taxanalysts tax break

by William G. Gale and Peter R. Orszag

Bush Administration Tax Policy: Distributional Effects

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I. Introduction

This article evaluates the distributional effects of the 2001 and 2003 tax cuts and is the second article in a series that summarizes and evaluates tax policy in the Bush administration.[1] A central issue in any tax change is who wins and who loses. Both the optimal degree of redistribution and the best way to measure that redistribution are controversial. We obtain several key results:

- The tax cuts enacted to date increase the disparity in after-tax income; most households would receive a direct tax cut, but after-tax income would rise by a larger percentage for high-income households than for low-income households.
- Once the eventual financing of the tax cuts is taken into account, the distributional effects will likely be even more regressive. For example, if the eventual financing is proportional to income, about 80 percent of households, including a large majority of households in every income quintile, will end up *worse* off after the tax cuts plus financing than before.
- Likewise, although advocates routinely describe the tax cuts as pro-family and pro-small-business, we show that most families (that is, with children) and most taxpayers with small-business income will be worse off once the financing is included.
- Even if the tax cuts raise economic growth by a significant amount (relative to existing estimates of the growth effects), most households will end up worse off after the tax cuts, the growth effect, and the financing are considered than they would have been if the tax cuts had not taken place.
- Incorporating the eventual financing of the tax cut into the distributional analysis is a key innovation in the analysis. It is consistent with the fact that the tax cuts must be paid for eventually with either spending cuts or other tax increases. It is consistent with the differential (revenue-neutral) incidence analysis that is the standard in academic treatments of tax incidence. And it makes moot the distracting and misleading debates about which of a variety of distributional measures are most appropriate: In analyses that ignore financing, the alternative measures give different results, but when plausible methods of financing are included, all of the measures yield the same qualitative results.

Section II discusses alternative measures of the distribution of tax changes. Section III provides estimates of the distributional effects of the 2001 and 2003 tax cuts, if they are made permanent, ignoring how the tax cuts will be financed. Section IV discusses alternative methods of financing the tax cuts and incorporates those methods in the distributional analysis. Section V examines a variety of criticisms of distributional analysis, our responses, and a discussion of how those criticisms affect the results presented here.

II. Measuring the Distribution of Tax Changes

Our preferred measure of the distributional impact of a tax change is the *percentage change in income after adjusting for all federal taxes and accounting for financing of the tax cut*.[2] A tax change that gives everyone the same percentage change in take-home income (after controlling for the financing) is, in our view, distributionally neutral — it holds the distribution of after-tax income constant before and after the policy change. This choice emphasizes three crucial issues for developing sensible and robust estimates of the distribution of tax changes.

First, the financing of the tax cut should be included in the analysis because tax cuts eventually have to be paid for (and because we focus on long-run effects). Measures that ignore the need to finance a tax cut can create the misleading impression that everyone is made better off because the direct tax-cut benefits are included but the costs are ignored. Also, as we show below, alternative measures of distributional benefits that yield seemingly contradictory conclusions when financing is ignored yield consistent conclusions when financing is included.

[1]The first article provides background information on the tax cuts that were enacted and discusses several issues — including whether the sunsets are removed, how the growth of the alternative minimum tax is handled, and how the tax cuts are financed — that must be clarified to analyze the tax cuts (Gale and Orszag 2004).

[2]Cronin (1999) and Gravelle (2001) reach a similar conclusion but do not include the financing element.

Second, our preferred measure focuses on percentage changes in after-tax income rather than on taxes per se. Measures like the percentage change in tax payments (emphasized by Rosen 2004) and changes in the share of income tax payments (emphasized by OMB 2004) can generate nonsensical results, especially if financing is not included in the analysis, if some households have very small tax payments, no tax payments, or negative net taxes.[3] Likewise, if tax and spending options are to be compared, simply looking at the percentage change in taxes paid or the change in share of income taxes paid will not prove informative. When tax policies change income levels, a measure of changes in the level or share of taxes paid could actually give the wrong sign for which taxpayers are better off. In sharp contrast, measures that focus on the percentage change in after-tax income generate sensible results in all of the situations above.

