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WHAT WENT WRONG WITH THE BUSH TAX CUTS

Matthew Mitchell and Andrea Castillo

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ABSTRACT

Critics of the Bush tax cuts often dismiss the tax changes as a failed experiment in free-market economics. Noting that economic growth was slower in the years following the cuts than in the years preceding them, some critics see the experience as evidence that tax cuts simply do not work. But the claim that these tax cuts exemplified free-market economic thinking is baseless. In this paper we show that the Bush tax cuts had a number of problems from a market-oriented perspective: they were phased in slowly, they were set to expire within a decade, they entailed a Keynesian emphasis on stimulating aggregate demand, and—above all—they were undertaken without any effort to reduce spending. In light of these problems, there is no reason to overturn decades of theoretical and empirical research supporting the link between low taxation and growth. The episode offers a cautionary lesson in how *not* to cut taxes.

JEL codes: H20, H24, H31, D92, E62, E65, E22

CRITICS OF THE Bush tax cuts often dismiss the tax changes as a failed experiment in free-market economics. Noting that economic growth was slower in the years following the cuts than in the years preceding them, some detractors see the experience as evidence that tax cuts simply do not work.[1] But the claim that these tax cuts exemplified free-market economic thinking is baseless. In this paper we show that the Bush tax cuts had a number of problems from a market-oriented perspective: they were phased in slowly, they were set to expire within a decade, they entailed a Keynesian emphasis on stimulating aggregate demand, and—above all—they were undertaken without any effort to reduce spending. In light of these problems, there is no reason to overturn decades of theoretical and empirical research supporting the link between low taxation and growth. The episode does, however, offer a cautionary lesson in how *not* to cut taxes.

WHAT DID THE BUSH TAX CUTS DO?

TABLE 1 PROVIDES a summary of tax policy during the presidency of George W. Bush. The "Bush tax cuts" are the product of two staggered tax reforms: the Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003.[2] The 2001 tax cut immediately reduced marginal income tax rates, but by a small amount: each of the top four rates was reduced by

1. In an April 2012 speech, for example, President Obama declared, "We tried this for eight years before I took office. We tried it. It is not like we did not try it. At the beginning of the last decade, the wealthiest Americans got two huge tax cuts, in 2001 and 2003. Meanwhile, insurance companies, financial institutions, there [sic] were all allowed to write their own rules, find their way around the rules. We were told the same thing we're being told now—this is going to lead to faster job growth, it's going to lead to greater prosperity for everybody. Guess what? It didn't." Ian Schwartz, "Obama on GOP Economics: 'We Tried It. It's Not Like We Did Not Try It.'" *Real Clear Politics*, April 11, 2011, http://www.realclearpolitics.com/video/2012/04/11/obama_on_free_markets_we_tried_it_its_not_like_we_did_not_try.html.
2. Economic Growth and Tax Relief Reconciliation Act of 2001, Pub. L. No. 107-16, 115 Stat. 38 (2001), http://www.gpo.gov/fdsys/pkg/PLAW-107publ16/html/PLAW-107publ16.htm; Jobs and Growth Tax Relief Reconciliation Act of 2003, Pub. L. No. 108-27, 117 Stat. 752 (2003), http://www.gpo.gov/fdsys/pkg/PLAW-108publ27/html/PLAW-108publ27.htm. While these were the two largest tax changes during Bush administration, there were others, including the 2008 stimulus.

0.5 percentage points in the first year. In 2002, a new bottom marginal rate reduced the tax applied to the first several thousand dollars of income from 15 percent to 10 percent. The rest of the rate reductions were to be slowly phased in over the next four years. As originally designated in the 2001 law, all tax changes were scheduled to take effect by 2006. The top marginal income tax rate was to have fallen from 39.6 percent to 35 percent, while the bottom rate was to have fallen from 15 percent to 10 percent.

The 2003 tax cut accelerated this process and immediately implemented income tax rate reductions that had not been scheduled to take effect for one to three more years. In addition, the 2003 law immediately cut the top marginal capital gains tax rate for assets held more than a year from 20 percent to 15 percent and the bottom long-term capital gains rates from 8 and 10 percent to 5 percent (and eventually to 0 by 2008).[3] Figure 1 depicts the across-the-board decrease in marginal income tax rates. Figure 2 puts these decreases in historical perspective; the rate reductions were relatively modest compared with the tax cuts of the 1960s and 1980s.

