



The 2001 and 2003 Bush Tax Cuts and Deficit Reduction

Thomas L. Hungerford
Specialist in Public Finance

July 18, 2012

Congressional Research Service

7-5700

www.crs.gov

R42020

Summary

A series of tax cuts were enacted early in the George W. Bush Administration by the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA). These tax cuts, which are collectively known as the Bush tax cuts, were originally scheduled to expire at the end of 2010. These tax provisions were extended until the end of 2012 at an estimated cost of \$408 billion. Beginning in 2013, many of the individual income tax parameters (such as tax rates) will revert back to 2000 levels. One legislative proposal introduced in the 112th Congress, H.R. 6104 (introduced by Representative Cedric Richmond), would extend the 2001, 2003, and 2009 tax cuts for taxpayers with income below \$500,000 for another year. A proposal by Senator Harry Reid (S. 3393) would extend the tax cuts for taxpayers with income below \$200,000 (for singles) or \$250,000 (for married couples) for another year, but set a top income tax rate on qualified dividends of 20%.

The 2010 debate over the fate of the Bush tax cuts took place when the economy was underperforming, the unemployment rate was high, and the federal deficit was large. The U.S. economy was in a severe recession from December 2007 to June 2009. The unemployment rate reached a high of 10.2% in October 2009, and it is currently still over 8%. As a result of reduced economic activity and government efforts to stimulate the economy, the federal budget deficit increased from 1.2% of GDP in FY2007 to 9.9% of GDP in FY2009. Most economic forecasts suggest the economic and budget outlook will likely be characterized by high unemployment, sluggish economic growth, and relatively large budget deficits. Consequently, the 2012 debate over the fate of the Bush tax cuts is also likely to take place in a bleak economic and fiscal environment.

There are several options that Congress may consider regarding the Bush tax cuts, and each of the options strikes a different balance between fostering economic growth and restoring fiscal sustainability. Allowing the Bush tax cuts to expire as scheduled will somewhat improve the fiscal condition by increasing tax revenue, but could retard the economic recovery. At the other extreme, permanently extending all of the Bush tax cuts would not undercut the economic recovery, but would somewhat worsen the longer-term fiscal outlook and possibly signal a lack of progress in dealing with the long-term fiscal situation. Permanently extending the Bush tax cuts could increase federal debt by almost \$3 trillion over the next 10 years.

It is often argued that increasing tax rates will reduce consumer spending in the short term, and work effort, saving and investment—all key components of economic growth—in the long term. In an underemployed economy, short-term spending increases and tax cuts are expected to facilitate job creation, reduce unemployment, and increase output. The main argument against allowing the Bush tax cuts to expire at the end of 2010 was the weak recovery and the fear of pushing the economy back into recession, an argument likely to be made in 2012. Once the economy has recovered from the recession, however, long-term economic growth will be facilitated by increasing work effort, saving, and investment. It is often argued that increasing tax rates will reduce these long-term economic growth components. Economic research, however, suggests that modest tax rate increases would have little negative impact on long-term economic growth and job creation.

Contents

The Economic Environment	1
The Budgetary Environment.....	3
The Bush Tax Cuts.....	6
Revenue Cost from Extending the Bush Tax Cut Provisions	7
Distributional Effects of the Bush Tax Cut Provisions.....	9
Options Regarding the Bush Tax Cuts.....	10
Long-Term Economic Effects of Tax Rate Increases.....	13
Work Effort.....	13
Saving and Investment	14
Concluding Remarks	15

Figures

Figure 1. Monthly Unemployment Rate and Long-Term Unemployment Rate, 1948-2012	2
Figure 2. Deficits as a Percentage of GDP, 2007-2009 Recessions Compared with Prior Recessions	4
Figure 3. Debt Held by the Public as a Percentage of GDP, 1790-2021.....	5
Figure 4. Federal Surpluses(+)/Deficits(-) as a Percentage of GDP, Two Scenarios	7
Figure A-1. Lorenz Curves of Bush Tax Cut Provisions, 2012	18

Tables

Table 1. Revenue Estimates of Bush Tax Cut Provisions: Effect on Deficit FY2013- FY2022	8
Table 2. Percentage Change in After-Tax Income Due to Bush Tax Cut Provisions, by Income Category.....	10
Table 3. Revenue Gain and Deficit Reduction from Expiration of Bush Tax Cuts for High-Income Taxpayers.....	12

Appendices

Appendix. The Suits Index	17
---------------------------------	----

Contacts

Author Contact Information.....	18
---------------------------------	----

A series of tax cuts were enacted early in the George W. Bush Administration by the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA; P.L. 107-16) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA; P.L. 108-27). These tax cuts, which are collectively known as the Bush tax cuts, were originally scheduled to expire at the end of 2010. In addition to the Bush tax cuts, two tax provisions enacted in the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5)—an increase in the earned income tax credit and an increase in eligibility for the refundable portion of the child tax credit—were scheduled to expire at the end of 2010. In a lame-duck session in December 2010, the Bush tax cuts and the two ARRA provisions were extended for two years at an estimated cost of \$408 billion.¹ Beginning in 2013, many of the individual income tax parameters (such as tax rates) are scheduled to revert back to 2000 levels. One legislative proposal introduced in the 112th Congress, H.R. 6104 (introduced by Representative Cedric Richmond), would extend the 2001, 2003 and 2009 tax cuts for taxpayers with income below \$500,000 for another year. A proposal by Senator Harry Reid (S. 3393) would extend the tax cuts for taxpayers with income below \$200,000 (for singles) or \$250,000 (for married couples) for another year, but set a top income tax rate on qualified dividends of 20%.

The pending expiration of the Bush tax cuts generated a great deal of attention in 2010 as reflected by editorials and opinion pieces in national newspapers, and congressional hearings. The proposals regarding the Bush tax cuts were generally not about whether to let the tax cuts expire as scheduled, but rather about which tax cuts to extend and for how long. Many policy makers argued that raising taxes could impede the fragile economic recovery from the severe 2007-2009 recession.

The major tax provisions in EGTRRA and JGTRRA and the tax provisions in ARRA that are part of the current debate over the Bush tax cuts are the reduced individual income tax rates, the reduction of the marriage penalty (and increase in the marriage bonus), the repeal of the personal exemption phaseout and the limitation on itemized deductions, the reduced tax rates on long-term capital gains and qualified dividends, and expanded tax credits. Other provisions that were included in EGTRRA and JGTRRA, such as the estate tax, are not considered in this study. This report examines the Bush tax cuts within the context of the current and long-term economic and budgetary environment.

