EITC when tax returns do not include valid Social Security numbers for

the taxpayers and their children. Those procedures can also be used to deny the child tax credit if the child's Social Security number is invalid. Using math-error procedures prevents the credits from being paid to taxpayers and does not require the IRS to take further action, although taxpayers retain the right to dispute the IRS's decision.

The Congressional Budget Office projects the annual increases in the number of immigrants unauthorized to work in the United States to be relatively modest over the next decade. That projection reflects the effects of expected economic growth as well as the expected continuation of trends in immigration in recent years.

Option

Under this option, people who are not authorized to work in the United States would not be eligible for either the EITC or the child tax credit. For both credits, taxpayers, spouses, and qualifying children would be required to have Social Security numbers issued to U.S. citizens and noncitizens authorized to work in the United States. The IRS would be authorized to deny the credits using math-error procedures when taxpayers and their children do not have those types of Social Security numbers.

Effects on the Budget

If enacted, the option would raise \$24 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. The expiration of certain individual income tax provisions at the end of 2025 affects the pattern of the estimates. Through 2026, revenues are projected to be roughly stable. Beginning in 2027, though, they would rise somewhat. That increase would occur because of the expiration of the provision requiring child tax credit claimants' qualifying children who are not citizens to have Social Security numbers that were issued only to those authorized to work. To some extent, that effect would be offset by the expiration of the temporary expansion of the child tax credit. (Neither effect would be observed until 2027, when taxpayers would file their 2026 tax return and claim the credits.)

The largest sources of uncertainty surrounding the estimate are CBO's projections of the flows of unauthorized immigrants to the United States. Another source of uncertainty concerns the number of unauthorized workers claiming the credits. If, for example, fewer

unauthorized immigrants than projected claimed the credits, the option would raise less revenue.

Other Effects

The main advantage of this option is that it would eliminate some of the disparity that currently exists in the credits' eligibility rules, making them less confusing and easier to administer. Under the option, the requirements related to the possession of a valid Social Security number would be the same for both credits: Only taxpayers (and their children) who are authorized to work in the United States—U.S. citizens, lawful permanent residents, or people in the United States on temporary work visas—would be eligible for the EITC and the child tax credit. The IRS would be able to verify those requirements using data it already receives from SSA and immediately matches to tax returns, allowing the agency to prevent payment of the credits to ineligible noncitizens.

A disadvantage of the option is the additional burden it would impose on some individuals. Many noncitizens initially obtained Social Security numbers to receive federal benefits at a time when they were not authorized to work in the United States. If they subsequently became permanent residents or U.S. citizens, they may not have notified SSA of the change in their status. Under this option, those individuals would have to take the additional step of updating their work-authorization status with SSA to receive the EITC or the child tax credit. Those actions would also increase SSA's workload. Many immigrants, however, already have an incentive to inform SSA of changes in their immigration status because doing so allows their employers to confirm that they are authorized to work in the United States through E-Verify (a system administered by the Department of Homeland Security).

The option could be modified in several ways that would either limit or extend its application. As specified, the option would prevent some noncitizens with permanent work authorization from receiving the EITC and the child tax credit because other members of their family are not lawful permanent residents or do not have visas allowing them to work in the United States. For example, the IRS would deny the credits even if one parent was a lawful permanent resident if his or her spouse was not authorized to work in the United States. An alternative approach would be to allow the credits to be paid if only one spouse provides a valid Social Security

number, but that approach would raise less revenue than the option would. Another effect of the option is that it would allow noncitizens who were issued Social Security numbers when they had temporary work visas to continue receiving the credits when those visas expired. The option could be modified to limit eligibility for the credits to U.S. citizens and lawful permanent residents,

which would generate a greater increase in revenues. However, that restriction would be difficult to administer because Social Security records, which the IRS currently relies upon to verify the identity of taxpayers and which could also be used to determine work status, do not distinguish between noncitizens with temporary work visas and lawful permanent residents.

RELATED OPTION: Revenues, “Lower the Investment Income Limit for the Earned Income Tax Credit and Extend That Limit to the Refundable Portion of the Child Tax Credit” (page 246)

RELATED CBO PUBLICATIONS: *The 2018 Long-Term Budget Outlook* (June 2018), www.cbo.gov/publication/53919; *How Changes in Immigration Policy Might Affect the Federal Budget* (January 2015), www.cbo.gov/publication/49868; *Growth in Means-Tested Programs and Tax Credits for Low-Income Households* (February 2013), www.cbo.gov/publication/43934; *Refundable Tax Credits* (January 2013), www.cbo.gov/publication/43767

Revenues—Option 18

Increase the Payroll Tax Rate for Medicare Hospital Insurance

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Increase rate by 1 percentage point	51.4	80.8	84.2	87.4	90.8	94.2	97.8	100.4	103.6	107.6	394.6	898.3	
Increase rate by 2 percentage points	102.3	160.7	167.5	173.9	180.5	187.4	194.5	199.6	206.0	214.1	784.9	1,786.5	

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

The primary source of financing for Hospital Insurance (HI) benefits provided under Medicare Part A is the HI payroll tax. The basic HI tax is 2.9 percent of earnings. For employees, 1.45 percent is deducted from their paychecks and 1.45 percent is paid by their employers. Self-employed individuals generally pay 2.9 percent of their net self-employment income in HI taxes. Unlike the payroll tax for Social Security, which applies to earnings up to an annual maximum (\$128,400 in 2018), the 2.9 percent HI tax is levied on total earnings.

Workers with higher earnings are also subject to a surtax on all earnings above a certain threshold: \$200,000 for unmarried taxpayers and \$250,000 for married couples who file jointly. At those thresholds, the portion of the HI tax that employees pay increases by 0.9 percentage points, to a total of 2.35 percent. The surtax does not apply to the portion of the HI tax paid by employers, which remains 1.45 percent of earnings, regardless of how much the worker earns.

Over the past 10 years, outlays for the HI program have grown at a much faster pace than revenues derived from the payroll tax. Since 2008, expenditures for HI have generally exceeded the program's total income—including interest credited to the Hospital Insurance Trust Fund—so the trust fund's balances have declined. The Congressional Budget Office projects that if current law remained in place, the balances would generally continue to fall until the HI trust fund was exhausted in 2026.

In 2017, HI receipts from payroll taxes totaled about \$256 billion. In CBO's projections, HI receipts rise through 2028 at a rate slightly faster than gross domestic

product (GDP), chiefly because wages and salaries are projected to rise as a share of GDP over the next decade.

Option

This option consists of two alternatives. The first alternative would increase the basic HI tax on total earnings by 1.0 percentage point. The second alternative would increase the basic HI tax on total earnings by 2.0 percentage points. Those rate increases would be evenly split between employers and employees. For example, for the 1.0 percentage-point increase, the basic rate for both employers and employees would increase by 0.5 percentage points, to 1.95 percent, resulting in a combined rate of 3.9 percent. The rate paid by self-employed people would also rise to 3.9 percent. For taxpayers with earnings above \$200,000 (\$250,000 for married couples who file jointly), the HI tax on earnings that exceeded the surtax threshold would increase from 3.8 percent to 4.8 percent. Employees would pay 2.85 percent, and employers would pay the remaining 1.95 percent.

Effects on the Budget

If implemented, the first alternative would increase revenues by \$898 billion from 2019 through 2028, according to estimates by the staff of the Joint Committee on Taxation (JCT). JCT estimates that the second alternative would increase revenues by \$1,787 billion over the same period, roughly double the increase of the first alternative. Those estimates incorporate the assumption that total compensation would remain unchanged but allow for behavioral responses to the higher tax. (Total compensation comprises taxable wages and benefits, nontaxable benefits, and employers' contributions to payroll taxes.)

If total compensation remained unchanged, then increases in employers' contributions to payroll taxes would have to reduce other forms of compensation. The decrease in taxable wages and benefits would reduce the income base for individual income and payroll taxes, partially offsetting the increase in employers' payroll taxes. The estimates for the option reflect that income and payroll tax offset.

In addition, the higher payroll tax would create an incentive for employers and employees to change the composition of compensation, shifting from taxable compensation to forms of nontaxable compensation. The estimates account for that behavioral response.

The estimates for this option are uncertain primarily because underlying projections of income subject to HI taxes are uncertain. The estimates rely on CBO's projections of the economy over the next decade, particularly projections of wages, income distribution, and employment. Those projections are inherently uncertain.

Other Effects

The main argument in favor of the option is that receipts from the HI payroll tax are currently not sufficient to cover the costs of the program, and increasing that tax would shrink the gap between the program's costs and the revenues that finance it. Each alternative would extend the exhaustion date for the HI trust fund beyond the 10-year projection period. (However, given the uncertainty in projections of Medicare spending, CBO

does not make projections of the HI trust fund beyond the 10-year window and therefore cannot estimate its exhaustion date.) Another argument in support of the option is that an increase in the tax rate would be simpler to administer than most other types of tax increases because it would require relatively minor changes to the current tax system.

A drawback of the option is that it would encourage people to reduce the hours they work. When statutory tax rates increase, people have an incentive to work fewer hours because other uses of their time become relatively more attractive. (Increases in statutory tax rates can also cause people to work more hours, because having less after-tax income requires additional work to maintain the same standard of living. On balance, however, CBO estimates that the former effect would be greater than the latter effect.)

Another disadvantage of the option is that it would increase the tax burden of lower-income workers relative to that of workers with higher income. That is because a larger share of the income of lower-income families is, on average, from earnings, which are subject to the HI tax. As a result, an increase in the HI tax would represent a greater proportion of the income of lower-income taxpayers than would be the case for higher-income taxpayers. Moreover, because the option would not make any changes to the Medicare program, the increase in the tax burden would not be offset by greater Medicare benefits when people reached the age of 65.

RELATED OPTION: Revenues, "Increase the Payroll Tax Rate for Social Security" (page 253)

Revenues—Option 19

Increase the Payroll Tax Rate for Social Security

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues												
Increase rate by 1 percentage point	44.7	63.8	66.4	69.1	71.8	74.7	77.6	74.8	82.2	85.3	315.8	715.5
Increase rate by 2 percentage points	88.8	126.8	132.0	137.4	142.8	148.4	154.2	158.6	163.4	169.6	627.8	1,422.1

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

The change in revenues would consist of an increase in receipts from Social Security payroll taxes (which would be off-budget), offset in part by a reduction in individual income tax revenues (which would be on-budget).

Background

Social Security—which consists of Old-Age and Survivors Insurance and Disability Insurance—is financed primarily by payroll taxes on employers, employees, and the self-employed. Only earnings up to a maximum, which is \$128,400 in calendar year 2018, are subject to the tax. The maximum usually increases each year at the same rate as average wages in the economy. The Social Security tax rate is 12.4 percent of earnings. Employees have 6.2 percent of earnings deducted from their paychecks, and the remaining 6.2 percent is paid by their employers. Self-employed individuals generally pay 12.4 percent of their net self-employment income.

In 2017, Social Security receipts from payroll taxes totaled \$850.6 billion. Of that amount, \$806.4 billion was from payroll taxes assessed on employers and employees and \$44.2 billion was from payroll taxes assessed on self-employed individuals. The Congressional Budget Office projects that receipts from Social Security payroll taxes will fall slightly as a share of gross domestic product (GDP) between 2017 and 2019, in part because the share of earnings above the maximum taxable amount is projected to increase. After that share stabilizes in 2019, receipts from Social Security payroll taxes are projected to rise as a share of GDP. A major reason for that growth is that wages and salaries are projected to rise as a share of GDP over the next decade.

Option

This option consists of two alternative increases to the Social Security payroll tax rate. The first alternative would increase the rate by 1 percentage point. The second alternative would increase it by 2 percentage points. Those rate increases would be evenly split between employers and employees. For example, for the 1 percentage-point increase, the rate for both employers and employees would increase by 0.5 percentage points, to 6.7 percent, resulting in a combined rate of 13.4 percent. The rate paid by self-employed people would also rise to 13.4 percent.

Effects on the Budget

If implemented, the first alternative would increase revenues by \$716 billion from 2019 through 2028, according to estimates by the staff of the Joint Committee on Taxation (JCT). JCT estimates that the second alternative would increase revenues by \$1,422 billion over the same period. The estimates presented here incorporate the assumption that total compensation remains unchanged but allow for behavioral responses to the higher tax. (Total compensation comprises taxable wages and benefits, nontaxable benefits, and employers' contributions to payroll taxes.)

If total compensation remains unchanged, then increases in employers' contributions to payroll taxes must reduce other forms of compensation. The decrease in taxable wages and benefits would reduce the income base for individual income and payroll taxes, partially offsetting

the increase in employers' payroll taxes. The estimates for the option reflect that income and payroll tax offset.

The higher payroll tax would create an incentive for employers and employees to change the composition of compensation, shifting from taxable compensation to forms of nontaxable compensation. The estimates account for that behavioral response.

The estimates for this option are uncertain primarily because of the underlying projections of income subject to Social Security payroll taxes. The estimates rely on CBO's projections of the economy over the next decade, particularly projections of wages, the income distribution, and employment. Those projections are inherently uncertain.

Other Effects

An advantage of this option is that it would provide more revenues to the Social Security program, which, according to CBO's projections, eventually would not have sufficient income to finance the benefits that are due to beneficiaries under current law. If current law remained in place, Social Security tax revenues, which already are less than spending for the program, would grow more slowly than spending for Social Security. CBO projects that the combined Old-Age and Survivors Insurance and Disability Insurance trust funds would be exhausted in calendar year 2031. Each alternative would extend the insolvency date for the trust funds: The 1 percentage-point increase would delay their exhaustion by about four years, to calendar year 2035, and the

2 percentage-point increase would delay their exhaustion by about nine years, to calendar year 2040.

Another argument in support of the option is that an increase in the tax rate would be simpler to administer than most other types of tax increases because it would require relatively minor changes to the current tax system.

A drawback of the option is that it would encourage people to reduce the hours they work. When statutory tax rates increase, people have an incentive to work fewer hours because other uses of their time become relatively more attractive. (Increases in statutory tax rates can also cause people to work more hours, because having less after-tax income requires additional work to maintain the same standard of living. On balance, however, CBO estimates that the former effect would be greater than the latter effect.)

Another disadvantage of the option is that it would increase the tax burden of lower-income workers relative to that of workers with higher income. That is because a larger share of the income of lower-income households is, on average, from earnings that are below the taxable maximum and thus subject to the Social Security payroll tax. As a result, an increase in the Social Security payroll tax would represent a greater proportion of income for lower-income taxpayers than for higher-income taxpayers. Moreover, because the option would not make any changes to Social Security benefits, the increase in the tax burden would not be offset by greater Social Security benefits.

RELATED OPTIONS: Revenues, "Increase the Payroll Tax Rate for Medicare Hospital Insurance" (page 251), "Increase the Maximum Taxable Earnings for the Social Security Payroll Tax" (page 255), "Expand Social Security Coverage to Include Newly Hired State and Local Government Employees" (page 258)

RELATED CBO PUBLICATIONS: *CBO's 2018 Long-Term Projections for Social Security: Additional Information* (September 2018), www.cbo.gov/publication/54428; *The 2018 Long-Term Budget Outlook* (June 2018), www.cbo.gov/publication/53919; *Social Security Policy Options, 2015* (December 2015), www.cbo.gov/publication/51011

Revenues—Option 20

Increase the Maximum Taxable Earnings for the Social Security Payroll Tax

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Raise Taxable Share to 90 Percent												
Change in Outlays	0.1	0.3	0.6	1.0	1.4	1.9	2.5	3.2	4.0	4.9	3.4	19.8
Change in Revenues	23.9	77.0	81.0	83.4	84.9	86.8	89.0	90.9	92.6	95.2	350.2	804.9
Decrease (-) in the Deficit	-23.8	-76.7	-80.4	-82.4	-83.5	-84.9	-86.5	-87.7	-88.6	-90.3	-346.8	-785.1
Subject Earnings Greater Than \$250,000 to Payroll Tax												
Change in Revenues	32.7	104.2	111.6	117.6	123.9	131.0	138.7	146.0	153.5	163.4	490.0	1,222.6

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

This option would take effect in January 2019.

The change in revenues would consist of an increase in receipts from Social Security payroll taxes (which would be off-budget), offset in part by a reduction in individual income tax revenues (which would be on-budget). The outlays would be for additional payments of Social Security benefits and would be classified as off-budget.

Background

Social Security—which consists of Old-Age and Survivors Insurance and Disability Insurance—is financed primarily by payroll taxes on employers, employees, and the self-employed. Only earnings up to a maximum, which is \$128,400 in calendar year 2018, are subject to the tax. The Social Security tax rate is 12.4 percent of earnings. Employees have 6.2 percent of earnings deducted from their paychecks, and the remaining 6.2 percent is paid by their employers. Self-employed individuals generally pay 12.4 percent of their net self-employment income.

When payroll taxes for Social Security were first collected in 1937, about 92 percent of earnings from jobs covered by the program were below the maximum taxable amount. During most of the program's history, the maximum was increased only periodically, so the percentage varied greatly. It fell to a low of 71 percent in 1965 and by 1977 had risen to 85 percent. Amendments to the Social Security Act in 1977 boosted the amount of covered taxable earnings, which reached 90 percent in 1983. Those amendments also specified that the taxable maximum be adjusted, or indexed, annually to match the growth in average wages. Despite those changes, the percentage of earnings that is taxable has slipped in the past decade because earnings for the highest-paid workers have grown faster than average earnings. Thus,

in 2016, about 83 percent of earnings from employment covered by Social Security fell below the maximum taxable amount.

In 2017, receipts from Social Security payroll taxes totaled \$850.6 billion. Of that amount, \$806.4 billion was from payroll taxes assessed on employers and employees, and \$44.2 billion was from payroll taxes that self-employed individuals paid on their earnings. In the Congressional Budget Office's projections, receipts from Social Security payroll taxes fall slightly as a share of gross domestic product (GDP) between 2017 and 2019, in part because the share of earnings above the maximum taxable amount is projected to increase. After that share stabilizes in 2019, receipts from Social Security payroll taxes are projected to rise as a share of GDP. A major reason for that increase is that wages and salaries are projected to rise as a share of GDP over the next decade.

Option

This option considers two alternative approaches that would increase the share of earnings subject to payroll taxes.

The first alternative would increase the taxable share of earnings from jobs covered by Social Security to 90 percent in calendar year 2019. (In later years, the maximum

would grow at the same rate as average wages, as it would under current law.)

The second alternative would apply the 12.4 percent payroll tax to earnings over \$250,000 in addition to earnings below the maximum taxable amount under current law. The taxable maximum would continue to grow with average wages, but the \$250,000 threshold would not change, so the gap between the two would shrink. CBO projects that the taxable maximum would exceed \$250,000 in calendar year 2037; after that, all earnings from jobs covered by Social Security would be subject to the payroll tax. The current-law taxable maximum would still be used for calculating benefits, so scheduled benefits would not change under this alternative.

Effects on the Budget

Implementing the first alternative, which would raise the maximum taxable amount to \$285,000 in calendar year 2019, would increase revenues by an estimated \$805 billion from 2019 through 2028, according to the staff of the Joint Committee on Taxation (JCT). Because Social Security benefits are tied to the amount of earnings on which taxes are paid, however, some of that increase in revenues would be offset by additional benefits paid to people with earnings above the maximum taxable amount under current law. On net, this alternative would reduce federal budget deficits by an estimated \$785 billion over the 10-year period. If the maximum taxable amount was adjusted by a different amount, the change in revenues would not necessarily be proportional because earnings are not evenly distributed.

Implementing the second alternative would raise \$1,223 billion from 2019 through 2028, according to JCT. The estimates presented here incorporate the assumption that total compensation would remain unchanged but allow for behavioral responses to the higher tax. (Total compensation comprises taxable wages and benefits, nontaxable benefits, and employers' contributions to payroll taxes.)