In addition to reducing marginal tax rates, each tax cut also included a number of additional provisions. The 2001 tax cut, for example, included a one-time retroactive "tax rebate": the Treasury sent checks (up to $300 for singles and $600 for married couples) to taxpayers who had filed their taxes in 2000. It also increased the standard deduction for joint filers, expanded the per-child tax credit, increased the tax credit for qualifying child-care expenses, introduced a new deduction for qualified property owners, and created or expanded various education credits and deductions.[4] The 2003 cut accelerated the implementation of these provisions as well.

WHY CUT TAXES?

Despite the shortcomings of these particular tax cuts, which we outline below, there is strong theoretical and empirical support for low taxation. The theoretical case for low taxation is supported by several schools of thought. Keynesian models, for example, emphasize the short-run benefits of tax cuts, stressing that they put money in the pockets of consumers and in the accounts of businesses. According to the Keynesian view, this increases purchasing power and boosts aggregate demand.[5] The "real business cycle" school of thought, on the other hand, focuses on the longer run and emphasizes that low marginal tax rates tend to increase peoples' incentives to work and save, increasing aggregate output.[6] Finally, growth models teach us that

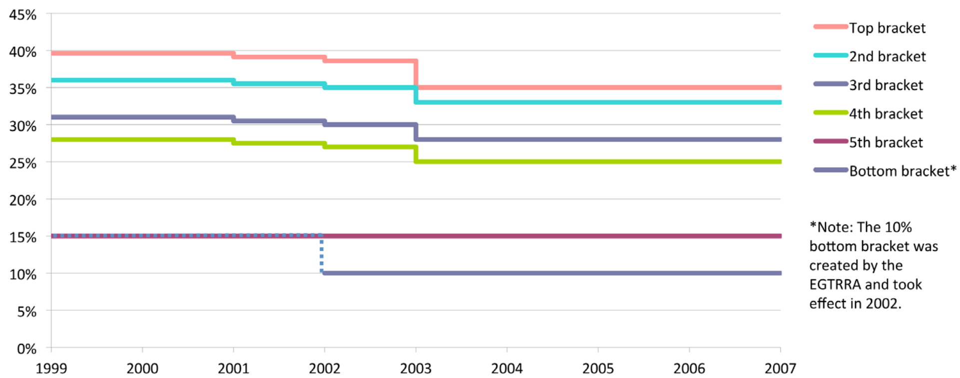
3. "Federal Capital Gains Tax Rates, 1988–2011," The Tax Foundation, accessed October 19, 2012, http://taxfoundation.org/article/federal-capital-gains-tax-rates-1988-2011.
4. For educational incentives, see Elaine M. Maag and Katie Fitzpatrick, "Federal Financial Aid for Higher Education: Programs and Prospects" (Tax Policy Center, Washington, DC, January 2, 2004).
5. See, for example, Paul Krugman and Robin Wells, *Microeconomics*, 2nd ed. (New York: Worth Publishers, 2009), 355.
6. James Gwartney and Richard Stroup, "Labor Supply and Tax Rates: A Correction of the Record," *American Economic Review* 73, no. 3 (June 1983): 446–51.

TABLE 1. THE BUSH TAX CUTS AT A GLANCE

PROVISION	IMPLEMENTATION
Income Tax Rate Reductions	Top rate: 39.6% to 35%.
	2nd rate: 36% to 33%.
	3rd rate: 31% to 28%.
	4th rate: 28% to 25%.
	5th rate: unchanged at 15%.
	Bottom portion of 15% bracket split into new bottom rate: 10%.
Capital Gains & Dividends Tax Rate Reductions	Top long-term capital gains tax rate dropped from 20% to 15% in 2003.
	Bottom long-term capital gains tax rates dropped from 8% and 10% to 5% in 2003.
	Long-term capital gains tax rates for the 5% bracket dropped to 0% in 2008.
	Dividends no longer taxed as ordinary income, but at special 15% rate starting in 2003.
Slow Phase-In	Planned phase-in over 5 years, dropping rates for most brackets by 0.5 percentage points in 2001 and 1 percentage point every year after until 2006.
	Actual phase-in over 2 years; the 2003 cut accelerated final rate changes to take effect in 2003.
Sunset Provisions	Set to expire on December 31, 2010.
	Expiration date extended to December 21, 2012, by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010.
Increased Spending	No provisions to reduce spending in line with reduced revenue.
	Spending rose from 18.2% of GDP in 2001 to 25.2% of GDP in 2009.
	Tax revenues fell from 19.5% of GDP in 2001 to 15.1% of GDP in 2009.
Targeted Tax Cuts	Income tax rebate of up to $300 for single filers in 2001.
	Increased child tax credit from $500 to $1,000.
	Increased tax credit for child-care expenses.
	New deduction for qualified property owners.
	New credits and deduction for education.
	Increased standard deduction for joint filers.
	30% bonus depreciation in 2002.
	Child tax rebate of up to $400 in 2003.
	New 50% bonus depreciation and extension of 30% bonus depreciation in 2003.
	Income tax rebate of up to $600 for single filers in 2008.

