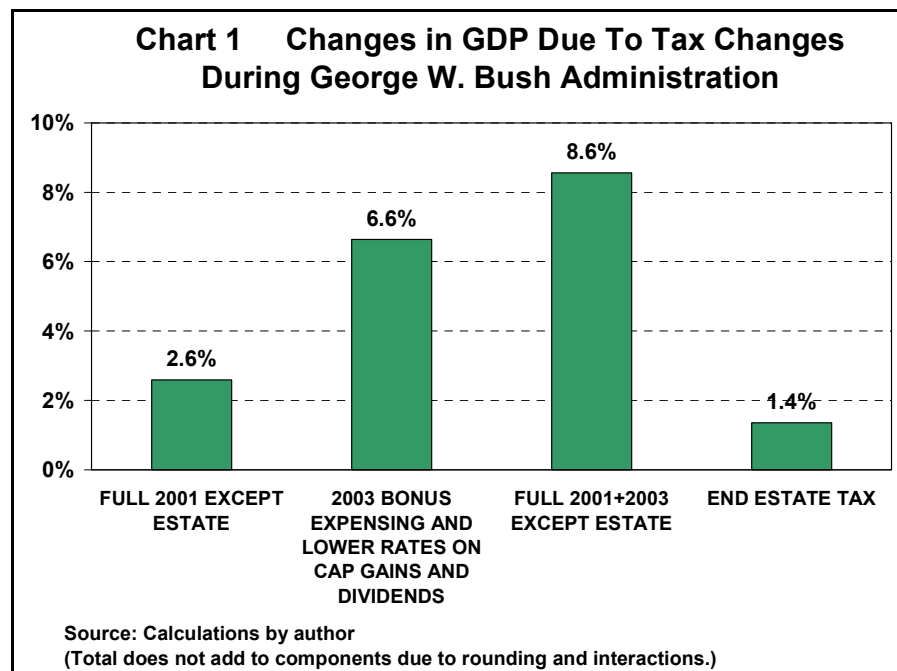


## THE ECONOMIC CONSEQUENCES OF GEORGE W. BUSH'S TAX POLICIES

### Introduction

This paper estimates the long term effects of the tax policies of the George W. Bush Administration on the U.S. economy and the federal budget. The estimates project the ultimate effects if the policies remain in place long enough for all economic adjustments to be made. Chart 1 indicates that the full effect of the income tax provisions of the 2001 and 2003 tax reductions is to increase GDP by nearly

8.6 percent over time. Taken separately, the reductions in the tax rates on capital gains and qualified dividends and the bonus expensing provisions enacted in 2003 raise GDP by 6.6 percentage points, and the income tax provisions enacted in 2001 raise GDP by 2.6 percentage points. (The impact of the parts sum to more than the total impact because of interactions. In particular, the 2001 rate cuts and the 2003 bill both reduced tax rates on dividends.) An additional 1.4 percentage points were estimated for the elimination of the estate tax in 2010, and the reduction in the gift tax. However, the estate tax has been reinstated for 2011 and beyond, albeit at a reduced tax rate and with a larger exempt amount, eliminating about 40 percent of the benefit of the repeal provision.



## **Modeling the Tax Changes and Budget Impacts**

The study utilizes a model driven by the impact of marginal tax rate changes on incentives to work, save, and invest. This approach can distinguish tax changes that make it more rewarding to produce additional goods and services from tax changes that merely "throw money from the top of the Washington Monument" and have no impact on costs and rewards at the decision margin. The incentives approach is consistent with how labor and capital markets and the production process operate in the real world. It is also consistent with the analytical methods taught in business schools to the people who decide how much and what type of capital to create.

This is in contrast to Keynesian models which focus mainly on the dollar amount of a tax change, under the erroneous assumptions that taxes affect the economy by altering disposable income and "aggregate demand", and that the form of the tax and its impact on the supplies of labor, capital, and output are irrelevant. In practice, initial Keynesian demand effects of a tax change are offset by changes in federal borrowing or spending, leaving only the incentive effects of the tax change, if any, to alter behavior.

The neo-classical approach used here is driven by marginal tax rates and the rules that determine what income is considered taxable, such as depreciation allowances and the inclusion rate of long term capital gains. These factors alter the choices between capital formation and consumption, and between labor and leisure.