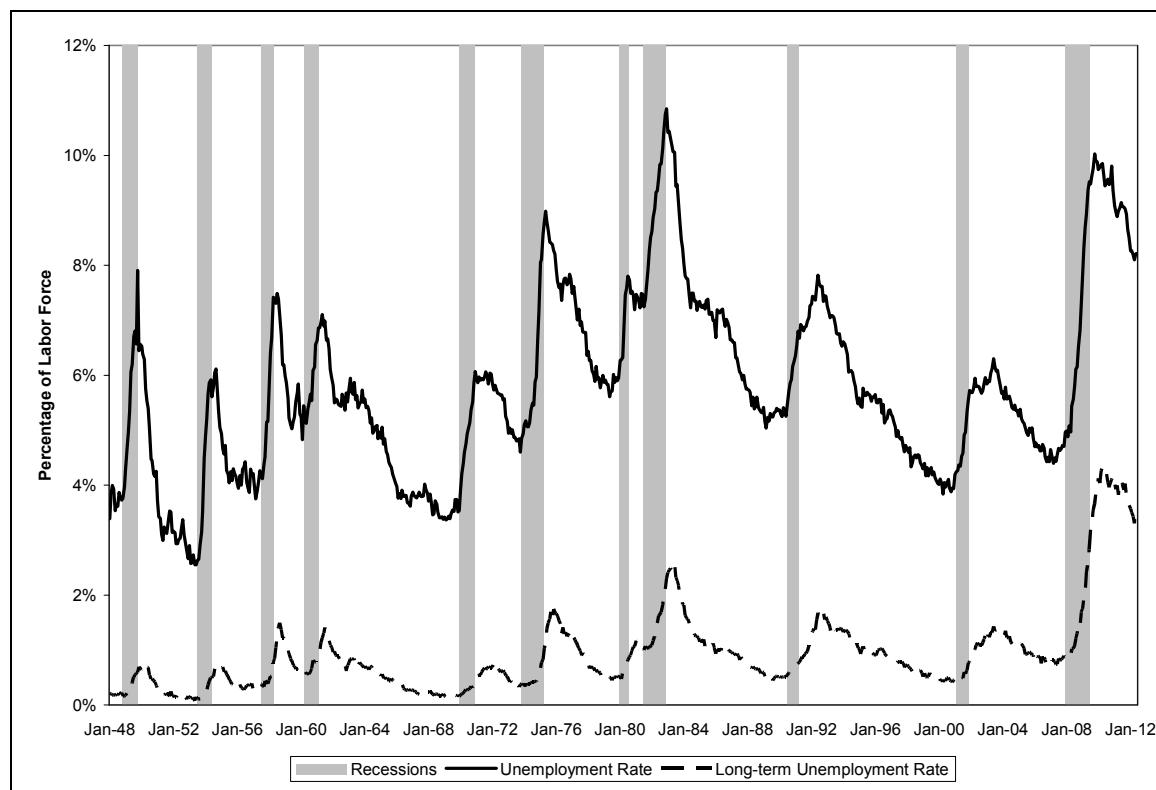
The Economic Environment

The recession beginning in December 2007 is the most severe recession since the Great Depression and has been referred to as the Great Recession. Between the fourth quarter of 2007 and the second quarter of 2009, the economy shrank with real gross domestic product (GDP) falling by 5.1%. The unemployment rate increased from 4.9% in December 2007 to 10.1% by October 2009, and still is over 8%. As a result of reduced economic activity and government efforts to stimulate the economy, the federal budget deficit increased from 1.2% of GDP in FY2007 to 9.9% of GDP in FY2009. The economic recovery, however, remains fragile and the labor market has not recovered.

¹ Joint Committee on Taxation, *Estimated Budget Effects of the “Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010,” Scheduled for Consideration by the United States Senate*, JCX-54-10, December 10, 2010.

Two common measures of weakness in the labor market are the unemployment rate and the proportion of the labor force that has been unemployed for at least six months (the long-term unemployed). **Figure 1** displays the monthly unemployment and long-term unemployment rates since 1948. The long-term unemployment rate has generally tracked the unemployment rate over the business cycle. Over a business cycle, the long-term unemployment rate is at its lowest point at or near the beginning of a recession and then reaches a peak a few months after the end of the recession (typically within six months). Like the unemployment rate, the long-term unemployment rate is a lagging indicator—the labor market does not begin to recover from the recession until some time after the official end of the recession. After the 1990-1991 and 2001 recessions, however, the long-term unemployment rate did not reach its peak until 15 months and 19 months, respectively, after the recession ended. The long-term unemployment rate is currently higher than at any time over the past 62 years—in June 2012, 3.5% of the labor force or about 42% of the unemployed had been out of work for six months or more.

Figure 1. Monthly Unemployment Rate and Long-Term Unemployment Rate, 1948-2012



Source: CRS analysis of Bureau of Labor Statistics data.

The economic outlook over the next few months is not bright and will likely be characterized by high unemployment and sluggish economic growth. For example, the Blue Chip consensus forecast has the unemployment rate staying above 8% until through 2012.² And Carmen Reinhart

² *Blue Chip Economic Indicators*, vol. 37, no. 7 (July 10, 2012).

and Vincent Reinhart show that real per capita GDP growth rates tend to be low during the decade following a severe financial crisis and synchronous world-wide shocks.³

The Budgetary Environment

Before the Bush tax cuts were enacted, the Congressional Budget Office (CBO) projected gradually rising federal budget surpluses—from 2.7% of GDP in 2001 to 5.3% of GDP by 2011.⁴ Within a few years, CBO was projecting budget deficits. The Bush tax cuts, with a \$1 trillion 10-year price tag, contributed to this shift from budget surpluses to deficits. Other major contributing factors included the 2001 recession, the increase in defense spending for the wars in Iraq and Afghanistan, and the Medicare prescription drug benefit (enacted in the Medicare Prescription Drug, Improvement, and Moderation Act of 2003; P.L. 108-173). By the time the 2007-2009 recession started, CBO was projecting deficits between FY2008 and FY2011 equivalent to over 1% of GDP (with budget surpluses after 2011).⁵

Nonetheless, federal budget conditions before the 2007-2009 recession were not much different from the conditions before previous recessions. **Figure 2** shows the budget deficit as a percentage of GDP for three years—the fiscal year before the start of the recession, the fiscal year in which the recession started, and the next fiscal year. The 2007-2009 recession is compared with the average of the prior six recessions. In the year before the Great Recession (2006), the budget deficit was 1.2% of GDP compared with 1.6% of GDP, on average, for the previous six recessions.

