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CURBING TAX EXPENDITURES

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ABSTRACT

This paper takes a broad look at tax expenditures in the context of revenue raising tax reform. It first reviews how tax expenditures have changed over the past 25 years and provides estimates of the distribution of tax savings resulting from tax expenditures today. The paper then examines three comprehensive approaches for applying across-the-board limits to a selected group of the largest and most widely utilized tax preferences. The three options—a fixed percentage credit, a cap based on income, and a constant percentage reduction—can all be designed to raise significant revenue for deficit reduction. While the effects of the options vary across the income distribution and depend on the types of tax expenditures subject to the limitations, variants of all three options can be designed to be progressive in the sense that the limits would reduce after-tax income for higher income taxpayers by more than they would reduce incomes of lower-income taxpayers.

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CURBING TAX EXPENDITURES

The nation's persistent budget deficits and soaring national debt have driven policymakers to seek politically acceptable ways to cut spending or increase revenue. One recurring proposal would increase federal tax collections by paring back or eliminating tax expenditures—provisions in the tax code that provide special tax benefits for selected taxpayers or activities. President Obama's National Commission on Fiscal Responsibility and Reform called for eliminating or reducing most tax expenditures and using some of the additional revenue to slash tax rates to reduce the economic burden of federal taxes. The Bipartisan Policy Center offered a similar proposal, and members of Congress have shown a willingness to consider reducing at least some tax expenditures in exchange for lower rates.

Tax expenditures are defined 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 liability” (Office of Management and Budget (OMB), 2012). That definition covers a wide range of tax preferences for individuals and businesses, from excluding municipal bond interest and most Social Security benefits from taxable income to allowing the deduction of mortgage interest payments, providing tax credits for children, imposing reduced tax rates on long-term capital gains, and allowing businesses to claim accelerated write-offs for investments in equipment. The 2012 budget lists 173 tax expenditures.

Tax expenditures have proliferated since the Tax Reform Act of 1986 reduced them sharply (Rogers and Toder, 2011). Congress has added or expanded credits for children, workers, college students, and retirement saving. New above-the-line deductions—so called because they

are subtracted in calculating adjusted gross income (AGI)—reduce taxable income and temporary provisions have been aimed at stimulating the economy. The growth of tax expenditures has eroded the tax base, complicated our tax system, and cut revenue substantially.

This paper takes a broad look at tax expenditures in the context of tax reform and increasing revenue. It first reviews how tax expenditures have changed over the past 25 years and provides estimates of the distribution of tax savings resulting from tax expenditures today. The paper then examines three comprehensive approaches for reducing the impact of tax expenditures: replacing current provisions with fixed-rate tax credits, limiting the value of tax expenditures as a share of income, and simply trimming the value of tax expenditures taxpayers may claim. The three approaches would have markedly different effects on households and the impact of each would vary substantially across the income distribution.

1. The Recent History of Tax Expenditures¹

The Tax Reform Act of 1986 (TRA86) sharply reduced tax expenditures, in part by removing them from the tax code and in part by cutting tax rates and hence reducing their value.² In 1985, tax expenditures reported in the federal budget totaled nearly 9 percent of Gross Domestic Product (GDP).³ Three years later, after TRA86 had taken full effect, tax expenditures totaled just 6 percent of GDP (Figure 1). They remained at roughly that level for a decade before climbing steadily to nearly 8 percent of GDP in 2003. Since then, they have fluctuated around 7 percent of GDP as the state of the economy has varied and Congress has enacted short-term

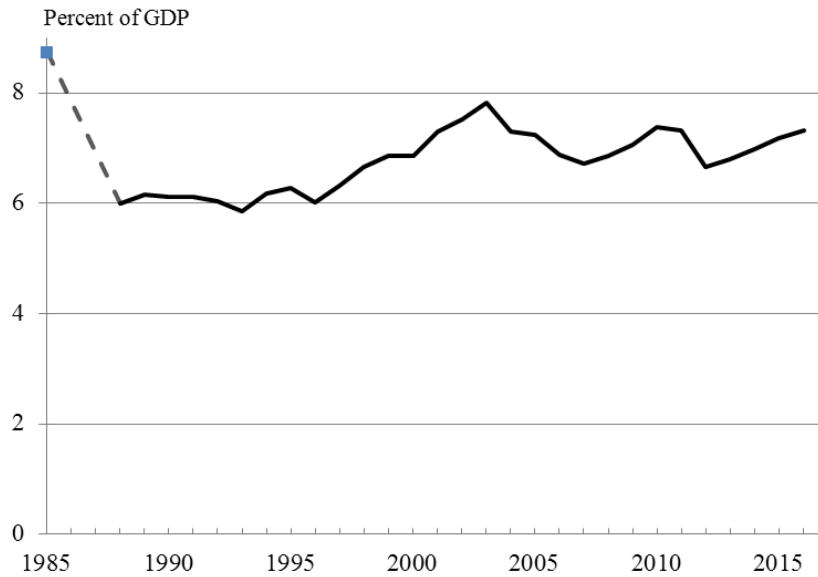
¹ This discussion of the history of tax expenditures draws heavily from Rogers and Toder (2011).

² Neubig and Joulfaian (1988) find that forty percent of the reduction in the value of tax expenditures from TRA86 was attributable to base broadening, while the remaining sixty percent was due to lower tax rates.

³ The Office of Tax Analysis in the U.S. Department of the Treasury estimates the value of tax expenditures in the federal income tax each year for the Office of Management and Budget. Historical tables in the annual Budget of the United States report those estimates for the two previous fiscal years and the next five years. The Joint Committee on Taxation (JCT) prepares similar estimates for Congress. Unless otherwise noted, we use the Treasury estimates throughout this paper.

stimulus provisions.⁴ Tax expenditures are projected to rise over the next few years under the assumptions that temporary tax laws expire as scheduled and the economy recovers from recession.

Figure 1. Sum of Tax Expenditure Costs, 1985-2016



Source: Tax Policy Center calculations, based on tax expenditure estimates reported in the Budget of the Federal Government, Fiscal Years 1987 and 1990-2012.

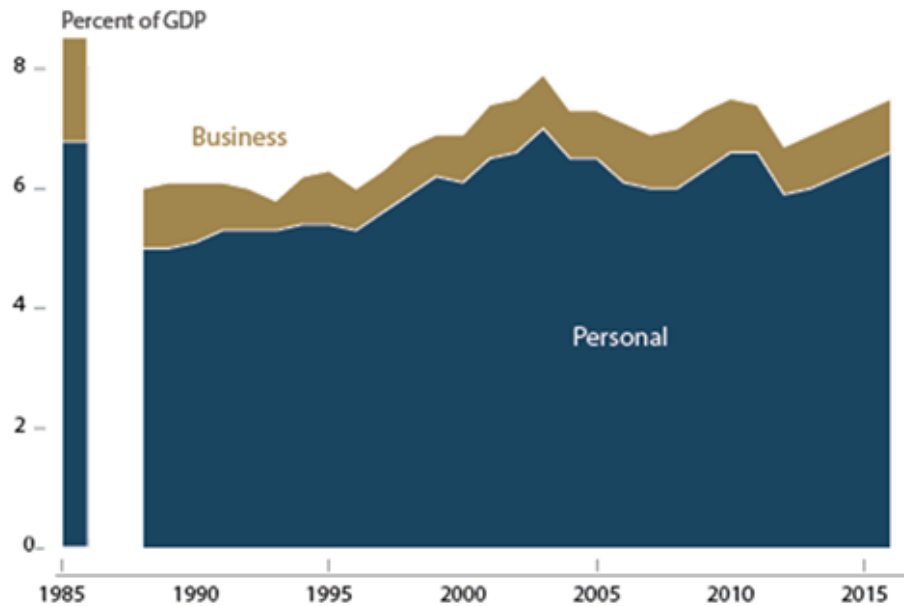
Business vs. personal tax expenditures. Most of the variation in tax expenditures over the past 25 years has come from personal rather than business taxes (Figure 2).⁵ TRA86 cut business tax expenditures by nearly half from 1.8 percent of GDP in 1985 to just under 1 percent in 1988. They shrank further over the next three years and have remained roughly constant at about 0.8 percent of GDP since then. Personal tax expenditures dropped by about a quarter after TRA86—from 6.7 percent of GDP in 1985 to 5 percent in 1988—but rose fairly steadily over the next two

⁴ OMB and JCT estimate each tax expenditure as if all other tax expenditure provisions were in place, so tax expenditures are not strictly additive. Toder and Baneman (2012) estimate that the revenue loss of most individual tax expenditures estimated simultaneously is about 10 percent higher than the cost of adding up the separate estimates for each of those provisions.