Sources: Economic Growth and Tax Relief Reconciliation Act of 2001, Pub. L. No. 107-16, 115 Stat. 38 (2001), http://www.gpo.gov/fdsys/pkg/PLAW-107publ16/html/PLAW-107publ16.htm; Jobs and Growth Tax Relief Reconciliation Act of 2003, Pub. L. No. 108-27, 117 Stat. 752 (2003), http://www.gpo.gov/fdsys/pkg/PLAW-108publ27/html/PLAW-108publ27.htm; Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, Pub. L. No. 111-312, 124 Stat. 3296 (2010), http://www.gpo.gov/fdsys/pkg/PLAW-111publ312/html/PLAW-111publ312.htm; Office of Management and Budget, "Historical Tables, Table 1.2–Summary of Receipts, Outlays, and Surpluses or Deficits (-) as Percentages of GDP: 1930–2017," accessed October 8, 2012, http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/hist01z2.xls; Matthew Shapiro and Joel Slemrod, "Did the 2001 Tax Rebate Stimulate Spending? Evidence from Taxpayer Surveys," Tax Policy and the Economy *17 (January 2003): 83–110; James Dalton and Martha Eller Gangi, "Special Studies in Federal Tax Statistics, 2006" (IRS report delivered at the Annual Meetings of the American Statistical Association, Seattle, WA, 2006), http://www.irs.gov/pub/irs-pdf/p1299.pdf; Matthew Shapiro and Joel Slemrod, "Did the 2008 Tax Rebates Stimulate Spending?"* American Economic Review *99, no. 2 (February 2009): 374–79; "Federal Capital Gains Tax Rates, 1988–2011," The Tax Foundation, http://taxfoundation.org/article/federal-capital-gains-tax-rates-1988-2011; Norbert J. Michel and Ralph A. Rector, "Dividend Policy and the 2003 Tax Cut: Preliminary Evidence,"* Tax Notes, *August 23, 2004, accessed October 30, 2012, http://norbertmichel.com/files/Tax_Notes_Michel_Rector_Dividend_Policy.pdf.*

FIGURE 1. MARGINAL TAX RATE REDUCTIONS UNDER THE BUSH TAX CUTS



Source: The Tax Foundation, "U.S. Federal Individual Income Tax Rates History, 1913–2011 (Nominal and Inflation -Adjusted Brackets)," accessed October 19, 2012, http://taxfoundation.org/sites/taxfoundation.org/files/docs/fed_individual_rate_historynominal%26adjusted-20110909 .xls.

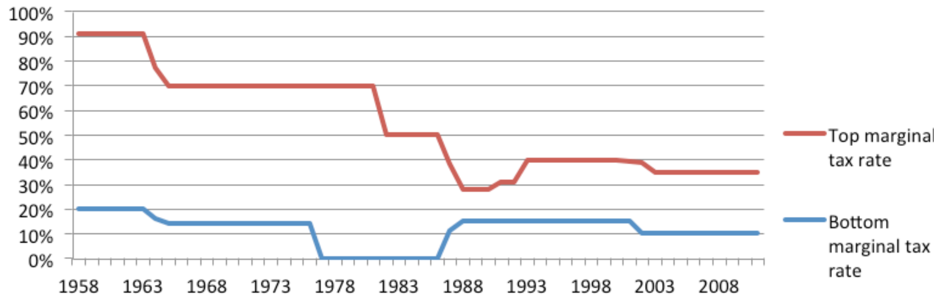
lower and more uniform rates can improve long-run economic growth because high tax rates can be an impediment to investment in research and development, and because tax policies that favor one sector over another can drive labor and capital (including human capital) into less-taxed but lower-productivity sectors.[7]

Real-world experience validates the theoretical case for low taxation. Macroeconomists Christina and David Romer, for example, examined 60 years of US data and found that "tax cuts have very large and persistent positive output effects." To be precise, they found that a tax cut of 1 percent of GDP increases real GDP by about 3 percent over the short term (2.5 years) and by about 1.8 percent over the medium term (3.75 years).[8]