The service price of capital is the pre-tax rate of return to capital required to cover depreciation, inflation, risk, and taxes and leave an acceptable real after-tax return – about 3 percent – for the investor. A lower service price raises the equilibrium capital stock, GDP, and labor income. A higher service price does the opposite. Taxes on capital income are part of the service price. Determining if proposed tax legislation would lower or increase the service price of capital is a quick way to tell if it would strengthen or weaken the economy (absent other provisions that drastically affect labor incentives). A larger capital stock increases worker productivity and the demand for labor, driving up wages and employment.

This study's economic model assumes that workers increase their labor force participation and hours worked as marginal tax rates on wages fall and after-tax wages rise; they reduce the labor supply as marginal tax rates on labor rise and after-tax earnings fall. Changes in the labor supply and the capital stock due to the initial tax changes alter production and income. The changes in income in turn raise or lower marginal tax rates and the service prices, producing further income adjustments until a new equilibrium is achieved.

A more complete description of the model and the economics behind it can be found in the appendix to the first paper in this series, "Economic Consequences Of The Tax Policies Of The Kennedy And Johnson Administrations".<sup>1</sup>

## **The Economy in the George W. Bush Years**

George W. Bush won the 2000 election to succeed President Bill Clinton. Entering office in January of 2001, President Bush inherited an economy that had been undergoing a prolonged expansion since the end of 1991. Unemployment and inflation were both low compared to the 1969-1999 period. Federal revenues, especially capital gains tax receipts, had risen sharply. Federal spending had been restrained. The federal budget had swung into a substantial surplus, to the point that the federal debt held by the public was falling and was projected to be paid off in a few years.<sup>2</sup>

The capital gains tax rate reduction of the second Clinton Administration had given a boost to capital formation and GDP. Additional capital formation was encouraged as the Federal Reserve reduced the inflation rate to less than two percent by 1998. Capital consumption (depreciation) allowances used to record the cost of plant and equipment and to determine taxable income lose value to inflation and the time value of money. The lower the inflation rate, the more closely the allowances reflect the full cost of the investments, and the lower is taxable income and the tax burden on capital formation.

By 2001, however, the recovery was aging. A large part of the expansion of the stock of equipment made possible by the reduction in the tax on capital and the rate of inflation had already occurred. Inflation ticked up to 3.4 percent in 2000, causing the Federal Reserve to tighten monetary policy. Another round of tax rate reductions, especially on capital formation, was advisable if economic growth were to continue in excess of four percent per year.

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<sup>1</sup> See Stephen J. Entin, "Economic Consequences Of The Tax Policies Of The Kennedy And Johnson Administrations," *IRET Policy Bulletin*, No. 99, September 6, 2011, available at <http://iret.org/pub/BLTN-99.PDF>. The tax calculator and a historical tax rate parameter spreadsheet used in the model have been made available by Gary Robbins of the Data Analysis Center of the Heritage Foundation, who has also assisted with modeling advice.

<sup>2</sup> The prospect of no more federal debt was actually regarded with some alarm. The Federal Reserve conducts monetary policy by buying and selling government securities to increase or decrease bank reserves and the monetary base. What could it use instead if the Treasury debt were to vanish? Governments, businesses, and individuals around the world value the U.S. dollar as a reserve currency, and hold those dollars in Treasury securities as a vehicle for short term savings. The U.S. debt instruments are the most secure and liquid of assets, and contribute to the world financial system. The strong demand for the assets leads to a very low interest rate on U.S. debt. As foreigners add to their holdings, the U.S. experiences a capital inflow that funds additional U.S. imports. In effect, the financial service rendered by the U.S. debt is one of the country's largest exports. What would be the point of paying off the entire debt and giving up the cheap credit?

The Bush tax policy was implemented by means of two major tax bills (passed in 2001 and 2003). Adjustments and extensions were made in smaller tax bills in 2002 and in later years. When fully effective, the Bush tax provisions significantly altered production incentives "at the margin". Long term, we estimate that the full, amended tax program adds more than nine percent to GDP.

Unfortunately, the tax changes as enacted in 2001 were designed to be phased in very slowly, and the program did not initially include some of the most effective, pro-growth investment incentives until they were added in 2003. In the first year, the tax reduction was insignificant; it made little difference in economic performance, and failed to avert a recession in 2001 in the face of tighter Federal Reserve policy. The recovery from the recession was very slow in 2002 and early 2003, and became known as the jobless recovery.

By default, the Federal Reserve was left to take steps to boost the economy in 2001-2003 with a great easing of monetary policy. The chief effect of the Fed's actions was to encourage the housing bubble and a run-up in commodity prices, rather than a broad-based expansion of the economy. Economic growth and job creation only took off after the passage of the 2003 tax cut, which contained investment incentives which ended the investment slump that was at the heart of the economic contraction. By then, the housing bubble was well established and destined to burst. One can only wonder how different the world economic outlook would be today if the 2003 tax cut had been enacted in 2001, and the Federal Reserve had not felt obliged to supply so much credit to the markets.

