TPC TAX POLICY CENTER
URBAN INSTITUTE & BROOKINGS INSTITUTION

ARE TAX EXPENDITURES WORTH THE MONEY?

Frank Sammartino and Eric Toder

January 22, 2020

ABSTRACT

In this report, we evaluate major federal tax expenditures. We distinguish between tax expenditures that are effectively spending programs and those that are departures from a comprehensive income tax but are not essentially spending substitutes. Most major tax expenditures have some policy justification but could be redesigned to better promote policy goals for the same or lower cost. Many smaller tax expenditures that provide special benefits to selected industries or individuals, however, are more difficult to justify on policy grounds. We list these at the end of the report.

The Congressional Budget Act of 1974 defines tax expenditures as "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability." The Treasury Department notes that these exceptions "may be viewed as alternatives to other policy instruments, such as spending or regulatory programs."[1]

Although recorded in the budget as revenue reductions (thereby making government appear smaller), tax expenditures can be designed to have the same effects on income distribution and the allocation of resources among economic activities as equivalent spending programs (Bradford 2003; Burman and Phaup 2011; Marron 2011). A complete measure of government size would treat these preferences as spending rather than revenue reductions.

Simply counting all tax expenditures as substitutes for spending, however, would overstate the amount of spending through the tax code. Tax expenditures are defined as exceptions to a modified version of a comprehensive income tax that recognizes that some exceptions will exist for reasons of administrability and political feasibility.[2] Because the definition of this normative tax base against which tax expenditures are measured is subjective, some authors (Fiekowsky 1980; Kleinbard 2010; Shaviro 2004; Toder 2005; Marron 2011; Marron and Toder 2011) have suggested distinguishing between those tax expenditures that clearly represent disguised spending and those that represent structural departures from a comprehensive income base but do not obviously replace any direct spending program. These authors focus on a subset of tax expenditures that replace subsidies or transfer payments that could otherwise be structured as outlays.

In this report, we follow in that tradition. We distinguish between the major tax expenditures that we view as spending programs administered through the tax code and those that do not clearly substitute for a spending program but instead represent ways the provisions of current federal individual and corporate income taxes fall short of a comprehensive income tax. The latter set of structural tax policy choices are important subjects for analysis and offer ideas for ways to reform the tax law but are not clear alternatives to federal outlays. We consider both types of tax expenditures in our analysis.

Tax expenditures that are effectively spending substitutes take two forms. The first, which we refer to as subsidies, encourage certain economic activities by providing tax relief to households that consume favored goods and services and to households and businesses that invest in certain activities. The second form, which we refer to as transfer payments, provide relief to certain categories of taxpayers based on their personal and family circumstances. Some tax expenditures are both subsidies and transfer payments. For example, the earned income tax credit is an earnings subsidy, but it also provides targeted benefits to low-income working families with children.

Tax expenditures provide a significant share of government assistance to many worthwhile activities, such as promoting health insurance coverage; owner-occupied housing; general support for states, localities, and

private charitable organizations; higher education, retirement savings; and support for low-income working families and families with children. But many tax expenditures could better promote those activities if they were modified or redesigned. Others, however, provide unwarranted special benefits to certain industries and individuals. The revenue saved from modifying some tax preferences and eliminating others could pay for broad-based tax relief or unmet societal needs.

QUESTIONS FOR EVALUATING TAX EXPENDITURES

In evaluating tax expenditures, policymakers should ask the following questions:

1. What public policy goal does the tax expenditure provision seek to achieve? Is there a need for government intervention at all?

2. If the tax expenditure is a subsidy that intends to promote more of some activity, does the activity generate any societal benefit beyond the gain to direct consumers of the good or service? If so, are the benefits sufficient to justify the cost? Is it well targeted at the activity that it intends to promote, and is it structured as effectively as it could be? If not, how could it be modified to make it more effective in achieving its objectives?

3. If the tax expenditure is a transfer payment aimed at certain beneficiaries, is there a justification for providing special assistance to the category of people receiving the tax break? Does it provide equal assistance to taxpayers in similar economic circumstances who meet the criteria? Is it effectively targeted to assist only the intended beneficiaries?

4. Does the tax expenditure duplicate or conflict with other tax provisions? Is it coordinated with spending programs with similar objectives? What changes could be made to avoid either wasteful duplication or incomplete coverage?

5. Are the provision's objectives best achieved by a tax expenditure, or would be it be more effective and transparent to have a direct spending program instead? Is the Internal Revenue Service the best agency to administer the provision?

If the conclusion is that a tax expenditure is unjustified or poorly targeted, then policymakers must consider the economic disruption or losses to selected families or businesses if the tax expenditure were eliminated or restructured. How then can the tax expenditure be phased out to minimize economic harm to current beneficiaries?

We first evaluate tax expenditures that we classify as spending substitutes. (We discuss major tax expenditures that we classify as tax policy choices in the next section.) We confine our attention to tax preferences with significant costs (at least $50 billion over 10 years). Although we consider questions 4 and 5 to be important, we do not address them here in any detail because some go well beyond the scope of this report (for example, whether it would be better to encourage housing through a mortgage subsidy program

administered by the Department of Housing and Urban Development rather than the mortgage interest deduction).

SPENDING SUBSTITUTES

As noted, tax expenditures that are spending substitutes take two forms: those that are primarily subsidies for certain economic activities and those that are primarily transfer payments for certain groups of taxpayers. In this report, we limit our evaluation of spending substitutes to the former, thus excluding such tax expenditures as the child tax credit and other benefits for children and dependents, the earned income credit and other income security provisions, and the partial exclusion for Social Security benefits. We consider questions about the distributional fairness of transfers administered through the tax code to be a matter of broad social policy rather than of tax policy.

The major tax expenditures that fall into the category of subsidies are (1) exclusion of employer contributions for health insurance premiums and health care, (2) health savings accounts and medical savings accounts, (3) deductibility of mortgage interest on owner-occupied homes, (4) deductibility of charitable contributions, (5) deductibility of nonbusiness state and local taxes, (6) exclusion of interest on state and local bonds, (7) tax credits for postsecondary education expenses, (8) tax credits for increasing research activities, and (9) tax credits for low-income housing investments.

In the appendix, we provide a list of smaller tax expenditures that we consider to be spending substitutes that are mostly subsidies but that we believe may not have sufficient societal benefits to warrant government intervention.

Exclusion of Employer Contributions for Health Insurance Premiums and Health Benefits

The largest single tax expenditure for health care is the exclusion of employer contributions for employee health insurance premiums, health care, and long-term-care insurance premiums. These contributions are excluded from an employee's gross income, although an employer may deduct the cost as a business expense. The exclusion reduces the amount employees pay in both income and payroll taxes. A separate income tax deduction applies to health insurance premiums paid by self-employed workers.

The exclusion encourages the purchase of employer-sponsored health insurance, which provides workers with the price advantage of group coverage and avoids the problem of adverse selection, which can arise in the individual insurance market if healthier people avoid purchasing insurance. The exclusion has contributed to widespread health insurance coverage for working-age adults. About 80 percent of working adults ages 19 to 64 have private health insurance coverage through their employer, through their union, or purchased directly from an insurance company (Berchick, Hood, and Barnett 2018).

Not everyone benefits from the exclusion, however. Employer-based coverage is not available to all employees, generally excluding some part-time or intermittent workers. They and other individuals who must purchase health insurance coverage in the individual market do not receive the same tax advantages for their insurance purchases. They can deduct health insurance premiums if they itemize their deductions, but they can only deduct the amount paid for premiums and other out-of-pocket medical expenses that exceeds 7.5 percent of their adjusted gross income (10 percent after 2020).