While the Romers' work examines the short- and medium-term benefits of low taxation, other studies have analyzed the long-run effects. Nobel laureate Edward Prescott, for example, looked at changing work habits across countries and attributed these changes to differences in labor taxation. In the 1970s, when US marginal tax rates were higher than those in Europe, Americans worked less than Europeans; but by the 1990s, when US tax rates were significantly lower than European rates,

7. Arnold Harberger, "The Incidence of the Corporation Income Tax," *Journal of Political Economy* 70, no. 3 (June 1962): 215–40.
8. The Romers' study is noteworthy because it represents the most sophisticated attempt to date to identify and distinguish *exogenous* tax changes from endogenous tax changes, or those that are brought about in response to economic conditions. Christina Romer and David Romer, "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks," *American Economic Review* 100, no. 3 (June 2010): 763–801.

FIGURE 2. TOP AND BOTTOM MARGINAL TAX RATES, 1958–2011



Source: The Tax Foundation, "U.S. Federal Individual Income Tax Rates History, 1913–2011 (Nominal and Inflation-Adjusted Brackets)," accessed October 19, 2012, http://taxfoundation.org/sites/taxfoundation.org/files/docs/fed_individual_rate_history_nominal%26adjusted-20110909.xls.

Americans worked more.[9] According to Prescott, these differences in work habits can have profound effects on living standards:

> If France were to reduce its effective tax rate on labor income from 60 percent to the U.S. 40 percent rate, the welfare of the French people would increase by 19 percent in terms of lifetime consumption equivalents.[10]

While the empirical and theoretical support for the benefits of low tax rates is well-established, the Bush tax cuts fell far short of this ideal.

A SLOW PHASE-IN

As originally passed, the Bush tax cuts were to be phased in over a five-year period.[11] The gradual phase-in of the tax cuts had the perverse effect of encouraging

9. Edward Prescott, "Why Do Americans Work So Much More Than Europeans?" *Federal Reserve Bank of Minneapolis Quarterly Review* 28, no. 1 (July 2004): 2–13. Other noteworthy studies include Michael Keane, "Labor Supply and Taxes: A Survey," *Journal of Economic Literature* 49, no. 4 (December 2011): 961–1075; Robert Barro and Charles Redlick, "Macroeconomic Effects from Government Purchases and Taxes," *Quarterly Journal of Economics* 126, no. 1 (2011): 51–102; and Alberto Alesina and Silvia Ardagna, "Large Changes in Fiscal Policy: Taxes vs. Spending," Tax Policy and the Economy 24 (October 2010): 35–68.
10. Prescott, "Why Do Americans Work So Much More," 9.
11. There is no clear economic rationale for the slow phase-in. There is, however, a political explanation that convinced at least one member of the opposition: the slow phase-in made the tax cuts appear to have a smaller impact on the deficit. During a hearing on May 25, 2001, Representative Bentsen (D-TX) asserted, "I support many of the tax cuts in this package, but not when they are clearly crafted to threaten fiscal responsibility. We all know that the lengthy phase-ins for almost all provisions make the package look affordable, but the more back-loaded the package the greater the second 10-year costs as compared to the first 10-year costs." *Conference Report on H.R. 1836, Economic Growth and Tax Relief Reconciliation Act of 2001 147*, No. 74 (May 25, 2001): h2832–h2844.

consumers, suppliers, workers, and investors to delay economic activity until the anticipated tax conditions were better. Economists Christopher House and Matthew Shapiro found that the incremental phase-in of the 2001 tax cuts had a dramatic negative effect on GDP, investment, labor hours, and consumption.[12] Once the 2003 legislation ended the gradual phase-in and made tax cuts immediate, all four variables increased significantly. The relative success of the 2003 tax cuts compared with the 2001 tax cuts lends support to the argument that instantaneous tax cuts are preferable to gradual ones.