## **Elements of the George W. Bush Tax Changes**

### ***Economic Growth and Tax Relief Reconciliation Act of 2001***

President Bush had campaigned on a promise to cut taxes to ensure the continuation of the expansion. The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) concentrated on reducing marginal tax rates for individuals and estates, marriage penalty relief, and expanding incentives for saving. No major relief was provided for the corporate sector. There was no improvement in depreciation allowances. The rate relief was phased in slowly. The tax cuts were to sunset in 2011 to comply with the Congressional Budget Act of 1964, which forbids tax reductions that increase the projected deficit to extend beyond the ten-year budget window.

- *Individual income tax rates.* EGTRRA reduced individual income tax rates over six years, 2001-2006. A new 10% tax rate bracket was carved out of the bottom part of the 15% bracket. The 10% rate was to be applied to the first \$6,000 of taxable income for single filers, and \$12,000 for joint filers, for 2001-2007. After 2007, the 10% rate was scheduled to apply to the first \$7,000 for single filers and \$14,000 for joint filers, indexed thereafter for inflation. The 15% tax rate remained the same for the rest of the old 15% bracket. (Table 1 compares tax schedules for 2011, which reflect EGTRRA, to what tax schedules would have been based on pre-Bush Law. All Tables are in the Appendix.)

The top four tax rates of 28%, 31%, 36%, and 39.6% were to be reduced in stages to 25%, 28%, 33%, and 35%. The reduction was 0.5% in each of the top brackets in 2001 (a 1.0% reduction effective July 1, 2001, equivalent to a 0.5% reduction at an annual rate), yielding tax rates of 27.5%, 30.5%, 35.5%, and 39.1% for that year. The reduction remained at 1.0% in 2002-2003, producing tax rates of 27%, 30%, 35%, and 38.6%. The reductions were 2% in 2004-2005, yielding rates of 26%, 29%, 34%, and 37.6%. The full amount of the cuts were effective in 2006 and beyond.

The Act provided for the Treasury to mail out "rate reduction credits" of \$300 for single filers and \$600 for couples to reflect the lower tax provided by the new 10% bracket, without requiring awkward midyear adjustments in tax withholding arrangements. The intent was to stimulate consumer spending as soon as possible. The credits were not in addition to the lower tax rate; they were counted as advance refunds in connection with people's 2001 tax liabilities when they filed returns in April 2002. Where refunds owed were less than the credits, taxpayers had to return the difference as taxes owed. The credits had no noticeable effect on consumer spending, aggregate demand, or GDP in 2001. The credit checks mailed by the Treasury required the Treasury to increase its borrowing, which offset the supposed demand stimulation.

- *Peps and Pease.* EGTRRA gradually eliminated the limitation of itemized deductions and the phase-out of personal exemptions for upper income taxpayers over five years, starting in 2006. The phase-outs were to be reduced by one-third in 2006-2007, two-thirds in 2008-2009, and ended entirely in 2010. Itemized deductions had been limited for taxpayers whose adjusted gross income (AGI) exceeded \$100,000. Personal exemptions were phased out for taxpayers whose AGI exceeded \$100,000 for single filers and \$150,000 for couples filing jointly. These phase-outs are known as Peps and Pease ("Peps" for the personal exemptions and "Pease" for the Representative who authored the itemized deduction limit). The reduction in itemized deductions was the lesser of 3% of the excess of AGI over the threshold, or 80 percent of itemized deductions excluding medical, casualty and loss, and investment interest. The 3 percent phase-out rate effectively increased the marginal tax rate. The 28% rate became 28.84%, and the 31% rate became 33.93%. Personal exemptions were phased out at 2 percent of the exemption amount for each \$2,500 increment (or fraction) by which AGI exceeded the threshold. That is equivalent to a roughly 1 percentage point increase per exemption in the marginal tax rate during the phase-out range of income.

- *Alternative Minimum Tax.* The legislation increased the AMT exempt amount temporarily, 2001 through 2004, by \$4,000 for joint filers and by \$2,000 for single filers and heads of households.