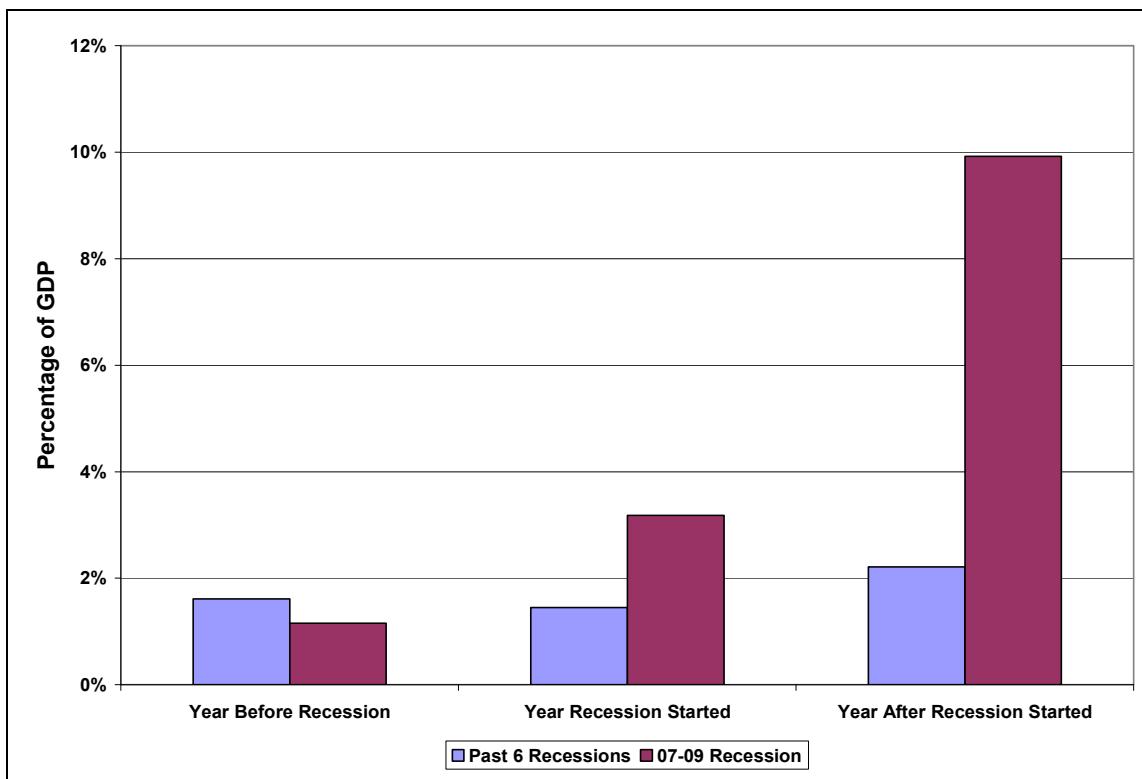
The situation, however, is very different for the next two fiscal years. The federal deficit increased to 3.2% of GDP in the year the 2007-2009 recession started (compared with 1.4% of GDP for previous recessions) and then to almost 10% of GDP in the next year (compared with 2.2% of GDP in previous recessions). The dramatic increase in the federal deficit after 2007 is due to the depth of the recession and the federal government’s efforts to promote economic recovery, such as the Economic Stimulus Act of 2008 (P.L. 110-185) and the American Recovery and Reinvestment Act of 2009 (P.L. 111-5).

³ Carmen M. Reinhart and Vincent R. Reinhart, “After the Fall,” presented at the Federal Reserve Bank of Kansas City Jackson Hole Symposium, Jackson, WY, August 26-28, 2010.

⁴ CBO, *The Budget and Economic Outlook: Fiscal Years 2002-2011*, January 2001.

⁵ CBO, *The Budget and Economic Outlook: Fiscal Years 2008 to 2018*, January 2008.

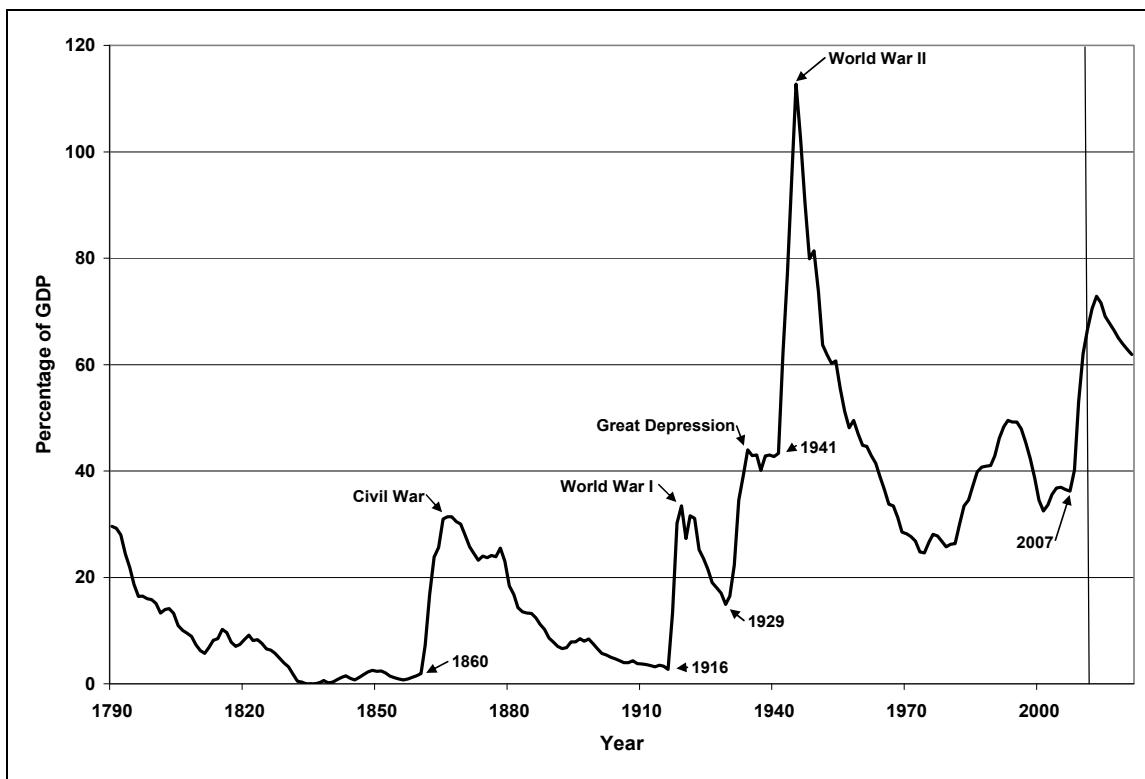
**Figure 2. Deficits as a Percentage of GDP,
2007-2009 Recession Compared with Prior Recessions**



Source: CRS calculations based on OMB data.

The deficit is just one facet of the fiscal condition. Another is federal debt held by the public. **Figure 3** displays federal debt held by the public as a percentage of GDP from 1790 to 2011 and CBO's baseline projection for 2011 to 2021. Federal debt in 2009 was equal to 53% of GDP—a level higher than at any time in U.S. history except for World War II. Between 2007 and 2009, federal debt increased by almost 17% of GDP. Most large increases in debt have been due to wars (the Civil War, World War I, and World War II) and to the Great Depression, but debt also increased dramatically between 1981 and 1994—by 23%—when taxes were reduced and defense spending increased. Debt as a percentage of GDP is expected to fall after 2013 in CBO's baseline projection as the economy strengthens and after the Bush tax cuts expire and the alternative minimum tax (AMT) reverts back to its 2000 parameters and affects a larger proportion of taxpayers.⁶

⁶ The Tax Policy Center estimates that 28.5 million taxpayers would be subject to the AMT without the annual AMT fix. In 2009, 4 million taxpayers were subject to the AMT. See Tax Policy Center, *Aggregate AMT Projections, 2009-2020*, Table T10-0106, May 3, 2010.