⁵ Business tax expenditures include those in the corporate income tax as well as provisions in the individual income tax that affect business income reported on schedules C (business income), E (partnership income), and F (farm income).

decades to 6.9 percent of GDP in 2003. They have subsequently fallen to about 6 percent of GDP and fluctuated around that level ever since.

Figure 2. Cost of Tax Expenditures, Business vs. Personal, 1985-2016



Source: Tax Policy Center calculations, based on tax expenditure estimates reported in the Budget of the Federal Government, Fiscal Years 1987 and 1990-2012.

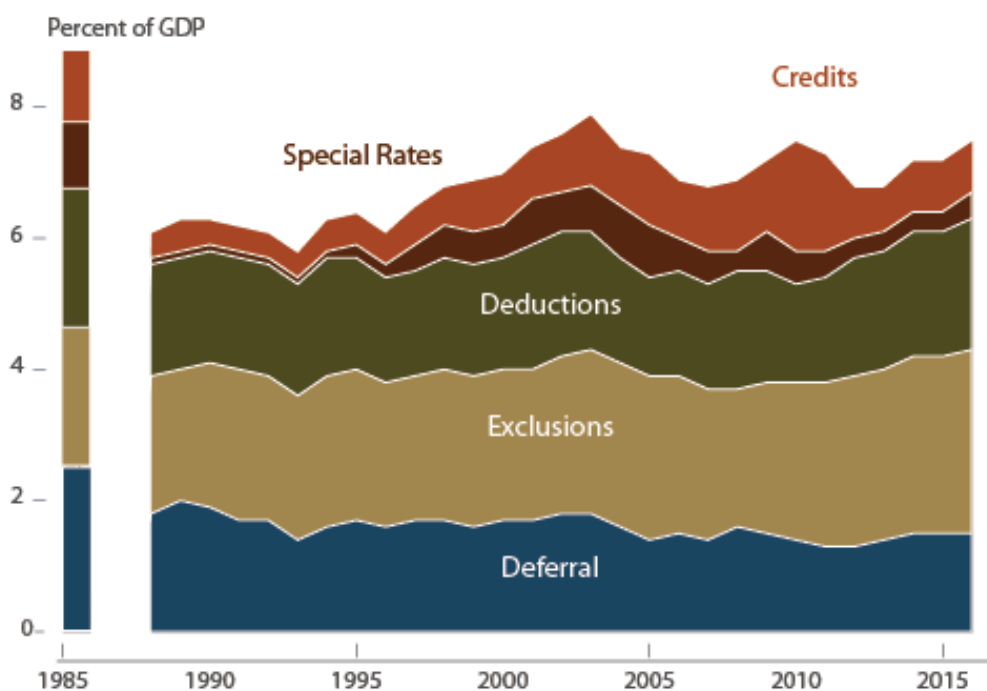
Types of Incentives. As indicated by their definition, tax expenditures arise from many sources—deferrals, exclusions, deductions, preferential tax rates, and credits all serve to reduce tax liabilities. The revenue costs of those different sources have changed in different ways over the last 25 years (Figure 3).

- *Deferrals* allow taxpayers to delay recognition of current income to a future year. For example, small businesses may deduct the cost of qualifying investments immediately rather than over time based on economic depreciation. Individuals may choose to defer tax on retirement savings until they withdraw funds. TRA86 cut tax expenditures from deferral

by a third from 2.7 percent of GDP in 1985 to 1.8 percent in 1988. They stayed at roughly that level for more than a decade before falling below 1.5 percent of GDP in recent years.

- *Exclusions* leave income from specific sources out of the income tax base. For example, employer contributions to health insurance plans and interest paid on most state and municipal bonds are excluded from taxable income of employees and bondholders. The cost of exclusions has risen gradually over the past few decades from 2.0 percent of GDP in 1985 to 2.4 percent in 2010. That increase has resulted in large part from increases in health care costs, which have driven up the share of employee compensation coming from tax-free employer-paid health insurance premiums.

Figure 3. Cost of Tax Expenditures, by Form of Benefit, 1985-2016



Source: Tax Policy Center calculations, based on tax expenditure estimates reported in the Budget of the Federal Government, Fiscal Years 1987 and 1990-2012.

- *Deductions* allow taxpayers to subtract specified outlays such as home mortgage interest and charitable contributions from taxable income. TRA86 reduced the cost of deductions as a share of GDP primarily by lowering marginal tax rates, thereby reducing the tax savings from deductible expenses. The revenue loss from deductions fell from 2.4 percent of GDP in 1985 to 1.7 percent in 1988 and has roughly maintained that level since that time.

Deferrals, exemptions, and deductions all reduce the present value of income subject to tax, and all provide larger tax reductions to taxpayers in high marginal rate brackets than to taxpayers in low marginal rate brackets or to those who would have no income tax liability even without these provisions. And itemized deductions (deductions for home mortgage interest, state and local taxes, charitable contributions, medical expenses, and miscellaneous expenses) have no value to the approximately two-thirds of taxpayers who use the standard deduction.

- *Special rates* reduce the tax rates on income from specific sources below those that generally apply. For example, the maximum 15 percent tax rate on both long-term capital gains and qualified dividends is less than half the maximum 35 percent rate on most income. Legislated changes in tax rates on capital gains, dividends, and ordinary income and large swings in stock prices have caused the cost of special rates to fluctuate widely since 1985. TRA86 removed the preference for gains entirely and cut the cost of special rates from 0.8 percent of GDP in 1985 to less than 0.1 percent in 1988. Tax legislation in 1990 and 1993 imposed new, higher tax rates on ordinary income but left the rate on gains unchanged; the restoration of the differential between capital gains and ordinary income rates recreated the tax expenditure and raised the cost of special rates. Subsequent

reductions in the tax rate on long-term capital gains and on qualified dividends to the current 15 percent maximum further increased the revenue loss to about 0.8 percent of GDP in 2005. The cost has fallen to about half that level more recently, largely because the sharp drop in equity prices after 2007 greatly reduced capital gains realizations.⁶

- Tax *credits* directly lower tax liability by the amount of the credit. The \$1,000 child credit and the earned income tax credit are examples. TRA86 eliminated the investment tax credit, causing credits to fall sharply from 0.9 percent of GDP in 1985 to 0.3 percent in 1988. Expansion of the earned income tax credit (EITC) in the 1990s and the 1997 introduction and 2001 expansion of the child credit combined to push the cost up to 1 percent of GDP in 2003. Temporary credits enacted to stimulate the economy increased the cost to 1.6 percent of GDP in 2010, but the cost is projected to fall when those temporary credits and the 2001 expansion of the child credit expire.

Most of the cost of tax expenditures takes the form of reduced revenues, but the federal budget counts refundable credits—credits that may be claimed in excess of income taxes otherwise owed—differently. The portion of the credit that offsets tax liability counts as a revenue loss while the payment is an outlay. The EITC is fully refundable, while the child tax credit and the American Opportunity Tax Credit are partially refundable. The total budgetary cost of the outlay portion of refundable credits has grown over recent decades from less than one-tenth of a percent of GDP in 1985 to nearly 0.8 percent in 2010. Over the same period, their

⁶ The OMB tables in the fiscal 2012 budget were prepared before the December 2010 extension of the 2001, 2003, and 2010 tax cuts through the end of 2012. Thus, the 2011 and 2012 estimates reflect the higher rates that would have been in effect had the tax cuts expired. Also, the data reported here adjust the OMB figures for several years when OMB did not classify special rates on capital gains on corporate stock and dividends as a tax expenditure. Rogers and Toder used the relationship between JCT and OMB estimates to impute what the OMB values would have been using a consistent methodology for all years. See Rogers and Toder (2011).

share of all tax expenditures rose correspondingly from a negligible share in 1985 to 10 percent in 2010.