Third, our measure includes a wide range of federal taxes, including those on individual and corporate income, payroll, and estates. We show below that including only one tax can lead to misleading results, at least when financing is ignored.

Although we emphasize the importance of controlling for the financing of tax cuts in distributional analysis, we first report results without including financing. These results are comparable to those in most recent public discussions of these issues (see CBO 2004, for example).

III. Distributional Effects Ignoring Financing

To measure distributional effects, we use the Tax Policy Center (TPC) microsimulation model.[4] The model combines data from a public-use file of income tax returns and demographic information from the Current Population Survey to estimate the distribution of income, existing taxes, and proposed changes. The model uses the tax filing unit as the unit of analysis, and classifies the units by various measures of current income. The model's incidence assumptions and the resulting distribution of tax burdens are similar to those in models used in the past by the Treasury Department, the CBO, and the JCT.[5]

Table 1 reports a variety of distributional results for 2010, all of which exclude the financing of the tax cuts. If the 2001 and 2003 tax cuts are made permanent and the number of AMT taxpayers is held at levels that would have prevailed under pre-EGTRRA law, about 73 percent of tax filing units would receive a direct tax cut in 2010, with the share rising from only 16 percent of units in the bottom quintile to more than 99 percent in the top quintile.[6]

The percentage change in after-tax income would rise as income rises, from 0.3 percent in the bottom quintile to 4.3 percent in the top quintile. It would rise even further within the top quintile, with a 6.4 percent increase for the top 1 percent (and a 7.5 percent increase for tax filing units in the top 0.1 percent, which is not shown). Thus, the tax cuts would raise after-tax income by a greater percentage for high-income households than for all others. This finding is reasonably interpreted as indicating that the tax cuts would favor high-income households.

Several other commonly used measures of the distributional effects also suggest that making the tax cuts permanent would be tilted toward high-income households in general and households in the top 1 percent in particular. The average tax rate would fall more for the top 1 percent than for any other group. Their share of the tax cut would exceed their share of tax burdens under pre-EGTRRA law, so that their share of all federal taxes paid would fall and the share of post-tax income received would rise. The average tax cut in dollars is 80 times as large for the top 1 percent as it is for households in the middle-income quintile.

On the other hand, at least two commonly used measures, if taken at face value, suggest that the tax cuts actually helped other households more than high-income households. First, households in the top 1 percent would receive a 13.3 percent reduction in their federal tax liabilities. This is more than the average reduction of 11 percent, but it is smaller than the 18.2 percent reduction in federal tax liabilities experienced by households in the second income quintile. Second, households in the top 1 percent would actually pay a greater share of the *income* tax after the tax cuts than before (even though their share of all federal taxes fell).

Thus, at first glance, the distributional results in Table 1 present something of a quandary. To be sure, the most insightful measure — the percentage change in after-tax income — shows that the tax cuts are regressive even without taking financing into account, and many of the other measures also indicate that the tax cuts are skewed toward high-income households, but some suggest the opposite. As we show below, one way to remove the quandary is to incorporate the financing of the tax cuts in the analysis. When plausible methods of financing are

(Text continued on p. 1562.)

[3]For example, consider a two-person economy in which one person earns $30,000 and pays $1 in taxes, and the other earns $40 million and pays $20 million in taxes. Now consider a tax cut that reduces the first person's taxes to zero and the second person's to $10 million. Focusing on percentage changes in taxes or share of taxes paid would require concluding that the first person got a bigger tax cut. Likewise, raising the first person's taxes from zero to $1 would be considered a bigger tax increase than raising the second person's taxes from $10 million to $20 million or to any other finite number. Drawing these conclusions about the tax cut, however, would be nonsensical. Also, it is unclear how to deal with households who pay negative net taxes (because, for example, they receive refundable credits) using these approaches.

[4]For details of the model, see http://taxpolicycenter.org/TaxModel/tmdb/TMTemplate.cfm?DocID=299.

[5]Specifically, in the TPC model, the burden of the income tax is assigned to the payer. The corporate income tax is borne in proportion to capital income received. Workers bear the burden of both the employer and employee portions of the payroll tax. The estate tax is assigned to decedents.