Figure 3. Debt Held by the Public as a Percentage of GDP, 1790-2021

Source: CBO and OMB.

The United States has been running budget deficits since 2002, but has been running particularly large budget deficits since 2008. This has occurred because of the severe 2007–2009 recession and the turmoil in the financial and housing markets, which increased spending and reduced revenues due to the automatic stabilizers triggered by the recession, and legislation passed in response to the recession. After the economic recovery picks up steam, the relatively large budget deficits are unlikely to be replaced with budget surpluses. The main reasons are the steady increase in real per capita health care spending, which affects Medicare and Medicaid, and the retirement of the large baby-boom generation, which affects the two health care programs as well as Social Security. Of course, it is very difficult to predict the future course of the economy and defense needs.

In a long-term budget projection, CBO projects budget deficits and federal debt for the next 75 years under two fiscal scenarios.⁷ The first scenario is the baseline or current law. This scenario assumes that current law is not changed, discretionary spending grows with inflation until 2021 and then with GDP thereafter, and Medicare spending will be constrained somewhat by the “sustainable growth rate” (SGR) mechanism, which would control the fees paid for physician’s services.

The second scenario is CBO’s alternative fiscal scenario. This scenario is basically a current policy scenario where discretionary spending grows with GDP, the Bush tax cuts are extended

⁷ CBO, *CBO’s 2011 Long-Term Budget Outlook*, June 2011, table 1.1 for assumptions about spending and revenues under each scenario.

and the AMT is indexed until 2021 with revenues remaining as a constant share of GDP thereafter, and Medicare's payment rate for physicians remains at current levels. Many argue this is a more realistic picture of the future budget than the baseline scenario.

Under the baseline scenario, publicly held debt increases from its current level to 84% of GDP by 2035 and then remains fairly constant thereafter. Under CBO's alternative fiscal scenario, however, debt as a percentage of GDP reaches 109% of GDP by 2023 (about the same level as in 1946) and 190 % of GDP by 2035—extraordinary levels that are unprecedented for the United States. If the effects of slower growth due to higher debt levels under the alternative fiscal scenario are incorporated, the debt-to-GDP ratio could reach 250%.⁸

The Bush Tax Cuts

Several tax provisions were included in EGTRRA, JGTRRA, and ARRA. However, only a few are the focus of debate:

- the 10%, 25%, and 28% tax rates—the 10% tax rate was introduced and the 28% and 31% tax rates were reduced to 25% and 28%, respectively;
- the 33% and 35% tax rates—the 36% and 39.6% tax rates were reduced to 33% and 35%, respectively;
- the reduced marriage penalty—expanded the 15% tax bracket and increased the standard deduction for couples;
- the repeal of the personal exemption phaseout (PEP) and the limitation on itemized deduction (Pease)—both PEP and Pease were gradually phased out and eliminated in 2010;⁹
- the reduced long-term capital gains tax rate—tax rate was reduced from 10% and 20% to 0% and 15%;¹⁰
- the reduced tax rate on qualified dividends—qualified dividends are taxed at long-term capital gains tax rates rather than at the same tax rates as ordinary income; and
- the expanded tax credits—the child tax credit, the earned income tax credit (EITC), and education incentives were expanded.¹¹

The Bush tax cuts are currently scheduled to expire at the end of 2012, and the tax parameters revert back to their 2000 values (the current law baseline). **Figure 4** displays the trend in federal deficits as a percentage of GDP from 1980 to 2021. Under current law, the federal deficit is projected to decline from 8.5% of GDP in 2011 to less than 2% of GDP in 2021. If the Bush tax

⁸ CBO, CBO's 2011 Long-Term Budget Outlook, June 2011, p. 31.

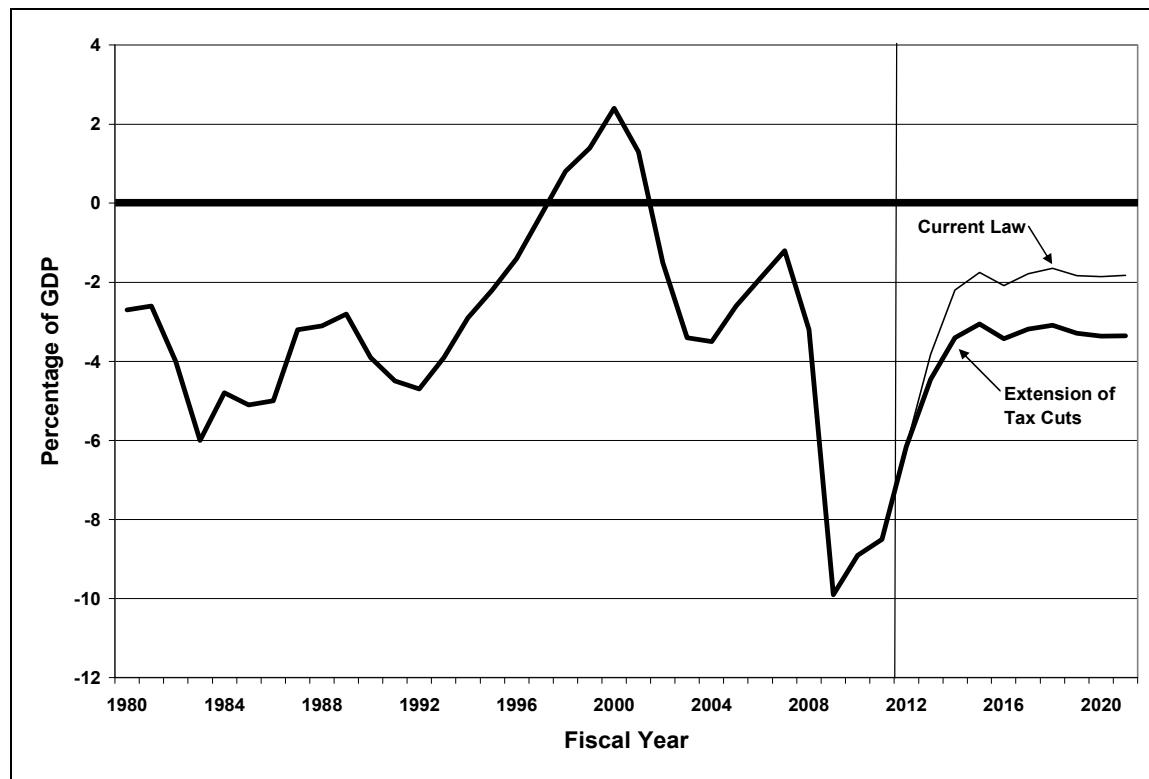
⁹ For more information, see CRS Report R41796, *Deficit Reduction: The Economic and Tax Revenue Effects of Personal Exemption Phaseout (PEP) and Limitation on Itemized Deductions (Pease)*, by Thomas L. Hungerford.

