



# FISCAL FACT

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## **The 2001 and 2003 Tax Relief: The Benefit of Lower Tax Rates**

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### **Summary**

Recent research on President Bush's tax relief in 2001 and 2003 has found that the lower tax rates induced taxpayers to report more taxable income. In particular, the reduction in the top two tax rates induced taxpayers to report more taxable income—an increase in the size of the tax base—to such an extent that this positive behavioral response likely offset roughly 25 percent to 40 percent of the static revenue loss of lowering the top two tax rates. This research illustrates that, while the lower tax rates have not paid for themselves, they do provide important economic benefits and can expand the tax base to such an extent that they cost the federal government substantially less revenue than the casual observer might think. Moreover, this research may provide valuable insights into the harmful effects of high tax rates as the Presidential candidates' tax plans are evaluated.

### **Economic Effects of the 2001 and 2003 Tax Relief**

The central component of the 2001 and 2003 tax relief was lower individual income tax rates. For example, the 15 percent rate was lowered to 10 percent for low-income taxpayers and the top tax rate faced by high-income taxpayers was lowered from 39.6 percent to 35 percent. The 10-percent bracket accounted for nearly one quarter of the individual income tax relief. This tax change, combined with the reduction in the marriage penalty and the expansion of the child tax credit, provided a short-term economic stimulus by letting taxpayers keep more of their income. Nevertheless, even though these provisions increased taxpayers' after-tax incomes, they did little to improve economic incentives. Indeed, to the extent these tax provisions were financed with additional government borrowing, they may well have

detracted from economic growth in the longer term by adding to the deficit and increasing long-term interest rates.

In contrast, the reduction in the top income tax rates helped spur the economy in the longer term by improving the incentives to work, produce and save, and by reducing a variety of other economic distortions associated with high tax rates. High tax rates interfere with the economic decisions of households and businesses in many ways. They induce individuals to work less, to undertake different jobs and entrepreneurial activities, to receive their compensation in different forms, and to reduce saving and investment. They also affect the composition of taxpayers' investment portfolios, the amount of charitable giving, and the financing arrangements of homes and business. Sound tax policy seeks to let household and business decisions be based on economic merit, not tax considerations, to the greatest extent possible.