If total compensation remained unchanged, then increases in employers' contributions to payroll taxes would have to reduce other forms of compensation. The decrease in taxable wages and benefits would reduce the income base for individual income and payroll taxes, partially offsetting the increase in employers' payroll taxes. The estimates for the option reflect that income and payroll tax offset.

In addition, the higher payroll tax would create an incentive for employers and employees to change the composition of compensation, shifting from taxable compensation to forms of nontaxable compensation. The estimates account for that behavioral response.

The estimates for this option are uncertain primarily because of uncertainty surrounding CBO's underlying projections of income subject to Social Security payroll taxes. Those projections rely on CBO's projections of the economy over the next decade—particularly projections of wages, the income distribution, and employment—which are inherently uncertain.

Other Effects

An advantage of either alternative is that it would increase revenues for the Social Security program, which, according to CBO's projections, will not have sufficient income to finance the benefits that are due to beneficiaries under current law. If current law remained in place, Social Security tax revenues, which already are less than spending for the program, would grow more slowly than spending for Social Security. In CBO's long-term projections of the economy and budget under current law, the combined Old-Age and Survivors Insurance and Disability Insurance trust funds are projected to be exhausted in calendar year 2031. The first alternative, which would increase the taxable share of earnings from jobs covered by Social Security to 90 percent, would delay the exhaustion of the combined trust funds by 5 years, to calendar year 2036. The second alternative, which would apply the 12.4 percent payroll tax to earnings over \$250,000, would delay the exhaustion of the combined trust funds by 13 years, to calendar year 2044.

In addition, either alternative would make the payroll tax less regressive—that is, each would increase the tax burden on people with higher income. People with earnings above the maximum now pay a smaller percentage of their total earnings in payroll taxes than do people whose total earnings are below the maximum. Making more earnings taxable would increase payroll taxes for those high earners. (That change would also increase benefit payments for affected workers under the first alternative, but the tax increase would be much larger than the increase in benefits.) The second alternative would be more progressive than the first because it would affect only those with earnings above \$250,000. (After 2037, when the current-law taxable maximum would exceed

that threshold, it would affect those with earnings above the taxable maximum.)

A disadvantage of both alternatives is that raising the earnings cap would weaken the link between the taxes that workers pay into the system and the benefits they receive. That link has been an important aspect of Social Security since its inception. Under the first alternative, the increase in benefits would be modest relative to the increase in taxes, and under the second alternative, workers with higher earnings would pay additional taxes that would not increase their benefits.

Another drawback is that some people—those with earnings between the existing taxable limits and the higher thresholds under the first alternative, and those with earnings above the \$250,000 threshold under the

second alternative—would earn less after taxes for each additional hour worked. For those people, the decline in after-tax earnings would have two opposing effects. On the one hand, the lower earnings for each additional hour worked would make other uses of time relatively more attractive, so people would tend to work fewer hours. On the other hand, people also would tend to work more hours because having less after-tax income requires additional work to maintain the same standard of living. On balance, CBO estimates that the first effect would be greater than the second effect, and thus people in those earnings ranges would work less. However, people with earnings well above the limit established by the first alternative would not see any reduction in the return on their additional work, but they would have less income after taxes, which would encourage them to work more.

RELATED OPTIONS: Revenues, “Increase the Payroll Tax Rate for Social Security” (page 253), “Expand Social Security Coverage to Include Newly Hired State and Local Government Employees” (page 258)

RELATED CBO PUBLICATIONS: *CBO’s 2018 Long-Term Projections for Social Security: Additional Information* (September 2018), www.cbo.gov/publication/54428; *The 2018 Long-Term Budget Outlook* (June 2018), www.cbo.gov/publication/53919; *Social Security Policy Options, 2015* (December 2015), www.cbo.gov/publication/51011

Revenues—Option 21

Expand Social Security Coverage to Include Newly Hired State and Local Government Employees

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	0.7	2.2	3.8	5.4	6.9	8.5	10.3	12.1	14.0	16.0	19.0	80.0

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

The change in revenues would consist of an increase in receipts from Social Security payroll taxes (which would be off-budget), offset in part by a reduction in individual tax revenues (which would be on-budget). In addition, the option would increase outlays for Social Security by a small amount. The estimates do not include those effects on outlays.

Background

Nearly all private-sector workers and federal employees are covered by Social Security, but a quarter of workers employed by state and local governments are not. Under federal law, state and local governments can opt out of enrolling their employees in the Social Security program as long as they provide a separate retirement plan for those workers. (State and local governments may also have their employees participate in both Social Security and a separate retirement plan.) By contrast, all federal employees hired after December 31, 1983, are covered by Social Security and pay the associated payroll taxes. Furthermore, all state and local government employees hired after March 31, 1986, and all federal government employees pay payroll taxes for Hospital Insurance (Medicare Part A).

Paying the Social Security payroll tax for 10 years generally qualifies workers (and certain family members) to receive Social Security retirement benefits. Employees must meet different work-related requirements to qualify for disability benefits or, in the event of their death, to allow certain family members to qualify for survivors' benefits. In 2017, Social Security receipts from payroll taxes totaled \$850.6 billion.

Option

Under this option, Social Security coverage would be expanded to include all state and local government employees hired after December 31, 2018. Consequently, all newly hired state and local government employees would pay the Social Security payroll tax. That 12.4 percent tax on earnings, half of which is

deducted from employees' paychecks and half of which is paid by employers, funds the Old-Age, Survivors, and Disability Insurance programs.

Effects on the Budget

If implemented, this option would increase revenues by a total of \$80 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. That estimate incorporates the assumption that total compensation would remain unchanged but allows for behavioral responses to the higher tax. (Total compensation comprises taxable wages and benefits, nontaxable benefits, and employers' contributions to payroll taxes.)

If total compensation remained unchanged, then increases in employers' contributions to payroll taxes would have to reduce other forms of compensation. The decrease in taxable wages and benefits would reduce the income base for individual income and payroll taxes, partially offsetting the increase in employers' payroll taxes. The estimate for the option reflects that income and payroll tax offset.

In addition, the higher payroll tax would create an incentive for employers and employees to change the composition of compensation, shifting from taxable compensation to forms of nontaxable compensation. The estimate accounts for that behavioral response.

Although extending Social Security coverage to all newly hired state and local government employees would eventually increase the number of Social Security beneficiaries, that increase would have little impact on the federal

government's spending for Social Security in the short term. From 2019 through 2028, outlays would increase by only a small amount because most people hired by state and local governments during that period would not begin receiving Social Security benefits for many years. However, the effects on outlays would grow in the following decades. The above estimate does not include any effects on outlays.

The estimate is uncertain because the Congressional Budget Office's underlying projections of income subject to Social Security payroll taxes and the number of workers who are not covered by Social Security are uncertain. Those projections rely on CBO's projections of the economy over the next decade—particularly projections of wages and employment—which are inherently uncertain. The estimate also relies on projections under current law of state and local governments' choices about enrolling workers in Social Security and projections of state and local governments' hiring and retention, which are likewise uncertain.

Other Effects

One argument for implementing this option is that it would slightly enhance the long-term viability of the Social Security program. CBO projects that, if current law remained unchanged, income dedicated to the program would be insufficient to cover benefits specified in law. Under the option, the additional benefit payments for the expanded pool of beneficiaries would amount to less, in the long term, than the additional revenues generated by newly covered employees. That is largely because, under current law, most of the newly hired workers would receive Social Security benefits anyway—either because they held other, covered jobs or because they were covered by a spouse's employment.

Another argument for implementing the option concerns fairness. Social Security benefits are intended to replace only a percentage of a worker's preretirement earnings. That percentage (referred to as the replacement rate) is higher for workers with low career earnings than for workers with higher earnings. But the standard formula for calculating Social Security benefits does not distinguish between people whose career earnings are low and people who only appear to have low career earnings

because they spent a portion of their career in jobs that were not covered by Social Security. Under current law, to make the replacement rate more comparable for workers with similar earnings histories, standard benefits are reduced for retired government employees who have spent a substantial portion of their career in employment not covered by Social Security. However, that adjustment is imperfect and can affect various government employees differently. This option would eliminate those inequalities.

Finally, implementing this option would provide better retirement and disability benefits for many workers who move between government jobs and other types of employment. By facilitating job mobility, the option would enable some workers who would otherwise stay in state and local government jobs solely to maintain their public-employee retirement benefits to move to jobs in which they could be more productive. Many state and local government employees are reluctant to leave their jobs because pensions are structured to reward people who spend their entire careers in the same pension system. If their government service was covered by Social Security, they would be less reluctant to change jobs because they would remain in the Social Security system. State and local governments, however, might respond to greater turnover by reducing their investment in workers (by cutting training programs, for example), causing the productivity of state and local government employees to fall.

The main argument against the option concerns the impact it would have on the pension funds of affected state and local governments. That impact would depend on the preexisting structure of state and local government pension plans and how those plans would be restructured in response to this option. State or local governments could potentially have employees participate in Social Security in addition to their existing pension plans. Alternatively, their pension plans for new employees could be reduced or eliminated in response to the expansion of Social Security coverage: New employees would contribute less (or nothing) during their tenure, and they would receive smaller (or no) pension benefits when they retired. Implementing those changes would not be particularly difficult for fully funded pension

plans, which could use their current assets to pay benefits for existing employers. However, many state and local government pension plans are underfunded, and such plans would probably need future contributions to fund

the benefits received by current retirees or by those about to retire under the existing pension system. Any reduction in future contributions to such plans would increase the financial pressures on them.

RELATED OPTIONS: Revenues, “Increase the Payroll Tax Rate for Social Security” (page 253), “Increase the Maximum Taxable Earnings for the Social Security Payroll Tax” (page 255)

RELATED CBO PUBLICATIONS: *CBO’s 2018 Long-Term Projections for Social Security: Additional Information* (September 2018), www.cbo.gov/publication/54428; *The 2018 Long-Term Budget Outlook* (June 2018), www.cbo.gov/publication/53919; *Social Security Policy Options, 2015* (December 2015), www.cbo.gov/publication/51011

Revenues—Option 22

Tax All Pass-Through Business Owners Under SECA and Impose a Material Participation Standard

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	6.7	12.4	14.0	15.6	17.0	17.9	18.8	19.5	20.2	21.0	65.7	163.1

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Most of the revenues would be off-budget. In addition, the option would increase outlays for Social Security by a small amount. The estimates do not include those effects on outlays.

Background

Under current law, workers with earnings from businesses owned by other people contribute to Social Security and Medicare Part A through the Federal Insurance Contributions Act (FICA) tax. The tax rate for Social Security in 2018 is 12.4 percent of wages and salaries up to \$128,400; that threshold increases each year with average wages. For Medicare Part A, the tax rate is 2.9 percent, and there is no ceiling on the amount of wages and salaries taxed. (If wages exceed certain thresholds—\$250,000 for married taxpayers who file joint returns and \$200,000 for unmarried people—an additional 0.9 percent tax is levied on the amount above the threshold.) The taxes are split equally between the employer and the employee.

By contrast, people with earnings from unincorporated businesses they own themselves contribute to Social Security and Medicare Part A through the Self-Employment Contributions Act (SECA) tax. Their tax base is self-employment income—which, unlike the FICA tax base of wages and salaries, includes some capital income in the form of business profits. The definition of self-employment income depends on whether the business owner is classified as a sole proprietor, a general partner (that is, a partner who is fully liable for the debts of the firm), or a limited partner (a partner whose liability for the firm's debts is limited to the amount he or she invests). Sole proprietors pay SECA taxes on their net business income (that is, receipts minus expenses). General partners pay SECA taxes on their “guaranteed payments” (amounts they are paid by the firm regardless of its profits) and on their share of the firm's net income. Limited partners pay SECA taxes solely on any

guaranteed payments they receive and only if those payments represent compensation for labor services.

The definition of limited partners is determined at the state level and, as a result, varies among states. Since the enactment of federal laws distinguishing between the treatment of general and limited partners under SECA, many states have expanded eligibility for limited-partner status from strictly passive investors to certain partners who are actively engaged in the operation of businesses. Furthermore, all states have recognized new types of entities, such as the limited liability company (LLC), whose owners do not fit neatly into either of the two partnership categories.

The SECA tax rate is equal to the combined employer and employee rates for FICA taxes. The 0.9 percent Additional Medicare Tax applies to the SECA tax base as well. Both the \$128,400 earnings limit on the Social Security component and the applicable threshold for the additional Medicare tax are reduced by the amount of wages subject to FICA when applied to the SECA tax base.

Unlike owners of unincorporated businesses, owners of S corporations—certain privately held corporations whose profits are not subject to the corporate income tax—pay FICA taxes as if they were employees. S corporations must pay their owners reasonable compensation, as defined in Internal Revenue Service (IRS) regulations, for any services they provide, and the owners must pay FICA taxes on that amount. The net income of the firm, after deducting that compensation, is passed through to the owners, whereupon it is subject to the individual income tax but not to the FICA or the SECA tax.

The IRS reported that 20 million individuals paid SECA taxes in 2016. The Congressional Budget Office estimates that in that year, approximately 3 million S corporation owners were actively involved in running their businesses. In CBO's estimation, that number represents a ceiling on the number of S corporation owners who were subject to the FICA tax.

Option

This option would require the owners of all unincorporated businesses and S corporations to pay SECA taxes and would change the tax base in some cases. Owners of S corporations would no longer pay FICA taxes on their reasonable compensation. And for partners (including LLC members), the SECA tax base would no longer depend on whether the taxpayer was classified as a general partner or a limited partner. For both S corporation owners and partners, the SECA tax base would depend on whether the taxpayer was actively involved in running the business. That active involvement would be determined using the Internal Revenue Code's existing definition of a material participant. That definition specifies several criteria, but one commonly used standard is engagement in the operation of the business for more than 500 hours during a given year. S corporation owners and partners categorized as material participants would pay SECA taxes on both their guaranteed payments and their share of the firm's net income. Those who were not deemed to be material participants but were nonetheless actively involved in running their businesses would pay SECA taxes on their reasonable compensation. All sole proprietors would be considered material participants.

Effects on the Budget

According to the staff of the Joint Committee on Taxation, the option would increase federal revenues by an estimated \$163 billion from 2019 through 2028. Because that estimate relies on CBO's economic projections of the economy, which drive estimates of the pass-through business income that would be affected by the option over the next decade, it retains the uncertainty associated with those projections.

The increase in revenues would be due to the increased taxes on owners of S corporations and on limited partners classified as material participants, whose entire share of the firm's net income, instead of just their reasonable compensation or guaranteed payments, would be subject to the SECA tax. To put the effects of the material

participation standard in context, CBO has estimated that 65 percent of the partnership income of material participants was included in the SECA tax base in 2004. Under the option, that percentage would increase to 100.

By contrast, the option would lower taxes for the minority of general partners who were not material participants by excluding from SECA taxation their share of the firm's net income in excess of their reasonable compensation. CBO has estimated that 15 percent of the partnership income of nonmaterial participants was included in the SECA tax base in 2004. That percentage would decline under the option; however, because of the reasonable-compensation requirement, it would not fall to zero.

By increasing, on net, the earnings base from which Social Security benefits are calculated, the option also would slightly increase federal spending for Social Security over the long term. (The estimate does not include that effect on outlays, which would be very small over the next decade.)

The estimate reflects anticipated responses by some owners of S corporations and limited partnerships, more of whom would face an incentive to reorganize as C corporations—and thus lower the total amount of taxes they pay—under the option than under current law. The uncertainty surrounding how many businesses would undergo such a conversion under the option adds to the uncertainty of the estimate. That uncertainty about conversions magnifies existing uncertainty about how many businesses will convert to C corporations solely in response to individual and corporate income tax rate reductions under the 2017 tax act.

Other Effects

An advantage of this option is that it would eliminate the ambiguity created by the emergence of new types of business entities that were not anticipated when the laws governing Social Security were last amended. The treatment of partners and LLC members under the SECA tax would be determined entirely by federal law and would ensure that owners who were actively engaged in the operation of a business could not legally exclude a portion of their labor compensation from the tax base. Moreover, because all firms not subject to the corporate income tax would be treated the same, businesses would be more likely to choose their form of organization on

the basis of what allowed them to operate most efficiently rather than what minimized their tax liability.

Other arguments in favor of the option are that it would improve compliance with the tax code and reduce the complexity of preparing tax returns for some firms. Under current law, many S corporations have an incentive to minimize their owners' FICA tax liability by paying them less than reasonable compensation. By subjecting S corporation owners to the SECA tax, the option would make it impossible for material participants to benefit from that practice. Even businesses that reorganized as C corporations would have a smaller incentive to pay less than reasonable compensation to their owners because doing so would reduce their deductions and thus increase their corporate income tax liability. In addition, the option would simplify recordkeeping for S corporations whose owners were all deemed to be material participants because reasonable compensation for those owners would no longer need to be estimated.

A disadvantage of the option is that additional income from capital would be subject to the SECA tax, making the tax less like FICA, which applies to virtually no income from capital. Having to pay the SECA tax on profits could deter some people from starting a business, leading them instead to work for somebody else and pay the FICA tax on their wages. The option could also result in new efforts to recharacterize business income as either rental income or interest income, neither of which is subject to the FICA or the SECA tax. Furthermore, by giving more businesses an incentive to switch to C corporation status, the option would ensure that the choice of organizational form was still driven, to some extent, by a desire to minimize tax liability. Finally, the option would place an additional administrative burden on many partnerships and LLCs, because those entities would be required to determine reasonable compensation for any members considered to be nonmaterial participants.

RELATED OPTIONS: Revenues, “Expand the Base of the Net Investment Income Tax to Include the Income of Active Participants in S Corporations and Limited Partnerships” (page 223), “Increase the Payroll Tax Rate for Medicare Hospital Insurance” (page 251), “Increase the Payroll Tax Rate for Social Security” (page 253), “Increase the Maximum Taxable Earnings for the Social Security Payroll Tax” (page 255)

RELATED CBO PUBLICATION: *The Taxation of Capital and Labor Through the Self-Employment Tax* (September 2012), www.cbo.gov/publication/43644

Revenues—Option 23

Increase Taxes That Finance the Federal Share of the Unemployment Insurance System

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	5.6	7.5	6.8	6.7	0.6	-1.9	-1.4	-1.3	-1.9	-2.5	27.1	18.1

This option would take effect in January 2019.

Background

The unemployment insurance (UI) system is a partnership between the federal government and state governments that provides a temporary weekly benefit to qualified workers who lose their job through no fault of their own. Funding for the state and federal portions of the UI system is drawn from payroll taxes imposed on employers under the State Unemployment Tax Act (SUTA) and the Federal Unemployment Tax Act (FUTA), respectively.

The states administer the UI system, establishing eligibility rules, setting regular benefit amounts, and paying those benefits to eligible people. State payroll taxes vary; each state sets a tax rate schedule and a maximum amount of wages that is subject to taxation. Revenues from SUTA taxes are deposited into dedicated state accounts that are included in the federal budget.

The federal government sets broad guidelines for the UI system, pays a portion of the administrative costs that state governments incur, and makes advances to states that lack the money to pay UI benefits. In addition, during periods of high unemployment, the federal government has often funded, either fully or partially, temporary emergency benefits, supplemental benefits, or both.

Under FUTA, employers pay taxes on up to \$7,000 of each worker's wages; the revenues are deposited into several federal accounts. The amount of wages subject to the FUTA tax (the taxable wage base) is not adjusted, or indexed, to increase with inflation and has remained unchanged since 1983. The FUTA tax rate, which is 6.0 percent, is reduced by a credit of 5.4 percent for state UI taxes paid, for a net tax rate of 0.6 percent—or \$42 per year for each employee earning at least \$7,000 annually.