Further, the open-ended nature of the exclusion likely has increased health care costs by encouraging the purchase of more comprehensive health insurance policies with lower cost sharing or with less tightly managed care than consumers would otherwise purchase. And because the exclusion for health insurance premiums reduces taxable income, it is worth more to taxpayers in higher income tax brackets than to those in lower brackets. The increased subsidy per dollar of premium combined with the greater likelihood of employer-sponsored insurance and higher premiums for higher-income workers tilts the tax benefits from the exclusion toward the upper part of the income scale.

Addressing the lack of coverage for those without employer-based coverage would go well beyond changes to the employer exclusion. However, changes to the exclusions could address some of the other issues.

POSSIBLE REFORMS

Capping the deduction would limit the incentive to provide expensive employer-sponsored health insurance and would restrain health care spending (Gruber 2011). Depending upon where the cap was set, capping the deduction could lead some employers to discontinue insurance coverage, particularly in areas with high health costs. Plans that continued would likely raise deductibles and other cost-sharing provisions to keep the cost of coverage below the cap. This would encourage employees to scale back health care spending, likely forgoing some unnecessary medical procedures but also postponing or forgoing needed care.

As an alternative to capping the deduction, the Affordable Care Act imposed an excise tax on employer-sponsored health insurance that exceeds specified thresholds. Although not a direct limit on the exclusion for health benefits, this "Cadillac tax" has a similar effect. Either way, benefits above the thresholds would be taxed. Employers could avoid the excise tax by shifting compensation from health benefits to taxable wages, which would be subject to income and payroll taxes, or they could continue to offer high-cost health plans and pay the excise tax on those excess benefits. The Cadillac tax was originally scheduled to take effect in 2018 but was delayed twice by legislation, and ultimately repealed before taking effect.

In his 2008 presidential campaign, Senator John McCain proposed replacing the employer exclusion with a refundable tax credit for the purchase of health insurance. The proposed credit would equal $2,500 for individuals and $5,000 for families initially (and be indexed for inflation) and would apply to insurance purchased through the group market or individually. A credit would equalize tax benefits across taxpayers in different tax brackets as well as between those with employer-sponsored insurance and those with coverage from other

sources, and a refundable credit would make insurance coverage more affordable to low-income people whose tax liability falls below the value of the credit (Burman and Gruber 2005). A fixed-dollar credit does not subsidize insurance on the margin, which could lower health care costs. Substituting a credit for the employer exclusion, however, raises some issues (Blumberg and Holahan 2008). It could make insurance less affordable for people with substantial health care needs or those living in areas with high health care costs; it could still leave insurance coverage unaffordable for low-income families and individuals; and it would likely cause employer-sponsored insurance to decline, pushing more people into the higher-cost nongroup insurance market.

Health Savings Accounts and Medical Savings Accounts

Individuals who participate in a qualifying high-deductible health insurance plan (HDHP) can establish a health savings account (HSA) to pay for qualifying medical expenses (Dolan 2016). Both employees and employers can make contributions to an HSA. Contributions made by employers are exempt from federal income and payroll taxes, and account owners can deduct their contributions from income subject to federal income taxes. Any income earned on the funds in an HSA accrues tax free, and withdrawals for qualifying medical expenses are not taxed. Withdrawals used for nonqualifying expenses are subject to income tax and an additional 20 percent penalty, but the penalty is waived for account holders who are disabled, are age 65 or older, or have died. Unused balances can be carried over from year to year without limit.

HSAs are an expanded version of medical savings accounts. Like HSAs, medical savings accounts have many of the same tax advantages and require account holders to have an HDHP. They are limited, however, to self-employed workers or workers in firms of 50 or fewer employees.

HSAs and their associated HDHPs place more of the health care financing burden on the individuals or families incurring out-of-pocket costs and are intended to encourage more cost-conscious health care spending. Studies indicate that HSAs and HDHPs limit health care spending, but some of that reduction is because people delay or forgo needed care (LoSasso, Shah, and Frogner 2010; Fronstin, Sepulveda, and Roebuck 2013).

In practice, HSAs are most attractive to higher-income individuals because the tax exemptions associated with contributions, account earnings, and withdrawals are of greater value for taxpayers in higher income-tax brackets. Moreover, high-wage workers are more likely to be constrained by contribution limits for retirement accounts and thus use HSAs as an additional means of tax-preferred saving.

HSAs may weaken the overall health care insurance market. They are most attractive to healthy individuals with enough income and savings to afford the higher out-of-pocket costs in an HDHP in the event they become ill. By siphoning healthy people from traditional group plans, the remaining participants in those plans will see their premiums go up to cover the resultant higher average cost per participant (Blumberg and Clemans-Cope 2009).

Mortgage Interest Deduction

Homeowners claiming itemized deductions can deduct mortgage interest payments from their federal income tax. The home mortgage interest deduction for new mortgage debt is limited to interest on loans of up to $750,000.

The deduction is considered a tax expenditure because the asset to which it applies (a home) does not generate taxable income, so deducting the cost is not part of measuring net income correctly but rather a subsidy to homeowners. In contrast, deducting interest and taxes is necessary to measure net income correctly for individuals holding business assets that generate taxable receipts.

Whether the mortgage interest deduction serves a needed public purpose is unclear. It is often rationalized as a way to increase homeownership, but setting aside whether society benefits enough from having people own rather than rent housing to justify the cost of the deduction, the current tax expenditures for owner-occupied housing probably do little to increase homeownership (Gale, Gruber, and Stephens-Davidowitz 2007). For example, the US homeownership rate is similar to that of many other developed countries that do not allow a deduction for mortgage interest, such as Australia, Canada, and the United Kingdom.

The bulk of the subsidies go to middle- and upper-income households that likely would own their homes anyway. Instead of encouraging home ownership, the subsidy facilitates the acquisition of bigger houses, second homes, and larger mortgage debt. Further, evidence suggests that the tax subsidy raises housing costs, thus increasing the cost of home ownership for the approximately 90 percent of households who do not itemize deductions and thus cannot claim deductions for mortgage interest or property taxes.

POSSIBLE REFORMS

Several options are available for reforming the mortgage interest deduction. One option is simply to end it. Eliminating the deduction would likely reduce home prices but, by doing so, could increase the rate of homeownership (Sommer and Sullivan 2018). To avoid disruptions to the housing market, the deduction could be phased out over time.

Replacing the deduction for mortgage interest with a nonrefundable credit available to all homeowners, not just those who itemize deductions, would extend the tax benefits to most homeowners with mortgages (Toder 2013a). The credit could be combined with the current $750,000 mortgage cap or with a reduced cap, which would provide more of a benefit to middle-income taxpayers.

Several alternatives target first-time homebuyers, such as a first-time homebuyer’s credit. If the credit were refundable, the subsidy would be available to low-income families. Another option is a first-time homebuyer savings incentive program. Under such a program, prospective homebuyers would receive matching contributions from the federal government as a percentage of their annual contributions (up to a limit) to a special homebuyer’s savings account (Carasso, Steuerle, and Bell 2005).

Charitable Contributions

Taxpayers who itemize deductions may deduct the amount they contribute to qualified charities from their taxable income. The charitable deduction subsidizes donors by lowering the net cost of the gift, creating an incentive to give more to charities. The subsidy provides social benefits if the charities receiving the gifts supply benefits and services that substitute for government spending (Colinvaux 2013).

The charitable deduction is only available to those who itemize their deduction, or about 1 in 10 taxpayers under current law. Further, the value of the subsidy depends upon the donor's marginal tax rate. For instance, it costs a donor in the 37 percent tax bracket only 63 cents of after-tax income for every dollar donated to a qualifying charity, while the cost per dollar donated is 76 cents for a taxpayer in the 24 percent bracket (and one dollar for taxpayers who claim the standard deduction). Higher-income individuals generally save more taxes by giving to charity than those with lower incomes both because they have higher marginal tax rates and because they are more likely to itemize deductions and take advantage of the tax savings.