(Footnote continued in next column.)

[6]The justification for adjusting the AMT is discussed in Gale and Orszag (2004).

Table 1
Distributional Effects of Permanent Tax Cuts and AMT Adjustment[a]
(by Cash Income Percentile, 2010)

Cash Income Percentile	Percent With Tax Cut	Change in After-Tax Income (Percent)	Share of Total Tax Cut (Percent)	Average Tax Change (Dollars)	Change in Average Tax Rate (Percentage Points)	Change in Federal Tax Payments (Percent)	Change in Share of Federal Taxes (Percentage Points)	Change in Share of Post-Tax Income (Percentage Points)	Change in Share of Income Tax Paid (Percentage Points)
Lowest Quintile	15.8	0.3	0.3	-26	-0.3	-8.7	0.0	-0.1	-0.3
Second Quintile	69.0	1.9	4.1	-387	-1.8	-18.2	-0.2	-0.1	-1.1
Middle Quintile	83.9	2.1	7.5	-699	-1.8	-10.8	0.0	-0.2	-0.8
Fourth Quintile	96.3	2.5	14.9	-1,392	-2.0	-9.4	0.3	-0.2	-0.5
Top Quintile	99.2	4.3	73.1	-6,826	-3.1	-11.1	-0.1	0.5	2.6
All	72.8	3.4	100.0	-1,869	-2.6	-11.0	0.0	0.0	0.0
Addendum									
80-99 Percentile	99.3	3.5	43.1	-4,236	-2.6	-10.0	0.5	0.0	1.7
Top 1 Percent	98.7	6.4	30.0	-56,051	-4.3	-13.3	-0.7	0.5	0.9

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-3).
[a]Baseline is pre-EGTRRA law, evaluated in 2010. The AMT exemption is raised (to $54,000 for married couples filing jointly, $38,250 for single filers) to keep the number of AMT taxpayers equal to the number who would have been on the AMT under pre-EGTRRA law.

Table 2
Distributional Effects of Permanent Tax Cuts and AMT Adjustment With Equal-Dollar Financing[a]
(by Cash Income Percentile, 2010)

Cash Income Percentile	Percent With Tax Increase	Percent With Tax Cut	Change in After-Tax Income (Percent)	Average Tax Change (Dollars)	Change in Average Tax Rate (Percentage Points)	Change in Federal Tax Payments (Percent)	Change in Share of Federal Taxes (Percentage Points)	Change in Share of Post-Tax Income (Percentage Points)	Change in Share of Income Tax Paid (Percentage Points)
Lowest Quintile	100.0	0.0	-21.7	1,843	21.0	626.0	2.2	-0.7	3.9
Second Quintile	98.7	1.3	-7.5	1,482	6.7	69.9	1.8	-0.5	3.2
Middle Quintile	93.8	6.2	-3.5	1,170	3.0	18.1	1.4	-0.4	2.4
Fourth Quintile	80.2	19.8	-0.9	477	0.7	3.2	0.6	-0.2	0.7
Top Quintile	10.5	89.5	3.1	-4,958	-2.3	-8.1	-5.9	1.8	-10.2
All	76.6	23.4	0.0	0	0.0	0.0	0.0	0.0	0.0
Addendum									
80-99 Percentile	10.8	89.2	2.0	-2,367	-1.5	-5.6	-2.7	0.8	-4.6
Top 1 Percent	4.7	95.3	6.2	-54,182	-4.2	-12.9	-3.2	1.0	-5.5

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-3).
[a]Baseline is pre-EGTRRA law, evaluated in 2010. The AMT exemption is raised (to $54,000 for married couples filing jointly, $38,250 for single filers) to keep the number of AMT taxpayers equal to the number who would have been on the AMT under pre-EGTRRA law. Financing equals $1,869 per tax unit.