During and after the last recession, funds in the designated federal accounts were insufficient to pay the emergency and extended benefits authorized by the Congress, to pay the higher administrative costs that states incurred because of the greater number of people receiving benefits, or to make advances to several states that did not have sufficient funds to pay regular benefits. That shortfall necessitated that advances be made from the general fund of the U.S. Treasury to the federal accounts. Some of those advances must be repaid by the states, a process that the Congressional Budget Office expects will take several more years under current law.

In 2017, SUTA revenues were \$38 billion and FUTA revenues were \$8 billion. CBO projects that if current law remained in place, combined SUTA and FUTA revenues would decrease to \$35 billion by 2021, continuing a trend that began in 2012, before rising to \$61 billion by 2028. The increase in revenues in later years reflects CBO's expectation that many states would take action to maintain historic ratios of trust fund balances to wages and salaries.

Option

This option would expand the FUTA taxable wage base but decrease the tax rate. Specifically, the option would raise the amount of wages subject to the FUTA tax from \$7,000 to \$40,000 in 2019 and then index that threshold to the growth in future wages. It would also reduce the net FUTA tax rate, after accounting for the 5.4 percent state tax credit, from 0.6 percent under current law to 0.167 percent.

Expanding the FUTA taxable wage base would also increase SUTA taxes. Because federal law requires that each state's SUTA taxes be levied on a taxable wage base that is at least as large as that under FUTA, nearly all states would have to increase their taxable wage base

to \$40,000 if this approach was adopted. (The taxable wage base varies considerably from state to state. In 2018, 16 states have a base above \$20,000, but only 2—Hawaii and Washington—have taxable wage bases above \$40,000.) UI benefits would not be affected.

Effects on the Budget

CBO estimates that this option would raise revenues by \$18 billion from 2019 to 2028. Under the option, revenues would rise initially but fall in later years. The initial rise would primarily be attributable to added proceeds from SUTA taxes. Most states would see a substantial increase in their tax bases that, without adjustments to the tax rate, would raise more revenue. CBO expects that beginning in 2020, many states would respond by reducing their UI tax rates but would leave those rates high enough to generate a net increase in revenues over the 2019–2028 period. (States with low UI account balances would be especially likely to allow the increase in the taxable wage base to generate additional revenues without promptly lowering UI tax rates.) The extra revenues generated during the initial years would also leave the states with larger trust fund balances than CBO projects they would have otherwise. That would reduce the need for states to raise revenues to maintain historic ratios of trust fund balances to wages and salaries. As a result, in later years, estimated revenues under this option are lower than CBO projects they would be under current law.

The estimate for this option is uncertain for two key reasons. First, the estimate relies on CBO’s projections of the economy, including projections of labor force characteristics and wages and salaries, over the next decade. For example, if employment is lower than expected, fewer workers will be paying the FUTA and SUTA taxes; in that case, changes in the tax rates would have a smaller impact on revenues. Second, the estimate relies on projections of how states would respond to an increase in the tax base and to changes in their UI trust fund balances.

Other Effects

The main advantage of this option is that it would improve the financial condition of the federal portion

of the UI system. By expanding the taxable wage base, it would also improve the financial condition of state UI systems. The additional revenues resulting from this option would allow federal UI accounts to more rapidly repay the outstanding advances from the Treasury’s general fund and would better position those accounts to finance benefits during future recessions. By reducing states’ reliance on transfers from the general fund, this option would decrease what are effectively loans from all taxpayers (including nonworkers) to workers who benefit from having insurance against unemployment.

An argument against this option is that employers would generally pass the increased FUTA taxes on to workers in the form of reduced earnings. By reducing workers’ after-tax pay, this option might induce some people to drop out of, or choose not to enter, the workforce. Moreover, for some people in the workforce, the option would increase marginal tax rates by a small amount. (The marginal tax rate is the percentage of an additional dollar of income from labor or capital that is paid in taxes.) Because the increase in marginal tax rates would reduce the share of returns from additional work that those people could keep, CBO estimates that, on balance, it would tend to cause people to work less than they would have otherwise. However, given the small changes in after-tax pay and marginal tax rates that would result from this option, the effects on labor force participation and hours worked would probably be quite small.

The combination of a single tax rate and low thresholds on the amount of earnings subject to the tax makes the FUTA tax regressive—that is, FUTA taxes measured as a share of earnings decrease as earnings rise. Even so, because workers with lower prior earnings receive, on average, UI benefits that are a higher fraction of those earnings, the benefits are progressive. If taxes and benefits are considered together, the UI system is generally thought to be roughly proportional—neither progressive nor regressive—under current law. This option would reduce the regressivity of the FUTA tax.

RELATED OPTION: Revenues, “Include Employer-Paid Premiums for Income Replacement Insurance in Employees’ Taxable Income” (page 229)

RELATED CBO PUBLICATION: *Unemployment Insurance in the Wake of the Recent Recession* (November 2012), www.cbo.gov/publication/43734

Revenues—Option 24

Increase the Corporate Income Tax Rate by 1 Percentage Point

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	4.6	6.8	7.8	8.4	9.5	10.4	11.2	11.9	12.7	13.0	37.1	96.3

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

Following the enactment of the 2017 tax act, corporations that are subject to the U.S. corporate income tax face a single statutory rate of 21 percent. A corporation computes its taxable income by subtracting certain deductions from its gross income—for example, wages and the costs of goods sold, as well as depreciation for investment and most interest paid to the firm's bondholders. Corporations may also apply allowable tax credits against the amount of taxes they owe. After paying the corporate income tax, corporations can either retain their remaining profits or distribute them to shareholders. Some distributed profits are then taxed again under the individual income tax system as dividends or capital gains.

In general, the 21 percent tax rate applies to the taxable income of corporations earned from conducting business within the United States. Some income earned abroad is also taxed by the United States. The tax treatment of foreign income depends on its characteristics. Some income is taxed at the full U.S. statutory rate, and some is taxed at a reduced rate. In either case, taxpayers may claim a foreign tax credit that limits the extent to which that income is subject to both foreign and U.S. taxation. The foreign tax credit is subject to limits that are designed to ensure that the total amount of all credits claimed does not exceed the amount of U.S. tax that otherwise would have been due.

In 2017, when corporations were subject to a corporate income tax rate of up to 35 percent, receipts from corporate income taxes totaled \$297 billion. Partly as a result of the 2017 tax act's reduction of that rate to 21 percent, tax receipts will decrease to \$276 billion in 2019, in the Congressional Budget Office's estimation. Those receipts

are projected to grow faster than gross domestic product through 2025 and then grow at the same rate thereafter.

Option

This option would increase the corporate income tax rate by 1 percentage point, to 22 percent.

Effects on the Budget

The option would increase revenues by \$96 billion from 2019 to 2028, the staff of the Joint Committee on Taxation estimates.

The estimate for this option reflects changes in the use of tax credits. An increase in the corporate tax rate would increase corporations' ability to use tax credits, rather than carrying them forward to a future year, to offset some of the additional corporate tax liabilities arising from the higher tax rate. That use of credits would reduce revenues from the higher corporate income tax rate.

The estimate also incorporates firms' responses to the higher tax rate. The option would increase corporations' incentives to adopt strategies to reduce the amount of taxes they owe. Those anticipated responses make the estimated increase in revenues smaller than it would be otherwise.

The estimate for this option is uncertain because the underlying projections of the economy, including corporate profits and taxable income, are uncertain. CBO's projections of the economy over the next decade and projections of taxable corporate income under current law are particularly uncertain because they reflect recently enacted changes to the tax system by the 2017 tax act. Additionally, estimates of how corporations would respond to the option are based on observed

responses to prior changes in tax law, which might differ from the responses to the change considered here.

Other Effects

The major argument in favor of this option concerns its simplicity. As a way to raise revenues, an increase in the corporate income tax rate would be easier to implement than most other types of business tax increases because it would require only minor changes to the current tax-collection system.

The option would also increase the progressivity of the tax system to the extent that the owners of capital, who tend to have higher income than other taxpayers, bear the burden of the corporate income tax. (However, because the corporate tax reduces capital investment in the United States, it reduces workers' productivity and wages relative to what they otherwise would be, meaning that at least some portion of the economic burden of the tax over the longer term falls on workers—making an increase in corporate tax rates less progressive than it would be if that burden was fully borne by the owners of capital. That effect on capital investment is not reflected in the revenue estimate.)

An argument against the option is that it would reduce economic efficiency by exacerbating tax-related distortions of firms' decisions. The corporate income tax distorts firms' choices about how to structure their organizations and whether to finance investment by issuing debt or by issuing equity. Increasing the corporate income tax rate would raise the overall tax rate on

corporate income. As a result, it would be more advantageous for some firms to organize so that they were no longer subject to the corporate income tax (and were instead taxed only under the individual income tax as an S corporation or partnership) solely to reduce their tax liabilities. Raising the corporate tax rate would also increase the value of deductions. As a result, companies might increase their reliance on debt financing because interest payments, unlike dividend payments to shareholders, can be deducted. Carrying more debt might increase some companies' risk of default.

Another concern that might be raised about the option is that it would make it less attractive to earn income in the United States relative to earning income abroad. Tax rate differences among countries can influence businesses' choices about how and where to invest; to the extent that firms shift their investment and activities to countries with low taxes with the goal of reducing their tax liability at home, economic efficiency declines because firms are not allocating resources to their most productive use. Tax rate differences among countries also create an incentive for businesses to shift reported income to lower-tax countries without changing their actual investment decisions or moving their activities. That practice, known as "profit shifting," erodes the corporate tax base and requires tax planning that wastes resources. Increasing the corporate rate would strengthen those incentives to shift investment and reported income abroad. However, other factors, such as the skill level of a country's workforce and its capital stock, also affect corporations' decisions about where to incorporate and invest.

RELATED CBO PUBLICATIONS: *An Analysis of Corporate Inversions* (September 2017), www.cbo.gov/publication/53093; *International Comparisons of Corporate Income Tax Rates* (March 2017), www.cbo.gov/publication/52419; *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options* (December 2014), www.cbo.gov/publication/49817; *Taxing Businesses Through the Individual Income Tax* (December 2012), www.cbo.gov/publication/43750; Jennifer C. Gravelle, *Corporate Tax Incidence: Review of General Equilibrium Estimates and Analysis*, Working Paper 2010-03 (May 2010), www.cbo.gov/publication/21486; William C. Randolph, *International Burdens of the Corporate Income Tax*, Working Paper 2006-09 (August 2006), www.cbo.gov/publication/18067

Revenues—Option 25

Repeal Certain Tax Preferences for Energy and Natural Resource–Based Industries

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Repeal the expensing of exploration and development costs	0.3	0.4	0.4	0.4	0.4	0.3	0.2	*	*	*	1.9	2.3	
Disallow the use of the percentage depletion allowance	0.4	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	2.8	6.1	
Both alternatives above	0.7	1.0	1.0	1.0	1.0	0.9	0.9	0.7	0.7	0.7	4.7	8.4	

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

* = between zero and \$50 million.

Background

Extractive industries that produce oil, natural gas, coal, and hard minerals receive certain tax preferences relative to other industries. In particular, extractive industries receive more favorable tax treatment with regard to the timing of when costs can be deducted from taxable income.

One preference allows firms in the extractive industries to fully deduct (or “expense”) certain costs in the year in which they are incurred. Producers of oil, gas, coal, and minerals are allowed to expense some of the costs associated with exploration and development. The costs that can be expensed include, in some cases, those related to excavating mines, drilling wells, and prospecting for hard minerals. Specifically, under current law, integrated oil and gas producers (that is, companies with substantial retailing or refining activity) and corporate coal and mineral producers can expense 70 percent of their costs; those companies are then able to deduct the remaining 30 percent over a period of 60 months. Independent oil and gas producers (companies without substantial retailing or refining activity) and noncorporate coal and mineral producers can fully expense their costs.

By contrast, firms in other industrial sectors are generally allowed to deduct only a portion of the investment costs they incurred that year and in previous years. In such cases, the percentage of the costs that can be deducted from taxable income in each year depends on the type of investment. There are exceptions, however. Firms with

relatively small amounts of qualifying capital investments, primarily equipment, can expense the full costs of those items in the year in which they are incurred. (That exception is generally referred to as section 179 expensing.) In addition, a temporary provision included in the 2017 tax act (known as bonus depreciation) allows most of the costs of equipment to be expensed through 2022. After that, the portion of investments that can be expensed as bonus depreciation will gradually be reduced until the provision expires at the end of 2026.

A second preference for extractive industries concerns how cost-recovery deductions for natural resources are calculated. Extractive companies, unlike companies in other natural resource industries, can choose between using the cost depletion method, which allows for the recovery of investment costs as income is earned from those investments, or percentage depletion, which allows companies to deduct from their taxable income between 5 percent and 22 percent of the dollar value of material extracted during the year, depending on the type of resource and up to certain limits. (For example, oil and gas companies’ eligibility for the percentage depletion allowance is limited to independent producers who operate domestically; for those firms, only the first 1,000 barrels of oil—or, for natural gas, oil equivalent—per well, per day, qualify, and the allowance is limited to 65 percent of overall taxable income.) The value of deductions allowed under the cost depletion method is limited to the value of the land and improvements related to extraction. Because the percentage depletion allowance

is not limited in that way, it can be more generous than the cost depletion method. For each property they own, firms take a deduction for whichever is more generous: the percentage depletion allowance or the amount prescribed by the cost depletion system. By contrast, companies in other natural resource industries have less flexibility in how they can deduct their investment costs.

Option

This option consists of two approaches to limiting tax preferences for extractive industries. The first approach would replace the expensing of exploration and development costs for oil, gas, coal, and hard minerals with the methods for deducting costs that apply in other industries. (The option would still allow other costs that are unique to extractive industries, such as those associated with unproductive wells and mines, to be expensed.) The second approach would eliminate percentage depletion, forcing all companies to use cost depletion rather than choose the more generous of the two.

Effects on the Budget

The first approach would increase revenues by \$2 billion over the 2019–2028 period, according to estimates by the staff of the Joint Committee on Taxation (JCT). The effect would be smaller in later years, even with the phasedown of bonus depreciation, because eliminating expensing would change only the timing of when costs were deducted: The option would reduce the deductions that could be taken in the year costs were incurred, but that would result in higher deductions in later years. The second approach would raise \$6 billion over the 10-year period, according to JCT. If the two approaches were combined, revenues would increase by \$8 billion over that time. All estimates account for reductions in the activities that would otherwise have received a tax preference in response to the less generous tax treatment.

The estimates for this option are uncertain for two key reasons. First, the projections of taxable income in extractive industries largely rely on the Congressional Budget Office's projections of total income, the size of different sectors within the economy, and energy prices. Those projections are subject to considerable uncertainty. The estimates also rely on estimates of how firms in extractive industries would change their investment decisions in response to the changes in tax policy, which are likewise uncertain.

Other Effects

The principal argument in favor of this option is that the two major tax preferences for extractive industries distort the allocation of society's resources in two key ways. First, for the economy as a whole, the preferences encourage an allocation of resources between the extractive industries and other industries that does not reflect market outcomes. When making investment decisions, companies take into account not only the market value of the output but also the tax advantage that expensing and percentage depletion provide. The tax preferences thus encourage some investments in drilling and mining that produce output with a smaller market value than similar investments would produce elsewhere. Second, the preferences encourage producers to extract more resources in a shorter amount of time. In the case of oil, for example, that additional drilling makes the United States less dependent on imported oil in the short run, but it accelerates the depletion of the nation's store of oil and could cause greater reliance on foreign producers in the long run.

An argument against this option is that it treats expenses that might be viewed as similar in different ways. In particular, exploration and development costs for extractive industries can be seen as analogous to research and development costs, which currently can be expensed by all businesses. A second argument against this option is that encouraging producers to continue exploring and developing domestic energy resources may enhance the ability of U.S. households and businesses to reduce their reliance on energy from other countries.

Another argument against this option is that it would alter permanent tax preferences for extractive industries but would not make any changes to temporary tax preferences for the renewable-energy sector. This volume, however, does not include options to eliminate or curtail temporary tax preferences. Under current law, temporary tax preferences for the renewable-energy sector, such as tax credits for investment in renewable energy, are scheduled to expire over the next several years; consequently, eliminating those preferences would not have a significant effect on deficits over the coming decade. Nonetheless, some temporary tax preferences are frequently extended and therefore resemble permanent tax preferences. For example, the tax credit for renewable-energy production is classified as temporary

but has been in effect since 1992. JCT estimates that if policymakers extended that credit so that it remained in place from 2022 through 2028, federal revenues would be reduced by about \$11 billion over that period. Limiting temporary tax preferences for renewable-energy sources would further reduce distortions in the way resources are allocated between the energy sector and

other industries, as well as within the energy sector. However, producing energy from renewable sources may yield wider benefits to society that producers do not take into account, such as reductions in pollution or in dependence on foreign sources of energy as domestic reserves are depleted. In that case, preferential tax treatment could improve the allocation of resources.

RELATED OPTION: Revenues, “Require Half of Advertising Expenses to Be Amortized Over 5 or 10 Years” (page 273)

RELATED CBO PUBLICATIONS: *Federal Support for the Development, Production, and Use of Fuels and Energy Technologies* (November 2015), www.cbo.gov/publication/50980; *Energy Security in the United States* (May 2012), www.cbo.gov/publication/43012

Revenues—Option 26

Repeal the “LIFO” and “Lower of Cost or Market” Inventory Accounting Methods

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	6.5	13.0	13.0	13.0	7.0	1.0	1.1	1.1	1.1	1.1	52.5	57.9

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

To compute its taxable income, a business must first deduct from its receipts the cost of purchasing or producing the goods it sold during the year, also known as the cost of goods sold. Most companies calculate the cost of the goods they sell in a year by adding the value of the inventory at the beginning of the year to the cost of goods purchased or produced during the year and then subtracting from that total the value of the inventory at the end of the year. To determine the value of its year-end inventory, a business must distinguish between goods that were sold from inventory that year and goods that remain in inventory. The tax code allows firms to choose from among several approaches for identifying and determining the value of such goods.

Firms can value items in their inventory on the basis of the cost of acquiring those goods. There are several approaches for assigning a cost to an item of inventory. To itemize and value goods in stock, firms can use the “specific identification” approach, which requires a detailed physical accounting in which each individual item in inventory is tracked and is matched to its actual cost (that is, the cost to purchase or produce that specific item). Other approaches do not require a firm to track each specific item of inventory. One alternative approach—“last in, first out” (LIFO)—permits them to assume that the last goods added to the inventory were the first ones sold. Under that approach, the value assigned to goods sold from inventory should approximate their current market value (that is, the cost of replacing them). Yet another alternative approach—“first in, first out” (FIFO)—is based on the assumption that the first goods sold from a business’s inventory were the first to be added to that inventory.

Firms that do not use the LIFO approach to assign costs can value inventory using the “lower of cost or market” (LCM) method. The LCM method allows firms to use the current market value of an item (that is, the current-year cost to reproduce or repurchase it) in their calculation of year-end inventory values if that market value is less than the cost assigned to the item. In addition, businesses can qualify for the “subnormal goods” method of inventory valuation, which allows a company to value inventory below cost if its goods cannot be sold at cost because they are damaged or flawed.

In 2013, businesses valued their combined year-end inventory at more than \$2.1 trillion, according to the Internal Revenue Service. Corporations and partnerships held 98 percent of that inventory. Among the 1.6 million corporations and partnerships reporting information on inventory valuations, almost all used a cost-based method to value at least some portion of their inventory, approximately one-third made use of the LCM method for at least some goods, and more than 7,000 indicated that they had designated some inventory as subnormal goods. The LIFO approach was used by about 12,000 businesses to value approximately \$290 billion of inventory.

Option

This option would eliminate the LIFO approach to identifying inventory, as well as the LCM and subnormal-goods methods of inventory valuation. Businesses would be required to use either the specific-identification or the FIFO approach to account for goods in their inventory and to set the value of that inventory on the basis of cost. Those changes would be phased in over a period of four years.