Despite significant variation over the years, tax expenditures impose substantial costs on the federal budget and will continue to do so. In 2011, they were projected to cut revenues and raise outlays by \$1.1 trillion, more than we collected from individual income taxes and nearly half of total federal revenue collections for the year.

2. Who Benefits from Tax Expenditures?

In 2011, we estimate that tax expenditures saved households an average of about \$6,500 in reduced taxes. Those savings went to households throughout the income distribution, but the lion's share accrued to those at the top of the distribution. Households in the top income quintile (total income over about \$103,000) received two-thirds of the benefits of tax expenditures in 2011 with average savings of more than \$30,000 (Figure 4). Those in the top 1 percent (income over about \$533,000) got nearly a quarter of the tax savings, an average of nearly \$220,000. In contrast, households in the bottom three quintiles (income under about \$60,000) saved an average of less than \$2,000 each, totaling just one-fifth of the tax savings from all tax expenditures.

Tax expenditures have a striking effect on the taxes people pay, cutting the overall effective federal tax rate by more than a third to 18.1 percent, relative to a rate of 28.2 percent with no tax expenditures. The effect is greatest at the bottom of the income distribution—tax expenditures cut the effective tax rate (ETR) by 90 percent for the lowest quintile and by 61 percent for the second quintile (Figure 5). For the rest of the income distribution, tax expenditures reduce ETRs by about a third.

Figure 4. Distribution of All Tax Expenditures by Income Percentile, 2011

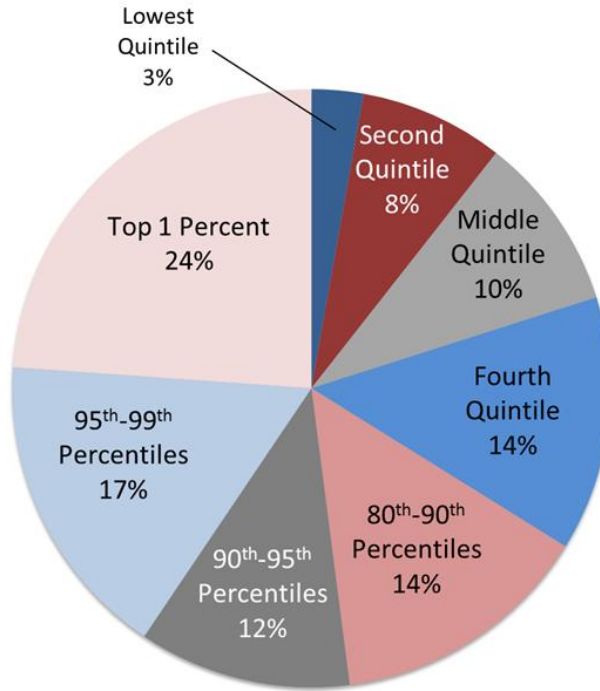
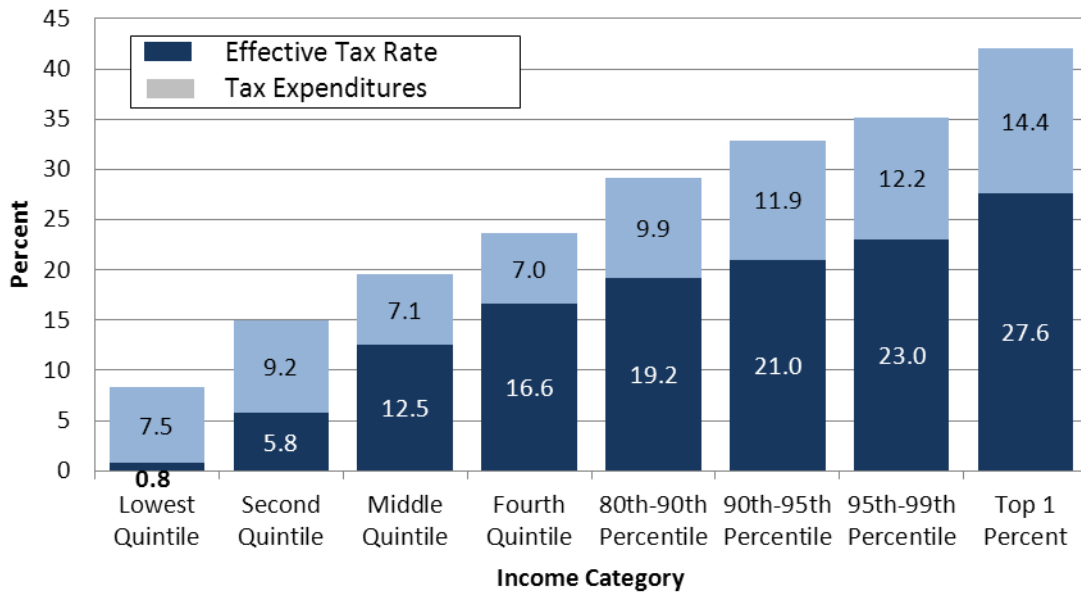


Figure 5. Effect of Tax Expenditures on Effective Federal Tax Rates by Income Percentile, 2011



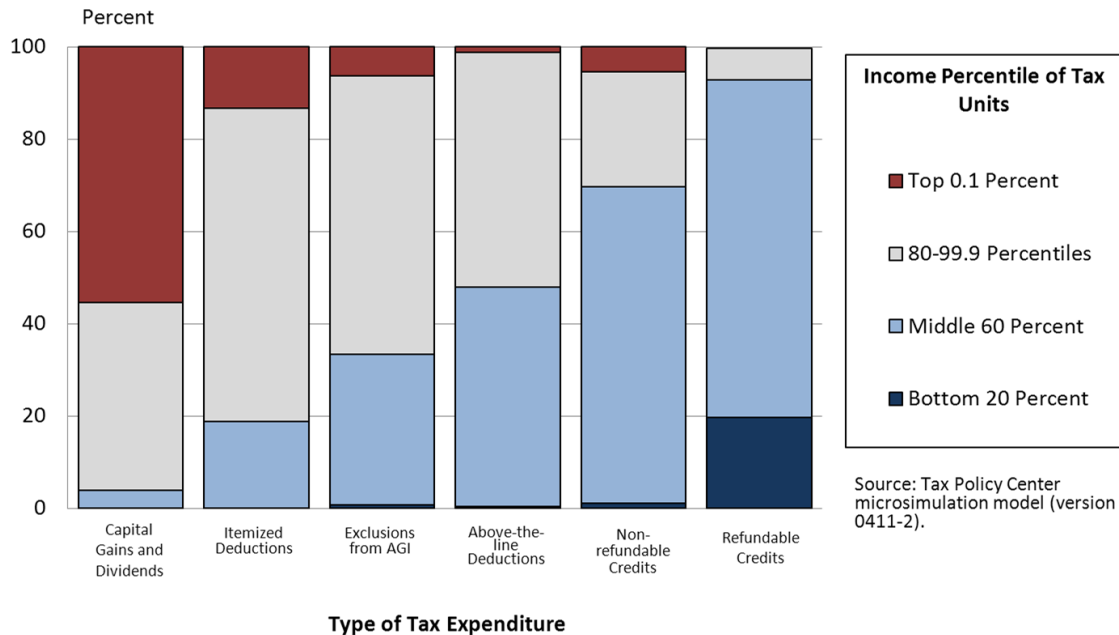
Source: Tax Policy Center Microsimulation Model (version 0411-2).

Particular kinds of tax expenditures provide relatively higher benefits for taxpayers in different parts of the income distribution. For the purpose of displaying their distributional effects, we classify individual tax expenditures into six categories (Figure 6), depending on where they appear on the income tax return: 1) special rates for capital gains and dividends, 2) itemized deductions, 3) exclusions from adjusted gross income, 4) above-the-line deductions, 5) non-refundable credits, and 6) refundable credits. Lower tax rates on capital gains and dividends, itemized deductions, and exclusions primarily benefit households in the top income quintile. Above-the-line deductions and non-refundable credits provide the largest benefits to taxpayers in the middle three quintiles of the distribution. Refundable credits provide the largest benefits as a share of income to taxpayers in the bottom two quintiles (although the child credit also provides substantial benefits to households in the third and fourth quintiles).