AN ABRUPT END

Good tax systems are stable and predictable.[13] From the beginning, however, the Bush tax cuts made policy less predictable because the tax changes were set to expire at the end of 2010. This automatic expiration date was an unfortunate consequence of the fact that these tax changes were passed under a legislative procedure known as reconciliation. Since it was unclear that his allies in the Senate could procure the 60 votes necessary to enact the 2001 tax cut, President Bush decided to use reconciliation because it permits budget legislation to pass the Senate with a simple majority of senators. However, there was a catch. The Byrd Rule, adopted in 1985, prohibits the use of reconciliation to pass legislation that increases the deficit beyond a 10-year term. Because the 2001 and 2003 tax acts made no serious effort to cut spending (as further discussed below), the cuts were projected to add hundreds of billions of dollars to the deficit. Thus they had to expire at the end of 2010.[14] The Tax Act of 2010 gave the rates another two years of life, but their looming expiration at the end of 2012 now constitutes one part of a "fiscal cliff" that threatens to tighten fiscal policy in the first part of 2013.[15]

In a Keynesian framework, temporary tax breaks might provide a short-term boost if they encouraged firms to shift planned future investments to the present while tax treatment remains favorable.[16] But tax cuts with expiration dates have two

12. Christopher House and Matthew Shapiro, "Phased-In Tax Cuts and Economic Activity," *American Economic Review* 96, no. 5 (December 2006): 1835–48.
13. Geoffrey Brennan and James Buchanan, *The Power to Tax: Analytical Foundations of a Fiscal Constitution* (Indianapolis: Liberty Fund, 2000), Chapter 5, "Taxation Through Time."
14. As it happens, the 2001 tax cuts passed the Senate with 62 votes, making reconciliation unnecessary. For more details, see "Why Are the Bush Tax Cuts Expiring," The Tax Foundation, May 26, 2010, http://taxfoundation.org/article/why-are-bush-tax-cuts-expiring.
15. The other factors in the fiscal cliff include expiring payroll tax cuts, spending sequesters enacted in the debt limit deal of 2011, the expiration of emergency unemployment insurance benefits, the expiration of depreciation incentives, the expiration of the alternative minimum tax fix, and the expiration of the "doc fix."
16. Christopher House and Matthew Shapiro, "Temporary Investment Tax Incentives: Theory with Evidence from Bonus Depreciation," *American Economic Review* 98, no. 3 (2008): 737–68.

deleterious longer-run effects. First, expiration dates diminish the potency of tax cuts by discouraging some investments at the margin that would have taken place if lower tax rates had been promised for a longer period of time.[17] For example, longer-term investments—in new employees, new equipment, or new facilities—would have looked more attractive if rates hadn't been scheduled to increase in a few years.

Second, sunset provisions may increase policy uncertainty. In the 1990s, there were fewer than a dozen temporary provisions in the tax code. Now, there are more than 140.[18] Economists have long argued that policy uncertainty undermines economic growth.[19] More recently, however, they have developed tools to test this hypothesis.[20] Scott Baker, Nicholas Bloom, and Steven Davis, for example, have built an "index of uncertainty" by quantifying the frequency of media references to policy uncertainty, the number of temporary provisions in the federal tax code, and the extent of forecaster disagreement over inflation and government purchases.[21] Their index spiked in 2006 and has never returned to normalcy. Alarmingly, they found that over the last quarter century, increases in policy uncertainty such as this tend to be followed by persistent declines in economic growth, private investment, and total employment.

MISPLACED PRIORITIES

As we have noted, tax cuts are supported by a number of different economic theories. Much of US tax policy in the 2000s, however, seemed to have been designed with the Keynesian theory predominantly in mind. And that, unfortunately, led to policy that did not improve marginal incentives to work and invest as much as it might have.

The Keynesian case for tax reduction emphasizes deficit-financed tax cuts as a way to get money into the hands of consumers and businesses.[22] In promoting his plans, President Bush repeatedly appealed to this argument. His weekly radio address from May 24, 2003, is typical:

17. Jason Fichtner and Katelyn Christ, "Taxes and Uncertainty: A Fatal Policy Mix" (working paper, Mercatus Center at George Mason University, Arlington, VA, 2010).
18. John D. McKinnon, Gary Fields, and Laura Sanders, "'Temporary' Tax Code Puts Nation in a Lasting bind," *Wall Street Journal*, December 14, 2010.
19. Robert Higgs, "Regime Uncertainty," *Independent Review* 1, no. 4 (Spring 1997): 561–90.
20. Two recent studies are Abdiweli Ali, "Political Instability, Policy Uncertainty, and Economic Growth: An Empirical Investigation," *Atlantic Economic Journal* 29, no. 1 (2001): 87–106; and Ruediger Bachmann, Steffen Elstner, and Eric Sims, "Uncertainty and Economic Activity: Evidence from Business Survey Data" (National Bureau of Economic Research [NBER] Working Paper Series no. 16143, Cambridge, MA, 2010). Both studies found that policy uncertainty negatively affected economic activity.
21. Scott Baker, Nicholas Bloom, and Steven Davis, "Measuring Economic Policy Uncertainty" (working paper, Stanford University, 2011), http://faculty.chicagobooth.edu/steven.davis/pdf/PolicyUncertainty.pdf.
22. On the Keynesian rationale for tax breaks to spur business investment, see Steven Fazzari, R. Glenn Hubbard, and Bruce Petersen, "Investment, Financing Decisions, and Tax Policy," *American Economic Review* 78, no. 2 (May 1988): 200–5.