¹⁰ For more information, see CRS Report R40411, *The Economic Effects of Capital Gains Taxation*, by Thomas L. Hungerford.

¹¹ For more information, see CRS Report R41999, *The Impact of Refundable Tax Credits on Poverty Rates*, by Margot L. Crandall-Hollick.

cuts are permanently extended, the deficit is projected to be 3.4% of GDP in 2021. This projection, however, does not take into consideration likely annual changes to the alternative minimum tax (AMT), with a projected 10-year cost of about \$1,500 billion. Under CBO's baseline projection, the 10-year (FY2012-FY2021) total federal budget deficit is \$3,487 billion. The projected 10-year deficit total jumps to \$8,134 billion if the Bush tax cuts are extended at least through 2021 and the AMT is indexed for inflation.

Figure 4. Federal Surpluses(+) /Deficits(-) as a Percentage of GDP, Two Scenarios



Source: CRS analysis of CBO and JCT estimates.

Revenue Cost from Extending the Bush Tax Cut Provisions

The estimated budgetary costs of permanently extending the provisions of the Bush tax cuts are reported in **Table 1**. Over five years (FY2013-FY2017), extending the provisions are estimated to reduce tax revenues by \$1,022 billion. The 10-year (FY2013-FY2022) revenue loss is estimated to be \$2,375 billion. Debt service costs associated with permanently extending the Bush tax cuts are also reported in **Table 1**. Over the 10-year budget window, debt service costs are estimated to be \$451 billion. Furthermore, the AMT, which is likely to be indexed to inflation, interacts with the extension of the Bush tax cuts. The last row of **Table 1** reports the combined costs of indexing the AMT, extending the Bush tax cuts, and associated debt service, which is estimated to be \$4,761 billion over 10 years—more than double the total projected budget deficits over that period.

Table I. Revenue Estimates of Bush Tax Cut Provisions: Effect on Deficit FY2013-FY2022

(billions of dollars)

Provision	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013-17	2013-22
American Opportunity Tax Credit	-2.5	-12.4	-12.5	-12.6	-13.1	-13.4	-14.0	-14.3	-14.8	-15.2	-53.1	-124.8
Education Provisions	-0.8	-1.8	-1.9	-2.0	-2.1	-2.2	-2.2	-2.4	-2.5	-2.6	-8.6	-20.5
Child Tax Credit	-7.0	-45.6	-46.2	-46.9	-47.2	-47.7	-48.0	-48.2	-48.4	-49.9	-192.9	-435.1
Earned Income Tax Credit	-0.1	-10.0	-10.2	-10.3	-10.5	-10.7	-10.8	-11.0	-11.1	-11.4	-41.1	-96.1
Reduced Marriage Penalty	-4.7	-6.7	-6.4	-6.2	-6.0	-5.7	-5.4	-5.2	-5.0	-5.2	-30.0	-56.5
10% Tax Rate	-31.9	-45.8	-46.0	-46.2	-46.1	-45.9	-45.8	-45.6	-45.4	-46.8	-216.0	-445.5
25, 28, 33, and 35% Tax Rates	-37.1	-56.9	-62.1	-67.3	-71.9	-76.6	-80.8	-85.2	-89.9	-92.6	-295.3	-720.4
PEP and Pease	-5.5	-12.0	-13.6	-15.0	-16.4	-17.6	-18.9	-20.2	-21.5	-22.2	-62.5	-162.9
Lower Rate on Capital Gains and Dividends	-13.0	-11.9	-30.3	-31.9	-33.7	-35.3	-35.8	-38.2	-39.9	-41.1	-120.8	-311.1
Other Provisions	-0.1	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-1.3	-2.4
Total	-102.7	-203.4	-229.5	-238.7	-247.3	-255.4	-261.9	-270.5	-278.7	-287.1	-1,021.6	-2,375.2
Debt service	-1.0	-4.5	-9.6	-21.4	-35.1	-48.7	-62.4	-76.0	-89.5	-102.5	-71.6	-450.7
Total plus AMT indexed for inflation with debt service	-233.3	-311.0	-356.5	-397.6	-443.3	-493.6	-544.5	-600.0	-659.6	-721.7	-1,741.7	-4,761.1

Source: Joint Committee on Taxation, Congressional Budget Office, and CRS calculations (FY2022).

Distributional Effects of the Bush Tax Cut Provisions

The various provisions making up the Bush tax cuts have different distributional impacts. **Table 2** reports what the percentage change in after-tax income for each the tax provision would be in 2012.¹² The baseline is a situation in which the Bush tax cuts had been allowed to expire. This estimate provides information on who benefits from each provision and by how much. The Suits index is also calculated and reported for each provision. The Suits index is a measure of the progressivity of tax benefits and varies between -1 (completely regressive) and +1 (completely progressive).¹³ The Suits index is negative (and tax benefits are regressively distributed) if the benefits from the provision are predominately received by taxpayers in the upper part of the income distribution. It is positive if the benefits predominately go to lower-income taxpayers. It is zero if the benefits are proportionately distributed throughout the income distribution.

The second and third columns in **Table 2** report the distributional effects of extending the reduced tax rate provisions. The two columns split the tax rate reductions into those targeting lower- and middle-income taxpayers and those targeting high-income taxpayers. Extending the 10%, 25%, and 28% tax rates benefits taxpayers throughout the income distribution (see column 2). The Suits index is slightly positive (0.0895) but is much closer to zero than to one—the benefits are slightly progressive but close to being proportional. The benefits of extending the 33% and 35% tax rates are entirely confined to the richest 5% of taxpayers (see column 3) and the richest 1% would see their after-tax income increase by about 2% (or about \$21,500). The Suits index is -0.7979, suggesting that the benefits are highly regressive.

Extending the repeal of PEP and Pease would also benefit high-income taxpayers (the richest 5%)—the benefits are very regressively distributed (the Suits index is -0.7325). The reduced tax rates on capital gains and dividends (see columns 5 and 6) primarily benefit upper-income taxpayers and are regressively distributed. The reduced rates on capital gains benefits the upper 60% of the income distribution but the richest 1% see the largest increase in after-tax income while the reduced dividends tax rates benefits the upper 20%. In both cases, the Suits index is negative.

Extending the reduction in the marriage penalty would benefit married taxpayers throughout the income distribution. The Suits index is 0.1048 suggesting that the benefits are slightly progressive, but close to being proportional. The extension of the expanded tax credits primarily benefits taxpayers below the 80th percentile in the income distribution. The Suits index (0.6733) shows that the benefits are progressively distributed.