- *Capital Gains and Dividends.* According to our estimates, fully 96 percent of the tax savings from preferential tax rates on long-term capital gains and qualified dividends went to people in the top income quintile in 2011, 75 percent to the top 1 percent, and 55 percent to the top tenth of 1 percent (Figure 6). That situation reflects the fact that gains and dividends go disproportionately to high-income households: in 2011, nearly half of households in the top quintile had income from those sources, compared to just 7 percent of those in the bottom four quintiles. The top quintile received 92 percent of total capital gains and dividend income, and those in the top 0.1 percent accounted for 47 percent of the total. The preferential rates substantially reduce the effective tax rates paid by people who get much of their income from gains and dividends. In 2011, the effective individual income tax rate (ETR) for taxpayers with cash income over \$1 million was 18.7 percent. People in that income category who got at least two-thirds of their income from long-term capital gains and

qualified dividends, however, faced an ETR of just 11.9 percent, compared with an ETR of 22.6 percent for those who got less than a tenth of their income from those sources.⁷

Figure 6. Distribution of Tax Change from Different Types of Tax Expenditures by Income Percentile, 2011



- Itemized Deductions.* More than 80 percent of the tax savings from itemized deductions accrued to taxpayers in the top income quintile in 2011, and 13 percent went to those in the top 0.1 percent. That situation resulted in part because high-income households are much more likely to itemize than are those with lower incomes. More than 80 percent of taxpayers in the top quintile itemized deductions in 2011, compared with just 16 percent of those in the bottom four quintiles. In addition, the value of a given amount of tax deductions is proportional to a person’s marginal tax rate. A dollar of deductions reduces tax liability by 35 cents for a taxpayer in the 35 percent top tax bracket but only by 10 cents for someone in the 10 percent bracket.

⁷ Tax Policy Center, Table T11-0317 at <http://www.taxpolicycenter.org/numbers/Content/PDF/T11-0317.pdf>.

- *Exclusions from AGI.*⁸ Income from particular sources is excluded from adjusted gross income and therefore goes untaxed. Important exclusions include employer-paid health insurance benefits, a portion of Social Security benefits, interest paid on bonds issued by state and local governments, and the first \$92,900 of foreign-sourced earnings in 2011. About two-thirds of the tax savings from exclusions benefit tax units in the top income quintile, largely because they face higher tax rates.

- *Above-the-Line Deductions.* Taxpayers who claim the standard deduction rather than itemizing may still benefit from some deductions that they can use to reduce their AGI. “Above-the-line” deductions include a broad array of expenses, ranging from the first \$250 of classroom expenses paid by educators and interest paid on student loans to tuition and fees for post-secondary education. In 2011, less than half of these deductions—but just over half of the tax savings they provide—went to people in the top income quintile. But savings as a share of income were highest for taxpayers in the middle 60 percent of the distribution.

- *Non-Refundable and Refundable Tax Credits.* Tax credits differ from other tax expenditures in that their tax savings are independent of tax rates. The \$1,000 child credit, for example, is the same for all eligible families.⁹ Credits do differ, however, in whether they are refundable—that is, whether tax filers can claim credits in excess of their basic tax liability. Most credits are not refundable; they can only zero out a person’s tax bill. In contrast, refundable credits can result in payments to tax filers who would otherwise have no

⁸ For the purpose of the distributional results shown in Figure 6, and in contrast to the numbers presented in the previous section, tax preferences for retirement savings (including the above-the-line deduction for individual retirement accounts) are treated as exclusions instead of deferrals. A more complete classification would assign just the portion of the tax expenditure that comes from the exemption of income earned inside tax preferred retirement accounts as an exclusion and the portion that represents the net revenue change from deducting contributions and taxing withdrawals as a deferral. Since the latter portion is relatively small, classifying it as an exclusion instead of a deferral does not significantly affect the results.

⁹ The credit phases out for high-income tax filers and is refundable to low-income families only under specific circumstances.

income tax liability. The child credit, the earned income tax credit, the American Opportunity tax credit, and a few other small credits are refundable.

Tax credits, particularly refundable ones, provide relatively more benefits to low- and middle-income tax units than do other tax expenditures. Over two-thirds of non-refundable credits and more than 90 percent of refundable ones went to households in the bottom four quintiles in 2011. Taxpayers in the bottom quintile got less than 4 percent of pretax income but received about 20 percent of the benefit of refundable credits. In contrast taxpayers in the 2nd quintile received less than 9 percent of pretax income but almost 40 percent of the benefit from refundable credits. Taxpayers in the top 0.1 percent get virtually no benefit from refundable credits, primarily because those credits generally phase out at higher levels of AGI.¹⁰

3. Limiting Tax Expenditures

The complexity created by tax expenditures, the unequal benefits they provide to taxpayers, and the resulting revenue loss all provide strong arguments for curtailing or eliminating them. President George W. Bush's 2005 tax commission proposed sharply constraining tax expenditures. President Obama's fiscal commission considered complete elimination of all tax expenditures as a way to simplify the tax code, lower rates, and provide additional revenue. And most economists argue that cutting tax expenditures to broaden the tax base and lowering tax rates would yield a more efficient tax system.

But cutting back on tax expenditures is politically difficult. Taxpayers who benefit from specific tax preferences have a strong interest in maintaining them. Politicians hesitate to

¹⁰ The earned income tax credit phases out at relatively low incomes. The child and education credits phase out at higher income levels.

eliminate or even pare back popular tax provisions. For example, President Obama’s repeated proposal to limit the value of itemized deductions to 28 percent brought quick condemnation from both the real estate industry and the philanthropic sector, which worried about the impact of reducing the tax savings from deducting mortgage interest and charitable contributions. Although interest groups would almost certainly levy similar objections to any similar broad reduction, reforming tax expenditures through across-the-board cuts—possibly accompanied by substantial marginal rate cuts—may stand a better chance of legislative success than attacking specific provisions one by one.

In this section, we simulate the effects of three broad approaches to limiting tax expenditures. The first would substitute non-refundable credits for some deductions and exclusions, making the subsidy rate of tax expenditures the same in all marginal rate brackets. The second would place an overall limit on the tax savings any taxpayers can receive from a selected group of tax expenditure provisions. The third would scale back certain deductions, credits, and exemptions by a fixed proportional amount.

3.1 Methodology

We include six tax expenditures in our benchmark simulations:

- *Exclusion for employer-sponsored health insurance.* Premiums paid for employer-sponsored insurance (ESI) are not included in taxable compensation and therefore not taxed under the federal income tax.¹¹

¹¹ The estimates of the excluded amounts used in our analysis include the portion of health insurance premiums paid by employees under section 125 cafeteria plans, which are treated as employer contributions. Employer-sponsored health insurance premiums are also excluded from Social Security and Medicare payroll taxes. The simulations presented here do not alter any tax preferences for payroll tax purposes.

- *Deduction for medical expenses.* Taxpayers who itemize deductions may deduct the portion of medical and dental expenses (including health insurance premiums) that exceeds 7.5 percent of their adjusted gross income.¹²
- *Deduction for state and local taxes paid.* Taxpayers who itemize deductions and are not subject to the individual AMT may deduct either state and local income or general sales taxes paid, in addition to residential real estate, property, and certain other annual value-based personal property taxes.
- *Deduction for mortgage interest paid.* Taxpayers who itemize deductions may deduct interest paid on mortgages for owner-occupied housing and home equity loans. The deduction is limited to interest paid on up to \$1 million in outstanding debt on new mortgages and \$100,000 of debt on home equity loans.
- *Deduction for charitable contributions.* Taxpayers who itemize deductions may deduct gifts of cash and property donated to registered charitable organizations.
- *Preferential rates on capital gains and dividends.* In 2011, long-term capital gains and certain qualified dividends are taxed at a maximum rate of 15 percent. Under current law, beginning in 2013, dividends will be taxed as ordinary income at rates up to 39.6 percent and long-term capital gains will be subject to a maximum rate of 20 percent. The PPACA will impose an additional surtax of 3.8 percent on dividends and capital gains of high income taxpayers, beginning in 2013.