Table 3
Distributional Effects of Permanent Tax Cuts and AMT Adjustment With Proportional Financing[a]
(by Cash Income Percentile, 2010)

Cash Income Percentile	Percent With Tax Increase	Percent With Tax Cut	Change in After-Tax Income (Percent)	Average Tax Change (Dollars)	Change in Average Tax Rate (Percentage Points)	Change in Federal Tax Payments (Percent)	Change in Share of Federal Taxes (Percentage Points)	Change in Share of Post-Tax Income (Percentage Points)	Change in Share of Income Tax Paid (Percentage Points)
Lowest Quintile	99.7	0.3	-2.4	202	2.3	68.5	0.2	-0.1	0.5
Second Quintile	80.1	19.9	-0.9	184	0.8	8.7	0.2	-0.1	0.4
Middle Quintile	76.5	23.5	-1.0	325	0.8	5.0	0.3	-0.1	0.6
Fourth Quintile	79.5	20.5	-0.8	433	0.6	2.9	0.3	-0.2	0.6
Top Quintile	64.0	36.0	0.7	-1,128	-0.5	-1.8	-1.0	0.4	-2.1
All	79.9	20.1	0.0	0	0.0	0.0	0.0	0.0	0.0
Addendum									
80-99 Percentile	65.3	34.7	0.0	-12	0.0	0.0	0.0	0.0	0.1
Top 1 Percent	39.1	60.9	2.5	-22,335	-1.7	-5.3	-1.0	0.4	-2.2

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-3).
[a]Baseline is pre-EGTRRA law, evaluated in 2010. The AMT exemption is raised (to $54,000 for married couples filing jointly, $38,250 for single filers) to keep the number of AMT taxpayers equal to the number who would have been on the AMT under pre-EGTRRA law. Financing equals about 2.6 percent of cash income.

included, the apparent contradictions are removed, and all of the measures show that the tax cuts are regressive.

IV. Distributional Effects Including Financing[7]

The 2001 and 2003 tax cuts will be financed in the future by some combination of tax increases and spending cuts, but there is uncertainty over the exact programmatic changes to be used. As a result, we examine two hypothetical scenarios. In both scenarios, the financing is set so that the annual revenue loss of the tax cuts would be fully paid for in that year.

The first scenario assumes that each household pays the same dollar amount to finance the tax cuts. Under this scenario, each household receives a direct tax cut based on the 2001 and 2003 legislation (and the AMT adjustment), but it also ''pays'' $1,869 per tax unit (in 2010 dollars) in some combination of reductions in benefits from government spending or increases in other taxes. Something close to this scenario could occur if the tax cuts were financed largely or entirely through spending cuts. We refer to this as ''equal-dollar financing,'' with results presented in Table 2. It is the equivalent of the hypothetical lump sum tax that is used in differential incidence analysis in standard academic research (see Rosen 1995, page 276).

The second scenario assumes that each household pays the same percentage of income to finance the tax cuts. In this case, each household receives a direct tax cut based on the 2001 and 2003 laws, but also pays 2.6 percent of its cash income each year. Something close to this scenario could occur if the tax cuts were financed through a combination of spending cuts and progressive tax increases. We refer to this as ''proportional financing,'' with results presented in Table 3.

Under equal-dollar financing, *every* measure of the distributional effects shows that high-income taxpayers would gain and all other groups of taxpayers would lose if the tax cuts were made permanent (Table 2). Overall, *more than three quarters of taxpayers are made worse off* by the tax cuts plus equal-dollar financing, including almost every household in the bottom 40 percent of the income distribution, 94 percent in the middle quintile, and even 80 percent in the fourth quintile. In sharp contrast, 89 percent of taxpayers in the top quintile and 95 percent of households in the top 1 percent end up better off. The percentage change in after-tax income is negative for all groups below the top quintile, and positive for the top quintile. While 76 percent of households would face net tax increases (or spending cuts), households in the top 1 percent would receive average benefits of more than $54,000.

All of the other distributional measures show similar patterns, including the two metrics that showed different results when financing was ignored. When the financing was ignored (Table 1), households in the second quintile had substantial percentage cuts in federal taxes and high-income households had more modest cuts. When equal-dollar financing is included, however, households

[7]This section is based in part on Gale, Orszag, and Shapiro (2004). *See also* Steuerle (2003).