Effects on the Budget

If implemented, the option would increase revenues by a total of \$58 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates.

The annual increase in revenues would be substantially larger from 2019 through 2023 than over the remainder of the 10-year period. That pattern reflects the effects of the option on the valuation of existing inventory. Companies that use approaches that would be eliminated by this option to identify inventory generally end up with lower taxable profits than they would using other approaches. Switching to another approach would force companies to revalue their existing inventory. That would cause a relatively large increase in taxable income during the four years over which the change was phased in and one additional year, because of variation in the timing of the financial year among companies. After the revaluation of existing inventory has occurred, the effect on revenues would be relatively small because companies could use only the specific-identification or FIFO approach to value their inventory going forward.

The estimate for this option is uncertain because it relies on the Congressional Budget Office's 10-year projections of corporate profits, investment, and inflation, which are inherently uncertain. In addition to those economic factors, the estimate depends on projections of firms' choices of inventory-valuation approaches. Those choices are also uncertain.

Other Effects

The main argument for this option is that it would align tax accounting rules with the way businesses tend to sell their goods. Under many circumstances, firms prefer to sell their oldest inventory first to minimize the risk that the products will become obsolete or damaged while in storage. In such cases, allowing firms to use alternative approaches to identify and value their inventories for tax purposes allows them to reduce their tax liabilities without changing their economic behavior. Under the LIFO approach, companies defer taxes on real (inflation-adjusted) gains when the prices of their goods are rising relative to general prices. Firms that use the LIFO approach can value items sold out of inventory

on the basis of costs associated with newer—and more expensive—items when, in fact, the actual items sold may have been acquired or produced at a lower cost at some point in the past. By deducting those higher costs as the cost of production, firms can defer paying taxes on the amount their goods have appreciated until those goods are sold.

Another argument for this option is that the LCM and subnormal-goods methods of inventory accounting treat losses and gains asymmetrically by allowing firms to immediately recognize losses in the value of inventory but not requiring them to recognize gains. The LCM method will reduce the value of a business's year-end inventory if the market value of any item in the inventory is less than its assigned cost. Similarly, the subnormal-goods method of inventory valuation allows firms to immediately deduct the loss in a good's value, lowering the value of their year-end inventory. In either case, that lower value increases the deduction for the cost of goods sold and reduces taxable income. In effect, those methods allow firms to immediately deduct from taxable income the losses they incur from the decline in the value of their inventory without requiring them to include gains in the value of their inventory in taxable income.

An argument against this option is that the LIFO approach limits the effects of inflation on taxable income. When items sold from inventory are valued on the basis of past costs, price increases that occur between the time the inventory is purchased and the time its value is assessed raise taxable income. That effect tends to be greater under the FIFO approach than the LIFO approach because the latter values items sold from inventory using the purchase prices of more recently acquired goods, thus deferring the effects of inflation on taxable income. However, other elements of the corporate income tax also treat gains that are attributable to inflation as taxable income.

Another argument against this option is that the LCM and subnormal-goods methods of inventory valuation allow the value assigned to inventory to better reflect real changes in the value of underlying assets.

Revenues—Option 27

Require Half of Advertising Expenses to Be Amortized Over 5 or 10 Years

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Require half of advertising expenses to be amortized over 5 years	9.4	16.8	12.8	8.5	4.2	2.0	2.1	2.2	2.2	2.3	51.7	62.5	
Require half of advertising expenses to be amortized over 10 years	10.6	20.4	18.8	17.2	15.5	13.7	11.9	10.1	8.1	6.1	82.5	132.4	

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

Business expenses can generally be categorized as either investments, which create assets whose value persists over a multiyear period, or current expenses, which go toward goods or services and do not generate any assets because the value of those goods or services dissipates during the first year after they are purchased. For example, the cost of a new piece of equipment is an investment, but routine maintenance of that equipment is a current expense. Investments and current expenses are often treated differently for tax purposes. For example, current expenses can be deducted from income in the year they are incurred, but some investment costs, such as the cost of constructing buildings, must be deducted over a multiyear period. The deductibility of many other investments is scheduled to change over the next decade under current law. For example, research and development costs incurred before 2022 are immediately deductible, but such costs incurred in 2022 and beyond must be amortized (that is, deducted in equal amounts) over five years. In addition, equipment costs are immediately deductible through 2022, but increasing shares of such costs will revert to multiyear recovery periods from 2022 through 2027, when immediate deductions will be limited to companies investing amounts below a specific threshold.

Advertising is treated by the tax system as a current expense and can therefore be immediately deducted. However, the intent of advertising varies. Some types of advertising are designed to move inventory over the short term (for example, by publicizing a sale that will last one week) and, like other current expenses, do not

create longer-term value. Advertising can also create and enhance brand image—an intangible asset that retains value over a multiyear period. That type of advertising expense is more similar to an investment.

To the extent that advertising creates an intangible asset, the ability to deduct the cost immediately makes the effective tax rate on income from the investment lower than that for assets with multiyear cost-recovery periods. (Effective tax rates measure the impact of statutory tax rates and other features of the tax code in the form of a single rate that applies over the life of an investment.) The Congressional Budget Office has estimated that the effective tax rate on income from equity-financed purchases of brand-building advertising by businesses subject to the corporate income tax will be 8 percent for the foreseeable future. Once the temporary provisions of the 2017 tax act have expired, that rate will be lower than the effective tax rate on any other type of investment.

According to the Internal Revenue Service, in 2013, corporations deducted \$285 billion in advertising expenses, or a little more than 1 percent of their business receipts. Since 2001, advertising expenses have been growing slightly slower than gross domestic product (GDP).

Option

This option consists of two alternatives. Both would recognize half of advertising expenses as current expenses, which can be immediately deducted. The other half would be treated as an investment in brand image and would be amortized over a period of years. Under the

first alternative, that period of amortization would be 5 years; under the second alternative, it would be 10 years.

Effects on the Budget

The first alternative would increase revenues by \$63 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. The second alternative would increase revenues by \$132 billion over the same period.

The pattern of the revenue effects is quite different for the two alternatives. Under the first alternative, the vast majority of the revenue increase would occur in the first five years. In the first year, businesses would claim 60 percent of the advertising expenses they incurred that year (the 50 percent not subject to amortization plus an additional 10 percent representing one-fifth of the 50 percent subject to amortization). By the sixth year, the businesses would still claim 60 percent of the current-year expenses but, in addition, would claim 10 percent of expenses incurred in each of the prior four years. If advertising expenses did not grow each year, the amount claimed in the sixth year would equal the amount they can deduct under current law; as a result, there would be no revenue effect after the fifth year. However, because advertising expenses do grow each year, the projected revenue effects from 2024 on reflect that growth.

Under the second alternative, the initial amount of deductible expenses would be 55 percent of the current-year expense. For each of the next nine years, the deductible expense would ratchet up to account for 5 percent of expenses incurred in each of the prior years. The equilibrium reached in the sixth year under the first alternative would not be reached until the 11th year (2029) under the second alternative. After that, any positive effect on revenues would be due to the growth in advertising expenses.

The estimates for this option are uncertain for two key reasons. First, the estimates rely on CBO's projections of GDP and taxable corporate profits over the next decade under current law, which are uncertain. Second, accounting for how taxpayers might adjust their advertising expenses in response to the option introduces additional uncertainty.

Other Effects

An argument in favor of this option is that it would, once the temporary cost-recovery provisions of the 2017 tax act have expired, result in a more uniform treatment of different types of investments. A portion of advertising expenses serve to develop brand image and therefore more closely resemble investments than current expenses. What that portion is, however, has proved difficult to identify—the option's 50 percent rule mirrors other proposals that have been made. (Descriptions of those proposals can be found in Joint Committee on Taxation 2014; Senate Committee on Finance 2013.) By amortizing half of advertising expenses, the option would treat investments in brand image similarly to investments in other types of assets whose costs must be deducted over time. Treating investments similarly improves economic efficiency because it encourages businesses to choose investments on the basis of how they will improve productivity instead of how they will reduce a business's tax liability.

An argument against the option is that treating exactly 50 percent of advertising expenses as an investment ignores differences in how businesses utilize advertising. Retailers that primarily use advertising to inform consumers of sales would be required to amortize expenses that are not true investments. That would effectively raise the cost of short-term advertising, thereby hindering their ability to reduce their inventory. By contrast, manufacturers who mainly use advertising to build brand image would still be able to immediately deduct some of those investments. Furthermore, most research finds that the value of brand image typically declines more rapidly than implied by either the 5- or the 10-year amortization schedules. Particularly in the case of 10-year amortization, that could make the effective tax rate for brand-building advertising higher than the rate for other types of assets, which would undercut the uniformity argument. The option would also add to businesses' reporting burdens: In their financial statements, publicly traded corporations typically report the costs of advertising as a current expense, in accordance with generally accepted accounting principles.

Another effect of the option would be to reduce the amount businesses spend on advertising. That would hinder economic efficiency to the extent that advertising by businesses provides useful information to consumers.

However, to the extent that the content of such advertising is misleading, reducing its volume could improve economic efficiency. Furthermore, if businesses spent less on advertising, the price of advertising would decline,

and nonbusiness entities would probably spend more on it. Such advertising would have both positive and negative effects on economic efficiency, depending on the usefulness and accuracy of its content.

RELATED OPTION: Revenues, “Repeal Certain Tax Preferences for Energy and Natural Resource–Based Industries” (page 268)

RELATED CBO PUBLICATION: *How Taxes Affect the Incentive to Invest in New Intangible Assets* (November 2018), www.cbo.gov/publication/54648

WORK CITED: Joint Committee on Taxation, *Technical Explanation, Estimated Revenue Effects, Distributional Analysis, and Macroeconomic Analysis of the Tax Reform Act of 2014, a Discussion Draft of the Chairman of the House Committee on Ways and Means to Reform the Internal Revenue Code*, JCS-1-14 (November 18, 2014), <https://tinyurl.com/y6u9y8cp> (PDF, 2.4 MB); Senate Committee on Finance, “Cost Recovery and Accounting Tax Reform Discussion Draft” (November 21, 2013), <https://go.usa.gov/xPVDC> (PDF, 197 KB)

Revenues—Option 28

Repeal the Low-Income Housing Tax Credit

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	0.1	0.5	1.4	2.4	3.7	5.0	6.6	8.2	9.9	11.5	8.1	49.4

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

Real estate developers who provide rental housing to people with low income may qualify for low-income housing tax credits (LIHTCs), which are designed to encourage investment in affordable housing. The credits cover a portion of the costs of constructing new housing units or substantially rehabilitating existing units; however, the credits cannot be claimed until the properties are completed and occupied. The taxpayers who claim the credits are usually investors in those properties, who provide developers with funding for the construction or rehabilitation in exchange for the credits. LIHTCs can be used to lower federal tax liability over a period of 10 years.

For a property to qualify for the credits, developers must agree to meet two requirements for at least 30 years. First, they must set aside a certain percentage of rental units for people whose income is below a certain threshold—either 20 percent of a project’s units for people with income below 50 percent of the area’s median income or 40 percent of the units for people with income below 60 percent of the median. (Developers can also set aside 40 percent of the units for a group of people whose average income is not above 60 percent of the area’s median income, as long as no one person in that group has an income above 80 percent of the area’s median income.) Second, developers must agree to limit the rent they charge on the units occupied by low-income people to 30 percent of a set portion of the area’s median income—either 50 percent or 60 percent, depending on the developer’s choice regarding the first requirement.

There are two types of credits. One is reserved for projects that receive financing through tax-exempt bonds; it generally equals up to 30 percent of the costs allocable

to the set-aside units. The other type of credit generally equals up to 70 percent of costs allocable to the set-aside units. For qualifying projects in census tracts determined by the Department of Housing and Urban Development to have a large proportion of low-income households, the two types of credits cover more of those costs—up to 39 percent and up to 91 percent, respectively.

Each year, the federal government allocates funding for the 70 percent credit to each state on the basis of its number of residents. (Allocations of funding for the 30 percent credit are governed by per-state limits on the issue of tax-exempt bonds.) In 2003, that funding was set at \$1.75 per resident or a minimum value of \$2 million per state; those amounts were adjusted for inflation in each subsequent year through 2017. In 2018, that funding formula would have provided \$2.40 per resident or a minimum of nearly \$3 million per state; however, under the 2018 Consolidated Appropriations Act, states will receive an additional 12.5 percent in funding in each year from 2018 through 2021. Thus, the staff of the Joint Committee on Taxation (JCT) estimates that the tax expenditure for the LIHTC would increase over time.

Option

This option would repeal the LIHTC starting in 2019, although real estate investors could continue to claim credits granted before 2019 until their eligibility expired.

Effects on the Budget

Repealing the LIHTC would increase revenues by \$49 billion from 2019 through 2028, according to JCT’s estimates. Over that period, revenues would increase as the number of outstanding 10-year credits granted before 2019 declined.

The estimate for this option is uncertain because three factors make it difficult to anticipate exactly when or whether LIHTCs will be used. First, states generally fail to allocate a small number of credits each year, and those credits are put to use in other states in the following year. Second, developers lose allocated credits if their projects are not completed and occupied by the end of the second calendar year after the credits are allocated. Third, once developers complete a project and it is occupied, investors may delay their use of credits by one year.

Other Effects

One argument for repealing the LIHTC is that there are alternative ways to help people with low income obtain safe, affordable housing, generally at less cost to the government. For instance, the Housing Choice Voucher program—commonly referred to as Section 8 after the part of the legislation that authorized it—provides vouchers that help families pay rent for housing they choose, provided it meets minimum standards for habitation. The federal government sets limits on the amount of assistance provided by the vouchers. Such vouchers are typically less expensive for the government to provide than LIHTCs, primarily because in most housing markets where low-income households are situated, the costs of constructing a new building or substantially

renovating an existing building are higher than the costs of simply using an existing building. (Other forms of federal housing assistance—project-based rental assistance and public housing—tend to be less expensive than the LIHTC for the same reason.) Further, people with very low income often cannot afford even the reduced rents in the set-aside units of LIHTC projects without additional subsidies.

An argument against implementing the option is that landlords might be less willing to accept vouchers in areas experiencing growing strength in their housing markets. LIHTCs could be more effective at preserving low-income housing in such areas because they are provided on the basis of 30-year contracts. In addition, by supporting the construction of new buildings and the substantial rehabilitation of existing buildings, LIHTCs can help improve neighborhoods. For example, some research suggests that the use of LIHTCs in blighted neighborhoods can increase property values near newly constructed buildings (Ellen and others 2007). However, because those benefits may be limited to the immediate neighborhoods, such projects might be more appropriately funded by local or state governments rather than the federal government.

RELATED OPTIONS: Discretionary Spending, “Increase Payments by Tenants in Federally Assisted Housing” (page 182), “Reduce Funding for the Housing Choice Voucher Program or Eliminate the Program” (page 184)

RELATED CBO PUBLICATIONS: *Federal Housing Assistance for Low-Income Households* (September 2015), www.cbo.gov/publication/50782; *An Overview of Federal Support for Housing* (November 2009), www.cbo.gov/publication/41219; *The Cost-Effectiveness of the Low-Income Housing Tax Credit Compared With Housing Vouchers* (April 1992), www.cbo.gov/publication/16375

WORK CITED: Ingrid Gould Ellen and others, “Does Federally Subsidized Rental Housing Depress Neighborhood Property Values?” *Journal of Policy Analysis and Management*, vol. 26, no. 2 (Spring 2007), pp. 257–280, <http://dx.doi.org/10.1002/pam.20247>

Revenues—Option 29

Increase All Taxes on Alcoholic Beverages to \$16 per Proof Gallon and Index for Inflation

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Increase tax	0	5.4	7.5	7.8	7.9	7.9	8.0	7.9	8.0	8.1	28.6	68.4	
Increase tax and index for inflation	0	5.4	7.8	8.4	8.9	9.5	10.0	10.3	10.8	11.4	30.5	82.5	

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2020.

Background

Alcoholic beverages are not taxed uniformly. Specifically, the alcohol content of beer and wine is taxed at a much lower rate than the alcohol content of distilled spirits. The 2017 tax act made a number of temporary changes to the taxation of alcoholic beverages. Those changes expire after December 31, 2019. Beginning in 2020, distilled spirits will be taxed at a flat rate of \$13.50 per proof gallon. (A proof gallon denotes a liquid gallon that is 50 percent alcohol by volume.) A tax rate of \$13.50 per proof gallon translates to about 21 cents per ounce of pure alcohol. Beer will generally be subject to a tax rate of \$18 per barrel, which is equivalent to about 10 cents per ounce of pure alcohol (under the assumption that the alcohol content of the beer is 4.5 percent). The excise tax on wine that is no more than 14 percent alcohol will be \$1.07 per liquid gallon, or about 6 cents per ounce of pure alcohol (assuming an alcohol content of 13 percent). (Wines with high volumes of alcohol and sparkling wines face a higher tax per gallon.) Through 2019, tax rates are generally lower for quantities of alcoholic beverages below certain thresholds for producers of all sizes.

There are additional factors beyond those rate structures that affect how alcoholic beverages are taxed. Specific provisions of tax law can lower the effective tax rate for small quantities of beer and nonsparkling wine for certain small producers. Additionally, there is an exemption from tax for small volumes of beer and wine that are produced for personal or family use. States and some municipalities also tax alcohol; those rates vary substantially and sometimes exceed federal rates.

In 2017, federal collections from taxes on alcoholic beverages totaled about \$11 billion. The Congressional Budget Office projects that if current law remained in place, after the expiration of the tax rate structure that currently applies to alcoholic beverages, receipts would grow by about 2 percent per year.

Option

This option consists of two alternatives. Both of those alternatives would take effect in January 2020.

The first alternative would standardize the base on which the federal excise tax is levied by using the proof gallon as the measure for all alcoholic beverages. The tax rate would be raised to \$16 per proof gallon, or about 25 cents per ounce of alcohol. That alternative would also eliminate the provisions of tax law that lower effective tax rates for small producers, thus making the tax rate equal for all producers and quantities of alcohol.

A tax of \$16 per proof gallon would raise the federal excise tax on a 750-milliliter bottle of distilled spirits from \$2.14 to \$2.54. The tax on a six-pack of beer at 4.5 percent alcohol by volume would increase from 33 cents to 81 cents, and the tax on a 750-milliliter bottle of wine with 13 percent alcohol by volume would increase from 21 cents to 82 cents.

The second alternative would also raise the tax rate to \$16 per proof gallon and eliminate the provisions that lower effective tax rates for small producers, but it would adjust, or index, the tax for the effects of inflation thereafter.

Effects on the Budget

If implemented, the first alternative of this option would increase revenues by \$68 billion from 2020 through 2028, the staff of the Joint Committee on Taxation (JCT) estimates. Indexing the tax for inflation under the second alternative would raise revenues by an additional \$14 billion, for a total of \$83 billion over the same period, according to JCT's estimates.

The higher excise tax would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the increase in excise taxes. The estimates for the option reflect that income and payroll tax offset. Furthermore, research shows that when alcohol costs more, it is consumed less. Therefore, increasing the tax on alcohol would contribute to a decline in consumption, which would also reduce revenues. That effect is reflected in the estimate.

The estimates for this option are uncertain because both the underlying projection of alcohol consumption and the estimated response to the change in the tax rate are uncertain. The underlying projection of alcohol consumption over the next decade is uncertain because it depends on how taxpayers will respond to temporary changes in tax rates occurring under current law. Similarly, the estimates depend on how taxpayers would respond to the permanent changes in tax rates introduced with this option. Those estimated responses are based on observed past responses to changes in the tax rate; those responses might differ from the response to the changes considered here.