These six tax expenditures represent nearly 40 percent of the total sum of all tax expenditures as defined in the annual Budget. The employer-sponsored insurance (ESI) exclusion is the largest single income tax expenditure, reducing revenues by nearly \$174 billion

¹² The Patient Protection and Affordable Care Act of 2010 (PPACA) raises the floor on the deduction to 10 percent of adjusted gross income beginning in 2013. The deduction is currently limited to amounts over 10 percent of AGI for taxpayers subject to the individual alternative minimum tax.

in 2011. The mortgage interest deduction is the next largest (\$89 billion) and the deductions for charitable contributions and state/local taxes paid, along with preferential rates on capital gains and qualified dividends, all easily rank in the top ten according to OMB estimates.

Proposals to Limit Tax Expenditures

We examine three approaches for reducing the revenue cost of tax expenditures in the federal individual income tax by limiting the overall value of the selected provisions listed above rather than reducing or eliminating specific preferences. The first would replace the selected tax expenditures with a non-refundable credit, the second would limit the value of the tax expenditures to a percentage of a taxpayer's income, and the third would impose an equal percentage reduction in the value of each of the tax expenditures. We set parameters in each of the options at levels that would result in roughly the same average tax increase in 2011. The three options for reforming the tax treatment of tax expenditures are:

- *Convert to a 15 percent credit.* This option would convert the selected tax expenditures into a single non-refundable tax credit. It would include currently excluded ESI premiums in taxable income, repeal the preferential tax rates on capital gains and dividends, and eliminate the deductions for medical expenses, state and local taxes paid, mortgage interest, and charitable contributions. In their place, taxpayers would receive a credit equal to 15 percent of the sum of those deductions and exclusions. For capital gains and dividends, the credit would equal 15 percent of qualified gains and dividends, so it would effectively apply tax rates that are 15 percentage points lower than ordinary income rates.

- *Limit value to 3.9 percent of AGI.* This option would cap the total value of the selected tax expenditures at 3.9 percent of adjusted gross income.¹³ Taxpayers would have to calculate their income tax liability under an alternative tax structure that disallows all the included tax expenditures. They would then subtract 3.9 percent of their AGI from their tax liability under the alternative structure and pay the larger of that amount or their regular tax liability.

- *Apply a 39 percent haircut.* This option would apply an across-the-board 39 percent reduction in selected tax expenditures by reducing exclusions, deductions, and credits and increasing the tax rate on capital gains and dividends. Specifically, it would include 39 percent of currently excluded ESI premiums in taxable income and reduce the allowable deductions for medical expenses, state and local taxes paid, mortgage interest paid, and charitable contributions by 39 percent. It would also increase the top rate on long-term capital gains and qualified dividends from 15 percent to 22.8 percent, which represents a 39 percent reduction in the tax preference for taxpayers in the top bracket.¹⁴

Consistent with conventional tax expenditure analysis, we treat the standard deduction as part of the normal tax system and therefore not a tax expenditure. In all three options, our simulations allow taxpayers who would otherwise itemize their deductions to claim the standard deduction instead if it results in lower overall tax liability. In addition, our analysis assumes specific behavioral responses to each of the three tax changes. All of the changes in behavior

¹³ This option is similar to that proposed by Feldstein, Feenberg, and MacGuineas (2011), but includes a different group of tax expenditures and imposes a less stringent limit as a share of AGI—3.9 percent of AGI rather than 2 percent.

¹⁴ The current tax savings for people in the 35 percent top tax bracket is 20 percentage points, the difference between the 35 percent rate on ordinary income and the 15 percent rate on gains and dividends. Reducing that differential by the 39 percent haircut corresponds to a 7.8 percentage point increase in the preferential rate to 22.8 percent.

affect our revenue estimates but we incorporate only the first response listed below in our distributional analysis.¹⁵ In particular, we assume that:

- Investors adjust their portfolios in response to a limitation on deductible interest by drawing down assets that generate taxable interest income (but not their stock portfolios) and using the proceeds to reduce debt. We include these adjustments in both distributional and revenue estimates.¹⁶
- Donors reduce their charitable contributions in proportion to the increase in the net-of-tax price of giving compared with current law. This adjustment affects only our revenue estimates.
- Taxpayers reduce both non-gain and capital gains income in response to an increase in marginal tax rates. This adjustment affects only our revenue estimates.
- Taxpayers change the amount and timing of their capital gains realizations in response to changes in tax rates. Specifically, they realize more gains ahead of announced increases in the tax on gains and fewer gains once the higher tax rates take effect. They also realize more capital gains permanently in long-run equilibrium, although this permanent response is smaller than the transitory response. This adjustment affects only our revenue estimates.

To provide a fair comparison between the three alternative tax increases, we calibrate each one to cause roughly similar increases in average tax burdens—about \$1,050 in 2011. Because of differences in design and behavioral responses, however, the three options yield different increases in revenue over the ten-year budget period (Table 1). The credit option would

¹⁵ Incorporating most forms of behavioral response in distributional estimates of tax changes can misrepresent the actual impact of the changes. For example, a reduction in the tax on realized capital gains would likely induce investors to realize more gains, resulting in their paying more tax than if they did not change their investment activity. A large enough increase in realized gains could result in their paying more total tax and thus appearing to be worse off, despite the fact that a lower tax rate would make them unambiguously better off. Ignoring behavioral change in analyzing the distributional effects thus yields more accurate conclusions.

¹⁶ This response leaves taxpayers' net worth unchanged, but allows them to reduce their tax liability by eliminating the use of non-deductible interest payments to finance holdings of assets that generate taxable income.

bring in nearly \$2.8 trillion in added revenue over this period, compared with \$2.4 trillion for the haircut and AGI limit. The main reason for this difference is the various tax provisions that are scheduled to expire under current law, in particular scheduled increases in marginal tax brackets that cause the 15 percent credit option to reduce the subsidy from deductions and exemptions by more after 2012 than in 2011 and 2012. Some differences in the timing of behavioral responses, especially with respect to capital gains realizations, also lead to revenue differences.

Table 1. Impact on Individual Income Tax Revenue (billions of current dollars), 2011-21¹

Proposal	Calendar Year											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2012-21
15 percent tax credit	10	118	215	230	249	270	290	312	334	358	384	2,769
3.9 percent AGI limit	31	53	159	193	212	233	254	278	303	330	361	2,407
39 percent haircut	16	111	179	207	223	239	255	272	289	308	327	2,426

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Proposals are effective 01/01/12. Estimates include a microdynamic behavioral response and assume that taxpayers shift the timing of capital gains realizations in anticipation of a change in the capital gains tax rate. Estimates also assume that taxpayers adjust their investment portfolio and optimally pay down their mortgage balance if their tax benefit from mortgage interest is reduced. Finally, estimates assume that taxpayers adjust charitable contributions in proportion to the change in the tax price of giving compared with current law.

3.2 Results

Distributional Effects

By design, all three proposals would have roughly similar effects on the average taxpayer in 2011. Each would increase the average federal tax rate that year by 1.6 percentage points from 18.1 to 19.7 percent of pretax income (Table 2). As a result, each would reduce after-tax income by an average of just under 2 percent. The similarities end there, however. The AGI limit would affect the fewest households—just one in three—but would impose the largest tax increases on those with the highest incomes. In contrast, the 39 percent haircut would raise taxes for 54

percent of all tax units. The 15 percent credit would increase taxes for nearly 40 percent of households but would also cut taxes for 5 percent of them because the credit would generate larger tax savings than they currently get from the deductions affected by the proposal.

Table 2. Effects of Three Tax Proposals in 2011

Proposal	Tax Units with Tax Increase or Cut ¹				Percent Change in After-Tax Income ²	Average Federal Tax Change (\$)	Average Federal Tax Rate ³	
	With Tax Cut		With Tax Increase				Change (%)	Under the Proposal
	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)				
15 percent credit	5.4	-301	38.7	2,758	-2.0	1,051	1.6	19.7
3.9 percent AGI limit	0.0	0	33.7	3,112	-2.0	1,049	1.6	19.7
39 percent haircut	0.4	-179	54.0	1,940	-2.0	1,047	1.6	19.7

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units.

(2) After-tax income is cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); and estate tax.

(3) Average federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average cash income.

The effects of the three proposals would differ across the income distribution. Relatively few people in the lowest quintile would experience a tax increase under any of the options, reflecting the fact that they benefit little from the tax expenditures the proposals would affect (Table 3). In contrast, both the 15 percent credit and the 39 percent haircut would increase taxes for more than 90 percent of people in the top income quintile while the AGI limit would raise taxes for just 75 percent of tax units in that quintile, largely because many high-income taxpayers have large enough AGI to keep the limit from binding.