¹² The estimates were prepared by the Urban-Brookings Tax Policy Center.

¹³ See the **Appendix** for more details on the Suits index.

Table 2. Percentage Change in After-Tax Income Due to Bush Tax Cut Provisions, by Income Category

Income Category	Reduced Tax Rates: 10%, 25%, 28%	Reduced Tax Rates: 33%, 35%	Repeal PEP/Pease	Reduced Capital Gains Tax Rate	Reduced Dividends Tax Rate	Reduced Marriage Penalty	Expanded Tax Credits	Average After-Tax Income
Poorest Quintile	0.1	0.0	0.0	0.0	0.0	0.2	0.9	\$10,702
Quintile 2	1.0	0.0	0.0	0.0	0.0	0.3	1.3	\$23,359
Quintile 3	1.3	0.0	0.0	0.1	0.0	0.1	0.7	\$38,362
Quintile 4	1.3	0.0	0.0	0.1	0.0	0.4	0.4	\$61,176
80-90 percentile	1.6	0.0	0.0	0.1	0.1	0.7	0.1	\$88,999
90-95 percentile	1.8	0.0	0.0	0.2	0.1	0.5	0.0	\$124,146
95-99 percentile	1.5	0.1	0.3	0.4	0.2	0.3	0.0	\$213,506
Richest 1%	0.3	1.9	0.9	1.3	0.8	0.1	0.0	\$1,071,100
All	1.2	0.3	0.2	0.3	0.2	0.3	0.3	\$58,277
Suits index	0.0895	-0.7979	-0.7325	-0.5768	-0.6641	0.1048	0.6733	

Source: CRS analysis of Tax Policy Center estimates.

With the benefits of the different tax provisions accruing to taxpayers in different parts of the income distribution, decisions regarding the Bush tax cut provisions will affect income inequality. In a recent article, Hungerford examined the impacts of various tax provisions (including selected provisions of the Bush tax cuts) on income inequality.¹⁴ The results show that the reduction in the tax rates increased income inequality as did the reduction in the capital gains and dividends tax rate, and the repeal of PEP and Pease. Both the child tax credit and earned income tax credit (EITC) reduce income inequality.

Options Regarding the Bush Tax Cuts

There are several options that Congress may consider regarding the Bush tax cuts. The two extreme options have been discussed along the following lines. Allowing the Bush tax cuts to expire as scheduled will somewhat improve the fiscal condition, but could stifle the economic recovery. At the other extreme, permanently extending all of the Bush tax cuts would not undercut the economic recovery, but would worsen the longer-term fiscal outlook and possibly signal a lack of progress in dealing with the long-term fiscal situation. In either case, the United States is facing increasing budget deficits and federal debt levels over the long term.

¹⁴ Thomas L. Hungerford, "The Redistributive Effect of Selected Federal Transfer and Tax Provisions," *Public Finance Review*, vol. 38, no. 4 (July 2010), pp. 450-472.

The Obama Administration has proposed to allow the Bush tax cuts to expire at the end of 2012 for high-income taxpayers (single taxpayers with income more than \$200,000 and married taxpayers with income more than \$250,000—the richest 2% of taxpayers) and permanently extend the tax cuts for other taxpayers (the middle-income tax cuts). The specific proposals are to reinstate the 39.6% tax rate, reinstate the 36% tax rate for high-income taxpayers, reinstate PEP and Pease for high-income taxpayers, and increase the long-term capital gains and qualified dividend tax rate to 20% for high-income taxpayers. Compared with permanently extending all of the Bush tax cuts (with more than \$7,000 billion in total deficits), this proposal is projected to increase tax revenues by \$312 billion over five years and by \$789 billion over 10 years (see **Table 3**). The 10-year reduction in estimated debt service is \$140 billion. In total, this proposal could reduce budget deficits by \$931 billion over 10 years.

Some policy makers and analysts have proposed alternative income thresholds to define high-income taxpayers. The thresholds that have frequently been discussed are \$500,000 and \$1 million for both single and joint taxpayers. The revenue gains (and associated debt service reductions) from allowing the Bush tax cuts to expire for high-income taxpayers with income over the two alternative thresholds are reported in **Table 3**. The estimated 10-year revenue gain under the \$500,000 income threshold is \$566 billion—about 72% of the revenue gain under the Obama Administration proposal. The estimated revenue gain falls as the income threshold rises so that a \$1 million income threshold to define high-income taxpayers is estimated to raise \$401 billion over 10 years—about 51% of the revenue gain under the Obama Administration proposal.

Extending the Bush tax cuts will almost double the 10-year total deficit from CBO's baseline projection (the projected total deficit would be much higher if the AMT were also indexed for inflation). These options could help reduce the total projected deficit, but only by 7% to 13% depending on the option.

Table 3. Revenue Gain and Deficit Reduction from Expiration of Bush Tax Cuts for High-Income Taxpayers
(billions of dollars)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013-2017	2013-2022
A. Single: \$200,000/Joint: \$250,000												
Revenue Gain	33.9	52.1	69.2	75.5	80.8	85.9	90.1	95.5	100.7	104.1	311.6	787.8
Debt Service	0.3	1.3	2.8	6.3	10.6	15.0	19.6	24.3	29.1	33.8	21.3	143.1
Deficit Reduction	34.2	53.4	72.0	81.8	91.4	100.9	109.7	119.8	129.8	137.9	332.9	930.9
B. Single and Joint: \$500,000												
Revenue Gain	23.8	36.1	49.9	54.5	58.3	61.9	64.8	68.7	72.4	74.9	222.7	565.5
Debt Service	0.2	0.9	1.9	4.5	7.6	10.7	14.0	17.4	20.9	24.3	15.1	102.4
Deficit Reduction	24.0	37.0	51.8	59.0	65.9	72.6	78.8	86.1	93.3	99.2	237.8	667.9
C. Single and Joint: \$1 million												
Revenue Gain	16.3	24.5	35.5	38.9	41.6	44.1	46.1	48.9	51.5	53.3	156.8	400.6
Debt Service	0.2	0.6	1.3	3.1	5.3	7.6	9.9	12.3	14.8	17.2	10.5	72.3
Deficit Reduction	16.5	25.1	36.8	42.0	46.9	51.7	56.0	61.2	66.3	70.5	167.3	472.9

Source: CRS estimates and calculations.

Notes: Baseline is the permanent extension of the Bush tax cuts provisions; interactions with AMT are not included in estimates.

Long-Term Economic Effects of Tax Rate Increases

It is often argued that increasing tax rates will reduce consumer spending in the short term, and work effort, saving, and investment—all key components of economic growth—in the long term. In an underemployed economy, short-term spending increases and tax cuts—expansionary fiscal policies—are expected to facilitate job creation, reduce unemployment, and increase output; spending cuts and tax hikes—contractionary fiscal policies—are expected to have the opposite effect.¹⁵ The main argument against allowing the Bush tax cuts to expire at the end of 2010 was the weak recovery and the fear of pushing the economy back into recession, an argument likely to be made in 2012. These short-term effects operate through the demand-side of the economy.