Other Effects

Research shows that the consumption of alcohol creates costs for society that are not reflected in the pretax price of alcoholic beverages. Examples of those external costs include spending on health care that is related to alcohol consumption and covered by the public, losses in productivity stemming from alcohol consumption that are borne by entities or individuals other than the consumer, and the loss of lives and property that results from alcohol-related accidents and crime. One argument in

favor of raising excise taxes on alcoholic beverages is that doing so would not only reduce alcohol use—and thus the external costs of that use—but also make consumers of alcoholic beverages pay a larger share of such costs.

Moreover, reducing alcohol consumption through increased excise taxes might be desirable, regardless of the effect on external costs, if lawmakers believe that consumers underestimate the harm they do to themselves by drinking. Heavy drinking is known to cause organ damage and cognitive impairment, and the link between highway accidents and drinking, which is especially strong among young drivers, is well documented. Substantial evidence also indicates that the use of alcohol at an early age can lead to heavy consumption later in life. When deciding how much to drink, people—particularly young people—may not adequately consider such long-term risks to their health. However, many other choices that people make—for example, to consume certain types of food or engage in risky sports—can also lead to health damage, and those activities are not taxed.

An increase in taxes on alcoholic beverages would have disadvantages as well. It would make a tax that is already regressive—one that takes up a greater percentage of income for low-income families than for middle- and upper-income families—even more so. In addition, it would affect not only problem drinkers but also drinkers who impose no costs on society and who thus would be unduly penalized. Furthermore, higher taxes would reduce consumption by some moderate drinkers. Evidence on the health effects of moderate drinking is mixed, but some studies have found moderate consumption to have health benefits and increase life expectancy.

In the longer term, changes in health and life expectancy resulting from reduced alcohol consumption would probably affect spending on federal health care, disability, and retirement programs. However, such changes in health and longevity potentially go in opposite directions for moderate and heavy drinkers, so the direction and magnitude of changes in spending are uncertain.

RELATED OPTION: Revenues, “Increase the Excise Tax on Tobacco Products by 50 Percent” (page 280)

RELATED CBO PUBLICATION: *Raising the Excise Tax on Cigarettes: Effects on Health and the Federal Budget* (June 2012), www.cbo.gov/publication/43319

Revenues—Option 30

Increase the Excise Tax on Tobacco Products by 50 Percent

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Mandatory Outlays	*	*	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.3	-0.9
Change in Revenues	3.5	4.6	4.3	4.3	4.2	4.2	4.1	4.0	3.9	3.9	3.9	20.9	41.0
Decrease (-) in the Deficit	-3.5	-4.6	-4.4	-4.4	-4.3	-4.3	-4.2	-4.1	-4.0	-4.0	-4.0	-21.2	-41.9

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

This option would take effect in January 2019.

* = between -\$50 million and zero.

Background

Both the federal government and state governments tax tobacco products. In 2018, the federal excise tax on cigarettes was just under \$1.01 per pack, and the average state excise tax on cigarettes was \$1.75 per pack. In addition, settlements that the major tobacco manufacturers reached with state attorneys general in 1998 require the manufacturers to pay about 60 cents per pack in fees. Together, those federal and state taxes and fees total \$3.36 per pack of cigarettes, on average. Other tobacco products are also taxed, including cigars, pipe tobacco, and roll-your-own tobacco. Large cigars are taxed at 52.75 percent of the manufacturer's sales price, with a maximum tax of 40.26 cents per cigar. Pipe and roll-your-own tobacco are taxed at \$2.83 and \$24.78 per pound, respectively.

Collections from federal taxes on tobacco products totaled \$14 billion in 2017. It is estimated that about 16 percent of adults are currently smokers, but the Congressional Budget Office projects that tobacco consumption will decline over the next decade, causing receipts to fall by about 2 percent per year over that time.

Option

This option would make several changes to the federal excise taxes on tobacco products. It would raise the tax on pipe tobacco to equal that for roll-your-own tobacco—from \$2.83 to \$24.78 per pound. It would also set a minimum tax rate on large cigars equal to the tax rate on cigarettes. In addition to those changes, the option would raise the federal excise tax on all tobacco products by 50 percent beginning in 2019. As a result,

the federal tax on cigarettes would increase to about \$1.51 per pack in that year.

Effects on the Budget

CBO and the staff of the Joint Committee on Taxation estimate that the option would reduce deficits by \$42 billion from 2019 to 2028: Revenues would rise by \$41 billion, and outlays would decline by almost \$1 billion. The decrease in outlays would mainly result from reduced spending for Medicaid and Medicare.

The higher excise tax would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the increase in excise taxes. The estimates for the option reflect that income and payroll tax offset.

Increasing the tax on tobacco would contribute to a decline in smoking rates, which would reduce the amount of excise taxes raised by the option. The estimate incorporates that reduction. The decline in smoking rates would also lead to improvements in health and an increase in longevity. Although the budgetary impact of raising the excise tax on cigarettes would stem largely from the additional revenues generated by the tax (net of the reductions in income and payroll taxes noted above), changes in health and longevity also would affect federal outlays and revenues.

Improvements in the health status of the population would reduce the federal government's per-beneficiary spending for health care programs, which would initially reduce outlays for those programs. But that reduction in outlays would erode over time because of the increase in

longevity. A larger elderly population would place greater demands on federal health care and retirement programs in the future. The effect of greater longevity on federal spending would eventually outweigh the effect of lower health care spending per beneficiary, and federal outlays would be higher after that than they are under current law.

The improvements in health would also raise revenues by reducing people's premiums for private health insurance. That increase in revenues would occur mainly because the reduction in employers' contributions to health insurance premiums, which are not subject to income or payroll taxes, would ultimately be passed on to workers in the form of higher taxable compensation. That increase in taxable compensation would increase income and payroll tax revenues.

The estimate for this option is uncertain because both CBO's underlying projection of tobacco consumption and the estimated response to the change in the tax rate are uncertain. The estimate of how taxpayers would respond to the increase in tobacco taxes is based on observed past responses to changes in the tax rate, which might differ from responses to the changes considered here.

Other Effects

One argument for raising the excise tax on tobacco is that tobacco consumers may underestimate the addictive power of nicotine and the harm that smoking causes. Teenagers in particular may not have the perspective necessary to evaluate the long-term effects of smoking. Extensive research shows that smoking causes a variety of diseases, including many types of cancer, cardiovascular diseases, and respiratory illnesses. Tobacco use is considered to be the largest preventable cause of early death in the United States. Raising the tax on tobacco would reduce the number of smokers, thereby reducing the damage that people would do to their long-term health. CBO estimates that a 50 percent increase in the excise tax would cause smoking rates to fall by roughly 3 percent, with younger smokers being especially responsive

to higher cigarette prices. Smoking rates would remain lower in the future than they are expected to be under current law because a smaller share of future generations would take up smoking. However, many other choices that people make—for example, to consume certain types of food or engage in risky sports—also can lead to health damage, and those activities are not taxed. Also, studies on how people view the risks of smoking have yielded inconsistent results, with some research concluding that people underestimate those risks and other research finding the opposite.

Another argument for raising the excise tax on tobacco products is that smokers impose costs on nonsmokers that are not reflected in the pretax cost of tobacco. Those costs, which are known as external costs, include the damaging effects that tobacco smoke has on the health of nonsmokers and the higher health insurance premiums and greater out-of-pocket expenses that nonsmokers incur as a result. The higher tax would lead to improvements in health not only among smokers themselves but also among nonsmokers, who would no longer be exposed to secondhand smoke. Those improvements in health would, in turn, increase the longevity of nonsmokers as well as smokers. However, other approaches—aside from taxes—can reduce the external costs of smoking or make individual smokers bear at least some of those costs. For example, many local governments prohibit people from smoking inside restaurants and office buildings.

An argument against raising the tax on tobacco products concerns the regressive nature of that tax, which takes up a larger percentage of the earnings of lower-income families than of middle- and upper-income families. The greater burden of the tobacco tax on people with lower income occurs partly because lower-income people are more likely to smoke than are people from other income groups and partly because the amount that smokers spend on cigarettes does not rise appreciably with income.

RELATED OPTION: Revenues, “Increase All Taxes on Alcoholic Beverages to \$16 per Proof Gallon and Index for Inflation” (page 278)

RELATED CBO PUBLICATION: *Raising the Excise Tax on Cigarettes: Effects on Health and the Federal Budget* (June 2012), www.cbo.gov/publication/43319

Revenues—Option 31

Increase Excise Taxes on Motor Fuels and Index for Inflation

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Increase the tax rates by 15 cents	15.2	21.9	22.7	23.5	24.2	25.0	25.6	25.8	26.2	26.9	107.5	237.1	
Increase the tax rates by 35 cents	35.1	50.2	51.3	52.2	53.1	54.0	54.7	54.4	54.6	55.3	241.9	514.9	

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

Since 1993, federal excise tax rates on traditional motor fuels have been set at 18.4 cents per gallon of gasoline and 24.4 cents per gallon of diesel fuel. The revenues from those taxes are credited to the Highway Trust Fund to pay for highway construction and maintenance as well as for investment in mass transit. (A portion of the fuel tax—0.1 cent per gallon—is credited to the Leaking Underground Storage Tank Trust Fund.) Those tax rates are not adjusted for inflation; if they were, in 2019, they would be approximately 15 cents higher.

In 2017, revenues from the federal excise taxes on gasoline and diesel totaled \$35.8 billion. Those revenues were generated from the sale of 184.7 billion gallons of motor fuels—an average of about 832 gallons per registered driver. In the Congressional Budget Office’s 10-year economic projections, revenues from gasoline and diesel taxes decline at a rate of about 1 percent per year. Factors contributing to that projected decline include rising vehicle fuel economy (resulting from the increasing stringency of the federal Corporate Average Fuel Economy standards) and a slow rate of growth in the total miles traveled by vehicles.

Option

This option consists of two alternative increases in the excise tax rates on motor fuels. Under the first alternative, federal excise tax rates on gasoline and diesel fuel would be increased by 15 cents per gallon. Under the second alternative, those tax rates would be increased by 35 cents per gallon. Under each alternative, the tax would be indexed for inflation each year.

Effects on the Budget

According to estimates by the staff of the Joint Committee on Taxation (JCT), the first alternative

would increase revenues by \$237 billion from 2019 through 2028; the second alternative would increase revenues by \$515 billion.

The higher excise taxes would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the increase in excise taxes. The estimates for the option reflect that income and payroll tax offset.

The revenue estimates also reflect drivers’ anticipated responses to higher fuel taxes: By increasing the retail prices of motor fuels, the taxes would reduce fuel consumption (relative to what it would otherwise have been) both by discouraging driving and by encouraging the purchase of more fuel-efficient vehicles. Because the second alternative would be more salient to consumers, it would provoke greater responses, causing steeper reductions in fuel consumption. That is why, although the 35-cent tax increase is 2.3 times greater than the 15-cent increase, the revenues from the larger tax would be less than 2.3 times the revenues from the smaller tax.

The estimates for this option are uncertain because both the underlying projection of fuel use and the estimated responses to the change in the tax rates are uncertain. The projection of fuel use relies on CBO’s projections of fuel economy and transportation choices under current law, and those projections are inherently uncertain. The estimates also rely on estimates of how individuals would respond to changes in the price of transportation resulting from increases in fuel taxes. Those estimates are based on observed responses to prior changes in taxes, which might differ from the responses to the fuel tax changes considered here.

Other Effects

One argument for increasing excise taxes on motor fuels is that the rates currently in effect are not sufficient to fully fund the federal government's spending on highways and transit. That spending has exceeded annual revenues from the fuel tax in every year since 2000. Federal tax rates on motor fuels were last increased in 1993; since then, the costs of labor and materials for maintaining and building highways and transit infrastructure have grown. CBO projects that if current law remained in place, a transfer of general revenues from the Treasury to the Highway Trust Fund authorized by the Fixing America's Surface Transportation Act would allow the fund to meet its obligations through 2020, but not in later years. For many years, the Congress has directed that roughly 80 percent of the taxes on motor fuels be credited to the trust fund's highway account and roughly 20 percent to its transit account. If those proportions remained the same under this option, and if funding for highways and transit was indexed for inflation, both of these alternatives would enable the Highway Trust Fund to meet its obligations through 2028 and beyond.

A second argument in favor of the option is that when users of highway infrastructure are charged according to the marginal (or incremental) costs of their use—including the “external costs” that such use imposes on society—economic efficiency is promoted. Some of the external costs—those associated with climate change and dependence on foreign oil—are directly related to the amount of motor fuel consumed. Imposing excise taxes on fuel therefore creates incentives to use highways and mass transit systems more efficiently. Because current fuel taxes do not cover those marginal costs, raising fuel tax rates would more accurately reflect the external costs created by the consumption of motor fuel. The second alternative would have a greater impact than the first because increasing the tax rate by a greater amount would create stronger incentives for taxpayers to drive less and to purchase more fuel-efficient vehicles. A further argument for the option is that increasing excise tax

rates on motor fuels would incur relatively low collection costs because such taxes are already being collected.

An argument against this option is that because the two largest external costs of motor vehicle travel—traffic congestion and pavement damage—are not directly related to fuel use, it might be more economically efficient to adopt policies based on measurable factors that are more closely related to those costs. For example, imposing tolls or charging fees for driving at specific times in given areas would be more direct ways to alleviate congestion. Similarly, a levy on the number of miles driven by heavy trucks, reflecting their weight per axle, would more directly address the costs of pavement damage. However, creating the systems necessary to administer a tax on the number of vehicle miles traveled would be much more complex than increasing the existing excise taxes on fuels. Moreover, because fuel consumption has some external costs that do not depend on the number of miles traveled, maximizing economic efficiency would still require taxes on motor fuels.

Some other arguments against raising the tax rates on motor fuels involve issues of fairness. Such taxes impose a proportionally larger burden, as a share of income, on middle- and lower-income households (particularly those not well served by public transit) than they do on upper-income households. Those taxes also impose a disproportionate burden on rural households because the benefits of reducing vehicle emissions and congestion are greatest in densely populated, mostly urban, areas. They also disproportionately burden drivers of conventional gasoline- or diesel-powered vehicles, as drivers of battery-assisted or fully electric vehicles pay little or nothing in fuel taxes. Finally, to the extent that the trucking industry passed on the higher cost of fuel to consumers (in the form of higher prices for transported retail goods, for instance), those higher prices would increase the relative burden on low-income households, which spend a larger share of their income (compared with higher-income households) on food, clothing, and other transported goods.

RELATED OPTION: Revenues, “Impose an Excise Tax on Overland Freight Transport” (page 284)

RELATED CBO PUBLICATIONS: *Approaches to Making Federal Highway Spending More Productive* (February 2016), www.cbo.gov/publication/50150; testimony of Chad Shirley, Deputy Assistant Director of Microeconomic Studies, before the House Committee on Ways and Means, *The Status of the Highway Trust Fund and Options for Paying for Highway Spending* (June 2015), www.cbo.gov/publication/50298; *How Would Proposed Fuel Economy Standards Affect the Highway Trust Fund?* (May 2012), www.cbo.gov/publication/43198; *Alternative Approaches to Funding Highways* (March 2011), www.cbo.gov/publication/22059; *Effects of Gasoline Prices on Driving Behavior and Vehicle Markets* (January 2008), www.cbo.gov/publication/41657

Revenues—Option 32

Impose an Excise Tax on Overland Freight Transport

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	23.2	35.3	35.8	36.3	36.8	37.4	38.1	38.0	38.3	39.0	167.4	358.3

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

Existing federal taxes related to overland freight transport consist of a tax on diesel fuel; excise taxes on new freight trucks, tires, and trailers; and an annual heavy-vehicle use tax. Revenues from those taxes are largely credited to the Highway Trust Fund, which finances road construction and maintenance and mass transit. Rail carriers, which generally operate on infrastructure they own and maintain, are currently exempt from the diesel fuel tax, other than an assessment of 0.1 cent per gallon for the Leaking Underground Storage Tank Trust Fund.

The Fixing America's Surface Transportation Act of 2015 established national policies to improve the movement of freight and provided funds from the Highway Trust Fund for two programs that focus on freight. It did not, however, establish any new revenue sources for the fund. Under current law, the Highway Trust Fund cannot incur negative balances. As a result, with its existing revenue sources, the trust fund will not be able to support spending at current levels (with adjustments for inflation) beyond 2020, the Congressional Budget Office estimates.

Overland freight transport is largely carried out by heavy-duty trucks—Class 7 and above in the Federal Highway Administration's (FHWA) classification system—or by rail. In 2015, FHWA estimated that tractor-trailer trucks (above Class 7) were driven about 175 billion miles, whereas single-unit trucks (including Class 7 and many smaller trucks that are not considered heavy-duty trucks) were driven about 110 billion miles. (Both totals include miles traveled without freight payloads.) Freight railcars traveled a total of about 36 billion miles in 2015, including unladen miles. Total freight transport by both truck and rail is projected to increase over time as the economy expands.

Option

This option would impose a new tax on freight transport by truck and rail. The tax would be 30 cents per mile on freight transport by heavy-duty trucks. Under the option, freight transport by rail would be subject to a tax of 12 cents per mile (per railcar). The tax would not apply to miles traveled by trucks or railcars without cargo.

Effects on the Budget

According to the staff of the Joint Committee on Taxation, the option would increase federal revenues by \$358 billion from 2019 through 2028. The excise tax would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the increase in excise taxes. The estimates for the option reflect that income and payroll tax offset.

Carriers would respond to the new taxes in two ways that lower the estimated change in revenues by relatively small amounts. First, both taxes would increase shipping costs, which would slightly reduce the total amount of freight shipped because some shipments would no longer be profitable. Second, the relatively higher tax rate on truck transport would induce some shippers to shift a small portion of their freight business from truck to rail. The option could also induce shippers to shift a small amount of freight from either mode of transport to barge.

The amount of revenues raised through the tax would depend on the number of miles over which freight is transported by truck and rail in the future, which is uncertain for several reasons. The amount of freight shipped, the distances traveled, and shippers' choices of modes of transport are uncertain because they depend on

developments in technology and economic conditions over the next decade, which are themselves uncertain. In addition, there is uncertainty surrounding how carriers would respond to the tax. The timing and amount of revenues raised by the tax would also depend on decisions about how to implement and administer it.

Other Effects

One argument for imposing an excise tax on freight transport is that it would promote economic efficiency. Freight transport imposes costs on society (known as external costs), including pavement damage, congestion, accidents, and emissions of air pollutants. The higher tax rate on truck transport is based on estimates of those external costs, which are higher for trucks than for railcars. An alternative approach to reducing those external costs would be increasing the fuel tax, which would better target emissions of air pollutants. However, imposing a tax on freight miles would more directly reduce the external costs of pavement damage, congestion, and accidents.

An argument against this option is that it would be more costly to administer than is the federal tax on diesel fuel—a primary source of funding for highway construction and maintenance. The option would require that carriers report their miles traveled and that systems be developed to collect the taxes and audit the reported distances.

An additional argument against this option is that the tax would probably be passed on to consumers through increases in the price of final goods. For many types of goods, the price increase would be relatively small because freight transport accounts for less than 5 percent of the cost of the merchandise. Even so, because lower-income consumers spend a larger fraction of their income on goods, the tax would be regressive—that is, it would be more burdensome for consumers with fewer economic resources than it would be for those with more economic resources.