Charitable contributions are intended to assist people the charity supports, such as through education, health care, or direct economic support. Because donors choose the charitable activities to which they make contributions, they effectively have a direct say about which activities the government supports financially. Although this may be considered a beneficial democratization of government policymaking, it can also produce subsidies for activities or organizations that far exceed the societal benefits they create and give higher-income individuals a greater ability to direct the use of public dollars than most taxpayers. As a result, there have been many proposals to reform the deduction for charitable contributions (Colinvaux, Galle, and Steuerle 2012).

POSSIBLE REFORMS

One option for limiting the deduction is to impose a more stringent cap on qualified contributions. Currently, deductible contributions are limited to 60 percent of income. A more stringent cap would reduce the cost of the deduction but also would likely cause contributions to decline. Contributions above the cap would not be subsidized, and many nonprofits rely heavily on large donations from wealthy donors.

Another option for reducing the cost of the deduction is to limit the deduction to contributions above a certain floor, either a dollar amount or a percentage of income (Congressional Budget Office 2011). A floor would simplify administration for the Internal Revenue Service because it would no longer need to verify the validity of small donations claimed on tax returns.

Some proposals would make the charitable deduction available to all taxpayers, not just those who itemize deductions. A universal deduction would be inefficient, however, because it would subsidize donations that taxpayers would normally make without a deduction. It also would be difficult for the Internal Revenue Service to monitor small donations amounts. A universal deduction combined with a modest floor would limit the revenue loss as well as many of the problems with noncompliance and complexity. A floor would leave in place a marginal incentive to give for all taxpayers.

Other proposals would convert the deduction into a nonrefundable credit. A credit would maintain the marginal incentive to give and make the incentive available to everyone with a positive tax liability, but it would reduce the incentive to give for high-income taxpayers whose marginal income tax rate exceeds the credit rate. The credit could also be combined with a floor to limit the revenue loss and reduce potential noncompliance.

State and Local Tax Deduction

Taxpayers who itemize deductions on their federal income tax returns can deduct state and local real estate and personal property taxes as well as either income taxes or general sales taxes. The 2017 Tax Cuts and Jobs Act (TCJA) capped the state and local tax (SALT) deduction at $10,000. There was no limit on the amount of SALT that taxpayers could deduct before the TCJA, but other tax provisions, chiefly the alternative minimum tax, limited the tax benefits from the deduction.

The SALT deduction provides state and local governments with an indirect federal subsidy by decreasing the net cost of nonfederal taxes for those who pay them. For example, if state income taxes increase by $100 for a family in the 37 percent federal income tax bracket claiming the SALT deduction but not at the $10,000 limit, the net cost to them is $63; that is, state taxes go up by $100, but federal taxes go down by $37.

This federal tax expenditure encourages state and local governments to levy higher taxes (and provide more services) than they otherwise would. It also encourages those entities to use deductible taxes in place of nondeductible fees and other charges.

Most of the direct benefit from the SALT deduction goes to taxpayers in the highest income groups. The deduction is available only to taxpayers who itemize. High-income taxpayers are more likely to itemize, have total state and local taxes that meet or exceed the $10,000 limit on the deduction, and receive a greater tax saving for each dollar deducted because they are in higher income tax brackets (Sammartino 2016; Sammartino and Rueben 2016). Other people may benefit indirectly, however, if the deduction encourages states and localities to spend more on services that benefit low and middle-income households or to levy more progressive taxes than they otherwise would.

POSSIBLE REFORMS

Many tax reform proposals have included full repeal of the SALT deduction (Debt Reduction Task Force of the Bipartisan Policy Center 2010; National Commission on Fiscal Responsibility and Reform 2010; President's Advisory Panel on Federal Tax Reform 2005). States strongly opposed past attempts at repeal, arguing that it would diminish their ability to raise revenues to meet their budget obligations.

There are arguments both for and against the SALT deduction (Committee for a Responsible Federal Budget 2017; Hemel 2019: Sullivan 2017). Critics argue that state and local taxes simply reflect payments for the services those jurisdictions provide, so they should be treated no differently than other spending. They also point to the uneven distribution of benefits across income groups and states. Proponents counter that the

portion of an individual's income claimed by state and local taxes is not disposable income, and taxing it at the federal level is double taxation. Moreover, they argue that federal subsidies are warranted because a significant portion of state and local government spending is for education, health, public welfare, and transportation, all of which benefit the population in other jurisdictions as well. The federal government subsidies these activities when they are supplied by the nonprofit sector through the deduction for charitable contributions, so the same benefits should be available for services supplied by states and localities.

Whether federal support for state and local governments is better accomplished through direct spending or tax subsidies is another matter. The answer depends upon the desired degree of federal control or state flexibility regarding the use of those subsidies and political considerations regarding whether it is easier to authorize that support by enacting spending or tax legislation.

The current limit on the SALT deduction expires after 2025. Short of full reinstatement or full repeal of the deduction, policymakers could continue to cap it in some way or replace it with a credit. A tax credit would extend the tax benefit to middle-income taxpayers who pay state income and property taxes but do not itemize their federal tax deductions.

Exclusion of Interest on State and Local Government Bonds

The federal income tax exempts interest payments received from municipal bonds. State and local governments also typically exempt interest on bonds issued by a taxpayer's state of residence, but tax interest on bonds issued by other jurisdictions. Because of the federal tax exemption, state and local governments can borrow more cheaply than other debt issuers, such as corporations, for a given level of risk and maturity. The federal tax exemption therefore functions as a federal subsidy to state and local borrowing for public infrastructure investment and other purposes (Maguire 2012; Congressional Budget Office and Joint Committee on Taxation 2009).

State and local government bonds fund public projects such as the construction of schools, roads, and other public buildings. Those jurisdictions also issue private activity bonds, which fund qualified private projects such as the construction of schools and hospitals by nonprofit organizations. Whereas public purpose bonds can be issued in unlimited amounts (subject to each state's requirements), the federal government limits the amounts of certain categories of private activity bonds that each state can issue.

The tax exemption encourages state and local governments to invest in public capital, which benefits society. However, the federal tax exemption is not as efficient as it might be because taxpayers in higher income tax brackets receive more than the inducement needed to purchase municipal bonds (Poterba and Verdugo, 2011). For example, if a high-grade taxable municipal bond yielded 4 percent, and the yield for a comparable tax-exempt bond was 3 percent, taxpayers whose federal tax rate was 25 percent should be indifferent between the two types of bonds, because each would have the same after-tax yield of 3 percent. Anyone in a higher tax bracket would receive a windfall that generates no additional benefit for the borrower.

For example, a taxpayer in the top 37 percent tax bracket holding a $10,000 bond would receive an after-tax return of $252 ($400 minus tax of $148) from the taxable bond and $300 from the tax-exempt bond. Thus, not all the benefit from the subsidy for tax-exempt borrowing would go to the state and local government issuing the bond. The federal tax exemption would cost the federal government $148 but only reduce the cost of borrowing by the issuing government by $100 (the reduction in interest cost from $400 to $300). The additional $48 would go to the highest-bracket investor.

POSSIBLE REFORMS

Because of this inefficiency, the federal government authorized the use of tax-credit bonds in 1997. Holders of tax-credit bonds receive a credit against federal income taxes in lieu of all or part of the interest they would receive on a typical tax-exempt bond. They must report the tax credit as income, but they can use the credit to offset their federal income tax liability. The tax credit allows state and local governments to issue bonds at lower rates than taxable bonds with the entire federal subsidy going toward lowering their borrowing costs. Build America Bonds issued in 2009 and 2010 are an example of a form of tax-credit bond (they also could be issued as direct pay bonds, as described below).