- *Marriage penalty relief.* EGTRRA increased the width of the 15% bracket for married couples to twice that for single filers over four years, 2005-2008 (to 180 percent of the width of the bracket for single filers in 2005, 187 percent in 2006, 193 percent in 2007, and 200 percent in 2008). It increased the size of the standard deduction for couples to twice that for single filers over five years, 2005-2009 (to 174 percent of the single deduction in 2005, 184 percent in 2006, 187 percent in 2007, 190 percent in 2008, and 200 percent in 2009.)

- *Earned Income Tax Credit (EITC)*. The legislation gradually increased the phase-out points of the EITC exempt amounts by \$3,000 for married couples filing jointly over seven years, 2002-2008. (The increase was to be \$1,000 for 2002-2004, \$2,000 for 2005-2007, \$3,000 for 2008.) It indexed the phase-out point for inflation beginning in 2009.
- *Child credit*. The \$500 child credit was raised in stages to \$1,000. It was to go to \$600 in 2001-2004, \$700 in 2005-2008, \$800 in 2009, and \$1,000 in 2010.
- *Individual Retirement Accounts (IRAs)*. The maximum contribution limit for IRAs was raised gradually from \$2,000 under old law to \$5,000 in 2008.
- *Estate taxes*. The estate tax and the generation skipping tax were to be eliminated in 2010, after a series of rate reductions and increases in the exempt amount (more precisely, increases in the credit against the tax). The two top estate tax rate brackets were ended, creating a top rate of 50% in 2002, and the 5% surtax was eliminated at that time. The 2002 credit was made equivalent to an exempt amount of \$2.5 million. The top rate was to fall an additional one percentage point each year from 2003 to 2007, and then remain at 45 percent through 2009. The gift tax was to be retained with a 35% rate after the estate tax ended.

After elimination of the estate tax in 2010, the step-up in basis for the heirs was also to be eliminated, replaced by carry-over basis. (With step-up in basis, heirs who sell inherited assets treat the asset's cost for the purpose of computing capital gains as the greater of fair market value at time of death or time of receipt of the assets. With carry over basis, the heir's cost basis is the lesser of the decedent's basis or fair market value at time of death.) The carry-over provision allowed a partial step-up to \$1.3 million for beneficiaries other than spouses, and \$3.0 million for a spouse, to exempt a portion of estates roughly equal to amounts exempted under prior law by the unified credit.

### ***Jobs and Growth Tax Relief Reconciliation Act of 2003***

The Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) was enacted to deal with the continued weakness of the economy. The recovery from the 2001 recession in 2002 and early 2003 was anemic. The period had been branded the "jobless recovery." JGTRRA hastened the remaining 2001 tax cuts, and, more importantly for growth, it added key provisions to spur investment and capital formation.

- *Remaining 2001 provisions brought forward to 2003*. JGTRRA brought forward to 2003 the remaining individual tax rate and tax bracket changes that were enacted in 2001 but which were still being phased in. These included the remaining cuts in individual tax rates, the rise in the 10% bracket to \$7,000 for single filers and \$14,000 for couples filing jointly, the elimination of Peps and Pease limitations, the unfinished elements of the marriage penalty relief, and the expansion of the child credit.

- *Capital gains and qualified dividends taxed at 15%.* JGTRRA took major steps to reduce the double taxation of corporate earnings. It lowered the maximum tax rate on long term capital gains from 20% to 15% through 2008, and cut the capital gains tax rate for people in the 10% and 15% brackets to 5% through 2007 and to zero for 2008. The Act extended these same reduced tax rates to "qualified dividends" paid out of corporate earnings that had been subjected to the corporate tax. (The reduced dividend tax rates did not apply to dividends from pass-through entities such as REITs that do not pay the corporate tax.) Subsequent bills extended these reduced rates through 2012.

President Bush had recommended a zero tax rate on capital gains with no relief for dividends. Ways and Means Committee Chairman Bill Thomas (R-CA) substituted the more even-handed equalization of the tax treatment of dividends and capital gains. It is better economics to treat all uses of after-tax corporate income alike, rather than favoring either retention of earnings (leading to capital gains) or distribution (dividends).

- *Enhanced expensing of equipment.* In 2002, the Jobs Creation and Worker Assistance Act had provided a temporary "bonus expensing" provision, allowing businesses to expense (immediately deduct) 30% of outlays for equipment bought after Sept. 10, 2001 and before Sept. 11, 2004 (a post-9/11 economic recovery effort). The remaining 70 percent of the cost would be depreciated as usual. The intent was to spur investment, which was still falling even after the economy as a whole had turned up. JGTRRA increased the expensing percentage to 50% for equipment bought after May 5, 2003 and put in service before January 1, 2005 (or January 1, 2006 for long production period equipment).