RELATED OPTION: Revenues, “Increase Excise Taxes on Motor Fuels and Index for Inflation” (page 282)

RELATED CBO PUBLICATIONS: David Austin, *Pricing Freight Transport to Account for External Costs*, Working Paper 2015-03 (March 2015), www.cbo.gov/publication/50049; *Alternative Approaches to Funding Highways* (March 2011), www.cbo.gov/publication/22059; *Spending and Funding for Highways* (January 2011), www.cbo.gov/publication/22003; *Using Pricing to Reduce Traffic Congestion* (March 2009), www.cbo.gov/publication/20241

Revenues—Option 33

Impose Fees to Cover the Costs of Government Regulations and Charge for Services Provided to the Private Sector

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Establish Fees on Users of the St. Lawrence Seaway													
Change in Revenues	0	*	*	*	*	*	*	*	*	*	*	0.1	0.3
Increase Fees Charged to Industries to Recover the Full Costs of Registering Pesticides and Chemicals													
Change in Revenues	0	*	*	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
Charge Fees to Offset the Costs of Federal Rail-Safety Activities													
Change in Revenues	0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	1.8
Charge Transaction Fees to Fund the Commodity Futures Trading Commission													
Change in Revenues	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.8	2.0
Assess New Fees to Cover the Costs of the Food and Drug Administration's Reviews of Advertising and Promotional Materials for Prescription Drugs and Biological Products													
Change in Revenues	0	*	*	*	*	*	*	*	*	*	*	*	0.1
Collect New Fees for Activities of the Food Safety and Inspection Service													
Change in Revenues	0	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	3.5	8.6
Set Grazing Fees for Federal Lands on the Basis of the Formulas Used to Set Fees for State-Owned Lands													
Change in Spending													
Budget authority	0	*	*	*	*	*	*	*	*	*	*	*	-0.2
Outlays	0	*	*	*	*	*	*	*	*	*	*	*	-0.2
Total													
Decrease (-) in the Deficit	0	-1.1	-1.4	-1.4	-1.5	-1.6	-1.6	-1.6	-1.6	-1.7	-1.7	-5.4	-13.5

This option would take effect in October 2019.

Fees collected under this option could be recorded in the budget as offsetting collections (discretionary), offsetting receipts (usually mandatory), or revenues, depending on the specific legislative language used to establish them. For this option, the Congressional Budget Office categorized *changes* to fees that arise from the use of the government's sovereign power as changes to revenues, even if the agency was directed to record *existing* fees as offsetting collections or offsetting receipts.

* = between -\$50 million and \$50 million.

Background

The federal government imposes regulations on individuals and businesses to ensure the health and safety of the public and workers in regulated industries and to facilitate commerce. It also provides the private sector with a wide array of services and allows the use of public assets that have economic value, such as navigable waterways

and grazing lands. To cover the costs of enforcing those regulations and to ensure that it receives compensation for the services that it provides, the government could impose a number of fees or increase existing ones. Those fees could be collected by several federal agencies and through various programs.

Option

This option would increase some existing fees and impose some new ones. Among the changes the government could make are the following:

- Establish fees on users of the St. Lawrence Seaway. The fee would offset appropriated funds for operations and maintenance of the seaway (a waterway that extends from the Atlantic Ocean to the Great Lakes) and would be equal to 100 percent of the adjusted appropriations in the Congressional Budget Office's baseline for the 2020–2028 period. (That amount is estimated by adjusting current-year appropriations by a measure of inflation.)
- Increase fees charged to industries to recover the full costs of registering pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act and registering chemicals under the Toxic Substances Control Act. The current fees cover less than half of the Environmental Protection Agency's (EPA's) administrative costs of registering pesticides and chemicals. The higher fees, phased in over three years beginning in 2020, would offset appropriated funds for those administrative costs and would be equal to about 70 percent of the adjusted appropriations in CBO's baseline for the 2020–2028 period. (That amount is estimated by adjusting current-year appropriations by a measure of inflation.)
- Charge fees to offset the costs of federal rail-safety activities (such as safety inspections of tracks and equipment as well as accident investigations). The fees would offset appropriated funds for rail safety and would be equal to 100 percent of the adjusted appropriations in CBO's baseline for the 2020–2028 period. (That amount is estimated by adjusting current-year appropriations by a measure of inflation.)
- Charge transaction fees to fund the Commodity Futures Trading Commission. The fees would be assessed on futures, options, and swaps contracts and set to recover the commission's costs.
- Assess new fees to cover the costs of the Food and Drug Administration's reviews of advertising and promotional materials for prescription drugs and biological products. Fees would fund the current workload associated with regulating the promotion of those products to physicians and the advertising of those products directly to consumers. The Secretary of Health and Human Services would set the new fees, which would apply by product or by advertisement.
- Collect new fees for activities of the Food Safety and Inspection Service. Those fees would offset appropriated funds for inspection activities and would be equal to about 95 percent of the appropriations in CBO's baseline for the 2020–2028 period. (That amount is estimated by adjusting current-year appropriations by a measure of inflation.)
- Set grazing fees for federal lands on the basis of the state-determined formulas used to set grazing fees for state-owned lands. The federal grazing fee for 2018 is \$1.41 per animal unit month (the amount of forage required by one cow and a calf for one month). This option would result in an average fee of about \$5 per animal unit month.

Those changes are illustrative of the types of services or regulatory activities provided by the government for which fees could be charged or increased.

Effects on the Budget

If all fees considered here were implemented, they would increase income to the government by \$14 billion from 2019 through 2028. For the fees included in this option that increase revenues, the estimate includes an income and payroll tax offset. That offset reflects the fact that the fee would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the revenues generated by the fee.

Lawmakers could achieve lower savings by establishing fees that offset only part of the federal costs associated with implementing the regulations or providing the services considered here. Lawmakers could achieve higher savings by adjusting those fees to more than offset federal costs, but that change would alter the nature of the option. The government's savings would be proportionally more for higher fees or less for lower fees, CBO expects.

Government income from this option would tend to increase over the next several years. Some of the changes would take time to implement—either because they

would be phased in over time by design or because they would advance through the federal rulemaking process.

Changes in fees might alter the behavior of people subject to increased costs, and those responses would introduce uncertainty about the effects of the changes on the federal budget. For example, charging fees to offset the costs of federal rail-safety activities could prompt a shift of freight traffic to other modes of transportation, such as trucking. CBO projects that a limited share of freight traffic would shift away from rail, but that share could grow over time. In contrast, in CBO's assessment, new fees for activities of the Food Safety and Inspection Service would not affect industry behavior because producers cannot market products unless they are subject to inspection.

Whether the fees included in this option were recorded as revenues or as collections that are subtracted from discretionary or mandatory spending would depend on the nature of the fees and the terms of the legislation that imposed them. Most of the fees listed in this option would typically be classified as revenues in accordance with the guidance provided by the 1967 President's Commission on Budget Concepts. That guidance indicates that receipts from a fee that is imposed under the federal government's sovereign power should generally be recorded as revenues. However, lawmakers sometimes make the collection of fees subject to appropriation action; in those cases, the fees would be recorded as offsets to spending rather than as revenues.

Other Effects

An argument for implementing user fees is that private businesses would cover more of the costs of doing

business, including the costs of ensuring the safety of their activities and products. That change would lead to a more efficient allocation of resources because businesses would make decisions based on a more complete assessment of costs. Currently, some of those costs—the Federal Railroad Administration's costs for rail-safety activities and the EPA's costs to register pesticides and chemicals, for example—are borne by the federal government.

Another argument in favor of this option is that the private sector would compensate the government for a greater share of the market value of services that benefit businesses (such as the operation and maintenance of the St. Lawrence Seaway) and for using or acquiring resources on public lands (such as grasslands for grazing). If consumers highly value the products and services that businesses provide, those businesses should be able to charge prices that cover all of their costs.

An argument against setting fees to cover the costs of regulation and recover the value of public services and resources is that some of the products and services provided by private businesses benefit people who neither produce nor consume those products and services. Thus, it is both fair and efficient for taxpayers to subsidize the provision of those benefits. For example, by lowering the cost of rail transportation, taxpayers' support for rail-safety activities reduces highway congestion and emissions of greenhouse gases. Similarly, support for the registration of new chemicals reduces the use of older chemicals, which may be more damaging to public health and to the environment.

Revenues—Option 34

Impose a 5 Percent Value-Added Tax

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues												
Apply a 5 percent VAT to a broad base	0	200	310	320	330	340	360	360	370	380	1,160	2,970
Phase in a 5 percent VAT to apply to the same broad base	0	40	100	170	240	320	350	360	370	380	550	2,330
Apply a 5 percent VAT to a narrow base	0	130	200	210	210	220	230	230	240	250	750	1,920

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2020.

Background

A value-added tax (VAT) is a type of consumption tax that is levied on the incremental increase in value of a good or service at each stage of the supply chain, until the full tax is paid by the final consumer. Although the United States does not have a broad consumption-based tax, federal excise taxes are imposed on the purchase of several goods (gasoline, alcohol, and tobacco products, for example). In addition, most states impose sales taxes, but, unlike a VAT, those are levied on the total value of goods and services sold.

More than 140 countries—including all members of the Organisation for Economic Co-operation and Development (OECD) except for the United States—have adopted VATs. The tax bases and rate structures of VATs differ greatly among countries. Most European countries have implemented VATs with a narrow tax base that excludes certain categories of goods and services, such as food, education, and health care. In Australia and New Zealand, the VAT has a much broader tax base, with exclusions generally limited only to those goods and services for which it is difficult to determine a value. In 2017, the average national VAT rate for OECD countries was 19.2 percent, ranging from 5 percent in Canada to 27 percent in Hungary. All OECD countries that impose a VAT also collect revenues from taxes on individual and corporate income.

In 2017, the personal consumption expenditures of U.S. households amounted to about \$13.3 trillion. Two-thirds

of that amount was spent on services, and the remaining one-third was spent on goods. Spending on housing and health care services accounted for more than half of the total consumption of services. Spending on nondurable goods—particularly food and beverages sold for consumption off-premises and pharmaceutical and other medical products—accounted for about two-thirds of the total consumption of goods.

Option

This option consists of three alternatives. Each of the alternatives would become effective on January 1, 2020—a year later than most of the other revenue options presented in this volume—to provide the Internal Revenue Service time to set up and administer the tax.

The first alternative would apply a 5 percent VAT to a broad base that would include most goods and services. Certain goods and services would be excluded from the base because their value is difficult to measure. Those include financial services without explicit fees, existing housing services, primary and secondary education, and other services provided by government agencies and nonprofit organizations for a small fee or at no cost. (Existing housing services encompass the monetary rents paid by tenants and rents imputed to owners who reside in their own homes. Although existing housing services would be excluded under this alternative, a tax on the purchase of new residential housing would cover all future consumption of housing services.) Government-reimbursed expenditures for health care—primarily

costs paid by Medicare and Medicaid—would also be excluded from the tax base. Accounting for those exclusions, the tax base would encompass approximately 66 percent of household consumption in 2020.

The second alternative would gradually introduce a 5 percent VAT to the same broad base. The VAT would be phased in over five years, starting at 1 percent in 2020 and increasing by 1 percentage point each year.

The third alternative would apply a 5 percent VAT to a narrower base and would, like the first alternative, become fully effective in 2020. In addition to those items excluded under the broad base, the narrow base would exclude certain goods and services that are considered necessary for subsistence or that provide broad social benefits—specifically, new residential housing, food purchased for home consumption, health care, and postsecondary education. Accounting for those exclusions, the tax base would encompass about 42 percent of household consumption in 2020.

Each alternative would employ the “credit-invoice method,” which is the most common method used by other countries to administer a VAT. Under that method, at each point in the production process, the total value of a business’s sales of a particular product or service would be taxed, and the business would claim a credit for the taxes paid on the purchased inputs—such as materials and equipment—used to make the product or provide the service.

Certain goods and services could be either “zero-rated” (that is, taxed at a rate of zero percent) or exempt from the VAT; in either case, no VAT would be levied on the purchased items. If a purchased item was zero-rated, the seller could still claim a credit for the VAT that had been paid on the production inputs. By contrast, if a purchased item was exempt, the seller would not be able to claim a credit for the VAT paid on the production inputs.

Under all of the alternatives, primary and secondary education and other noncommercial services provided by government or nonprofit organizations for a small fee or at no cost would be zero-rated, and financial services and existing housing services would be exempt from the VAT. In addition, under the third alternative, food purchased for home consumption, new housing services, health care, and postsecondary education would be zero-rated.

Effects on the Budget

The staff of the Joint Committee on Taxation (JCT) estimates that, if implemented, the first alternative would increase federal revenues by \$3.0 trillion from 2020 through 2028. The second and third alternatives would raise revenues by \$2.3 trillion and \$1.9 trillion, respectively, over that same period, according to JCT’s estimates. Revenues would be lower under the second alternative than under the first alternative because the 5 percent VAT would be gradually phased in. The revenue estimates for the phase-in period account for reactions to that phase-in by taxpayers—first, shifts in the consumption of some goods to earlier years, when the VAT rate would be lower, and second, higher tax compliance resulting from lower VAT rates. Revenues raised under the third alternative would be lower than under the first alternative because the VAT would apply to a smaller tax base.

The VAT, like an excise tax, would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the revenues raised by the VAT. The estimates for the option reflect that income and payroll tax offset.

The estimates for this option are uncertain because of uncertainty surrounding future economic activity and taxpayers’ responses to a VAT. There is particular uncertainty surrounding taxpayers’ compliance with the VAT, which would depend on how it was implemented and might differ from the responses considered here. In addition, there is uncertainty about how consumers would substitute taxed goods and services with those not subject to the tax.

Other Effects

One argument in favor of the option is that it would raise revenues without discouraging saving and investment by taxpayers. In any given period, income can be either consumed or saved. Through exclusions, deductions, and credits, the individual tax system provides incentives that encourage saving, but those types of preferences do not apply to all methods of saving, and they increase the complexity of the tax system. In contrast to a tax levied on income, a VAT applies only to the amount of income consumed and therefore would not discourage private saving or investment in the economy.

A drawback of the option is that it would require the federal government to establish a new system to monitor

compliance and collect the tax. As with any new tax, implementing a VAT would impose additional administrative costs on the federal government and additional compliance costs on businesses. Research has shown that at least some countries that have implemented a VAT have devoted significant resources to addressing and enforcing compliance. Because such costs are typically more burdensome for smaller businesses, many countries exempt some small businesses from the VAT.

Another argument against implementing a VAT is that, as specified under all of the alternatives in this option, it would probably be regressive—that is, it would be more burdensome for individuals and families with fewer economic resources than it would be for those with more resources. Because lower-income families generally consume a greater share of their income than higher-income families do, the distributional effects of a VAT would depend on its impact on consumer prices. (Phasing in the VAT, as the second alternative of this option would do, would probably limit the increase in prices from 2020 through 2024.) The regressivity of a VAT, however, depends significantly on the measure of income used to rank families. For example, the burden of a VAT in relation to a measure of lifetime income—which would account for both life-cycle income patterns and temporary fluctuations in annual income—would be less regressive than the burden of a VAT in relation to a measure of annual income, which would not account for those patterns and anomalies.

There are ways to design a VAT—or implement complementary policies—that could ameliorate distributional concerns. One way to make a VAT less regressive would

be to exclude certain basic goods and services from the tax base, just as the third alternative of this option does. A VAT with a narrower tax base would be less regressive because low-income individuals and families spend a larger share of their budgets on those basic goods and services than higher-income individuals and families do. (Alternatively, lower rates could be applied to such items.) Those preferences, however, generally would make the VAT more complex and would reduce the revenues it generated. In addition, a VAT with a narrow base would distort economic decisions to a greater degree than would a VAT with a broader base because people could substitute goods or services not subject to the VAT for those that were. Another way to offset the regressive impact of a VAT would be to add exemptions or refundable credits under the federal income tax for low-income individuals and families or to increase the size of existing exemptions or credits. That approach, however, would add to the complexity of the individual income tax and reduce individual income tax revenues, offsetting some of the revenue gains from a VAT.

An alternative approach for raising a broad-based consumption tax would be to impose a national retail sales tax. A national retail sales tax would initially be easier to implement than a VAT. However, it would require the federal government to coordinate tax collection and administration with state and local governments. In addition, there are more incentives to underreport retail sales taxes because they are collected only when the final user of the product makes a purchase, whereas a VAT is collected throughout the entire production chain and reported by both the buyer and the seller until the final stage.

RELATED CBO PUBLICATIONS: *Comparing Income and Consumption Tax Bases* (July 1997), www.cbo.gov/publication/10599; *The Economic Effects of Comprehensive Tax Reform* (July 1997), www.cbo.gov/publication/10355; testimony of Robert D. Reischauer, Director, before the Senate Committee on Energy and Natural Resources, *Effects of Energy Taxes and Value-Added Taxes (VAT)* (February 24, 1993), www.cbo.gov/publication/20834; *Distributional Effects of Substituting a Flat-Rate Income Tax and a Value-Added Tax for Current Federal Income, Payroll, and Excise Taxes* (April 1992), www.cbo.gov/publication/20766; *Effects of Adopting a Value-Added Tax* (February 1992), www.cbo.gov/publication/20769

Revenues—Option 35

Impose a Tax on Emissions of Greenhouse Gases

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	66.0	103.4	105.9	108.2	111.2	115.1	118.9	119.5	123.2	127.1	494.7	1,099.0

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

This option would take effect in January 2019.

Background

The accumulation of greenhouse gases in the atmosphere—particularly carbon dioxide (CO₂), which is released when fossil fuels (such as coal, oil, and natural gas) are burned and as a result of deforestation—contributes to climate change, which imposes costs on countries around the globe, including the United States.

Many estimates suggest that the effect of climate change on the nation's economic output, and hence on federal tax revenues, will probably be small over the next 30 years and larger, but still modest, in the following few decades. Among the more certain effects of climate change on humans over the next several decades, some would be positive, such as reductions in deaths from cold weather and improvements in agricultural productivity in certain areas. However, others would be negative, such as declines in the availability of fresh water in areas dependent on snowmelt and the loss of property from high-tide flooding and from storm surges as sea levels rise. Uncertainty about the effects of climate change—and the potential for unlimited emissions to cause significant damage—grow substantially in the more distant future.

Scientists generally agree that reducing global emissions of greenhouse gases would decrease the magnitude of climate change and the expected costs and risks associated with it. The federal government regulates some emissions in an effort to reduce them; however, emissions are not directly taxed. A well-designed tax that covered most energy-related emissions would be expected to reduce emissions.

Greenhouse gas emissions are typically measured in CO₂ equivalents (CO₂e), which reflect the amount of carbon

dioxide estimated to cause an equivalent amount of warming. Under current law, emissions are projected to decline from 5.4 billion metric tons of CO₂e in 2019 to 5.2 billion metric tons of CO₂e in 2028.

Option

This option would impose a tax of \$25 per metric ton on most emissions of greenhouse gases in the United States—specifically, on most energy-related emissions of CO₂ (for example, from electricity generation, manufacturing, and transportation) and some other greenhouse gas emissions from large manufacturing facilities. To simplify implementation, as well as to provide incentives to deploy technologies that capture emissions generated in the production of electricity, the tax could be levied on oil producers, natural gas refiners (for sales outside the electricity sector), and electricity generators. The tax would increase at an annual inflation-adjusted rate of 2 percent.

Effects on the Budget

According to estimates made by the staff of the Joint Committee on Taxation and the Congressional Budget Office, implementing this option would increase federal revenues by \$1,099 billion from 2019 through 2028. On average, about 5 billion metric tons of greenhouse gas emissions would be taxed each year over that period. Taxed emissions would be roughly 4 percent lower than projected under current law in 2019 and 11 percent lower in 2028. Despite the projected decline in emissions over the 10-year period, tax revenues would rise over time because the additional revenues caused by increases in the tax rate would more than offset the decrease in revenues caused by the decline in taxable emissions. A tax that was somewhat higher or somewhat lower than the \$25 dollar per ton tax considered in this option

would generate a roughly proportionally larger or smaller amount of revenues.

A tax on greenhouse gas emissions would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the increase in excise taxes. The estimate for the option reflects that income and payroll tax offset.