Direct pay bonds are a special type of tax-credit bond in which state and local governments issue conventional taxable bonds but receive a direct payment from the federal government to subsidize a portion of their borrowing costs. Build America Bonds were a form of direct pay bonds issued in 2009 and 2010 as an economic stimulus measure to promote state and local government spending. They were successful in attracting investors, in part because the federal subsidy rate of 35 percent (issuers received payment equal to 35 percent of the taxable interest paid to the bondholder) was somewhat higher than the implicit federal subsidy provided by tax-exempt bonds.

Aside from Build America Bonds, tax-credit bonds have not been particularly well received because of the limited size and short duration of the programs and the nonrefundability of the tax credits, which makes them unattractive to tax-exempt investors, such as pension funds and nonprofit endowments that typically invest in taxable securities. The TCJA repealed the authority to issue tax-credit bonds and direct-pay bonds after December 31, 2017.

However governments reform the treatment of public-purpose bonds, a separate issue is how much to allow states and localities to use their tax-exempt borrowing privilege to subsidize private-sector activities. Although private activity bonds already are subject to volume caps, one option is to eliminate the tax exemption of interest for all private purpose bonds. Private activity bonds generally have some public benefits, but those benefits may be small relative to the value of some projects. In those cases, the nongovernmental organization or consumers of the activity it engages in capture most of the benefits from the subsidy. In lieu of the tax-exemption the federal government could subsidize specific projects directly through low-cost loans or other means. This would allow it to choose which project to fund and at what level.

Education Expenses

The federal government provides individuals with financial assistance for higher education in two major ways: traditional student aid (such as loans, grants, and work study) and tax benefits. The latter includes three broad classes of tax benefits: tax credits for tuition and related expenses, tax deductions for student loan payments, and special tax treatment for education savings plans.

The largest item is tax credits for postsecondary education, which comprise two credits: the American opportunity tax credit and the lifetime learning credit. The American opportunity tax credit provides up to $2,500 per student during the first four years of undergraduate postsecondary school. Up to $1,000 of the American opportunity tax credit is refundable. The lifelong learning credit equals 20 percent of tuition and fees for any postsecondary education expense, up to a maximum annual credit of $2,000 per taxpayer. That maximum applies to the combined expenses of all students in the household claiming the credit. The LLC is nonrefundable, so only people who owe income tax can benefit.

Both credits largely benefit middle-class households because such households typically have larger out-of-pocket expenses for higher education than lower-income households, who may be eligible to receive traditional aid through Pell grants and other spending programs.

Some research suggests the credits have increased college enrollment (Turner 2011), but other studies have found that the effects on enrollment were small or nonexistent (Bulman and Hoxby 2014; Dynarski and Scott-Clayton 2016).

POSSIBLE REFORMS

The credits could be more effective if they were larger and covered additional expenses. Some books are eligible expenses under the American opportunity tax credit, but policymakers could provide additional assistance by broadening it to include room and board.

The credits suffer from a poor match between the timing of expenses and receipt of the credits. Providing benefits directly to schools when students enroll, rather than months later when their families file tax returns, could help students cover college costs when they are obliged to make payments. Benefit amounts would be based on estimates of the previous year's taxes.

Also, consolidating the overlapping credits into a single credit would make the process more transparent and easier to navigate for students and taxpayers (Dynarski, Scott-Clayton, and Wiederspan 2013).

Low-Income Housing Credit

The low-income housing tax credit (LIHTC) subsidizes the acquisition, construction, and rehabilitation of affordable rental housing for low- and moderate-income tenants. The federal government issues tax credits to state and territorial governments. State housing agencies then award the credits to private developers of affordable rental housing projects through a competitive process. Developers generally sell the credits to

private investors (in most cases, financial institutions) to obtain funding. Once the housing project is made available to tenants, investors can claim the LIHTC over a 10-year period.

The LIHTC was enacted as part of the 1986 Tax Reform Act and has been modified several times. Since the mid-1990s, the LIHTC program has supported the construction or rehabilitation of about 110,000 affordable rental units each year (though there was a steep drop-off after the Great Recession of 2008–09), totaling about 2 million units since its inception.

The LIHTC is estimated to cost around $9 billion a year. It is by far the largest federal program encouraging the creation of affordable rental housing for low-income households. Supporters see it as an effective program that has substantially increased the affordable housing stock for more than 30 years. The LIHTC addresses a major market failure: the lack of quality affordable housing in low-income communities. Efficiencies arise from harnessing private-sector business incentives to develop, manage, and maintain affordable housing for lower-income tenants.

Critics of the LIHTC argue that the federal subsidy per unit of new construction is higher than it needs to be because of the various intermediaries involved in its financing—organizers, syndicators, general partners, managers, and investors—each of whom are compensated for their efforts. As a result, a significant part of the federal tax subsidy does not go directly into the creation of new rental housing stock. Critics also see the complexity of the statute and regulations as another potential shortcoming. And some state housing finance authorities tend to approve LIHTC projects in ways that concentrate low-income communities where they have historically been segregated and where economic opportunities may be limited. Finally, although the LIHTC may help construct new affordable housing, maintaining that affordability is challenging once the required compliance periods are over.

Research Credit

Businesses can claim a nonrefundable tax credit for their qualified research expenditures. They can claim the regular credit, which is equal to 20 percent of their research expenditures above a base amount or an alternative simplified credit equal to 14 percent of research expenditures above an alternative base amount. In either case, the base amount is partially determined by research expenditures in previous years to promote increases in research expenditures.

The research credit was first enacted as a temporary measure in the Economic Recovery Tax Act of 1981 and was subsequently modified and extended many times, often retroactively after it had expired (meaning the savings from its expiration never materialized). Congress made the credit permanent in 2015, providing more predictability for firms and a more honest accounting of its budgetary costs. How much additional predictability the new permanent status has provided is unclear, however, because based on past behavior, businesses may have expected that the credit would never expire.

The main justification for the credit is that research outlays by firms create spillover benefits that the firms performing the research do not fully capture through patents or through the market advantage they gain from introducing new products and services before their competitors do. The spread of knowledge from company-funded research generates wider benefits for other firms and society in general. Absent some government subsidy, firms would spend too little on research, and socially beneficial investments that fail to meet a private-market test would not be pursued.

Governments can encourage research through direct grants to projects that government agencies select. The research credit, in contrast, gives firms more discretion in choosing how to use public research dollars (within the limits that the legislation and regulations provide to determine what is a qualifying expenditure). The credit thereby encourages a broader array of research projects and programs than public officials may have thought of. However, it also encourages research that is more directed to applications than to basic science, and it may support some outlays that produce few if any spillover benefits.

Research suggests that the credit has increased research outlays with roughly a dollar-for-dollar increase in research spending (Office of Tax Analysis 2016). Some research finds a larger effect, but some of that may reflect an increase in research activities that qualify for the credit rather than an overall increase in research (Rao 2016).

POSSIBLE REFORMS

Several design reforms could improve the credit's efficiency (Government Accountability Office 2009; Guenther 2015). One issue with the credit is that because it is not refundable, small innovative start-up firms cannot use the credit because they do not yet generate income and thus do not have tax payments to offset. The 2015 legislation discussed previously partially addressed that issue by allowing small start-up firms to use credits of up to $250,000 to offset employer payroll taxes.

TAX POLICY CHOICES

The major tax expenditures that could be considered "structural tax policy choices" can be grouped into five categories: (1) international tax provisions, (2) retirement saving incentives, (3) capital income preferences, (4) the 20 percent deduction for pass-through income, and (5) broad-based business investment incentives. These are provisions that represent departures from a comprehensive income tax but are not substitutes for any clearly defined spending program.

International Tax Provisions

The reference income tax against which tax expenditures are measured assumes the corporate tax base would include the worldwide income of US-resident multinational corporations, with a credit for foreign corporate income and dividend-withholding taxes. The individual income tax base would include the worldwide income of

US citizens with a credit for foreign individual income and withholding taxes. Foreign tax credits would be limited to the US rate that would otherwise be imposed on the income.