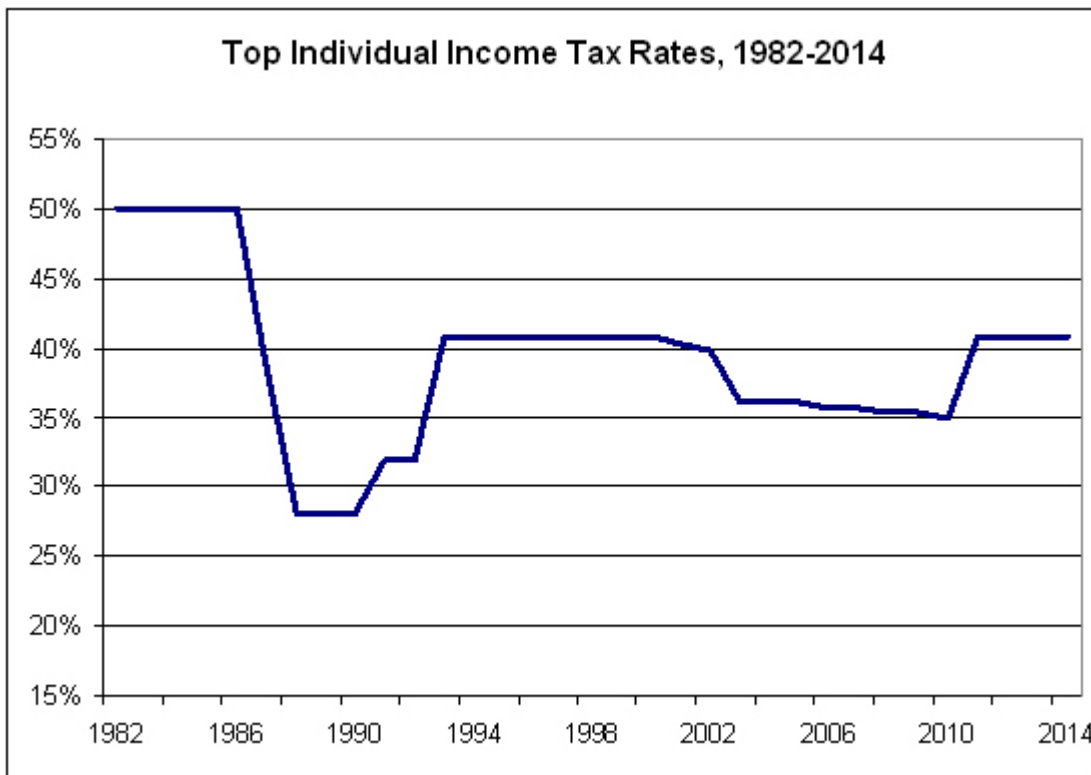
### **Top Tax Rates Since 1982**

Figure 1 shows the top tax rate since 1982.<sup>1</sup> The first noteworthy change during this period was neither a tax cut nor a tax hike. The revenue-neutral Tax Reform Act of 1986 dramatically reduced tax rates but exposed much more income to tax by eliminating many deductions and tax credits. The result was a reduction in the top rate from 50 percent to 28 percent.

Substantial tax rate increases followed. The top rate was raised to 31 percent in 1991 and then again, to 39.6 percent in 1993, undoing roughly half of the rate reduction achieved by the 1986 Act. In comparison to those two rate hikes, the 2001 and 2003 reductions in the top tax rate to 35 percent were relatively modest: they undid only about one-half of the 1993 increase and left the top rate well above 1990's 28 percent.

Absent any action by the Congress, the top tax rate will rise back to 39.6 percent after the 2001 and 2003 tax relief sunsets at the end of 2010. Understanding the effect of the lower tax rates enacted in 2001 and 2003 will help us evaluate the likely effects of proposals to roll back the lower tax rates or let them rise back to their previous levels.

**Figure 1**



Source: Tax Foundation

### **July 2006 Treasury Department Study on the Economic Effects of the 2001 and 2003 Tax Relief**

A July 2006 study by the Treasury Department shed some light on the economic benefits of the 2001 and 2003 tax relief.<sup>2</sup> Using a well known, respected simulation model to estimate the long-run effects of the tax relief, the study found that the tax relief would increase the size of the economy in the long run by 0.7 percent. In terms of today's roughly \$14 trillion economy, this higher level of output can be thought of as an annual "annuity" accruing to the nation equal to an additional \$100 billion in output (or national income) each year. The Treasury study also found the tax relief to have increased the capital stock of the nation by roughly 2.3 percent. Not only does the higher capital stock mean an increase in wealth, but it also means that labor has more capital with which to work, which makes it more productive. High labor productivity is one of the keys to higher living standards in the long run.

#### *Which Parts of the 2001 and 2003 Tax Relief Had the Most Impact?*

The Treasury study also separately analyzed the major parts of the 2001 and 2003 tax relief: 1) the lower tax rates on dividends and capital gains, 2) the reduction in the top four tax rates, and 3) the expansion of the child tax credit, the marriage penalty relief, and the new 10 percent tax bracket. The first two parts—the lower tax rates on dividends and capital gains

and the reduction in the top four tax rates—comprised those provisions that helped reduce the distorting effects of taxes the most. Meanwhile, the last part—the child tax credit, marriage penalty relief, and the new 10 percent bracket—provided tax relief important to the economy in the near term and helped ensure the distributional balance of the overall package by targeting benefits to lower- and moderate-income taxpayers, but had little effect on economic incentives. Indeed, this part was found to actually detract from economic growth in the long term.