> By leaving American families with more to spend, more to save, and more to invest, these reforms will help boost the Nation's economy and create jobs. When people have extra take-home pay, there's greater demand for goods and services, and employers will need more workers to meet that demand.[23]

In the Keynesian framework, it does not matter whether consumers or businesses get the money as a result of exemptions, deductions, and credits, or as a result of reductions in marginal rates. If a working mother makes $1,000 per paycheck and faces a 30 percent flat income tax rate, the Keynesian model does not distinguish between a tax plan that introduces a $100 per paycheck credit for working mothers and a tax plan that reduces the tax rate from 30 percent to 20 percent. These two plans are essentially equivalent in Keynesian theory because each puts an extra $100 per paycheck into the hands of the working mother. The hope is that she will spend it, spurring more economic activity.

When one considers the marginal incentives to work and invest, however, the rate reduction plan is clearly better. Not only does it give her an extra $100 to spend, it also improves her incentives to make extra money, report more earnings to the IRS, and save for the future.[24] This means that instead of earning $1,000 per paycheck, she might earn $1,200 and invest more of it in the economy. This is not just theory. The latest evidence suggests that women and second household earners are particularly sensitive to these sorts of factors, especially when it comes to long-term decisions such as educational attainment.[25]

Tax plans that hand money back to workers or businesses without reducing marginal tax *rates*, however, do not improve these marginal incentives. While the 2001 and 2003 tax cuts did reduce marginal rates, tax policy throughout the 2000s also reflected a preoccupation with exemptions, deductions, rebates, and credits. The 2001 tax bill, for example, included rebates and increased the per-child tax credit from $500 to $1,000. Research by Matthew Shapiro and Joel Slemrod suggests that these Keynesian aspects of the cuts were of little economic benefit. They found that fewer than 25 percent of households increased consumer spending because of the rebate.[26] Most survey respondents used the tax rebate to pay off debt rather than spend more.[27]

23. George W. Bush, "The President's Radio Address, May 24, 2003," The American Presidency Project, http://www.presidency.ucsb.edu/ws/index.php?pid=25118&st=tax+cut&st1=spending, accessed October 23, 2012.
24. This is due to the "substitution effect." See Gwartney and Stroup, "Labor Supply and Tax Rates."
25. See Keane, "Labor Supply and Taxes."
26. Matthew Shapiro and Joel Slemrod, "Did the 2001 Tax Rebate Stimulate Spending? Evidence from Taxpayer Surveys," *Tax Policy and the Economy* 17 (January 2003): 83–110.
27. This is precisely what Milton Friedman's permanent income hypothesis predicts: since people base their current consumption on their expectation of lifetime earnings, they will not be enticed into a spending spree by a sudden and temporary windfall. Milton Friedman, *A Theory of the Consumption Function* (Princeton: Princeton University Press, 1957).

Since the rebates were themselves financed by debt, this means that government debt replaced private debt, with little effect on consumer spending.

The 2003 bill included more rebates, extended the child tax credit, and expanded an investment incentive known as "bonus depreciation," which allowed firms to write off equipment investments faster than the equipment wore out.[28] In 2008, the Bush administration again attempted a Keynesian stimulus through tax rebates of $300 to $1,200 to counteract the downturn of 2007. The same economists who surveyed families about the 2001 rebates also examined the 2008 rebates and again found that most survey participants used their rebate to pay off debts rather than to make new consumer purchases.[29]