Under this formulation, US corporations would pay corporate income taxes at the US or foreign statutory tax rate (whichever was higher) on their worldwide income, and US citizens would pay taxes on their worldwide income at the US or foreign tax rates applicable to their level of income (whichever was higher).

CORPORATE INCOME TAX PREFERENCES

Prior to enactment of the TCJA, the US allowed its resident multinational corporations to defer taxes on most active income earned within its controlled foreign affiliates until that income was repatriated in the form of a dividend to the US parent corporation. The deferral of taxation of foreign source income until repatriation was identified as a tax expenditure because the normal tax would include income as it accrued. But with only a few very rare exceptions, no country in the world ever taxed the active income of its resident multinational corporations on a current basis. Most countries, including our largest trading partners, have a territorial system that exempts most active-source foreign income; others tax foreign-source income only when repatriated to the parent company, as did the United States through 2017.

The TCJA eliminated the taxation of repatriated dividends and allowed an exemption for the normal return to foreign-source investment income (defined as a 10 percent return on the depreciated value of tangible capital), but the law imposed a new minimum tax on certain accrued active foreign source income, called global intangible low tax income, or GILTI. GILTI is intended to measure the income from intangible assets (such as patents, trademarks, and copyrights) held abroad. US corporations generally receive a 50 percent deduction from US tax on their GILTI income (reduced to 37.5 percent beginning in 2026), which substantially lowers the tax rate imposed on that income from the normal 21 percent to 10.5 percent. The GILTI deduction, combined with a foreign tax credit equal to 80 percent of GILTI income, means that US tax is imposed only if the foreign tax rate is less than 13.125 percent (16.406 percent starting in 2026).

The TCJA also provided a 37.5 percent deduction (21.875 percent starting in 2026) for foreign-derived intangible income. Foreign-derived intangible income (FDII) is income earned by US corporations serving foreign markets that is attributable to intangible assets held in the US. This reduces the effective tax rate on this income to 13.125 percent (16.406 percent starting in 2026), compared with the 21 percent rate generally imposed on the income of US corporations.

The exemption of normal returns and the GILTI and FDII provisions are both tax expenditures because in combination they tax US corporate profits from foreign-source income and export profits at a lower rate than is applied to domestic US profits.

The lower rate on US foreign-source income compared with domestic income provides an incentive for US-resident corporations to invest overseas instead of at home. That incentive, however, is much smaller than before the TCJA because the new law reduced the US corporate tax rate, which was previously the highest

among our major trading partners but is now (including state corporate taxes) around the middle of the range. It also encourages US multinational corporations to shift reported profits to low-tax foreign jurisdictions, often to locations with little real economic activity. But raising the tax rate on foreign profits would reduce the competitiveness of US resident corporations relative to foreign-based corporations, whose governments treat foreign-source income even more generously.

The FDII deduction partially offsets the incentive for US corporations to shift reported profits from intangible assets to low-tax countries by reducing the tax rate on intangible profits reported to the US. But it does so only for profits associated with export activities and could thus be regarded as an unwarranted subsidy for US exporters under the World Trade Organization.

Designing the appropriate international tax regime represents a complex trade-off between provisions that may encourage foreign investment by US companies and provisions that may place US firms at a competitive disadvantage relative to foreign-resident companies (Toder 2017). Whether our current rules for taxing foreign-source income strike the right balance is an open question. It is also unclear whether the preferential treatment for US intangible profits used for exports is the appropriate way to offset the lower rate for foreign-source intangible profits of US-resident corporations. But it is fair to say that these are efforts to balance competing goals of international tax policy are not substitutes for direct expenditures designed to subsidize narrowly defined activities or transfer income to certain groups of people.

FOREIGN-EARNED INCOME EXCLUSION

The US income tax allows US citizens who live abroad, work in the private sector, and satisfy a foreign residency requirement to exclude up to $80,000 (plus adjustments for inflation since 2004) in foreign-earned income from US taxes. US citizens may also exclude from their income the cost of housing provided by their employer in excess of 16 percent of the earned income exclusion limit, up to 30 percent of that limit (with geographical adjustments). In contrast, under the normal income tax system, all earnings of US citizens both in the United States and from overseas would be fully taxable, with a credit for foreign income taxes on those earnings (Toder 2013b).

The foreign-earned income exclusion primarily benefits US citizens who work in countries with personal income tax rates lower than US rates. US citizens working in high-tax countries can generally offset all their US tax liability with foreign tax credits.

The general provisions of the US tax law, however, are an outlier relative to other countries. Most countries impose taxes based on residence rather than citizenship. Under residence taxation, US citizens living and working overseas would not be taxed on their foreign-source income. The argument for exemption is that people living overseas do not enjoy the benefits of the public services that taxes paid to their country of citizenship finance. In contrast, some may argue that as the leading world power with the strongest military, the US government provides benefits to its citizens wherever they reside and that they should contribute to help

pay for those benefits. The current law, which taxes Americans based on citizenship but exempts some foreign income, strikes an uneasy balance between these competing views.

Retirement Savings Incentives

Under the normal income tax system, taxpayers would finance retirement savings from after-tax dollars, pay tax on returns to those savings as accrued, and be exempt on withdrawals of funds from previously taxed savings. The normal system is often referred to as a "TTE" system, reflecting that contributions to savings accounts are *taxable*, income accrued within the account is *taxable*, and withdrawals are *exempt*.

In contrast, most qualified retirement saving plans are taxed on an "EET" system; contributions are from pretax dollars, earnings accrued within the accounts are tax free, and withdrawals from the accounts are taxable. In defined-benefit plans, the employer deposits money in a fund that is used to pay retirement benefits to employees based on their years of service, earnings in their last few years of employment, and their age at separation from the firm. Amounts deposited in the fund are from pretax dollars (deductible to the employer, exempt to the employee), earnings of the fund are tax-free, and withdrawals are taxable income to the employee. In defined-contribution plans, employees maintain personal investment accounts that are funded by employee contributions, employer contributions, or a combination of the two. Employer contributions are deductible to the employer and exempt to the employee, employee contributions are deductible from income tax liability but subject to payroll taxes, earnings within the accounts are tax-free, and withdrawals after age 59-and-a-half (either as lump sum payments or annuities) are taxable to the employee. In general, retired employees were required to begin withdrawing funds on a prescribed schedule after age 70-and-a-half, but 2019 legislation delayed the start of this required distribution to age 72.

Some defined-contribution plans, called Roth plans, are taxed on a TEE basis: contributions are from after-tax dollars, but both earnings and withdrawals are tax free. There are no required minimum withdrawals from TEE plans.

Compared with the normal tax system, the tax expenditure for EET plans is equal to the revenue lost from exempting contributions to qualified plans and earnings within plans less the revenue gained from taxing withdrawals. The tax expenditure for TEE plans is the revenue lost from exempting income accrued within the plan.

Although EET and TEE treatments are clearly preferential to how a comprehensive income tax would treat savings for retirement, these provisions are so large and widely available that one could argue that workers' ability to accrue tax-free savings for retirement is a general rather than a special provision in the US income tax. Almost all other advanced countries also have provisions that allow individuals to accrue income tax free for retirement. And these provisions do not favor any form of investment or industry; they are more analogous to allowing a zero-tax bracket for the income from investment for workers putting aside funds for retirement. Finally, it is difficult to imagine what spending plan could substitute for the general rules for retirement saving.