Small business expensing (Section 179) was also enhanced. The limit on expensed investment was increased from \$25,000 to \$100,000 for 2003 through 2005, and adjusted for inflation. This expensing allowance is phased out as investment exceeds certain thresholds. The Act increased the phase-out threshold from \$200,000 of qualified investment to \$400,000 for 2003 through 2005.

#### ***American Jobs Creation Act of 2004***

The 2004 Act contained one notable provision. It replaced the extraterritorial income exclusion (designed to boost exports) with a deduction of the lesser of 3 percent of "qualified production activities" or taxable income, rising in stages to 9 percent in 2010 and beyond. It covers most items manufactured, produced, grown, or extracted in the United States, as well as construction, engineering, and architectural services. The switch was meant to circumvent World Trade Organization objections to the earlier export subsidy. Not all economic activity is eligible, so the effect is roughly equivalent on average to a one percentage point reduction in the corporate tax rate and the tax rate on non-corporate business income. The net economic effect of the exchange was very small, and is not modeled here.

## **Modeling the Consequences of the George W. Bush Tax Changes**

### *Interpreting the tables and charts*

The full range of the Bush 2001-2003 tax cuts have been modeled as if they had all been made fully effective as of 2001, instead of being phased in or enacted at a later date, and as if they were made permanent. The numbers are scaled to the GDP and capital stock levels of 2001, with the tax parameters deflated as necessary to 2001 dollars. The results depict the long run difference in the economic numbers under two states of the world, one in which the tax cuts had never occurred, and one in which they had occurred, and the economy had fully adjusted to them.

Tables 2 through 11 display the effect of the tax changes being studied on GDP, private business sector output, labor and capital income, and the private business capital stock (plant, equipment, buildings, inventory). The tables also display the levels and changes in marginal individual income tax rates on AGI, wages and salaries, dividends, interest, non-corporate business income, and long term capital gains. These marginal rates are the end product of the initial tax changes and the feedback on the rates from the dynamic economic reactions. They show the new tax rate structure that is supporting the new economic equilibrium.

The results tables also present the dynamic changes in the service price of capital for the corporate sector, the non-corporate sector, and for the private business sector as a whole. Depreciation changes affect both sectors. Personal income tax changes affect non-corporate business income and the service price of capital in the non-corporate sector. Changes in the corporate tax rate and personal income tax changes on capital gains and dividends affect the service price of capital in the corporate sector.

There is a lively debate as to whether tax cuts can expand the economy and taxable income by enough to bring in more, rather than less, federal revenue. That is, do they pay for themselves from the perspective of the federal budget? The real benefit to the nation from lower tax rates is higher income for the population, not an inflow of revenue to Washington. Nonetheless, the condition of the federal budget and the ability to pay for federal spending programs are of concern. Therefore, the tables include the impact of the tax policy changes on the federal government budget.

The static revenue effect of a tax change is shown first (measured at the income levels in the baseline, before any economic adjustments). The dynamic revenue feedback due to subsequent changes in GDP and incomes, and the net post-adjustment revenue effects, come next. Changes in federal outlays due to changes in market wages and federal labor costs complete the budget impact calculation. In a few instances, the economic changes driven by the tax changes are sufficiently strong to more than offset the projected static revenue loss of a tax reduction, or to give back more than all of the projected static revenue gain. This effect is usually the result of a tax change that heavily impacts the marginal return on capital.



The last lines of the tables compare the changes in federal revenues with the changes in GDP (pre-tax income) and after-tax incomes of the public. This is done to emphasize the total cost to the taxpayer of raising a dollar of revenue to pay for a dollar of government spending. A dollar of federal spending costs the taxpayer the dollar of tax plus the resulting loss of income. Whatever the government is spending the money on should be worth that larger amount. If not, the public is better off without the spending. These ratios also indicate the effectiveness of the various types of tax changes in promoting or destroying GDP and jobs. (If the dynamic feedback more than offsets the revenue loss from a tax cut, or wipes out the revenue gain from a tax increase, the GDP change per dollar of tax change becomes infinite and not applicable, or "N/A")

For each tax bill, charts display GDP changes for the tax bills as a whole and the various provisions. Gains are positive, losses negative. Other charts show revenue reflows when the changes alter economic activity. In the revenue reflow charts, cases in which a static tax increase reduced GDP show the associated dynamic revenue decline as negative, offsetting some or all of the presumed static revenue gain. Where the tax change increased GDP, the revenue reflow is shown as a positive, a revenue gain offsetting some or all of the static tax decrease. Reflows of more than 100 percent mean that the static change in tax revenue assumed for the provisions was more than offset by the dynamic feedback on revenue from the change in GDP.