Although the three proposals would generate roughly equal average tax increases, the tax rise for affected tax units would be largest for the AGI limit and smallest for the haircut. The AGI limit would boost tax bills by an average of more than \$3,100 in 2011 for the one-third of

tax units whose taxes would go up. In contrast, the 15 percent credit would raise 2011 taxes by an average of nearly \$2,800 and the haircut would increase them an average of less than \$2,000 for tax units experiencing a tax increase. Those different effects are magnified at the top of the income distribution: affected tax units in the top quintile would see their 2011 tax bills go up by an average of more than \$7,500 under the AGI limit, compared with about \$6,000 for the 15 percent credit and just over \$5,200 for the haircut.

Table 3. Tax Cuts and Tax Increases from Three Tax Proposals in 2011

Cash Income Percentile ¹	15 Percent Tax Credit				3.9 Percent AGI Limit				39 Percent Haircut			
	Tax Units with Tax Increase or Cut ⁴				Tax Units with Tax Increase or Cut ⁴				Tax Units with Tax Increase or Cut ⁴			
	With Tax Cut		With Tax Increase		With Tax Cut		With Tax Increase		With Tax Cut		With Tax Increase	
	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)
Lowest Quintile	3.5	-116	4.3	464	0.0	0	5.5	168	0.1	-184	7.2	164
Second Quintile	9.2	-128	19.5	1,317	0.0	0	19.9	404	0.5	-112	43.2	445
Middle Quintile	5.9	-139	46.9	837	0.0	0	39.4	838	0.6	-82	71.5	698
Fourth Quintile	3.7	-269	66.3	1,267	0.0	0	57.1	1,597	0.6	-212	88.9	1,273
Top Quintile	4.2	-1,547	92.2	6,037	0.0	0	75.6	7,609	0.4	-447	96.8	5,230
All	5.4	-301	38.7	2,758	0.0	0	33.7	3,112	0.4	-179	54.0	1,940
Addendum												
80-90	3.9	-351	91.0	3,206	0.0	0	76.3	3,164	0.3	-128	95.8	2,682
90-95	3.9	-1,058	94.2	5,151	0.0	0	83.8	4,633	0.4	-77	98.0	4,005
95-99	5.1	-1,794	92.3	6,848	0.0	0	67.2	7,207	0.6	-801	97.3	5,342
Top 1 Percent	4.4	-13,105	92.9	35,055	0.0	0	61.6	84,201	0.5	-2,278	97.4	35,890
Top 0.1 Percent	2.8	-121,149	95.5	194,398	0.0	0	68.3	535,033	0.3	-16,232	97.9	218,137

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units. Tax units with negative cash income are excluded from the lowest income class but are included in the totals.

About 5 percent of households would get a tax cut from the 15 percent credit.¹⁷ That outcome results from the fact that they currently receive tax savings that are less than 15 percent of the value of the affected tax expenditures. For example, a taxpayer in the 10 percent tax

¹⁷ The 39 percent haircut would also provide tax cuts to a small number of taxpayers because it would reduce the tax on state and local income tax refunds. Because it would reduce taxpayers' income tax deduction for state and local income taxes, the proposal would also exclude from AGI 39 percent of their refunds of those taxes.

bracket saves just 10 percent of any deductions or exclusions under current law but would save 15 percent of those items under the credit proposal. Taxpayers facing marginal income tax rates above 15 percent (but below 30 percent) can benefit from receiving a larger tax saving on capital gains and qualified dividends under the 15 percent credit than under current law. For example, a taxpayer in the 28 percent bracket would see her tax savings increase from 13 percent (28 percent ordinary tax rate minus the current 15 percent top rate on gains and dividends) of capital gains and qualified dividends with the current 15 percent top rate on gains to 15 percent of gains with the credit.

All three proposals would be moderately but unevenly progressive across the income distribution. Tax units in the bottom four quintiles would see their after-tax income in 2011 drop by less than average while those in the top quintile would experience larger than average declines (Table 4 and Figure 7). For example, the 15 percent credit would reduce after-tax income by about 1 percent for those in the middle three quintiles (and just 0.2 percent for the lowest quintile), compared with a 2 percent overall average reduction and a 2.8 percent reduction in income for the top quintile. Similar patterns hold for the other two proposals.

Under any of the three proposals, taxes would rise much more, relative to income, for taxpayers in the top 0.1 percent. Their after-tax income would drop an average of about 4 percent under either the credit or haircut options and by nearly twice that much under the AGI limit. The size of their tax increases reflects the fact that the tax expenditures included in the options increase their after-tax income relatively more than they raise after-tax income for people further down the income distribution.

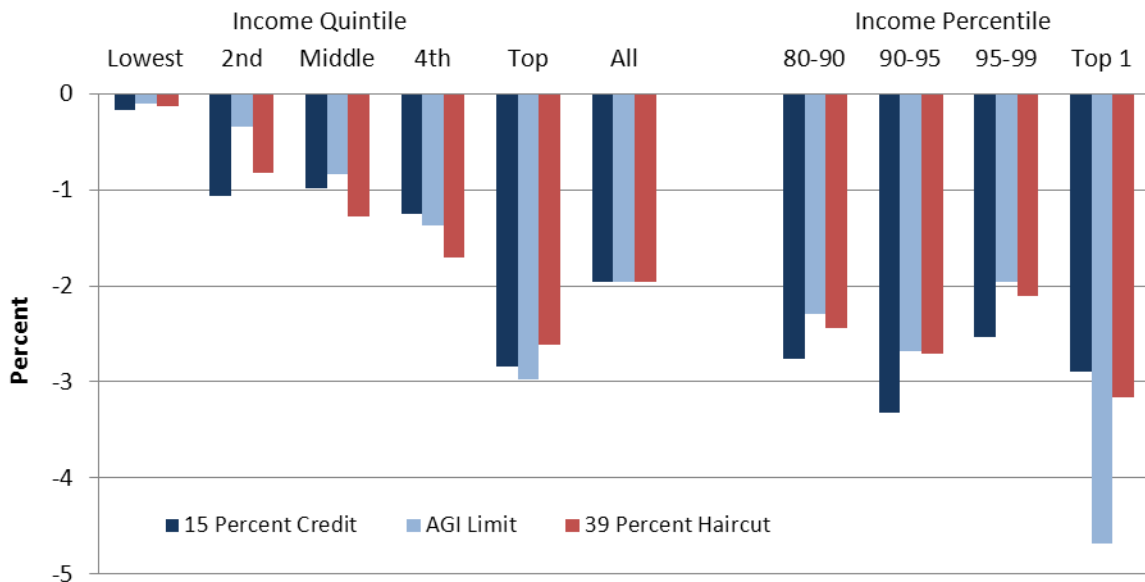
Table 4. Effects of Three Tax Proposals on After-Tax Income and Tax Rates by Income Percentile in 2011

Cash Income Percentile ¹	15 Percent Tax Credit			3.9 Percent AGI Limit			39 Percent Haircut		
	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)
Lowest Quintile	-0.2	16	0.2	-0.1	9	0.1	-0.1	12	0.1
Second Quintile	-1.1	245	1.0	-0.3	79	0.3	-0.8	192	0.8
Middle Quintile	-1.0	384	0.9	-0.8	329	0.7	-1.3	498	1.1
Fourth Quintile	-1.3	830	1.0	-1.4	911	1.2	-1.7	1,130	1.4
Top Quintile	-2.8	5,499	2.2	-3.0	5,749	2.3	-2.6	5,058	2.0
All	-2.0	1,051	1.6	-2.0	1,049	1.6	-2.0	1,047	1.6
Addendum									
80-90	-2.8	2,904	2.2	-2.3	2,413	1.9	-2.4	2,570	2.0
90-95	-3.3	4,812	2.6	-2.7	3,881	2.1	-2.7	3,926	2.1
95-99	-2.5	6,228	2.0	-2.0	4,844	1.5	-2.1	5,193	1.6
Top 1 Percent	-2.9	31,988	2.1	-4.7	51,823	3.4	-3.2	34,961	2.3
Top 0.1 Percent	-3.8	182,282	2.7	-7.7	365,465	5.3	-4.5	213,543	3.1

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units. Tax units with negative cash income are excluded from the lowest income class but are included in the totals.