Some argue that tax increases reduce economic growth and kill jobs. However, once the economy has recovered from the recession and is back to full employment, long-term economic growth is a supply-side phenomenon and is facilitated by increasing work effort, saving, and investment. Economic research suggests that modest tax rate increases would have little negative impact on long-term economic growth and job creation. In the long run, the market economy naturally generates jobs; consequently, there is little need to use fiscal policy to address job creation.¹⁶

Work Effort

For most taxpayers, the majority of income is from labor earnings or wages. Income taxes affect after-tax incomes and after-tax wages. A rise in the tax rate will reduce after-tax wages and, it is argued, work effort (i.e., labor supply). Economic theory suggests that the effect of earnings changes on labor supply is ambiguous. An earnings decrease has a price effect (substitution effect) and an income effect, which sum to the total effect. Earnings can be thought of as the price of leisure (i.e., what is given up to increase leisure). If the price of leisure falls (due to a tax rate increase, for example), then an individual will purchase more leisure (i.e., work less), holding income constant. But if earnings fall then income also falls. This, by itself, leads an individual to purchase less of all normal goods including leisure. The substitution and income effects thus work in opposite directions. Without additional information, the total effect cannot be determined. A large empirical literature, however, shows that men's labor supply is insensitive to changes in wages.¹⁷ In addition, a body of empirical work also suggests that men's labor is insensitive to changes in tax rates.¹⁸ Research shows that even the labor supply of high-income men is insensitive to changes in tax rates.¹⁹

It has been argued that taxes can affect a married woman's labor supply directly by changing her after-tax wages and indirectly by changing her husband's after-tax wages. Early evidence showed

¹⁵ CRS Report R41849, *Can Contractionary Fiscal Policy Be Expansionary?*, by Jane G. Gravelle and Thomas L. Hungerford.

¹⁶ CRS Report R41392, *Small Business and the Expiration of the 2001 Tax Rate Reductions: Economic Issues*, by Jane G. Gravelle.

¹⁷ This literature is reviewed in Mark Killingsworth, *Labor Supply* (Cambridge: Cambridge University Press, 1983).

¹⁸ This literature is reviewed in Jerry R. Hausman, "Taxes and Labor Supply," in *Handbook of Public Economics*, eds. Alan J. Auerbach and Martin Feldstein, vol. 1 (Amsterdam: North-Holland, 1985), pp. 213-263.

¹⁹ Robert A. Moffit and Mark O. Wilhelm, "Taxation and the Labor Supply Decisions of the Affluent," in *Does Atlas Shrug?*, ed. Joel B. Slemrod (Cambridge, MA: Harvard University Press, 2000), pp. 193-239.

that women's labor supply was more sensitive to wages than men's. Recent evidence, however, shows that married women's labor supply after 1990 was considerably less sensitive to their own wages and their husband's wages than before 1990—women's labor supply decisions were becoming more like men's.²⁰

While income from labor supply may not be sensitive to taxes, taxable income may be sensitive to tax changes. Taxpayers may be able to reduce taxable income by taking more deductions, deferring compensation, excluding income by contributing more to individual retirement accounts and 401(k) plans, or taking income in another form (e.g., as capital gains instead of earnings). High-income taxpayers typically have more opportunity to respond to tax changes and reduce taxable income through these methods.

Several studies have investigated the sensitivity of taxable income to tax rates. Most studies find that taxable income is more responsive to tax rate changes than labor supply, though the empirical estimates suggest that a 10% increase in tax rates could reduce taxable income by 1.2% to 4%.²¹ Furthermore, a reduction in taxable income may not be a complete loss to the economy or tax revenues. If high-income taxpayers react to higher individual income tax rates by saving more in a 401(k) plan or shifting income to the corporate form, this income will be taxed in the future (in the case of the 401(k) plan) or taxed under the corporate income tax.

Saving and Investment

The long-run level of output depends on the amount of saving and investment. Saving and investment increase the amount of capital in the economy and hence, aggregate supply (i.e., the amount of goods and services available in the economy). National saving is made up of saving by the government (public saving) and by households and firms (private saving). Public saving is equal to the government's deficit or surplus—it is negative for a deficit and positive for a surplus. It is national saving that affects the long-run level of output. Many argue that increasing tax rates, especially the tax rate on capital gains, will reduce saving and, hence, long-term economic growth.²²

Households save by investing in their own business or investing in equities, bonds, and other financial instruments. Changing capital gains tax rates changes the after-tax rate of return on investments (e.g., reducing the tax rate increases the after-tax return). The change in the rate of return has two offsetting effects on saving. Increasing the rate of return can increase households' willingness to save (the substitution effect). But at the same time, the increased return allows households to save less to maintain their desired or target wealth level (the income effect).

²⁰ Francine D. Blau and Lawrence M. Kahn, "Changes in the Labor Supply Behavior of Married Women: 1980-2000," *Journal of Labor Economics*, vol. 25, no. 3 (2007), pp. 393-438; and Bradley T. Heim, "The Incredible Shrinking Elasticities: Married Female Labor Supply, 1978-2002," *Journal of Human Resources*, vol. 42, no. 4 (Fall 2007), pp. 881-918.

²¹ See Emmanuel Saez, Joel B. Slemrod, and Seth H. Giertz, "The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review," *Journal of Economic Literature*, forthcoming available at <http://elsa.berkeley.edu/~saez/saez-slemrod-giertzJEL10final.pdf>.

²² For more information on capital gains taxes, see CRS Report R40411, *The Economic Effects of Capital Gains Taxation*, by Thomas L. Hungerford.

About half of equity income is in tax-preferred savings accounts such as 401(k) pension plans and individual retirement accounts. Additionally, capital gains are only taxed when realized, and a substantial portion are never realized. Consequently, the effect of capital gains tax changes on private saving is likely to be small.

The traditional economic theory of saving, the life-cycle model, assumes that individuals make rational, far-sighted decisions. The preponderance of empirical evidence, however, does not support the life-cycle model.²³ Behavioral theories of saving emphasize the role of inertia, the lack of self-control, and the limit of human intellectual capabilities. To cope with the complexities involved in making saving decisions, individuals often use simple rules of thumb and develop target levels of wealth. Once their target level of wealth is obtained, many individuals suspend active saving.²⁴ Saving rates have fallen over the past 30 years while the capital gains tax rate has fallen from 28% in 1987 to 15% today (0% for taxpayers in the 10% and 15% tax brackets). This suggests that changing capital gains tax rates have had little effect on private saving.

Capital gains tax rate increases appear to increase public saving and may have little or no effect on private saving. Consequently, a capital gains tax increase could have a positive overall impact on national saving.