### ***Economic and budget results of the George H. W. Bush tax changes***

Taken together, the tax changes of the G. W. Bush Administration have a powerful effect on the economy. They significantly reduce the tax bias against the corporate sector, correct for the under-depreciation of equipment in normal depreciations rules, and cut the marginal tax rates on non-corporate business and labor income. We present first the combined long term results of the income tax changes in both major tax bills (EGTRRA and JGTRRA) and the various extensions enacted over the period. This is followed by an examination of the two major income tax bills separately, each examined as a whole and then provision by provision. The long run results of the estate tax changes are shown separately from the income tax discussion.

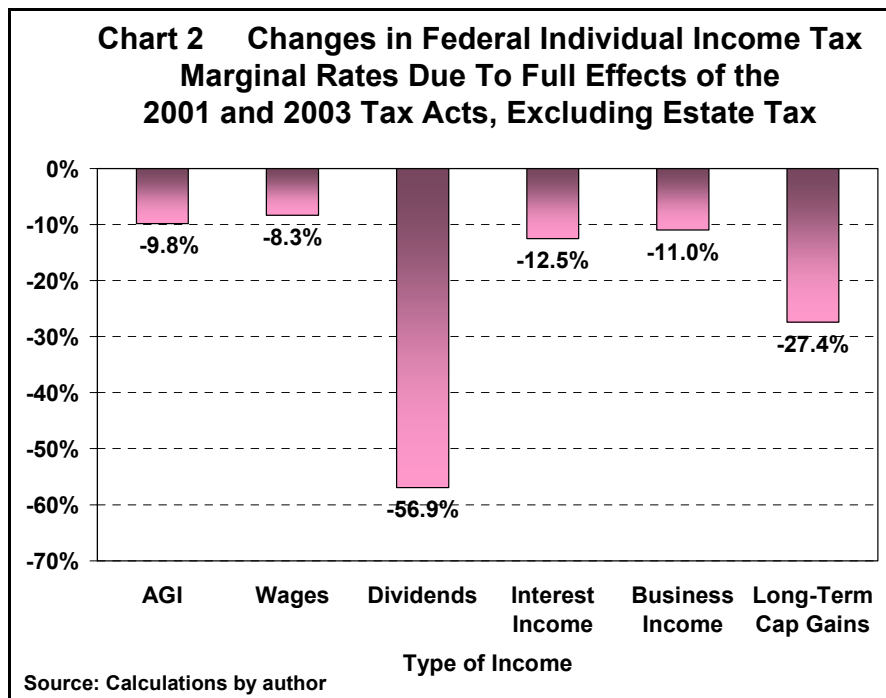
#### Combined effects of the Bush income tax changes

The full effect of the Bush business and individual income tax cuts of EGTRRA 2001 and JGTRRA 2003 is estimated assuming the cuts had been completely implemented, and allowing five to ten years for the stocks of equipment and structures to expand as a result of the Act. The total impact (excluding the estate tax) is estimated to be an increase in GDP of 8.6 percent, and in private sector output and labor income of 9.0 percent. (See Table 2 in the Appendix and Chart 1 on page 1.)

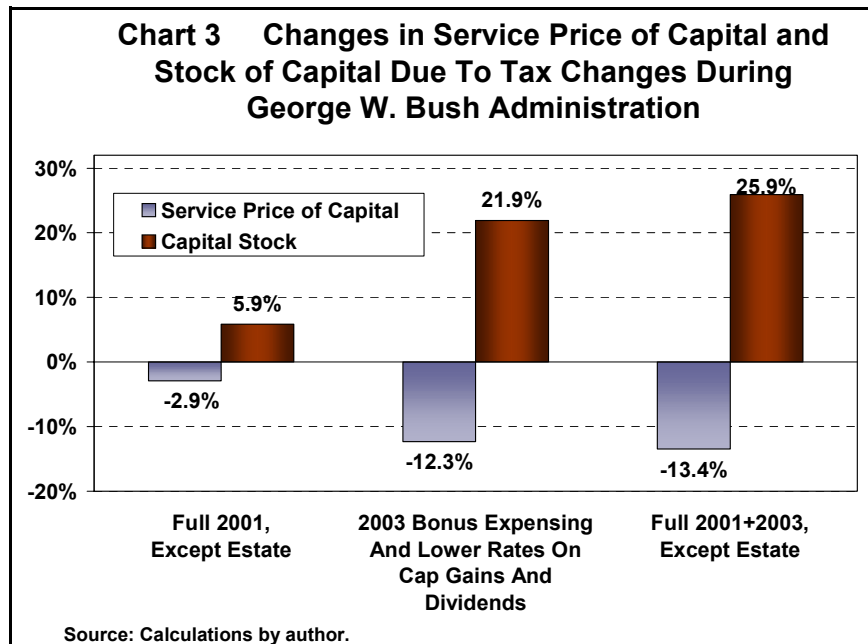
Chart 2 shows that marginal tax rates on wages fall, on average, 2.1 percentage points, or 8.3 percent of the initial rate. They fall on non-corporate business income by 3.3 percentage points, or 12.5 percent of the initial rate. The marginal rate on dividends fall 16.1 percentage points, or 56.9