Figure 7. Average Change in After-Tax Income from Three Proposals by Income Percentile, 2011



Source: Tax Policy Center Microsimulation Model (version 0411-2)

Alternative Specifications

Itemized deductions and the employer health insurance exclusion affect a relatively large number of taxpayers. In contrast, other tax expenditures, such as the preferential tax rates for long-term capital gains and qualified dividends and the child tax credit (CTC), provide significant benefits to specific groups of taxpayers—investors and families with children, respectively. For example, very high income taxpayers receive most of the benefit from preferential rates for gains and dividends, but almost none of the benefit from the child credit, which phases out at higher levels of AGI. To examine the distributional effects of protecting those tax expenditures from our three proposals, we analyzed two sets of alternatives: one that removes the preferential rates and another that includes the child tax credit. In each case, we used the 15 percent credit option as a benchmark against which to calibrate the AGI limit and haircut options so that all three result in roughly similar average tax increases in 2011.

Retaining Preferential Tax Rates for Long-Term Capital Gains and Qualified Dividends.

If we retain the current tax expenditures for capital gains and dividends, the 15 percent credit would raise average tax liability by nearly \$980, about 7 percent less than the \$1,050 increase for our base proposal (Table 5). Making the other two proposals roughly match that average tax increase while retaining the preference for capital gains and dividends required changing their parameters—reducing the AGI limit from 3.9 percent to 2.5 percent and increasing the haircut from 39 percent to 46 percent.

Both the credit and haircut options would increase tax burdens on about the same fractions of taxpayers as our base option—just under 40 percent for the credit and about 54 percent for the haircut. The lower AGI limit, however, would raise taxes burdens for nearly a third more taxpayers—44 percent compared with 34 percent for the base option. That increase,

combined with the lower revenue gain for all three options under this variant, yields a much smaller average tax increase for affected taxpayers: just under \$2,200 compared with more than \$3,100 for the base case.

**Table 5. Effects of Three Tax Proposals in 2011
Variants Retaining Current Law Treatment of Capital Gains and Dividends**

Proposal	Tax Units with Tax Increase or Cut ¹				Percent Change in After-Tax Income ²	Average Federal Tax Change (\$)	Average Federal Tax Rate ³	
	With Tax Cut		With Tax Increase				Change (%) Points)	Under the Proposal
	Pct of Tax	Avg Tax Cut (\$)	Pct of Tax	Avg Tax Increase (\$)				
15 percent credit	4.4	-172	38.9	2,533	-1.8	977	1.5	19.6
2.5 percent AGI limit	0.0	0	44.4	2,209	-1.8	981	1.5	19.6
46 percent haircut	0.5	-304	53.8	1,821	-1.8	978	1.5	19.6

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units.

(2) After-tax income is cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); and estate tax.

(3) Average federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average cash income.

Exempting capital gains and dividends from cuts in tax expenditures mostly benefits higher-income taxpayers, who receive the lion's share of income from those sources (Table 6). That is particularly true for the AGI limit, which would boost taxes for only half of taxpayers in the top 0.1 percent compared with the two-thirds affected by our base option. The AGI limit would affect additional middle-income households—for example, more than half of those in the middle quintile would pay more tax under this version compared with 40 percent under the base option. Average tax increases differ much more, however, than the number of tax units affected. The AGI limit would raise taxes for affected taxpayers in the top 1 percent by an average of about \$24,000 if gains and dividends retain their tax advantage, compared with over \$84,000 when the capital gains and dividends preferences are subject to the limit.

**Table 6. Tax Cuts and Tax Increases from Three Tax Proposals in 2011
Variants Retaining Current Law Treatment of Capital Gains and Dividends**

Cash Income Percentile ¹	15 Percent Tax Credit				2.5 Percent AGI Limit				46 Percent Haircut			
	Tax Units with Tax Increase or Cut				Tax Units with Tax Increase or Cut				Tax Units with Tax Increase or Cut			
	With Tax Cut		With Tax Increase		With Tax Cut		With Tax Increase		With Tax Cut		With Tax Increase	
	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)
Lowest Quintile	3.5	-117	4.3	464	0.0	0	7.8	206	0.1	-204	7.6	195
Second Quintile	8.7	-133	19.5	1,318	0.0	0	32.5	449	0.5	-109	43.7	529
Middle Quintile	4.9	-155	46.8	839	0.0	0	56.3	906	0.6	-85	71.8	817
Fourth Quintile	2.4	-284	66.6	1,277	0.0	0	73.8	1,730	0.7	-203	87.9	1,482
Top Quintile	1.1	-822	93.4	5,326	0.0	0	83.9	5,341	0.8	-855	94.6	4,438
All	4.4	-172	38.9	2,533	0.0	0	44.4	2,209	0.5	-304	53.8	1,821
Addendum												
80-90	1.1	-218	91.7	3,221	0.0	0	86.0	3,603	0.5	-137	93.6	3,104
90-95	0.9	-370	95.7	5,138	0.0	0	89.2	5,173	0.6	-192	96.3	4,385
95-99	1.2	-850	94.8	6,760	0.0	0	77.2	6,677	1.3	-823	95.2	4,903
Top 1 Percent	2.0	-4,825	93.3	21,297	0.0	0	62.7	23,939	2.6	-3,003	94.1	16,161
Top 0.1 Percent	3.5	-16,258	91.2	93,883	0.0	0	50.3	135,806	3.7	-9,871	93.8	73,670

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units. Tax units with negative cash income are excluded from the lowest income class but are included in the totals.

Omitting gains and dividends from the proposals has a smaller effect on the number of tax units affected by the credit and haircut options than the number affected by the 15 percent credit, but high-income taxpayers would see their taxes rise much less with gains and dividends excluded under these options as well. For example, people in the top 1 percent affected by the changes would see their taxes rise an average of just over \$21,000 for the credit option with gains and dividends excluded, compared with about \$35,000 when the limits apply to the gains and dividends preferences. Comparable estimates for the haircut option are \$16,000 and \$36,000, respectively. These differences reflect the fact that high-income households receive most capital gains and dividends and would thus benefit most from continuing the preferential tax treatment of income from those sources.

Exempting gains and dividends from the three proposals reduces or undoes the progressivity of the tax increases, particularly at the top of the income distribution (Table 7). On average, for example, the AGI limit would then reduce after-tax income by 1.8 percent for all tax units but only by 1.4 percent for those in the top 1 percent. Similarly, it would boost tax rates by 1.5 percent on average but by only 1 percent for the top percentile. The haircut option would have similar effects, while the 15 percent credit would affect those with the highest incomes about the same as the overall average. Of the three options, the 15 percent credit would have the largest adverse effect on tax units with the highest incomes and the smallest impact on households in the 40th-80th percentile range. In contrast, the AGI limit and haircut options would affect these middle and upper-middle income taxpayers more. All three options have relatively small effects on taxpayers in the bottom two quintiles, who get little income from gains and dividends.

Table 7. Effects of Three Tax Proposals on After-Tax Income and Tax Rates by Income Percentile in 2011
Variants Retaining Current Law Treatment of Capital Gains and Dividends

Cash Income Percentile ¹	15 Percent Tax Credit			2.5 Percent AGI Limit			46 Percent Haircut		
	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)
Lowest Quintile	-0.2	16	0.2	-0.2	16	0.2	-0.2	15	0.2
Second Quintile	-1.1	245	1.0	-0.6	145	0.6	-1.0	231	0.9
Middle Quintile	-1.0	385	0.9	-1.3	510	1.1	-1.5	586	1.3
Fourth Quintile	-1.3	843	1.1	-1.9	1,276	1.6	-2.0	1,302	1.6
Top Quintile	-2.6	4,964	2.0	-2.3	4,478	1.8	-2.2	4,191	1.7
All	-1.8	977	1.5	-1.8	981	1.5	-1.8	978	1.5
Addendum									
80-90	-2.8	2,952	2.3	-2.9	3,097	2.4	-2.8	2,904	2.2
90-95	-3.4	4,913	2.7	-3.2	4,616	2.5	-2.9	4,219	2.3
95-99	-2.6	6,397	2.0	-2.1	5,156	1.6	-1.9	4,655	1.5
Top 1 Percent	-1.8	19,763	1.3	-1.4	15,005	1.0	-1.4	15,137	1.0
Top 0.1 Percent	-1.8	85,079	1.2	-1.4	68,285	1.0	-1.5	68,714	1.0

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units. Tax units with negative cash income are excluded from the lowest income class but are included in the totals.