Consider the estimated effects of each of these major parts of the relief on the size of the economy in the long run:

- Cutting the tax rates on dividends and capital gains was found to increase output in the long run by 0.4 percent, primarily by expanding the capital stock and enhancing labor productivity.
- Cutting the top four wage tax rates caused even a larger increase, 0.7 percent, primarily by increasing labor supply.
- The expansion of the child tax credit, marriage penalty relief and new 10 percent bracket were actually found to reduce the size of the economy in the long run by 0.4 percent.

The last set of provisions increases taxpayers' after-tax incomes, but does not have a significant effect on marginal tax rates. These provisions reduce long-run output because labor supply shrinks in response to the higher incomes.

### **A Large Behavioral Response Associated with the Reduction in Tax Rates?**

A recent study analyzed the actual experience of taxpayers as tax rates were reduced in 2001 and 2003.<sup>3</sup> This empirical study found that lower tax rates helped to reduce the distortions in economic decision-making caused by high tax rates.<sup>4</sup> Moreover, the lower tax rates induced taxpayers to report more taxable income, which means that a sizable portion of the revenue cost of the lower tax rates was offset by a tax-induced expansion of the tax base.

The study analyzed a large sample of tax returns filed by the same taxpayers between 1998 and 2005. The study examined the change in taxpayers' taxable income as reported on their tax forms and the change in their tax rates, after controlling for a variety of non-tax factors that might also influence changes in incomes (e.g., a taxpayer's age, occupation, marital status, family size, etc.). The study found that those taxpayers with the largest reduction in their tax rates had the largest increase in their reported taxable income.

The focus on a taxpayer's taxable income has two advantages. First, it captures most of the ways in which taxpayers might respond to changes in their tax rates (e.g., labor supply, saving, investment, charitable donations, financing of residential real estate, compliance, etc.). Thus, taxable income is a good summary measure for how taxpayers are responding to a change in tax rates. Secondly, because reported taxable income (the tax base) directly affects how much the government collects, the size of the response can be used to calculate how much of the static (i.e., without taking behavior into account) revenue cost was offset by the behavioral response.

The research found that a one-percent increase in a taxpayer's after-tax share (i.e., one minus the tax rate) resulted in a roughly 0.4 percent increase in his or her reported taxable income. Table 1 illustrates how this behavioral response translates into the change in a taxpayer's taxable income and the tax revenue collected by the federal government. Consider, for example, the taxpayer who reported \$500,000 in taxable income before the tax cuts. The 2001 and 2003 tax relief lowered this taxpayer's tax rate from 39.6 percent to 39.1 percent in 2001, to 38.6 percent in 2002 and finally to 35 percent in 2003. This increased his after-tax share of income from 60.4 percent to 65 percent, a 7.6 percent increase. If there had been no change in his taxable income, the taxpayer would have paid \$12,293 less in taxes.

But what if the lower tax rate induced the taxpayer to changes his or her economic affairs? The taxpayer might work harder, work longer hours, take a riskier and higher-paying job, choose entrepreneurship over wage earning, shift his compensation from nontaxable fringe benefits to taxable wages, or rely less heavily on tax deductible consumption such as debt-financed home ownership. Each of these behavioral responses would result in a higher level of reported taxable income. Applying the estimate from the actual experience estimated from the 2001 and 2003 tax rate reductions—a 0.4 percent rise in taxable income for each 1 percent rise in after-tax share—we see that this taxpayer's taxable income would increase by 3.05 percent, or \$15,232. This new taxable income, taxed at 35 percent, means an extra tax payment of \$5,331. Thus, the behavioral response offsets 43.3 percent of the \$12,293 static revenue loss.