Table 4
Distributional Effects of Permanent Tax Cuts and AMT Adjustment Among Families With Children[a] (by Cash Income Percentile, 2010)

Cash Income Percentile	No Financing		Equal-Dollar Financing		Proportional Financing	
	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income
Lowest Quintile	0.0	0.3	99.8	-18.7	99.0	-2.0
Second Quintile	0.0	3.4	95.7	-5.1	37.1	0.8
Middle Quintile	0.0	4.1	78.2	-1.5	31.0	1.1
Fourth Quintile	0.0	3.4	61.4	0.1	56.3	0.2
Top Quintile	0.0	3.8	6.6	2.6	57.4	0.2
All	0.0	3.7	61.2	0.9	55.9	0.3
Addendum						
80-99 Percentile	0.0	2.9	6.8	1.4	58.6	-0.4
Top 1 Percent	0.0	5.9	2.9	5.6	35.1	2.0

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-3).
[a]Tax units are considered to have children if they use a dependent exemption for a child living at home.

in the second quintile (and all of the bottom four quintiles) have net tax increases, with enormous net tax increases facing the bottom 40 percent of the distribution. In contrast, households in the top quintile have net tax cuts. Likewise, when financing was ignored, households in the top income group ended up paying a higher share of the income tax (even though they had the highest percentage increase in after-tax income and paid a smaller share of overall federal taxes). In sharp contrast, but consistent with common sense, households in the top income groups pay a sharply lower share of the income tax once equal-dollar financing is included.[8]

Distributional effects that incorporate proportional financing yield similar results (Table 3). In particular, all of the measures indicate that high-income households benefit at the expense of other households, who lose in aggregate. About 80 percent of households would be worse off under the tax cuts plus proportional financing than they would be without the tax cuts, including a majority in every quintile. The percentage of tax units with a tax cut rises with income. The top quintile is the only group to receive a net tax cut, but even in the top quintile, almost two-thirds of all households in the 80th to 99th percentile face net tax increases. Both of the measures that gave anomalous results when financing was ignored — the percentage change in federal taxes and the share of income tax paid — now show that households in the bottom 80 percent of the income distribution are worse off on average, while those in the top quintile are better off.

Distributional analyses can also examine the status of particular groups defined by characteristics other than current income. For example, the 2001 and 2003 tax cuts are often described as ''pro-family'' because they expanded the child credit and reduced marriage penalties. Gale and Kotlikoff (2004) show that, controlling for income level, taxpayers with children received larger direct tax cuts than those without children. Table 4 shows, however, that under equal-dollar financing, 61 percent of families with children would be worse off if the tax cuts were made permanent, including 96 percent of those families in the lowest 40 percent of the overall income distribution and between 60 percent and 80 percent of the families in the third and fourth quintiles. Only in the top quintile are a majority of families with children better off. Under proportional financing, 56 percent of families with children would be worse off if the tax cuts were made permanent (see Gale and Kotlikoff 2004 for additional discussion).

A second group that has attracted significant attention in recent tax cut debates is small businesses, with the tax cuts being described as pro-entrepreneur. In its analyses of this issue, the administration has defined any return with Schedule C, E, or F income as a small business. We adopt the same definition here, although we recognize its flaws (Burman, Gale, and Orszag 2003). The distributional effects for taxpayers with business income are shown in Table 5.[9] In the aggregate, taxpayers with business income would receive net tax cuts, even after financing, but most individual taxpayers with business income would see their burdens rise. Under proportional financing, 72 percent of tax filers with business income would be worse off, including more than 60 percent in the top quintile, and even 37 percent in the top 1 percent of the income distribution. Under lump sum financing, those figures are lower, but even so, a majority (58 percent) of all tax filers with business income would be

[8]This assumes that the financing is included as part of the income tax. If the financing is achieved through a change in some other tax or in spending, then examining only how income tax changes is essentially looking at the effects ignoring the financing and has all of the problems and inconsistencies noted above.

[9]A subsequent article in this series examines the effects on economic growth and discusses the effects of the tax cuts on incentives for entrepreneurial entry and investment.