percent of the initial rate. The marginal tax rate on long term capital gains fall 5.0 percentage points, or 27.4 percent of the initial rate. These last two changes decrease the tax bias against corporate income and contribute greatly to the rise in GDP.

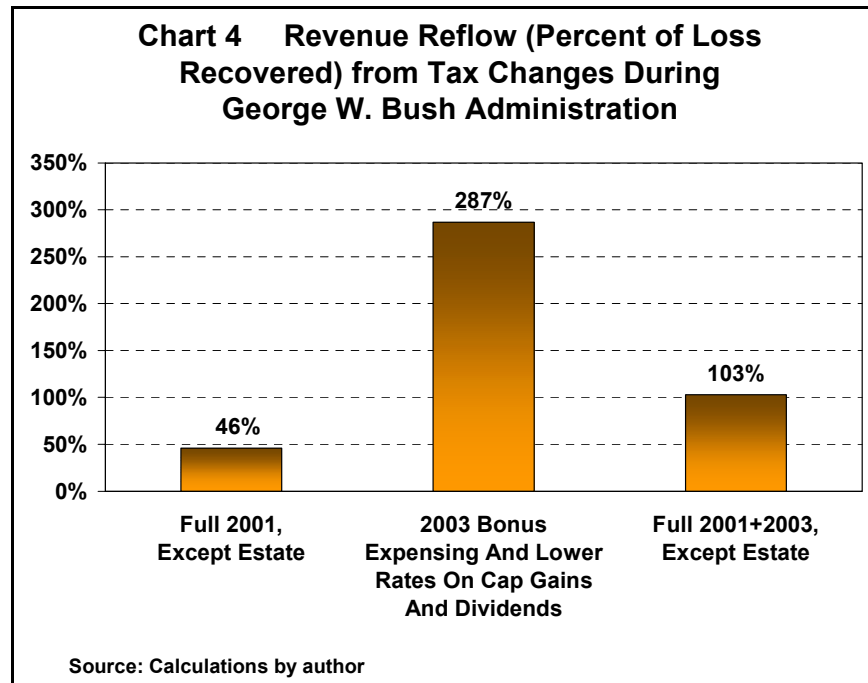
The service price of capital falls 17.3 percent in the corporate sector, and 13.4 percent over all. The service price cuts are estimated to raise the desired capital stock by 25.9 percent. (See Chart 3.)



Over time, the income tax reductions would recover 103 percent of their expected annual static revenue impact as a result of economic growth. (See Chart 4.) Instead of costing \$188.1 billion (the static revenue estimate at an annual rate), it would raise revenue by \$5 billion (after dynamic adjustments) at 2001 income levels. This revenue outcome is due to the strong effect on growth of the reductions in tax rates on dividends and long term capital gains in 2003. Allowing these provisions to expire would reduce revenue and worsen the deficit, as well as slashing people's incomes.