Concluding Remarks

The 2012 debate over the fate of the Bush tax cuts is likely to take place in an almost as bleak economic and fiscal environment as the 2010 debate over the fate of the Bush tax cuts. In the short term, the economy is growing slowly and unemployment is likely to remain over 8.5% for several more months. The long-term federal government fiscal situation is clearly unsustainable. The decision over the fate of the Bush tax cuts will affect the short-term economic situation and the long-term fiscal situation. The options will likely range from allowing all of the Bush tax cuts to expire after 2012 to temporarily or permanently extending some or all of the Bush tax cuts. It can be argued that permanently extending all of the Bush tax cuts could make future tax reforms to deal with unsustainable deficits and debt trends more difficult. If the economy is still weak, a temporary extension would not harm the economy. Furthermore, allowing the high-income tax cuts to expire as scheduled could help reduce budget deficits in the short term without stifling the economic recovery.²⁵ Research has shown that tax cuts directed to high-income taxpayers have a small stimulative effect because they tend to save any additional income.²⁶ Increasing tax rates for the richest 1% to 3% of taxpayers (by allowing the high-income tax cuts to expire) would likely neither significantly decrease consumer expenditures nor adversely affect short-term job

²³ For a discussion and citations to the literature see CRS Report RL33482, *Saving Incentives: What May Work, What May Not*, by Thomas L. Hungerford.

²⁴ F. Thomas Juster, Joseph P. Lupton, James P. Smith, and Frank Stafford, "The Decline in Household Saving and the Wealth Effect," *Review of Economics and Statistics*, vol. 87, no. 4 (November 2005), pp. 20-27.

²⁵ Tax cuts to the wealthy tend to be saved rather than spent and have little impact on short-term economic growth. See CRS Report R40104, *Economic Stimulus: Issues and Policies*, by Jane G. Gravelle, Thomas L. Hungerford, and Marc Labonte.

²⁶ See CRS Report R40104, *Economic Stimulus: Issues and Policies*, by Jane G. Gravelle, Thomas L. Hungerford, and Marc Labonte.

growth.²⁷ Increasing taxes to reduce long-term budget deficits after the economy has recovered, would likely have little negative impact on long-term economic growth and job creation.

²⁷ See CRS Report R41392, *Small Business and the Expiration of the 2001 Tax Rate Reductions: Economic Issues*, by Jane G. Gravelle.

Appendix. The Suits Index

The progressivity measure used is a modified Suits index. The Suits index was originally developed to measure the progressivity of the tax burden.²⁸ Since benefits from tax provisions are considered, the modified Suits index is the negative of the original Suits index.

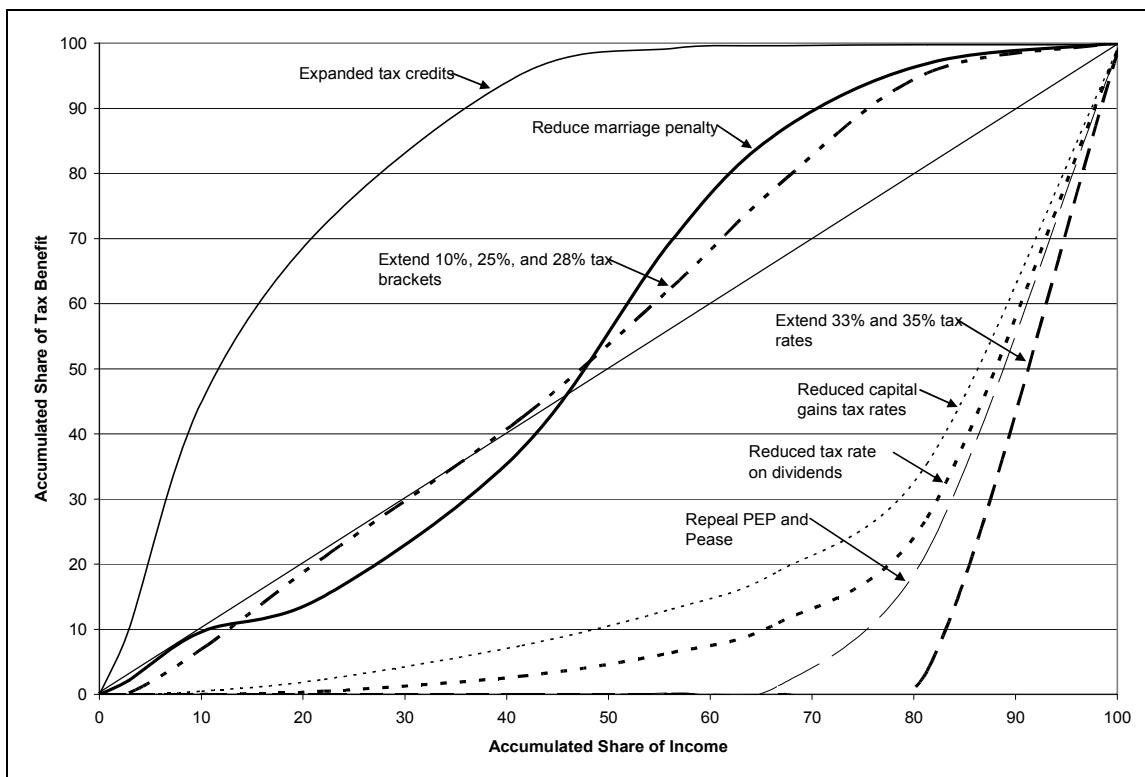
The index is based on the Lorenz curve. **Figure A-1** displays the Lorenz curves for the seven tax provisions making up the Bush tax cuts that are considered in this study. The horizontal axis is the accumulated share of income when tax units are ranked by income from lowest to highest. The vertical axis is the accumulated share of tax benefits from the tax provisions. The diagonal line is the Lorenz curve for a proportionally distributed tax benefit. A progressive benefit will have its Lorenz curve above the diagonal line (e.g., see the Lorenz curve for expanded tax credits). This means that tax units with lower incomes receive benefits that are a larger proportion of their income than higher income tax units. Conversely, a regressive benefit (e.g., the repeal of PEP and Pease) will have a Lorenz curve below the diagonal line.

Let the area under the Lorenz curve be denoted as L —it is the area bounded from below by the horizontal axis and from above by the Lorenz curve. Let the area under the diagonal line be denoted as K . The Suits index, S , is therefore defined as:

$$S = \frac{L - K}{K}.$$

²⁸ Daniel B. Suits, “Measurement of Tax Progressivity,” *American Economic Review*, vol. 67, no. 4 (September 1977), pp. 747-752.

Figure A-1. Lorenz Curves of Bush Tax Cut Provisions, 2012



Source: CRS analysis of Tax Policy Center estimates.

Author Contact Information

Thomas L. Hungerford
Specialist in Public Finance
thungerford@crs.loc.gov, 7-6422