Nonetheless, the structure and size of these tax preferences certainly merit reconsideration. Retirement saving incentives as currently structured favor upper-income households, who are more likely to be covered by employer plans, are more likely to participate in both employer plans and purely self-directed individual retirement accounts than lower- and middle-income workers, and gain more from the ability to accrue savings tax-free because they are in higher marginal tax brackets. Evidence is mixed on whether these incentives increase saving or merely encourage the substitution of tax-exempt for taxable accounts (Chetty et al 2012; Engen, Gale, and Scholz 1996; Poterba, Venti, and Wise 1996). Research results show that rules that automatically opt employees into saving plans are much more effective at increasing participation and saving than the tax incentives themselves. Rules for determining whether an employer plan is qualified are complex, and workers face complex choices in deciding whether to put their savings in an EET or TEE plan. Finally, the growth in the availability of TEE plans pushes revenue losses into the future, when the population will be older and the federal debt is projected to be much larger than it is today. The substitution of TEE for EET plans may raise receipts during the budget window that Congress uses for its decisions while also raising fiscal costs in the long run, thereby creating perverse political incentives (Burman, Gale, and Krupkin 2019).

Capital Income Preferences

The tax code includes several broad preferences for capital income received by individual taxpayers. Long-term capital gains and qualified dividends face a marginal tax rate schedule ranging from rates of 0 to 20 percent, compared with rates of 10 to 37 percent on ordinary income. Capital gains transferred at death escape tax entirely because the survivor takes the asset's value at the date of death as the deemed cost basis of inherited assets (the so-called "step-up in basis provision"). Income accrued within life insurance contracts is tax-free because the death benefit is not subject to tax. A significant share of capital gains on owner-occupied housing is also tax free. Further, transfers of some capital assets (so called like-kind exchanges) are not treated as realization events, so taxation of those gains can be deferred and possibly exempt completely if held until death.

Preferences for capital gains favor certain sectors (those with accruing asset values, such as highly successful new firms) over others, but a general rule for taxing capital gains that would be neutral across all margins is difficult to imagine. The normal tax excludes as impractical the taxation of capital gains as they accrue and instead would tax capital gains only when realized by sale or exchange. Thus, although preferential rates on realized gains treat taxpayers with realized gains more favorably than taxpayers with other forms of investment income (mainly interest income) and earnings, they treat them less favorably than taxpayers with unrealized gains. And this provides an incentive for taxpayers to hold onto assets instead of selling them, the so-called lock-in effect (Dowd, McClelland, and Muthitacharoen 2015).

The extension of favorable rates to qualified dividends means the system no longer favors realized gains on corporate stock over dividends, although deferral of tax on gains until realization still benefits corporate

retained earnings more than dividends. But the tax law now favors dividend income more than interest income and wages.

More generally, the current tax law does not treat all income the same and is not neutral among different forms of income from investments that individuals receive. But it is difficult to see how the tax code could be completely neutral unless capital gains were taxable as accrued, a provision that is not part of the normal income tax against which tax expenditures are measured. And it is hard to imagine what type of spending program would replicate the effects of the complex rules we have for taxing individuals' capital income.

POSSIBLE REFORMS

Nevertheless, some tax preferences certainly merit reconsideration. Income accrued within life insurance is taxed the same way as Roth retirement plans (on a TEE basis—contributions are from after-tax dollars, but both earnings and withdrawals are tax free). Yet retirement plans have contribution limits, but life insurance does not, allowing wealthy individuals to shelter unlimited amounts for the benefit of their heirs.

Capital gains also escape tax permanently on assets held until death because an heir takes as the asset's cost basis its value at the time of the donor's death. Thus, if a woman purchases stock for a price of $1,000 and her son inherits the stock that is worth $5,000 when the woman dies and sells it for $5,200 a year later, the son realizes a capital gain of only $200. The entire $4,000 of gain accrued in the woman's lifetime escapes tax. This provision is called "step-up in basis."

The Joint Committee on Taxation and the Treasury define step-up in basis as a tax expenditure and estimate its revenue loss compared with a baseline rule under which gains transferred at death would be treated as realized gains on the decedent's final income tax return.

Step-up in basis can be eliminated either by taxing gains transferred at death or by instituting carryover basis, a method under which the heir would inherit the cost basis of the decedent's assets instead of a basis equal to the value at the time of death. Carryover basis would allow taxation of the gains accrued during the decedent's lifetime to be deferred until the heir sells the asset. In the previous example, under taxation at death, the woman would report a capital gain of $4,000 on her final income tax return, and her son would report a gain of $200 when he sells the stock. Under carryover basis, the son would report a gain of $4,200 when he sells the stock.

Like-kind exchanges characterize sales of one real property to purchase another as tax-deferred exchanges of real property instead of realization events. Owners of real property who wish to sell a property and buy another can defer tax on the sale through a like-kind exchange, but if a stock or mutual fund owner wishes to sell a stock or mutual fund to purchase another, he or she must report the gain and pay taxes and can then reinvest only the after-tax proceeds of the sale. And, as discussed above, if the owner of the real property holds it until death, he or she never pays tax because of the step-up in basis. The TCJA eliminated like-kind exchanges for exchanges of personal or intangible property, such as machinery, equipment, vehicles, artwork,

collectibles, patents, and other intellectual property, but kept it in place for real property. Some saw this as a gift to wealthy real estate developers (Sullivan 2018).

Twenty Percent Deduction for Pass-Through Income

In general, under a comprehensive income tax, income from all sources would be included in the tax base and subject to the same income tax rate schedule. However, the US tax system has evolved into a schedular system, where different forms of income (earnings, interest, capital gains, dividends, and, since the TCJA, "qualified" business income) are taxable under different rules.

Following the TCJA, for tax years 2018 through 2025 the tax code will allow taxpayers to claim a deduction of up to 20 percent of income attributable to domestic pass-through businesses (qualified business income, or QBI), subject to certain limitations. The QBI deduction reduces the top income tax rate on qualified income from 37.0 to 29.6 percent. The QBI deduction provides a special benefit for businesses that hire independent contractors instead of employees to perform the same tasks (e.g., a retail chain establishing separately owned franchise operations to manage its individual stores instead of hiring employees as store managers) and encourages owner-managers of closely held firms to recharacterize their income as profits instead of earnings. This is because the tax law treats a business's profits more favorably than wages. The limitations on the QBI deduction result in other anomalies and complex incentives (Gale and Krupkin 2018).

One argument for some type of special treatment of pass-through income is the large gap between the top rate on income of corporations (21 percent) and of individuals (37 percent). This creates an incentive for closely held businesses that are retaining all or most of their profits to organize themselves as taxable corporations (C corporations) instead of pass-through businesses (partnerships, limited liability companies, and S corporations) that report their income directly to owners who pay individual income tax instead of paying a separate entity-level tax. The incentives are different, however, for corporations that distribute their profits to shareholders. Owners of these businesses pay both a corporate-level tax and a separate tax on dividends on rates up to 20 percent, for a combined tax burden of 36.8 percent, almost the same as the top individual tax rate and 7 percent points higher than the top QBI rate. Thus, although the QBI deduction reduces the tax benefit that closely held corporations would otherwise enjoy relative to pass-through businesses, it puts dividend-paying corporations at a disadvantage relative to pass-through businesses. And it creates a new disparity, as noted, between pass-through income and earnings. On balance, therefore, the pass-through deduction is problematic.

Capital Recovery for Business Investment

Under a comprehensive income tax, businesses may not immediately deduct the cost of acquiring buildings, machinery, and equipment, because these expenses represent the transformation of wealth from one form to another (cash for buildings and equipment). Instead, these costs must be capitalized and depreciated over time in accordance with the decline in the property's economic value because of wear and tear and obsolescence. The tax law, however, allows taxpayers to recover costs at a faster rate than their estimated rate of economic

decline. The ability to recover costs sooner than they are estimated to occur effectively provides taxpayers with a zero-interest loan from the government; though they lose future deductions equal to the amount of accelerated deductions they claim, they benefit because of the time value of money.

Several provisions of the income tax law allow business firms to deduct the cost of assets faster than their economic decline. The TCJA increased this benefit by enacting a 100 percent bonus depreciation provision that allows firms to immediately expense the cost of qualifying machinery and equipment placed in service between 2018 and 2022. Bonus depreciation phases out at 20 percent per year between 2023 and 2027. Further, a permanent provision of the tax law allows immediate expensing of up to $1 million (indexed for inflation) in qualifying investments in tangible property and certain computer software. This benefit phases out at higher levels of investment.