**Table 1**  
**The Behavioral Response Associated with the Lower Tax Rates Can Offset a Substantial Portion of the Static Revenue Loss**

Statutory Tax Rate (2005)	Taxable Income	Tax Liability (No Behavior)			Behavioral Response		Revenue Offset
		At Higher Tax Rates (36% and 39.6%)	With Lower Tax Rates (33% and 35%)	Initial Tax Change	Additional Taxable Income	Additional Tax	Additional Tax As % of Initial Tax Change
33%	\$250,000	\$65,108	\$63,092	-\$2,016	\$4,687	\$1,547	76.7%
35%	\$400,000	\$121,755	\$114,063	-\$7,693	\$12,185	\$4,265	55.4%
35%	\$500,000	\$161,355	\$149,063	-\$12,293	\$15,232	\$5,331	43.4%
35%	\$750,000	\$260,355	\$236,563	-\$23,793	\$22,848	\$7,997	33.6%
35%	\$1,000,000	\$359,355	\$324,063	-\$35,293	\$30,464	\$10,662	30.2%

Notes: Estimates are for a joint filer, not subject to the AMT, at the specified income level, and under the tax law in effect for 2005. The estimates assume a taxable income elasticity of 0.4. The behavioral response for lowering the 39.6 percent rate to 35 percent is 3.05 percent. The response for lowering the 36 percent rate to 33 percent is 1.87 percent.

Source: Tax Foundation

Several points need to be stressed in presenting these results. First, the revenue cost of lowering tax rates is calculated in the usual way, by multiplying the percentage point change by the amount of taxable income in the top tax rate brackets. However, the revenue offset is calculated differently: the new tax rate is multiplied by the taxpayer's total taxable income.

Thus, the revenue offset will vary across taxpayers and depends on how much income the taxpayer reports in the top tax brackets and the size of their behavioral response. The revenue offset can be very large for taxpayers whose taxable income before the tax cut was just above the breakpoint for a higher tax bracket because their reduction in static tax liability is small in comparison to the increase in tax liability that results from their behavioral response.

Second, when researchers determined that taxable income would rise 0.4 percent for each one percent cut in the rate, they derived this "elasticity" by using data on the behavioral response of the working-age taxpaying population, not just those taxpayers subject to the top two tax rates. That makes 0.4 percent a cautious estimate; the responsiveness for high-income taxpayers is likely to be larger.

The revenue offsets reported in Table 1 are for hypothetical taxpayers, but the study used the Treasury Department's Individual Tax Micro-simulation Model to estimate the effect of the behavioral response across all taxpayers benefitting from the reduction in the top two tax rates. The simulation indicated that the reduction in the top two tax rates causes taxpayers to increase their reported taxable incomes by 3 percent. If taxpayers had not responded at all to the lower tax rates, their tax cut would have been about \$29.7 billion in 2005 (i.e., the static revenue loss to the federal government). But, because the lower tax rates induced taxpayers to increase their taxable incomes by roughly 3 percent, the size of the tax cut was only about \$18.5 billion. ***That is, nearly 40 percent of the static revenue cost of lowering the top two tax rates was offset by the tax-induced increase in the tax base.***

The study also noted that the lower individual income tax rates may have caused the shifting of income between the individual and corporate tax bases.<sup>5</sup> Businesses might rethink their choice of organizing as a C corporation or as pass-throughs as the individual rates are lowered relative to the tax rates imposed on investment in the corporate form. Based on research analyzing the shifting of income between the individual and corporate income tax bases that occurred around the 1986 Act, the revenue offset could well be as low as 25 percent. Nevertheless, this is still a substantial behavioral response whose reversal could be expected to have adverse economic consequences if the tax cuts are allowed to expire.

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## Notes

1. The tax rates depicted in Figure 1 reflect the phase-out of personal exemptions and limitation of itemized deductions for higher income taxpayers. Both of these provisions serve to increase the effective marginal tax rate above the statutory tax rate.
2. U.S. Department of the Treasury, "A Dynamic Analysis of Permanent Extension of the President's Tax Relief," July 25, 2006.
3. Gerald Auten, Robert Carroll and Geoffrey Gee, "The 2001 and 2003 Tax Rate Reductions: An Overview and Estimate of the Taxable Income Response," *National Tax Journal*, Vol. 61(3), forthcoming.

4. For similar studies of prior tax rate changes see Feldstein (1995), Carroll (1998), Auten and Carroll (1999), and Gruber and Saez (2002).

5. See, for example, Carroll and Hrungr (2005), for a discussion of inter-base shifting of income.

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