The estimate for this option is uncertain for two key reasons. First, the projected amount of emissions released in the absence of the tax depends on estimates of future economic activity and future changes in the relative prices of various fuels and energy technologies, both of which are uncertain. Second, even if projections of future emissions under current law are accurate, estimated reductions in emissions stemming from the tax are uncertain, in part because they depend on the development of new technologies and on individuals' and firms' reactions to the changes in prices that the tax would induce. CBO's estimates of reductions in emissions rely on past responses to such changes, as reported in the published literature.

Other Effects

An argument in favor of this option is that it would reduce U.S. emission of greenhouse gases and would do so in a cost-effective way. In particular, the tax would reduce emissions in a more cost-effective manner than regulations because such a tax would create uniform incentives for businesses and households throughout the economy to reduce their emissions. The tax would increase the cost of producing carbon-intensive goods and services in proportion to the amount of greenhouse gases emitted as a result of their production and consumption. Moreover, those cost increases would trigger corresponding increases in the prices of consumer goods. As a result, the tax would provide incentives for businesses to produce goods in ways that yield fewer emissions (for example, by generating electricity from wind rather than from coal) and for individuals to consume goods in ways that yield fewer emissions (for example, by driving less). Specifically, this tax would motivate emission reductions that cost less than \$25 per ton to achieve, but not those that would cost more than \$25 per ton.

Although the effects of climate change on the U.S. economy and on the federal budget are expected to be small in the next few decades, the effects are much more

uncertain—and potentially far larger—in the more distant future. Many scientists think there is at least some risk that large changes in global temperatures will trigger catastrophic damage, causing substantial harm to human health and well-being as well as the economy. Moreover, greenhouse gases are long-lived, affecting the climate for many decades after they are emitted. As a result, delaying actions to limit emissions reduces the possibility of avoiding potentially harmful future effects. Because this option would take effect in January 2019, it would help avoid the compounded problems that might be caused by such delays.

An argument against a tax on greenhouse gas emissions is that curtailing U.S. emissions would burden the economy by raising the cost of producing emission-intensive goods and services while yielding uncertain benefits for U.S. residents. For example, most of the direct benefits of lessened emissions and associated reductions in climate change might occur outside of the United States over the next several decades, particularly in developing countries that are at greater risk from changes in weather patterns and an increase in sea levels.

Another argument against this option is that reductions in domestic emissions could be partially offset by increases in emissions overseas if carbon-intensive industries relocated to countries without restrictions on emissions or if reductions in energy consumption in the United States led to decreases in foreign fuel prices. More generally, averting the risk of future damage caused by emissions would depend on collective global efforts to cut emissions. Most analysts agree that reducing emissions in this country would have small effects on climate change if other countries with high levels of emissions did not also cut them substantially (although such reductions in the United States would still diminish the probability of catastrophic damage and could spur other countries to cut their emissions).

An alternative approach for reducing emissions of greenhouse gases in a cost-effective manner would be to establish a cap-and-trade program that set caps on such emissions in the United States. Under such a program, allowances that conveyed the right to emit one metric ton of CO₂e apiece would be sold at open auction. The overall number of allowances in a given year would be capped, and the cap would probably be lowered over time. If the caps were set to achieve the same cut

in emissions that is anticipated from the tax, then the program would be expected to raise roughly the same amount of revenues between 2019 and 2028. In contrast with a tax, a cap-and-trade program would provide certainty about the quantity of emissions from sources

that are subject to the cap (because it would directly limit those emissions), but it would not provide certainty about the costs that firms and households would face for the greenhouse gases that they continued to emit.

RELATED CBO PUBLICATIONS: *Effects of a Carbon Tax on the Economy and the Environment* (May 2013), www.cbo.gov/publication/44223; *How Policies to Reduce Greenhouse Gas Emissions Could Affect Employment* (May 2010), www.cbo.gov/publication/41257; *The Costs of Reducing Greenhouse-Gas Emissions* (November 2009), www.cbo.gov/publication/20933; *The Economic Effects of Legislation to Reduce Greenhouse-Gas Emissions* (September 2009), www.cbo.gov/publication/41266; *Potential Impacts of Climate Change in the United States* (May 2009), www.cbo.gov/publication/41180

Revenues—Option 36

Impose a Fee on Large Financial Institutions

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total		
											2019–2023	2019–2028	
Change in Revenues													
Impose a fee on institutions with assets of \$50 billion or more	10.5	10.6	10.6	10.6	10.5	10.4	10.3	10.0	9.9	9.8	52.7	103.1	
Impose a fee on institutions with assets of \$250 billion or more	9.2	9.3	9.2	9.2	9.2	9.0	9.0	8.7	8.6	8.6	46.0	90.0	

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

This option would take effect in January 2019.

Background

In the wake of the financial crisis that occurred between 2007 and 2009, legislators and regulators adopted a number of measures designed to prevent the failure of large, systemically important financial institutions and to resolve any future failures without putting taxpayers at risk. One of those measures provided the Federal Deposit Insurance Corporation (FDIC) with orderly liquidation authority. That authority is intended to allow the FDIC to quickly and efficiently settle the obligations of such institutions, which can include companies that control one or more banks (known as bank holding companies) or firms that predominantly engage in lending, insurance, securities trading, or other financial activities. In the event that a large financial institution fails, the FDIC will be appointed to liquidate the company's assets in an orderly manner and thus maintain the institution's critical operations in an effort to avoid repercussions throughout the financial system.

Nonetheless, if one or more very large financial institutions were to fail, particularly during a period of broader economic distress, the FDIC might need to borrow funds from the Treasury to implement orderly liquidation authority. The law mandates that those funds be repaid through recoveries from failed firms or future assessments on surviving firms. As a result, individuals and businesses dealing with those firms could be affected by the costs of the assistance provided to the financial system. For example, if a number of large firms failed and substantial cash infusions were needed to resolve those failures, the assessment required to repay the Treasury would have to be set at a very high amount.

Under some circumstances, the surviving firms might not be able to pay that assessment without making significant changes to their operations or activities. Those changes could result in higher costs to borrowers and reduced access to credit at a time when the economy is under significant stress.

In 2017, the FDIC reported that bank holding companies' liabilities totaled \$14 trillion. In addition, the Congressional Budget Office estimates that the FDIC's orderly liquidation authority covers total liabilities of approximately the same amount at nonbank financial institutions. Liabilities for bank holding companies and nonbank financial institutions are projected to increase at a somewhat slower rate than nominal gross domestic product (which is based on current-dollar values and not adjusted for inflation) through 2028.

Option

Under this option, beginning in 2019, an annual fee would be imposed on bank holding companies (including foreign banks operating in the United States) and nonbank financial companies with total assets above a certain threshold. The annual fee would be 0.15 percent of firms' covered liabilities, defined primarily as total liabilities less deposits insured by the FDIC. (Covered liabilities also include certain types of noncore capital—distinct from core capital, which consists of equity capital and disclosed reserves—and exclude certain reserves required for insurance policies.) CBO estimates that in 2017, financial institutions' covered liabilities totaled \$9 trillion for firms with assets in excess of \$50 billion and \$8 trillion for firms with assets in excess of \$250 billion.

The sums collected would be deposited in an interest-bearing fund that would be available for the FDIC's use when exercising orderly liquidation authority. The outlays necessary to carry out the FDIC's orderly liquidation authority are estimated to be the same under this option as under current law.

This option consists of two alternatives. Under the first alternative, the asset threshold would be \$50 billion; that amount is consistent with the threshold under current law at which financial institutions are subject to assessments to recover losses from the FDIC's use of orderly liquidation authority. Under the second alternative, the asset threshold would be \$250 billion; that amount is consistent with the threshold for enhanced supervision and prudential standards for certain bank holding companies established by the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018.

Effects on the Budget

If implemented on January 1, 2019, such a fee would generate revenues from 2019 through 2028 totaling \$103 billion if the asset threshold was \$50 billion and \$90 billion if the threshold was \$250 billion, according to estimates by the staff of the Joint Committee on Taxation and CBO. The fee would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the revenues raised by the fee. The estimates for the option reflect that income and payroll tax offset.

In its projections of spending and revenues under current law for the 2019–2028 period, CBO accounted for the probability that orderly liquidation authority would have to be used and that an assessment would have to be levied on surviving firms to cover some of the government's costs. In CBO's estimation, net proceeds from such assessments would total roughly \$6 billion over the next decade under the \$50 billion asset threshold and \$5 billion under the \$250 billion threshold. CBO expects that the receipts from the fee would provide a significant source of funds for the FDIC to carry out orderly liquidation authority and thus reduce the assessment that would be needed during the coming decade. To determine the net effect on revenues, CBO subtracted the projected assessments under current law from the

amount of revenues the new fee is projected to generate (\$109 billion under the \$50 billion asset threshold and \$95 billion under the \$250 billion threshold). By that calculation, revenues would increase by \$103 billion under the lower asset threshold and \$90 billion under the higher asset threshold from 2019 through 2028.

The estimates for this option are uncertain for two key reasons. First, the estimates rely on CBO's projections of assets covered by orderly liquidation authority under current law, which are in large part determined by CBO's projections of economic output. Second, the underlying projections of the effects of the failure of large financial institutions are uncertain, particularly because they reflect a small probability of a financial crisis in each year.

Other Effects

The main advantage of this option is that it would help defray the economic costs of providing a financial safety net by generating revenues when the economy is not in a financial crisis, rather than in the immediate aftermath of one. Another advantage of the option is that it would provide an incentive for banks to keep their assets below the asset threshold, diminishing the risk of spillover effects to the broader economy from a future failure of a particularly large institution (although at the expense of potential economies of scale). Alternatively, if larger financial institutions reduced their dependence on liabilities subject to the fee and increased their reliance on equity, their vulnerability to future losses would be reduced. The fee also would improve the relative competitive position of small and medium-sized banks by charging the largest institutions for the greater government protection they receive.

The option would have two main disadvantages. Unless the fee was risk-based, stronger financial institutions that posed less systemic risk—and consequently paid lower interest rates on their debt as a result of their lower risk of default—would face a proportionally greater increase in costs than would weaker financial institutions. In addition, the fee could reduce the profitability of larger institutions (if it was not passed on to customers), which might create an incentive for them to take greater risks in pursuit of higher returns to offset their higher costs.

At 0.15 percent, the fee would probably not be so high as to cause financial institutions to significantly change their financial structure or activities. The fee could nevertheless affect institutions' tendency to take various business risks, but the net direction of that effect is

uncertain: In some ways, it would encourage risk-taking, and in other ways, it would discourage risk-taking. One approach might be to vary the amount of the fee so that it reflected the risk posed by each institution, but it might be difficult to assess that risk precisely.

RELATED OPTION: Revenues, "Impose a Tax on Financial Transactions" (page 298)

RELATED CBO PUBLICATIONS: *The Budgetary Impact and Subsidy Costs of the Federal Reserve's Actions During the Financial Crisis* (May 2010), www.cbo.gov/publication/21491; letter to the Honorable Charles E. Grassley providing information on the President's proposal for a "Financial Crisis Responsibility Fee" (March 4, 2010), www.cbo.gov/publication/21020

Revenues—Option 37

Impose a Tax on Financial Transactions

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	-43.9	22.0	70.2	93.2	100.7	103.7	106.2	106.3	107.9	110.4	242.2	776.7

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2020, although some changes to revenues would occur earlier.

Background

The United States is home to large financial markets with a large amount of daily trading. In June 2018, the total dollar value of U.S. stocks was roughly \$30 trillion, and the value of outstanding bond market debt was about \$42 trillion. More than \$1 trillion in stocks and bonds—collectively referred to as securities—is traded on a typical business day, including about \$300 billion in stock and over \$800 billion in debt (which is mostly concentrated in Treasury securities). In addition, trillions of dollars in derivatives (contracts requiring one or more payments that are calculated by reference to the change in an observable variable), measured at their notional value (the total amount of the variable referenced by the derivative), are traded every business day. Those transactions may affect the taxes of individuals who engage in them, depending on the gain or loss those individuals realize; however, there is currently no per-transaction tax imposed under U.S. federal tax law. (The Securities and Exchange Commission charges a very small fee—generally 0.0013 percent—on most transactions to recover its regulatory costs; in 2018, those transaction fees totaled about \$2 billion.)

Option

This option would impose a tax on the purchase of most securities and on transactions involving derivatives. For purchases of stocks, bonds, and other debt obligations, the tax generally would be 0.1 percent of the value of the security. For purchases of derivatives, the tax would be 0.1 percent of all payments actually made under the terms of the derivative contract, including the price paid when the contract was written, any periodic payments, and any amount to be paid when the contract expires. (Such payments are generally just a small fraction

of the derivatives' notional value.) Trading costs for high-frequency traders tend to be very low—in many cases less than 0.1 percent of the value of the securities traded—so this option would generate a notable increase in trading costs for them.

The tax would not apply to the initial issuance of stock or debt securities, transactions of debt obligations with fixed maturities of no more than 100 days, or currency transactions (although transactions involving currency derivatives would be taxed). The tax would be imposed on transactions that occurred within the United States and on transactions that took place outside of the country and involved at least one U.S. taxpayer (whether a corporation, partnership, citizen, or resident).

The option would be effective a year later than nearly all of the other revenue options in this volume, so the tax would apply to transactions occurring after December 31, 2019. That delay would provide the government and firms sufficient time to develop and implement the new reporting systems that would be necessary to collect the tax.

Effects on the Budget

This option would increase revenues by \$777 billion from 2019 through 2028, according to an estimate by the staff of the Joint Committee on Taxation (JCT). The tax on financial transactions would reduce taxable business and individual income. The resulting reduction in income and payroll tax receipts would partially offset the revenues generated by the tax. The estimate for the option reflects that income and payroll tax offset.

The estimate accounts for several effects that would reduce the revenues raised by the transaction tax. The option would lead to a loss in revenues in 2019 because the transaction tax would immediately lower the value of financial assets. That reduction in the value of financial assets would cause an ongoing reduction in capital gains. In addition, JCT's estimate reflects the expectation that financial transactions would be underreported until 2022, when all reporting systems could be expected to be in place. Revenues would be lower if the implementation of the option had to be phased in because of delays in developing the new reporting systems.

The additional revenues generated by the option would depend significantly on the extent to which the number of transactions subject to the tax declined in response to the policy. The higher the tax rate was set, the greater the amount by which transactions would decline. For that reason, doubling the tax rate would not double the amount raised by the option. (Similarly, cutting the tax rate in half would lead to less than a 50 percent decline in the amount of revenues raised.) With even higher tax rates, revenues could actually fall, for two reasons. First, the higher the tax rate was set, the larger would be the indirect loss in revenues from the drop in asset values and, therefore, the loss in revenues from the taxation of capital gains. Second, a higher tax rate would reduce the revenues generated by the financial transaction tax once the percentage by which the transactions decreased exceeded the percentage by which the tax rate increased.

The estimate for the option is uncertain for two key reasons. The estimate relies on the Congressional Budget Office's projections of the economy and market activity over the next decade, which are inherently uncertain. A bigger source of uncertainty, however, is how much transactions would drop in response to a tax. If the response was smaller than expected, the tax would raise more revenues than estimated here.

Other Effects

One argument in favor of a tax on financial transactions is that it would significantly reduce the amount of short-term speculation and computer-assisted high-frequency trading that currently takes place and direct the resources dedicated to those activities to more productive uses. Some high-frequency trading involves speculation that can destabilize markets, increase volatility, and lead

to disruptive events, such as the October 1987 stock market crash and the more recent "flash crash" that occurred when the stock market temporarily plunged on May 6, 2010. Although neither of those events had significant effects on the general economy, the potential exists for negative spillovers from future events.

A disadvantage of the option is that the tax would discourage all short-term trading, not just speculation—including some transactions by well-informed traders that stabilize markets and help establish efficient prices that reflect more information about the fundamental value of assets. Empirical evidence suggests that, on balance, a transaction tax could make asset prices less stable. In particular, a number of studies have concluded that higher transaction costs lead to more, rather than less, volatility in prices. (However, much of that evidence is from studies conducted before the rise of high-frequency trading, which now accounts for a significant share of trading in the stock market.)

The tax could also have a number of negative effects on the economy stemming from its effects on asset prices, the cost of capital for firms, and the frequency of trading. Traders and investors would seek to recoup the cost of trading by raising the return they required on financial assets, thereby lowering the prices of those assets. The tax would be small relative to the returns that investors with long-term horizons could earn, so the effect on asset prices would be partly mitigated if traders and investors reduced the frequency of their trading—but less frequent trading would lower liquidity and reduce the amount of information reflected in prices. Consequently, investment could decline (even though higher tax revenues would lower federal borrowing and thus increase the funds available for investment) because of increases in the cost of issuing debt and equity securities that would be subject to the tax and potential negative effects on derivatives trading, which could make it more difficult to efficiently distribute risk in the economy. The cost to the Treasury of issuing federal debt could increase because of the increase in trading costs and the reduction in liquidity. Household wealth would decline with the reduction in asset prices, which would lower consumption.

In addition, traders would have an incentive to reduce the taxes they owed, either by developing alternative securities not subject to the transaction tax or by moving

their trading out of the country (although offshore trades by U.S. taxpayers would be taxed). Such effects would be mitigated if other countries enacted financial transaction taxes. Several members of the European Union have such

taxes, and since 2011, members have been negotiating whether to implement a common system of transaction taxes.

RELATED OPTIONS: Revenues, “Raise the Tax Rates on Long-Term Capital Gains and Qualified Dividends by 2 Percentage Points and Adjust Tax Brackets” (page 207), “Impose a Fee on Large Financial Institutions” (page 295), “Tax Gains From Derivatives as Ordinary Income on a Mark-to-Market Basis” (page 301)

RELATED CBO PUBLICATION: Letter to the Honorable Orrin G. Hatch responding to questions about the effects of a tax on financial transactions that would be imposed by the Wall Street Trading and Speculators Tax Act, H.R. 3313 or S. 1787 (December 12, 2011), www.cbo.gov/publication/42690

Revenues—Option 38

Tax Gains From Derivatives as Ordinary Income on a Mark-to-Market Basis

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	0.6	3.9	3.3	1.8	1.6	1.6	1.5	1.5	1.4	1.4	11.2	18.7

Source: Staff of the Joint Committee on Taxation.

This option would take effect in January 2019.

Background

A derivative is a contract requiring one or more payments that are calculated by reference to the change in an observable variable (often, but not always, the value of an asset) after the contract is entered into. The simplest derivatives are contracts to exchange an asset—for example, equity stocks, commodities, or foreign currencies—at a future date and at a predetermined price. Such simple derivatives can be flexible contracts that are privately negotiated between parties, known as forwards, or standardized contracts that are actively traded on exchanges and are known as futures. There are also a variety of more complex derivatives, such as options and swaps. In an option, one party has the right to buy (or sell) the underlying asset at a predetermined price at any time before the contract expires. In a swap, the derivative is not tied to a specific asset; instead, it involves the exchange of cash flows that depend on uncertain variables, such as interest rates or exchange rates.

Derivatives are used for a variety of purposes, including hedging (insuring against changes in an asset price, foreign exchange rate, or interest rate) and speculating (betting on changes in an asset's price). Taxpayers can also use derivatives to lower their tax liability, because a derivative contract can delay the realization of gains from an investment—and, as a result, potentially reduce the tax rate applied to those gains—without altering the magnitude or riskiness of that investment.

There are two main dimensions along which the tax treatment of derivatives can vary. The first is the timing of recognition of gains and losses for tax purposes. For some derivatives, gains or losses are not recognized until the underlying asset changes hands or the contract expires or is sold. Other derivatives are taxed on a mark-to-market basis—that is, their gains and losses are

calculated and taxed each year on the basis of the year-to-year change in the derivative's fair-market value. The second dimension is the categorization of income and losses. Income from some derivatives is categorized as ordinary income. Income from other derivatives is categorized as short-term capital gains, which are taxed at the same rates as ordinary income, or as long-term capital gains, which may be taxed at a lower rate. (See Revenues, Option 2, “Raise the Tax Rates on Long-Term Capital Gains and Qualified Dividends by 2 Percentage Points and Adjust Tax Brackets” for background on the taxation of capital gains.)