These expensing provisions provide a special benefit for qualifying machinery and equipment relative to other forms of capital (such as buildings and inventory), and after bonus depreciation phases out, they offer a permanent benefit for businesses with investments less than the threshold amounts. Expensing also allows business owners to reduce their tax liability from returns to existing capital by offsetting expensed capital investment (subject to an effective tax rate of zero) with tax-deductible borrowing. However, it is unclear whether expensing equipment makes the tax law less neutral among investments, because a large and growing component of the capital stock, intangible capital, also benefits from expensing.

The accelerated depreciation provisions are part of a complex set of capital recovery rules that, although generally uneven in their treatment across assets and industries, do not translate into a clear subsidy for any narrowly defined form of business activity. It is therefore difficult to conceive of what form of direct expenditure program they would replace.

APPENDIX

In the appendix, we provide a list of smaller tax expenditures that fall into the category of subsidies but for which we were unable to identify societal benefits beyond the gain to direct consumers or suppliers of the good or service to justify their cost to taxpayers. We exclude tax expenditures that are mostly transfers and those that we consider tax policy choices.

TABLE 1

Tax Expenditure Subsidies With Insufficient Benefits to Society to Justify Their Cost

Billions of dollars

Provision	2019	2020	2019–28
Exclusion of employee meals and lodging (other than military)	4.3	4.4	53.7
Premiums on group term life insurance	2.8	2.9	35.6
Exclusion of reimbursed employee parking expenses	2.2	2.3	25.3
Exemption of credit union income	1.9	2.0	24.0
Special Rules for Employee Stock Ownership Plans (ESOPs)	2.1	2.1	23.4
Capital gains exclusion of small corporate stock	1.2	1.4	17.6
Capital gains treatment of certain agriculture income	1.4	1.3	14.5
Exclusion of parsonage allowances	0.9	0.9	10.8
Expensing of exploration and development costs, fuels	0.9	0.8	8.8
Enhanced oil recovery credit	0.5	0.6	7.3
Excess of percentage over cost depletion, fuels	0.3	0.4	6.4
New markets tax credit	1.3	1.3	6.4
Exclusion for employer-provided transit passes	0.4	0.4	4.7
Tax incentives for preservation of historic structures	0.1	0.2	4.5
Special Blue Cross Blue Shield tax benefits	0.3	0.3	4.0
Tax exemption of insurance income earned by tax-exempt organizations	0.3	0.3	3.7
Premiums on accident and disability insurance	0.3	0.3	3.4
Expensing of certain multiperiod production costs	0.3	0.3	3.4
Excess of percentage over cost depletion, nonfuel minerals	0.3	0.3	2.8
Opportunity zones	2.0	2.5	2.6
Expensing of multiperiod timber growing costs	0.2	0.2	2.6
Amortize all geological and geophysical expenditures over two years	0.2	0.2	2.4
Advanced nuclear power production credit	0.1	0.2	1.7
Marginal wells credit	0.0	0.1	1.7
Income averaging for farmers	0.1	0.1	1.6
Capital gains treatment of royalties on coal	0.1	0.1	1.5
Capital gains treatment of certain timber income	0.1	0.1	1.5
Reduced tax rate for nuclear decommissioning funds	0.1	0.1	1.2
Tonnage tax (in lieu of income tax for US shipping companies)	0.1	0.1	1.1
Exemption of certain mutuals' and cooperatives' income	0.1	0.1	1.0
Discharge of student loan indebtedness	0.1	0.1	1.0
Expensing of reforestation expenditures	0.1	0.1	0.8
Ordinary income treatment of loss from small business corporation stock sale	0.1	0.1	0.8
Exceptions from imputed interest rules	0.1	0.1	0.7
Exemption or special alternative tax for small property and casualty insurance companies	0.0	0.0	0.5
Employee retention credit	0.2	0.1	0.5
Treatment of loans forgiven for solvent farmers	0.0	0.0	0.5
Expensing of exploration and development costs, nonfuel minerals	0.0	0.0	0.4
Deduction for endangered species recovery expenses	0.0	0.0	0.4
Deferral of gain on sale of farm refiners	0.0	0.0	0.2
Tax credit for certain expenditures for maintaining railroad tracks	0.0	0.0	0.2
Empowerment zones	0.1	0.0	0.1
Deferral of tax on shipping companies	0.0	0.0	0.1
Investment credit for rehabilitation of structures (other than historic)	0.0	0.0	0.0
Total	**25.4**	**27.0**	**285.4**

NOTES

[1] See the FY2020 document at "Tax Expenditures," US Department of the Treasury, accessed January 13, 2019, https://home.treasury.gov/policy-issues/tax-policy/tax-expenditures.

[2] The agencies that prepare the tax expenditure estimates for the executive and legislative branches of the government (the Office of Tax Analysis of the US Treasury Department and the Joint Committee on Taxation) differ in how they identify and measure some tax expenditure provisions.

REFERENCES

Berchick, Edward R., Emily Hood, and Jessica C. Barnett. 2018. "Health Insurance Coverage in the United States: 2017." Current Population Reports P60-264. Washington, DC: US Government Printing Office.

Blumberg, Linda J., and John Holahan. 2008. Án Analysis of the McCain Health Care Proposal." Washington, DC: Urban Institute.

Blumberg, Linda J., and Lisa Clemans-Cope. 2009. "Health Savings Accounts and High-Deductible Health Insurance Plans: Implications for Those with High Medical Costs, Low Incomes, and the Uninsured." Washington, DC: Urban Institute.

Bradford, David. 2003. "Reforming Budgetary Language." In *Public Finance and Public Policy in the New Century*, edited by Sijbren Cnossen and Hans Werner Sinn, 93–116. Cambridge, MA: MIT Press.

Bulman, George B., and Caroline M. Hoxby. 2015. "The Returns to the Federal Tax Credits for Higher Education." Working paper 20833. Cambridge, MA: National Bureau of Economic Research.

Burman, Leonard E., William G. Gale, and Aaron Krupkin. 2019. "How Shifting from Traditional IRAs to Roth IRAs Affects Personal and Government Finances." Washington, DC: Urban-Brookings Tax Policy Center.

Burman, Leonard E., and Marvin Phaup. 2011. "Tax Expenditures, the Size and Efficiency of Government, and Implications for Budget Reform." Working paper 17268. Cambridge, MA: National Bureau of Economic Research.

Burman, Leonard E., and Jonathan Gruber. 2005. "Tax Credits for Health Insurance." Tax Policy Center Issues and Options Brief 11. Washington, DC: Urban-Brookings Tax Policy Center.

Carasso, Adam C., Eugene Steuerle, and Elizabeth Bell. 2005. "How to Better Encourage Homeownership." Tax Policy Center Brief. Washington, DC: Urban-Brookings Tax Policy Center.

Chetty, Raj, John Friedman, Soren Leth-Peterson, Torben Nielson, and Tore Olsen. 2012. "Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark." Working paper 18565. Cambridge, MA: National Bureau of Economic Research.

Colinvaux, Roger. 2013. "Rationale and Changing the Charitable Deduction." *Tax Notes* 138: 1453–59.

Colinvaux, Roger, Brian Galle, and C. Eugene Steuerle. 2012. "Evaluating the Charitable Deduction and Proposed Reforms." Washington, DC: Urban Institute.

Committee for a Responsible Federal Budget. 2017. "The State and Local Tax Deduction Should Be on the Table." Washington, DC: Committee for a Responsible Federal Budget.

Congressional Budget Office. 2011. "Options for Changing the Tax Treatment of Charitable Giving." Washington, DC: Congressional Budget Office.