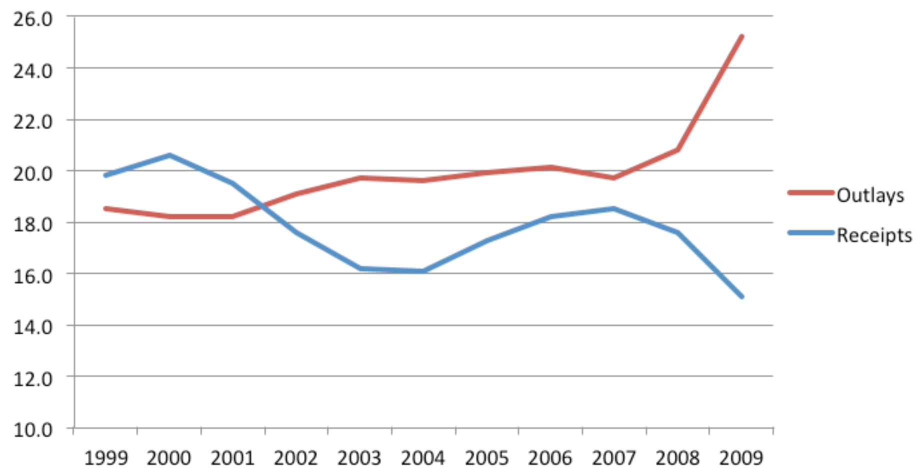
Aside from their macroeconomic effects, exemptions, deductions, rebates, and credits add complexity to an excessively complex tax code and expand the government's influence over personal decisions about marriage, family size, home ownership, and much else. Instead of focusing on ways to get money into the hands of particular consumers (for example, those who have more children), the Bush administration might more profitably have focused on reducing marginal tax rates and simplifying the tax code by closing tax loopholes. This would have permitted larger rate reductions, thus improving incentives to work and invest for all taxpayers.

TAX CUTS WITHOUT SPENDING CUTS

The most significant problem with the Bush tax cuts was that they were not matched with spending cuts. In fact, Washington went on a historic spending binge: from 2001 to 2009, federal spending leapt 7 percentage points, from 18.2 to 25.2 percent of GDP.[30] This was the largest such increase in any eight-year period since World War II. In contrast, eight years after the so-called Kennedy tax cuts, spending as a share of GDP had increased just 1.1 percentage points, and eight years after the Reagan tax cuts, spending as a share of GDP had actually fallen 1.1 percentage

28. For more detail and an analysis of the impact of the 2003 act's inclusion of bonus depreciation incentives, see House and Shapiro, "Temporary Investment Tax Incentives."
29. Matthew Shapiro and Joel Slemrod, "Did the 2008 Tax Rebates Stimulate Spending?" *American Economic Review* 99, no. 2 (February 2009): 374–79. The methodology of Slemrod and Shapiro has been challenged, notably by Jonathan Parker, Nicholas Souleles, David Johnson, and Robert McClelland, in "Consumer Spending and the Economic Stimulus Payments of 2008" (NBER Working Paper No. 16684, Cambridge, MA, 2011). The authors question whether asking consumers to self-report their reactions to the tax rebates is the most accurate way of gauging behavioral responses.
30. The bulk of the spending increase occurred in one year. Total outlays as a percentage of GDP jumped from 20.8 percent in 2008 to 25.2 percent in 2009. Office of Management and Budget, "Historical Tables, Table 1.2–Summary of Receipts, Outlays, and Surpluses or Deficits (-) as Percentages of GDP: 1930–2017," accessed October 8, 2012, http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/hist01z2.xls.

FIGURE 3. FEDERAL SPENDING AND REVENUE AS A SHARE OF GDP



Source: Office of Management and Budget, "Historical Tables, Table 1.3: Summary of Receipts, Outlays, and Surpluses or Deficits in Current Dollars, Constant (FY 2005) Dollars, and as Percentages of GDP: 1940–2017," accessed October 19, 2012, http://www.whitehouse.gov/omb/budget/Historicals.

points. Figure 3 demonstrates this divergence of tax revenues and spending following the Bush tax cuts.

A tax cut without a spending cut can raise two problems, one involving economic incentives, the other political incentives. First, consider the economics. A tax cut without a spending cut is not a tax cut; it is a tax deferral. To the extent that people are forward-looking and can see that deficits require future tax hikes, they will forgo current consumption in order to save for the inevitable tax increase. In this case, government borrowing will crowd out, or displace, private consumption and investment, reducing the effectiveness of the tax cut.[31]

The idea that humans are perfectly forward-looking may strike some as implausible. And indeed, there is a great deal of economic debate about this theory.[32] Unfortunately, to the extent that people are *not* forward-looking, a tax cut without a spending cut raises a completely different problem, this one involving political incentives. In this scenario, short-sighted voters can be deluded into thinking that government spending is less expensive than it really is. This idea, originally developed by Italian economist Amilcare Puviani, is known as "fiscal illusion" and has become a central part of the research program of Nobel laureate James Buchanan. Buchanan argues that the opaque nature of deferred taxation causes people to improperly discount the cost of government services and therefore to demand more of them than

31. This idea is known as "Ricardian equivalence" after David Ricardo, the classical economist who first hinted at it. Its modern incarnation is based on Robert Barro's work in "Are Government Bonds Net Wealth?" *Journal of Political Economy* 82, no. 6 (1974): 1095–117.
32. For a discussion, see David Romer, *Advanced Macroeconomics*, 2nd ed. (New York: McGraw-Hill Higher Education, 2001), 537–41.

they normally would.[33] This phenomenon causes bad policy to beget more bad policy; poorly considered tax reform entices voters to demand more government services, which will need to be paid for with much higher taxes in the future.