Table 5
Distributional Effects of Permanent Tax Cuts and AMT Adjustment Among Taxpayers With Business Income[a] (by Cash Income Percentile, 2010)

Cash Income Percentile	No Financing		Equal-Dollar Financing		Proportional Financing	
	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income
Lowest Quintile	0.0	0.7	99.7	-22.5	97.7	-2.1
Second Quintile	0.0	2.4	95.9	-7.1	77.7	-0.6
Middle Quintile	0.0	2.7	88.9	-2.9	67.6	-0.4
Fourth Quintile	0.0	2.8	73.3	-0.4	72.9	-0.4
Top Quintile	0.0	5.0	9.5	4.1	62.7	1.3
All	0.0	4.5	57.8	2.6	72.1	0.9
Addendum						
80-99 Percentile	0.0	5.4	9.8	4.0	64.0	1.0
Top 1 Percent	0.0	6.7	4.2	6.5	36.8	2.9

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-3).
[1]Tax units are assumed to own a small business if they have schedule C, E, or F income.

worse off, including almost all of those filers in the bottom 40 percent of the income distribution.

V. Criticisms and Responses

As noted earlier, distributional analysis is a controversial topic. This section addresses five potential criticisms of the analysis above: the exact method of financing is currently unknown; the analysis classifies households by annual rather than lifetime income; the calculations assume that contributions to Social Security are on a par with other taxes even though Social Security contributions and benefits are linked; the tables ignore the effects of the tax cuts on economic growth; and the analysis is based on flawed incidence assumptions. None of those potential criticisms seems likely to alter the key results.

First, although the exact method of financing is still unknown, the basic tenor of the results above is likely to be robust to reasonable adjustments in financing. The reason is that the 2001 and 2003 tax cuts significantly scale back or eliminate many of the most progressive features of the tax system, including the estate tax, dividend and capital gains taxes, and the highest marginal tax rates. Thus, low- and middle-income households are likely to come out as net losers under the tax cuts plus financing unless the financing affects high-income households far more than other households. Such a progressive offset is unlikely, unless the tax cuts for high-income households are directly repealed.

Second, there is little doubt that making the 2001 and 2003 tax cuts permanent would be regressive if measured on the basis of lifetime income instead of annual income. Households' current and lifetime income vary for two reasons: the life-cycle and transitory income. In all of the analyses we have done looking at particular age groups (not shown), which controls for life-cycle effects, the results are similar to those presented above. The major cuts in taxes on dividends and capital gains benefit precisely those groups with high lifetime incomes, and in particular those with large holdings of equities, which tend to be the wealthiest families in the country (Wolff 2002). Even after removing capital gains, which is a major source of transitory income, from the income measure, nearly all capital gains go to households with very high non-capital-gains income (Lyon and Haliassos 1994). Indeed, the recipients of capital gains or dividend income that do have low current income — for example, the elderly — probably have average lifetime income levels *higher* than their current income, so that classifying households based on current income in that case makes the tax cut look *less* regressive than it would be if households were classified by lifetime income. The estate tax, whether it is borne by decedents or inheritors, imposes burdens on very-high-income groups (Joulfaian 1998, Gale and Slemrod 2001). Similar comments apply to the reductions in the highest income tax rates, the repeal of the phaseout of itemized deductions, and personal exemptions.

Third, questions about whether payroll taxes are really on a par with other taxes may be of interest for some purposes, but they would not alter the key results above once financing is included in the analysis. In particular, because payroll taxes are held constant throughout the analysis above, the fact that most households would be worse off after the tax cuts plus financing than they would be if the tax cuts had not existed is unaffected by the inclusion or exclusion of payroll taxes.

Fourth, it is possible to incorporate economic growth into the distributional analysis.[10] Table 6 shows the

[10]Ironically, this is true only because we focus on the percentage change in after-tax income. In contrast, many of those who argue that the tax cuts would raise growth (Rosen 2004, OMB 2004) advocate the use of distributional measures — such as the percentage change in taxes and the change in the share of income taxes paid — that are likely to imply conclusions about individuals' welfare that are of the wrong sign when growth is included. For example, the more a group's income rises because of the tax cuts, the more its taxes will rise (or the less they fall), and the greater the share of income tax the group would pay. Yet the group is better off, not worse off. One advantage of using the percentage change in after-tax income,

(Footnote continued on next page.)