Congressional Budget Office and Joint Committee on Taxation. 2009. "Subsidizing Infrastructure Investment with Tax-Preferred Bonds." Washington, DC: Congressional Budget Office and Joint Committee on Taxation.

Debt Reduction Task force of the Bipartisan Policy Center. 2010. *Restoring America's Future: Reviving the Economy, Cutting Spending and Debt, and Creating a Simple Pro-Growth Tax System*. Washington, DC: Bipartisan Policy Center, Debt Reduction Task Force.

Dolan, Rachel. 2016. "High-Deductible Health Plans." Bethesda, MD: Health Affairs.

Dowd, Tim, Robert McClelland, and Athiphat Muthitacharoen. 2015. "New Evidence on the Tax Elasticity of Capital Gains." *National Tax Journal* 68 (3): 511–44.

Dynarski, Susan, and Judith E. Scott-Clayton. 2016. "Tax Benefits for College Attendance." Working paper 22127. Cambridge, MA: National Bureau of Economic Research.

Dynarski, Susan, Judith Scott-Clayton, and Mark Wiederspan. 2013. "Simplifying Tax Incentives and Aid for College: Progress and Prospects." Working paper 18707. Cambridge, MA: National Bureau of Economic Research.

Engen, Eric M., William G. Gale, and John Karl Scholz. 1996. "The Illusory Effects of Saving Incentives on Saving." *Journal of Economic Perspectives* 10 (4): 113–38.

REFERENCES

Fiekowsky, Seymour. 1980. "The Relation of Tax Expenditures to the Distribution of the Fiscal Burden." *Canadian Taxation* 2 (Winter): 211–19.

Fronstin, Paul, Martin-J. Sepulveda, and M. Christopher Roebuck. 2013. "Medication Utilization and Adherence in a Health Savings Account-Eligible Plan." *American Journal of Managed Care* (December).

Gale, William G., and Aaron Krupkin. 2018. "Navigating the New Pass-Through Provisions: A Technical Explanation." Washington, DC: Urban Brookings Tax Policy Center.

Gale, William G., Jonathan Gruber, and Seth Stephens-Davidowitz. 2007. "Encouraging Ownership Through the Tax Code." *Tax Notes*. June 18.

Government Accountability Office. 2009. "The Research Tax Credit's Design and Administration Can Be Improved." GAO-10-136. Washington, DC: Government Accountability Office.

Gruber, Jonathan. 2011. "The Tax Exclusion for Employer-Sponsored Health Insurance." *National Tax Journal* 64 (2, part 2): 511–30.

Guenther, Gary. 2015. "Research Tax Credit: Current Law and Policy Issues for the 114th Congress." RL31181. Washington, DC: Congressional Research Service.

Hemel, Daniel. 2019. "The Death and Life of the State and Local Tax Deduction." *Tax Law Review* 72.

Kleinbard, Edward. 2010. "Tax Expenditure Framework Legislation." *National Tax Journal* 63 (June): 353–82.

LoSasso, Anthony T., Mona Shah, and Bianca K Frogner. 2010. "Health Savings Accounts and Health Care Spending." *Health Services Research* 45 (4): 1041–60.

Maguire, Steven. 2012. "Tax-Exempt Bonds: A Description of State and Local Government Debt." RL30638. Washington, DC: Congressional Research Service.

Marron, Donald. 2011. "Spending in Disguise." *National Affairs* 8 (Summer): 20–34.

Marron, Donald, and Eric Toder. 2011. "Tax Policy and the Size of Government." In the *Proceedings of the 104th Annual Conference on Taxation*, edited by Jon Bakija and Jane Gravelle, 30–40. Washington, DC: National Tax Association.

National Commission on Fiscal Responsibility and Reform. 2010. *The Moment of Truth*. Washington, DC: National Commission on Fiscal Responsibility and Reform.

Office of Tax Analysis. 2016. "Research and Experimentation (R&E) Tax Credit." Washington, DC: US Department of the Treasury.

Poterba, James M., and Arturo Ramírez Verdugo. 2011. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds." *National Tax Journal* 64 (2): 591–614.

Poterba, James M., Stephen F. Venti, and David A. Wise. 1996. "How Retirement Saving Programs Increase Saving." *Journal of Economic Perspectives* 10 (4): 91–112.

President's Advisory Panel on Federal Tax reform. 2005. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*. US Government Printing Office.

Rao, Nirupama. 2016. "Do Tax Credits Stimulate R&D Spending? The Effect of the R&D Tax Credit in its First Decade." *Journal of Public Economics* 140: 1–12.

Sammartino, Frank. 2016. "A Closer Look at the State and Local Tax Deduction." *TaxVox* (blog). April 16.

Sammartino, Frank, and Kim Rueben. 2016. "Revisiting the State and Local Tax Deduction." Washington, DC: Urban-Brookings Tax Policy Center.

Shaviro, Daniel. 2004. "Rethinking Tax Expenditures and Fiscal Language." Tax Law Review, Vol. 57, No. 2.

Sommer, Kamila, and Paul Sullivan. 2018. "Implications of U.S. Tax Policy for House Prices, Rents, and Homeownership." *American Economic Review* 108 (2): 241–74.

REFERENCES

Sullivan, Martin A. 2017. "Repeal of the SALT Deduction – Politics Over Policy." *State Tax Notes*. July 17.

Sullivan, Paul. 2018. "How the Tax Code Rewrite Favors Real Estate Over Art." *New York Times*. January 12.

Toder, Eric. 2005. "Tax Expenditures and Tax Reform: Issues and Analysis." National Tax Association – Proceedings of the 98th Annual Conference, 472-479.

———. 2013a. "Options to Reform the Home Mortgage Interest Deduction." Testimony before the Committee on Ways and Means, US House of Representatives, Washington, DC, April 25.

———. 2013b. "Taxes on Foreign Earned Income." *Tax Notes*. July 22.

———. 2017. "Territorial Taxation: Choosing Among Imperfect Options." Washington, DC: American Enterprise Institute.

Turner, Nicholas. 2011. "Effect of Tax-Based Federal Student Aid on College Enrollment." *National Tax Journal* 64 (3): 839–62.

ABOUT THE AUTHORS

Frank Sammartino is a senior fellow at the Urban-Brookings Tax Policy Center and an affiliate of Urban's State and Local Finance Initiative. His current work focuses on the interaction among federal, state, and local tax policies and on the influence of tax and transfer policies on income inequality.

Eric Toder is an Institute fellow and codirector of TPC. In his current position, he oversees TPC's modeling team, serves as its leading expert on corporate and international tax and tax compliance issues, and authors and directs research studies.

Toder has published articles on a wide variety of tax policy and retirement policy issues, including corporate tax reform, distributional effects of tax expenditures, carbon taxes, value-added taxes, net benefits of Social Security taxes and spending, tax compliance, and the effects of saving incentives.

This report was funded by Arnold Ventures. We are grateful to the foundation and to all our funders, who make it possible for the Urban-Brookings Tax Policy Center to advance its mission.

The views expressed are those of the authors and should not be attributed the Urban-Brookings Tax Policy Center, the Urban Institute, the Brookings Institution, their trustees, or their funders. Funders do not determine research findings or the insights and recommendations of our experts. Further information on Urban's funding principles is available at http://www.urban.org/aboutus/our-funding/funding-principles; further information on Brookings' donor guidelines is available at http://www.brookings.edu/support-brookings/donor-guidelines.

The authors thank Aravind Boddupalli for valuable research assistance and Harvey Galper, Janet Holtzblatt, and Mark Mazur for helpful comments.

Copyright © 2020. Tax Policy Center. Permission is granted for reproduction of this file, with attribution to the Urban-Brookings Tax Policy Center.

The Tax Policy Center is a joint venture of the
Urban Institute and Brookings Institution.

BROOKINGS

For more information, visit taxpolicycenter.org
or email info@taxpolicycenter.org