Including the child tax credit.

Including the child tax credit (CTC) in the base of tax expenditures subject to limitation would increase the impact of the AGI limit and haircut proposals on tax units in the lower quintiles while imposing smaller tax increases on those with the highest incomes.¹⁸ This results primarily from the higher AGI limit (4.8 percent compared with 3.9 percent for the base option) and the smaller haircut (35 percent versus 39 percent for the base option) required to generate the same average effect on tax units. As was the case for the base option, those parameters would increase taxes by an average of around \$1,050 in 2011 (Table 8). The AGI limit and the haircut would affect slightly more tax units than the base option and the average tax increase for the affected tax units would be correspondingly smaller. For example, 38 percent of all tax units would pay an average of nearly \$2,700 more tax under the AGI limit that affects the CTC, compared with 34 percent facing an average tax increase of just over \$3,100 if the CTC is unchanged.

**Table 8. Effects of Three Tax Proposals in 2011
Variants Limiting Current Law Child Credit**

Proposal	Tax Units with Tax Increase or Cut ¹				Percent Change in After-Tax Income ²	Average Federal Tax Change (\$)	Average Federal Tax Rate ³	
	With Tax Cut		With Tax Increase				Change (%)	Under the Proposal
	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)				
15 percent credit	5.4	-301	38.7	2,758	-2.0	1,051	1.6	19.7
4.8 percent AGI limit	0.0	0	38.4	2,698	-1.9	1,037	1.6	19.7
35 percent haircut	0.3	-196	59.2	1,757	-1.9	1,039	1.6	19.7

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units.

(2) After-tax income is cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); and estate tax.

(3) Average federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average cash income.

¹⁸ Because it is not clear how the fixed-dollar child tax credit would be converted to a percentage credit (or even what the rationale would be), it is excluded from all versions of the 15 percent credit option. As a result, the revenue and distributional effects of that option are identical in the base version and this version that includes the child credit.

Compared with our base option, the AGI limit on preferences including the CTC would raise taxes by a larger amount and for more tax units in the bottom two quintiles and raise less from fewer taxpayers in the top two quintiles (Table 9). For example, 31 percent of those in the second quintile would see their taxes rise by an average of nearly \$830, compared with 20 percent facing an average tax increase of just \$400 under the base case. This reflects the fact that the CTC makes up a larger share of tax expenditures for low-income families than for those in the higher quintiles (many of whom receive no benefit from the credit because it phases out at higher levels of AGI) and the fact that the base option set a lower AGI limit. The same pattern occurs for the 35 percent haircut, but for that option the difference in tax changes in the bottom quintiles from including or excluding the child credit is smaller.

Including the child credit makes both the AGI limit and haircut options less progressive, increasing the tax increases on lower-income tax units and decreasing those on high-income households compared with the tax changes they would face for comparable limits that exclude the child credit (Tables 4 and 10). This again results from the combination of the distributional benefits of the CTC and the less strict AGI limit and smaller haircut required to meet revenue targets for this option. For example, households in the second quintile would see their after-tax income drop by nearly \$300—or 1.2 percent—under this variant of the haircut, compared with about \$200 (0.8 percent) under the base case. In contrast, tax units in the top 1 percent would see their taxes go up by about \$31,000 on average, 10 percent less than under the base case.

**Table 9. Tax Cuts and Tax Increases from Three Tax Proposals in 2011
Variants Limiting Current Law Child Credit**

Cash Income Percentile ¹	15 Percent Tax Credit				4.8 Percent AGI Limit				35 Percent Haircut			
	Tax Units with Tax Increase or Cut				Tax Units with Tax Increase or Cut				Tax Units with Tax Increase or Cut			
	With Tax Cut		With Tax Increase		With Tax Cut		With Tax Increase		With Tax Cut		With Tax Increase	
	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)	Pct of Tax Units	Avg Tax Cut (\$)	Pct of Tax Units	Avg Tax Increase (\$)
Lowest Quintile	3.5	-116	4.3	464	0.0	0	14.3	380	0.1	-153	11.7	204
Second Quintile	9.2	-128	19.5	1,317	0.0	0	30.9	827	0.3	-92	54.2	529
Middle Quintile	5.9	-139	46.9	837	0.0	0	43.4	1,171	0.4	-95	77.1	778
Fourth Quintile	3.7	-269	66.3	1,267	0.0	0	57.5	1,755	0.4	-226	90.9	1,326
Top Quintile	4.2	-1,547	92.2	6,037	0.0	0	68.0	7,241	0.4	-460	97.0	4,748
All	5.4	-301	38.7	2,758	0.0	0	38.4	2,698	0.3	-196	59.2	1,757
Addendum												
80-90	3.9	-351	91.0	3,206	0.0	0	71.3	3,145	0.3	-101	96.3	2,543
90-95	3.9	-1,058	94.2	5,151	0.0	0	75.5	4,221	0.4	-67	98.1	3,607
95-99	5.1	-1,794	92.3	6,848	0.0	0	55.8	6,542	0.6	-810	97.4	4,782
Top 1 Percent	4.4	-13,105	92.9	35,055	0.0	0	47.1	96,084	0.5	-2,191	97.6	32,019
Top 0.1 Percent	2.8	-121,149	95.5	194,398	0.0	0	59.3	557,579	0.3	-14,468	98.0	195,045

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units. Tax units with negative cash income are excluded from the lowest income class but are included in the totals.

**Table 10. Effects of Three Tax Proposals on After-Tax Income
and Tax Rates by Income Percentile in 2011
Variants Limiting Current Law Child Credit**

Cash Income Percentile ¹	15 Percent Tax Credit			4.8 Percent AGI Limit			35 Percent Haircut		
	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)	Percent Change in After-Tax Income	Average Federal Tax Change (\$)	Change in Average Federal Tax Rate (% points)
Lowest Quintile	-0.2	16	0.2	-0.6	54	0.6	-0.3	24	0.3
Second Quintile	-1.1	245	1.0	-1.1	255	1.0	-1.2	286	1.2
Middle Quintile	-1.0	384	0.9	-1.3	508	1.1	-1.5	599	1.3
Fourth Quintile	-1.3	830	1.0	-1.5	1,009	1.3	-1.8	1,205	1.5
Top Quintile	-2.8	5,499	2.2	-2.5	4,926	2.0	-2.4	4,606	1.8
All	-2.0	1,051	1.6	-1.9	1,037	1.6	-1.9	1,039	1.6
Addendum									
80-90	-2.8	2,904	2.2	-2.1	2,243	1.7	-2.3	2,449	1.9
90-95	-3.3	4,812	2.6	-2.2	3,187	1.7	-2.4	3,538	1.9
95-99	-2.5	6,228	2.0	-1.5	3,649	1.1	-1.9	4,653	1.5
Top 1 Percent	-2.9	31,988	2.1	-4.1	45,298	3.0	-2.8	31,229	2.0
Top 0.1 Percent	-3.8	182,282	2.7	-7.0	330,379	4.8	-4.0	191,126	2.8

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0411-2).

(1) Includes both filing and non-filing units but excludes those that are dependents of other tax units. Tax units with negative cash income are excluded from the lowest income class but included in the totals.

4. Conclusions

Compelling economic and political reasons make tax expenditures a logical area to focus future efforts at deficit-reducing tax reform. While an ideal tax reform process would comprehensively evaluate each tax expenditure on its merits, eliminating some and restructuring or retaining others, broad-based limitations on tax expenditures may be easier to enact and would still produce net benefits. This paper examines alternatives for implementing across-the-board limits applied to a selected group of the largest and most widely utilized tax preferences. The three options—a fixed percentage credit, a cap based on income, and a constant percentage reduction—can all be designed to raise significant revenue for deficit reduction. The effects of the options vary across the income distribution and depend on the types of tax expenditures subject to the limitations. But variants of all three options can be designed to be progressive in the sense that the limits would reduce after-tax income for higher income taxpayers by more than they would reduce incomes of lower-income taxpayers.

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