Table 6
Distributional Effects of Permanent Tax Cuts and AMT Adjustment With Economic Growth[a]
(by Cash Income Percentile, 2010)

Cash Income Percentile	No Financing		Equal-Dollar Financing		Proportional Financing	
	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income	Percent With Decrease in After-Tax Income	Percent Change After-Tax Income
Lowest Quintile	0.0	1.3	100.0	-20.7	92.7	-1.3
Second Quintile	0.0	3.0	98.1	-6.4	57.6	0.1
Middle Quintile	0.0	3.2	89.6	-2.5	64.7	0.1
Fourth Quintile	0.0	3.6	57.3	0.2	57.8	0.3
Top Quintile	0.0	5.4	1.8	4.2	28.5	1.8
All	0.0	4.5	69.0	1.1	60.0	1.1
Addendum						
80-99 Percentile	0.0	4.6	1.9	3.0	28.5	1.0
Top 1 Percent	0.0	7.5	0.0	7.3	28.2	3.7

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-3).
[a]The results assume that all components of pretax cash income rise by 1 percent due to the tax cuts.

effects if the tax cuts raised each component of each tax unit's cash income by 1 percent. This increase significantly exceeds the growth effects estimated in all recent studies. As Table 6 shows, when financing is ignored, the combination of the direct tax cut and the increase in income raises after-tax income by 4.5 percent. The growth in after-tax income is skewed toward higher-income households, but all groups obtain some direct benefit.

When financing is included, the aggregate change in after-tax income falls to 1.1 percent. More importantly for distributional purposes, *when the financing is included most households would actually be worse off, even with a 1 percent increase in pretax cash income, than they would have been without the tax cuts.* For equal-dollar financing, more than two-thirds of households are worse off, including almost everyone in the bottom 40 percent of the income distribution, almost 90 percent of those in the middle quintile, and even a majority of those in the fourth quintile. The bottom 60 percent of the income distribution would see declines in after-tax income even though the economy grew. Under proportional financing, 60 percent of households would be worse off, the bottom 20 percent would see a decline in income, and the next 40 percent would see only a very small (0.1 percent) increase in average after-tax income. Households in the top quintile would obtain nearly all of the net benefits. In summary, even a substantial economic growth effect is not sufficient to rescue most tax units from being worse off if the tax cuts were made permanent, once the financing of the tax cuts is included.

Fifth, the incidence assumptions in the TPC model are similar to those in models used by the CBO, JCT, and Treasury. In particular, capital income taxes are borne by the recipient of the income, and corporate income taxes are borne by capital owners. This is a completely plausible assumption for the short-term analysis of distributional effects typically undertaken with tax simulation models, but it may not be as appropriate in the longer term as the capital stock adjusts more completely to the change in tax policy (Council of Economic Advisers 2004).

The long-term incidence of a cut in current capital income taxes depends on how the economy adjusts to the tax cut (and hence on the economic growth effects discussed in a subsequent article in this series), and in particular on *how the tax cuts are financed*. Current capital income tax cuts that were financed by lump sum taxes would generally be expected to raise growth in almost all economic models. But current capital income tax cuts that are *deficit-financed* require increases in other taxes or cuts in spending in the future. As shown in a subsequent article in this series on the growth effects of the tax cuts, if capital income tax cuts today result in higher capital income taxes or higher wage taxes in the future, then the long-term size of the economy and the capital stock will fall, and workers in the future will be worse off because of the capital income tax cuts now. This is not accounted for in the distributional tables above, and it suggests that the long-term regressivity of the tax cuts could be *understated* in the results above. If, instead, current capital income tax cuts are financed by reductions in government consumption, the long-term effect on growth would be moderately positive, and the results in table 6 — which incorporate a growth effect that is large relative to estimates in the literature and which nevertheless show that most people would still end up worse off — would serve to provide an upper bound on the benefits.

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