Buchanan's emphasis on fiscal illusion challenges an argument for tax cuts that is often associated with another free-market Nobel laureate, Milton Friedman. This is the idea that a tax cut deprives government of resources, "starving the beast" and eventually reining in spending.[34] Among policy pundits, Friedman's view is much better known than Buchanan's view. Nevertheless, the data seem to support Buchanan's view. At the federal level, where the government is allowed to finance operations by borrowing, tax cuts seem to have done nothing to restrain the government's ability to spend.[35] Moreover, empirical research analyzing US quarterly data from 1959 to 2007 by West Virginia economist Andrew T. Young suggests that the fiscal illusion effect is real: when voters are not presented with the bill for big government, they demand bigger government.[36] David and Christina Romer recently corroborated Young's finding using a different data set and different techniques.[37]

CONCLUSION

The Bush tax cuts did not usher in the unalloyed prosperity that their proponents had hoped for. Even if we ignore the Great Recession, economic growth averaged just 2.5 percent in the 26 quarters following passage of the 2001 tax cut. To put this in perspective, economic growth had averaged 3.7 percent in the 26 quarters *preceding* the cut.[38]

Proponents might well respond that growth would have been worse in the absence of the tax cuts, and the truth is that we will never know what would have happened had they not passed. To complicate matters, many other policies—from trade to regulation to monetary policy—became decidedly less market oriented in the first decade of the 21st century, and it is not easy to disentangle the effects of

33. James Buchanan, *Public Finance in Democratic Process: Fiscal Institutions and Individual Choice* (Indianapolis: Liberty Fund, 1999).
34. Milton Friedman, "What Every American Wants," *Wall Street Journal*, January 15, 2003.
35. Because most state governments are constrained by a balanced budget requirement, "starve the beast" may be more applicable there. James Payne, "The Tax-Spend Debate: Time Series Evidence from State Budgets," *Public Choice* 95, no. 3/4 (June 1998): 307–20.
36. Andrew T. Young, "Tax-Spend or Fiscal Illusion? Allowing for Asymmetric Revenue Effects in Expenditure Error-Correction Models," *Cato Journal* 29 (2009): 469–85.
37. As with their 2010 paper on tax changes, this paper is noteworthy for its sophisticated attempt to distinguish exogenous from endogenous tax changes. Christina Romer and David Romer, "Do Tax Cuts Starve the Beast? The Effect of Tax Changes on Government Spending," *Brookings Papers on Economic Policy*, vol. 1 (Spring 2009): 139–200.
38. Figures are based on quarterly, seasonally adjusted annual rates in chained 2005 dollars. "Gross Domestic Product, Percent Change from Preceding Period," Bureau of Economic Analysis, September 27, 2012.

these policies from each other.[39] What we do know, however, is that the tax cuts themselves were theoretically flawed. They were phased in slowly, expired quickly, focused inordinately on boosting aggregate demand, and—most significantly—synchronized with massive spending increases, all of which made them less effective.

This episode also reveals that the government cannot be contained by tax cuts alone. As long as policymakers have the option of financing their programs with deficit spending, taxpayers will underestimate the true cost of government programs and the "beast" will continue to grow while adding to future tax burdens. In many ways, cutting taxes is the easy part of fiscal reform: a tax cut allows policymakers to give voters something they want while appearing to rein in the size of government. The more difficult—but no less important—task is to actually rein in the size of government by reducing its spending.

It would be a mistake to use the disappointing performance of the Bush tax cuts to dismiss decades of theoretical and empirical work suggesting that lower taxation is better for economic growth. Instead, the experience should prompt policymakers to reconsider their methods for cutting taxes.

39. Matthew Mitchell, "Exposing Fault in 'Same Failed Policies' Argument" (Expert Commentary, Mercatus Center at George Mason University, October 23, 2012), http://mercatus.org/expert_commentary/exposing-fault-same-failed-policies-argument.