The tax treatment of derivatives along the two dimensions described above depends on several factors, including the type of derivative. Gains or losses arising from derivatives that are traded outside of exchanges generally are taxed when the contract is settled, has expired, or is sold. By contrast, derivative contracts that are actively traded on exchanges and have a clear value, such as futures, generally are taxed on a mark-to-market basis. The gains and losses from such derivatives are subject to a hybrid rate: 60 percent of the gain or loss is taxed at the rate applied to long-term capital gains and 40 percent is taxed at the rate applied to short-term capital gains.

Two derivatives that are otherwise identical may be taxed differently on the basis of characteristics of the people who hold them. For example, if a derivative is held by a dealer in securities—even if it is not traded on exchanges—then it generally must be taxed on a mark-to-market basis. The same derivative held by an individual investor may be subject to tax only when it is settled or expires.

Like the characteristics of the holder, the purpose for which a derivative is held can also change how it is taxed.

As an example, if a derivative is used for hedging, then gains and losses arising from the derivative are taxed in the same way as the underlying income flow or asset. By contrast, gains and losses from derivatives used for speculation are often, though not always, treated as capital gains.

Taxpayers are required to report taxable gains from derivative contracts traded on organized exchanges to the Internal Revenue Service every year; however, they generally are not required to annually determine the market value of derivative contracts that are not traded on exchanges. For that reason, annual data on total taxable gains are not available. Because the value of derivatives depends on the business cycle, taxable gains are generally larger during periods of economic growth.

Option

Under this option, most derivatives would be taxed on a mark-to-market basis. All holders of those contracts would be required to compute their gains or losses at the end of each year on the basis of changes in the contracts' fair-market value during the year. Those gains and losses would be taxed as ordinary income. (When the market value of a derivative could not be readily ascertained, taxpayers would be allowed to rely on its book value, as long as that value was estimated in accordance with accepted accounting standards.)

The option would exempt certain derivatives related to real estate and those used for hedging by businesses. In addition, the option would not extend to employee stock options, insurance contracts, or annuities.

Effects on the Budget

If implemented, this option would increase revenues by \$19 billion from 2019 through 2028, the staff of the Joint Committee on Taxation estimates. That estimate incorporates expected reductions in the use of derivatives, which would occur because the option would increase the tax rate on gains from derivatives and would also make it significantly more difficult for taxpayers to use derivatives to lower the amount of taxes they owed.

The increase in revenues would be modest because under current tax law, at least one of the two parties in most derivative transactions is already taxed on a mark-to-market basis. Over the 2019–2028 period, the increase in revenues would be larger in earlier years because, on net, the mark-to-market regime would accelerate the taxation

of gains. Initially, the revenue effect would be driven by that earlier taxation. In later years, the revenue effect would be smaller because gains that otherwise would have been taxed in those years had already been taxed in earlier years, which would offset the increase in revenues from the accelerated taxes.

The estimate for this option is uncertain because the current market value of derivatives that would be affected by the option is uncertain. Additionally, the Congressional Budget Office's projections of the economy, which affects the volume of derivatives, are uncertain. The market value of derivatives that are taxable in a given year largely depends on business-cycle fluctuations. The extent to which taxpayers would respond to this option by changing their reliance on derivatives for investing and managing risks is also uncertain. Few comparable tax changes have occurred in the past, so the empirical evidence on how people would respond to such a change is limited.

Other Effects

An argument in favor of this option is that it would eliminate a legal strategy that enables some taxpayers to reduce their taxes. Sophisticated taxpayers are able to use derivatives to lower their tax rate by advancing the recognition of losses but delaying the recognition of gains. Implementing a mark-to-market tax regime would reduce such opportunities for tax avoidance by giving taxpayers less control over the timing of gains and losses from the sales of their assets. The resulting increase in tax payments would be progressive, because the taxpayers who use derivative contracts to lower their tax liability tend to be wealthier and have higher incomes.

Another argument in favor of this option is that it would simplify the taxation of derivatives by applying the same tax treatment to most derivatives. In the case of derivatives that are difficult to value, it would make their tax treatment more consistent with their accounting treatment. However, the option could introduce new complexity into the tax system if extensive rulemaking was required to prevent opportunities for abuse in the valuation of such derivatives.

An argument against this option is that taxing unrealized capital gains on an asset before it is sold is onerous when the asset is not divisible or could not be readily sold on exchanges. By taxing derivatives on the basis of increases in their fair-market value before they are liquidated, this option would confront some taxpayers with an

immediate tax liability even when they did not have the liquidity to meet it. An alternative approach would be to restrict the mark-to-market regime to derivatives that can be easily sold on exchanges. That approach would address taxpayers' concerns about liquidity but would also limit the advantages of the mark-to-market regime.

The option would reduce the use of derivatives for speculation by treating gains on those derivatives as ordinary

income instead of capital gains. The overall effect of that reduction on financial markets is uncertain. On the one hand, speculation has a stabilizing effect on the financial system and the economy because it induces asset prices to move toward levels that reflect the true economic value of those assets. On the other hand, irrational or excessive speculation has a destabilizing effect on asset prices, the financial system, and the economy.

RELATED OPTIONS: Revenues, "Raise the Tax Rates on Long-Term Capital Gains and Qualified Dividends by 2 Percentage Points and Adjust Tax Brackets" (page 207), "Impose a Tax on Financial Transactions" (page 298)

Revenues—Option 39

Increase Federal Civilian Employees' Contributions to the Federal Employees Retirement System

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Revenues	1.4	2.9	4.2	5.6	5.5	5.4	5.3	5.2	5.0	4.8	19.7	45.4

This option would take effect in January 2019.

Background

The federal government provides most of its civilian employees with a defined benefit retirement plan through the Federal Employees Retirement System (FERS) or its predecessor, the Civil Service Retirement System. The plan provides retirees with a monthly benefit in the form of an annuity. Those annuities are jointly funded by the employees and the federal agencies that hire them. Employees contribute a portion of their salary to the plan, and those contributions are subject to income and payroll taxes. Whereas agencies' contributions to FERS do not have any effect on total federal spending or revenues because they are intragovernmental payments, employees' contributions are counted as federal revenues. Annuity payments made to FERS beneficiaries represent federal spending.

Over 90 percent of federal employees participate in FERS, and most of them contribute 0.8 percent of their salary toward their future annuity. The contribution rates for most employees hired since 2012, however, are higher. First, the Middle Class Tax Relief and Job Creation Act of 2012 increased the contribution rate to 3.1 percent for most employees hired after December 31, 2012. Then, the Bipartisan Budget Act of 2013 increased the contribution rate further, to 4.4 percent, for most employees hired after December 31, 2013.

Option

Under this option, most employees enrolled in FERS would contribute 4.4 percent of their salary toward their retirement annuity. The contribution rate would thus increase by 3.6 percentage points for employees who enrolled in FERS before 2013 and by 1.3 percentage points for employees who enrolled in FERS in 2013. The increased contribution rates would be phased in over the next four years. The dollar amount of future annuities would not change under the option, and the option would not affect employees hired in 2014 or later

who already make or will make the larger contributions under the Bipartisan Budget Act. Agencies' contributions would remain the same under the option.

Effects on the Budget

If implemented, the option would increase federal revenues by \$45 billion from 2019 through 2028, the Congressional Budget Office estimates. Annual revenues would increase gradually in the first four years as the increased contribution rate was phased in. For example, drawing on payroll data from the Office of Personnel Management, CBO estimates that in 2019, approximately 1.9 million FERS employees with an average annual salary of about \$88,000 would see their contribution rate increase by 0.9 percentage points, on average. By 2022, all federal workers enrolled in FERS would be contributing 4.4 percent of their salary toward their retirement annuity. Because the option would affect only current workers hired in 2013 or earlier, the government's savings would gradually decline as those workers retired or left federal employment.

The estimate for this option is uncertain because both the underlying projection of federal workers' salaries and the projection of the number of workers who would be affected by the option are uncertain. The estimate is based on past rates of employee retention and on CBO's projections of growth in earnings. The amount of revenues raised by the option could diverge from the estimate if there are unanticipated changes in federal workers' salaries or in the rates at which those workers leave federal employment. If salary growth is higher or lower than projected, then revenues under the option would also be higher or lower than projected. If employee retention declines as a result of the option and workers who leave the federal workforce are replaced with workers who are paid less, then revenues under the option would probably be lower than projected. In its estimate of the effect on the budget, CBO did not

consider potential changes in employee retention that might result from this option.

Other Effects

An argument in favor of this option is that it would bring federal workers' total compensation more in line with that of workers in the private sector. Federal employees receive, on average, more total compensation—the sum of wages and benefits—than private-sector workers in similar occupations and with similar education and experience. In fact, a substantial number of private-sector employers no longer provide health insurance for their retirees or defined benefit retirement annuities, instead offering only defined contribution retirement plans that are less costly. By contrast, the federal government provides a defined benefit retirement plan, a defined contribution retirement plan, and health insurance in retirement. Therefore, even if federal employees hired before 2014 had to contribute more toward their annuity, their total compensation would, on average, still be higher than that available in the private sector. In addition, because this option would not change the compensation of federal employees hired after 2014, who are already contributing 4.4 percent of their salary toward their retirement annuity, the option would probably not affect the quality of new recruits.

An argument against this option is that it would cause retention rates to decline, particularly among highly qualified federal employees. In fact, recent research suggests that federal employees are about twice as likely to leave their jobs following reductions in take-home pay compared with similar reductions in future retirement benefits. The effects on retention appear to be stronger among workers who are rated more highly in terms of performance. In addition, employees who have served

long enough to be eligible for a FERS annuity immediately upon leaving the federal workforce are forgoing annuity payments by remaining in federal service. Some of those employees might choose to retire instead of making larger contributions to the annuity in addition to forgoing payments. Also, some highly qualified federal employees have more lucrative job opportunities in the private sector than in the federal government, in part because private-sector salaries have grown faster than federal salaries since 2010. More of those employees would leave for the private sector under this option.

The option would also further accentuate the difference in the timing of compensation provided by the federal government and the private sector. Because many private-sector employers no longer provide health insurance for their retirees or defined benefit retirement annuities, a significantly greater share of total compensation in the private sector is paid to workers immediately, whereas federal employees receive a larger portion of their compensation in retirement. If that shift by private firms indicates that workers prefer to receive more of their compensation right away, then shifting federal compensation in the opposite direction—which this option would do, by reducing current compensation while maintaining retirement benefits—would be detrimental to the retention of federal employees. If lawmakers wanted to reduce the total compensation of federal employees while maintaining or increasing the share of compensation that is provided immediately, they could consider modifying the formula used to calculate federal annuities (see Appendix, Mandatory Spending, “Reduce Pension Benefits for New Federal Retirees”) or making other changes to salaries and benefits (see Appendix, Mandatory Spending, “Eliminate the Special Retirement Supplement for New Federal Retirees”).

RELATED OPTIONS: Appendix, Mandatory Spending, “Reduce Pension Benefits for New Federal Retirees” (page 310), “Eliminate the Special Retirement Supplement for New Federal Retirees” (page 310)

RELATED CBO PUBLICATIONS: Justin Falk and Nadia Karamcheva, *Comparing the Effects of Current Pay and Defined Benefit Pensions on Employee Retention*, Working Paper 2018-06 (June 2018), www.cbo.gov/publication/54056; *Options for Changing the Retirement System for Federal Civilian Workers* (August 2017), www.cbo.gov/publication/53003; *Comparing the Compensation of Federal and Private-Sector Employees, 2011 to 2015* (April 2017), www.cbo.gov/publication/52637

Revenues—Option 40

Increase Appropriations for the Internal Revenue Service's Enforcement Initiatives

Billions of Dollars	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
											2019–2023	2019–2028
Change in Outlays	0.5	1.0	1.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	7.5	20.0
Change in Revenues	0.3	1.1	2.5	4.1	5.8	7.2	8.1	8.6	8.8	8.8	13.8	55.3
Increase or Decrease (-) in the Deficit	0.2	-0.1	-1.0	-2.1	-3.3	-4.7	-5.6	-6.1	-6.3	-6.3	-6.3	-35.3

Source: Congressional Budget Office.

This option would take effect in October 2019.

Because of the budget scorekeeping guidelines used by the Congress, the revenue changes attributable to this option would not be counted for budget enforcement purposes. However, if an appropriation bill or another bill providing funding for this option is enacted, CBO's next projection of the budget deficit would incorporate its effects on revenues.

Background

In 2018, the Internal Revenue Service (IRS) received appropriations totaling \$11.4 billion—about 20 percent less than it received in 2010, when appropriations for the IRS reached their highest level from 1998 through 2018. (To compute that percentage change, the Congressional Budget Office converted the dollar amounts to 2018 dollars to remove the effects of inflation. For personnel costs, inflation was measured using the employment cost index for wages and salaries of private industry workers; for all other spending, the measure of inflation was the chain-type price index for U.S. gross domestic product.) Since 2010, the biggest reductions in the IRS's appropriations have been in funding for enforcement (although enforcement still received the largest share of funding—43 percent—in 2018). The reduction in enforcement funding has coincided with a drop in audits: The percentage of tax returns audited declined from 0.9 percent in 2010 to 0.5 percent in 2017.

Increasing the funding for the IRS's enforcement initiatives (often referred to as program integrity initiatives)—activities, such as expansions of audits and collections, that could improve compliance with the tax system—would, in CBO's estimation, cause federal revenues to increase. Because of the budget scorekeeping guidelines used by the Congress, those additional revenues would not be counted for budget enforcement purposes. However, if an appropriation bill or another bill providing increased funding for program integrity initiatives is

enacted, CBO's next estimate of the budget deficit would incorporate the effects of that provision on revenues.

Option

This option would increase the IRS's funding for enforcement initiatives by \$500 million in 2019. Those new initiatives that began in 2019, which would increase the number of audits of both individuals and businesses and enhance collection actions, would remain in effect through 2028 and beyond. From 2020 through 2023, the option would raise the IRS's appropriations for audits and collection actions by additional amounts, in annual increments of \$500 million. From 2024 to 2028, the increase in appropriations for enforcement activities would remain at \$2.5 billion. As a consequence, the appropriation for IRS enforcement would be over 35 percent higher in 2028 than the amount projected under current law, in CBO's estimation. Like the initiatives that would begin in 2019, new initiatives in each year over the next decade would remain in effect through 2028 and beyond.

Effects on the Budget

CBO estimates that the option would raise revenues by \$55 billion from 2019 through 2028. On net, accounting for the total increase to the IRS's appropriations over that period, which would equal \$20 billion, the option would reduce the deficit by \$35 billion. Those estimates include only the revenues received by the IRS during the 10-year window; the estimates exclude taxes owed

by taxpayers as a result of audits conducted through 2028 but not collected by the IRS until after that year.

To implement a new initiative, CBO anticipates that the IRS would have to hire and train new staff (and possibly provide more training for current personnel) and modify its computer programs. Therefore, in CBO's assessment, the new compliance initiatives would not be fully implemented until they had been in effect for three years. As a consequence, the return on investment (ROI)—the increase in revenues resulting from an additional dollar of appropriations—would increase gradually over the first three years an initiative was in effect. For example, CBO projects that the ROI for the 2019 initiatives would be \$1.20 in that year and would rise to \$5.20 in 2021, when staff training and computer upgrades were completed.

In CBO's assessment, taxpayers would gradually become aware of some of the changes in the IRS's enforcement techniques associated with the initiatives. In response, they would shift to other, less detectible forms of tax evasion. As a consequence, the ROI for the 2019 initiatives would fall from \$5.20 to \$4.20 by the end of the 10-year period, CBO estimates.

CBO expects that the IRS would tackle the areas of non-compliance with the highest ROI first (that is, it would begin with the least difficult cases to pursue). For that reason, CBO estimates that the ROIs on the 2020 initiatives would be lower than those on the 2019 initiatives, the ROIs on the 2021 initiatives would be lower than those on the 2020 initiatives, and so forth.

The largest source of uncertainty in the estimates relates to the limited data available for the computation of ROIs. The estimates are largely based on the IRS's past audits and collections. However, the IRS might use the additional appropriations to develop and implement new ways to audit taxpayers and to collect taxes owed. To the extent that those new initiatives diverged from the approaches used in the past, the revenues raised by the option would differ from the estimates reported above.

A second large source of uncertainty concerns which people would be subject to new enforcement activities, given that very different techniques are used to audit diverse categories of taxpayers. Because of the complexity of their returns, higher-income people and businesses are usually audited through face-to-face meetings with

the IRS's auditors. Those audits also typically encompass most or all items required to be reported on tax returns. By contrast, most audits of lower- and moderate-income taxpayers focus on fewer issues and are conducted through correspondence. Thus, audits of higher-income people and businesses are more costly, on average, than audits of taxpayers with lower income. However, the amounts collected from audits of higher-income taxpayers are, on average, much larger than collections from audits of taxpayers with lower income.

A third source of uncertainty concerns the IRS's ability, at least initially, to implement new compliance initiatives. Outdated computer systems and a reduction in the number of experienced employees (as more employees become eligible for retirement in the next decade) would slow the implementation of new initiatives. If the hiring and training of staff and the updates to the IRS's computer systems for new initiatives took more than three years, the revenues raised by the option would be less than the estimates shown.

A fourth source of uncertainty is the extent to which taxpayers would respond to new enforcement initiatives by becoming more compliant with the tax code. The estimates do not reflect the very uncertain effects that enhanced enforcement might have on voluntary compliance.

Other Effects

The principal argument for the option is that increasing the IRS's resources would not only reduce the deficit, on net, but would also improve tax compliance without raising tax rates, broadening the tax base, or imposing new taxes. If the option was implemented, many taxpayers who are not compliant under the current tax system would pay the taxes they owe.

The main argument against the option is that increasing the number of audits would impose burdens on some compliant taxpayers, even though the audits would target noncompliant taxpayers. The criteria used to select taxpayers for audits are not perfect, and some compliant taxpayers would be audited. Although they had been compliant, they would potentially bear the costs of audits—for example, through payments to accountants and lawyers, earnings lost because of appointments with auditors, the monetary and nonmonetary costs associated with compiling documentation, and the anxiety caused by interactions with the IRS. Lower-income taxpayers,

in particular, may not have sufficient resources to dispute assessments by the IRS. Some compliant taxpayers might pay the IRS's assessments simply because they viewed the costs of disputing those assessments as greater than the amount of taxes the IRS claimed was owed.

Although the option would boost tax collections, increasing funding for audits and collections—even by much more than the option specifies—would not be sufficient to substantially reduce noncompliance. Combining an increase in funding with legislation that expanded

enforcement mechanisms (such as enabling the IRS to obtain more information that could be used to verify taxpayers' claims or imposing higher penalties) would probably be a more effective approach to significantly increase compliance and reduce the budget deficit. Simplifying or substantially changing the tax code would, to some extent, further improve compliance, although some approaches that would reduce noncompliance (for example, eliminating complicated rules that would limit the amount of a deduction) would also increase the deficit.

RELATED CBO PUBLICATIONS: Janet Holtzblatt and Jamie McGuire, *Factors Affecting Revenue Estimates of Tax Compliance Proposals*, Working Paper 2016-05 (November 2016), www.cbo.gov/publication/52199; *Estimating the Revenue Effects of Proposals to Increase Funding for Tax Enforcement* (June 2016), www.cbo.gov/publication/51699; *Additional Information on the Program Integrity Initiative for the Internal Revenue Service in the President's Budgetary Proposals for Fiscal Year 2012* (June 2011), www.cbo.gov/publication/41531