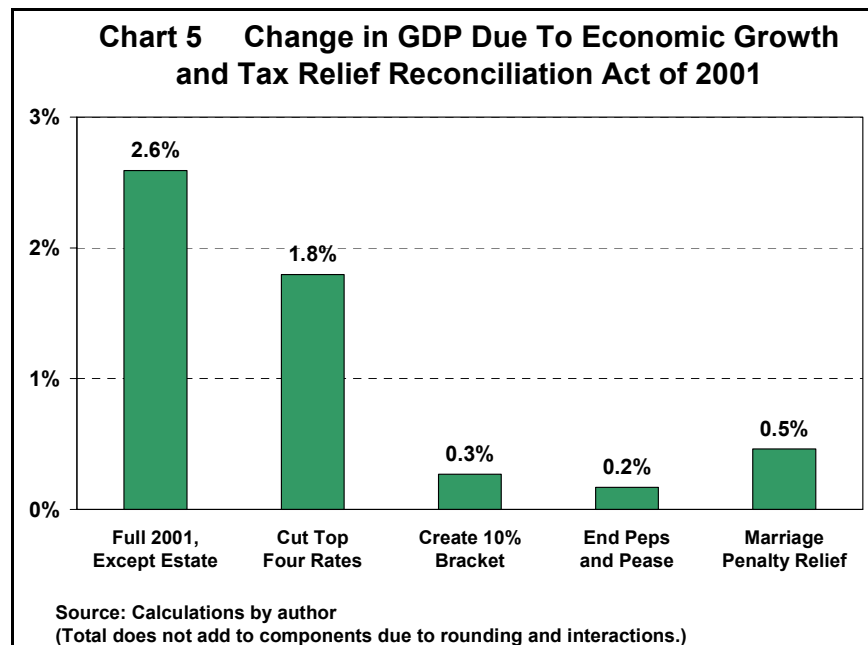


The differentials in the economic numbers presented above are long run differences. In practice, the economic improvements obtained by adopting the lower tax rates would be spread out over a decade, with the additions to GDP accruing at something less than an additional percent of growth each year. Furthermore, the tax reductions were not, in fact, adopted all at once. They were phased in, and the most important pro-growth features of the plan were not enacted until 2003.



#### Economic and budget effects of income tax changes in EGTRRA

*EGTRRA, short run.* The economic effects of the first year tax changes in EGTRRA on the economy were negligible for several reasons. The creation of the 10% percent tax bracket affected few taxpayers at the margin because most people earn enough that they are in a higher tax bracket on their last dollar of income. Only a small part of the other tax rate cuts were effective in 2001, and some provisions did not take effect at all for several years. The incentive effects of the first year were trivial. In any event, the incentive effects that drive this model would have taken several years to have their full effect on saving, capital formation, and GDP. The



Keynesian demand effects from the rate reduction credits assumed by the Bush Administration and many tax economists are a mirage, offset by increased federal borrowing.

*EGTRRA, full long run impact of income tax provisions.* The full effect of EGTRRA's income tax provisions is estimated assuming it had been completely implemented, and allowing five to ten years for the stocks of equipment and structures to expand as a result of the Act. Charts 5 and 6 display the percent changes from the baseline of GDP, and the service price of capital and the capital stock, for the bill as a whole and for individual provisions. Chart 7 displays the extent to which dynamic economic effects offset the static revenue costs of the bill and its separate provisions. (The estate tax changes are modeled and displayed separately below.)

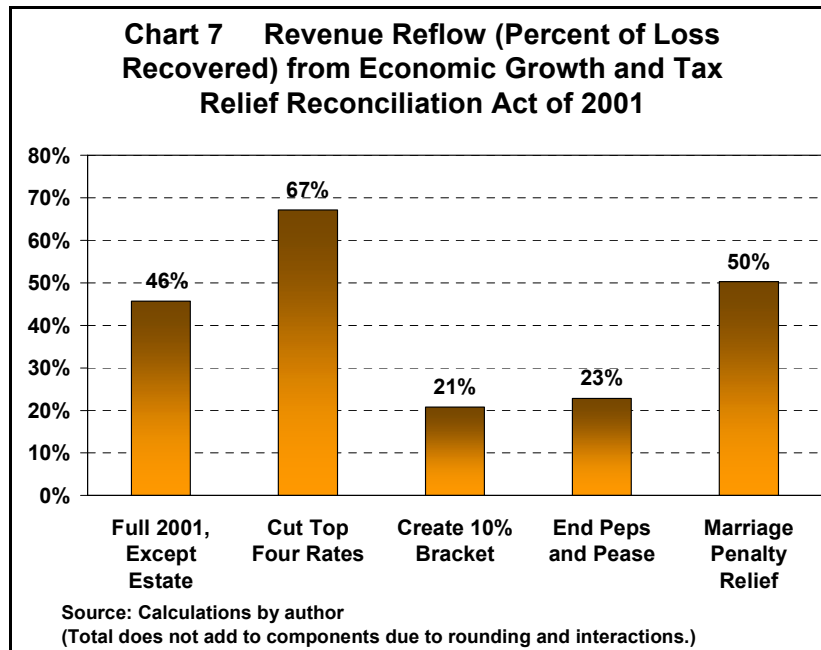
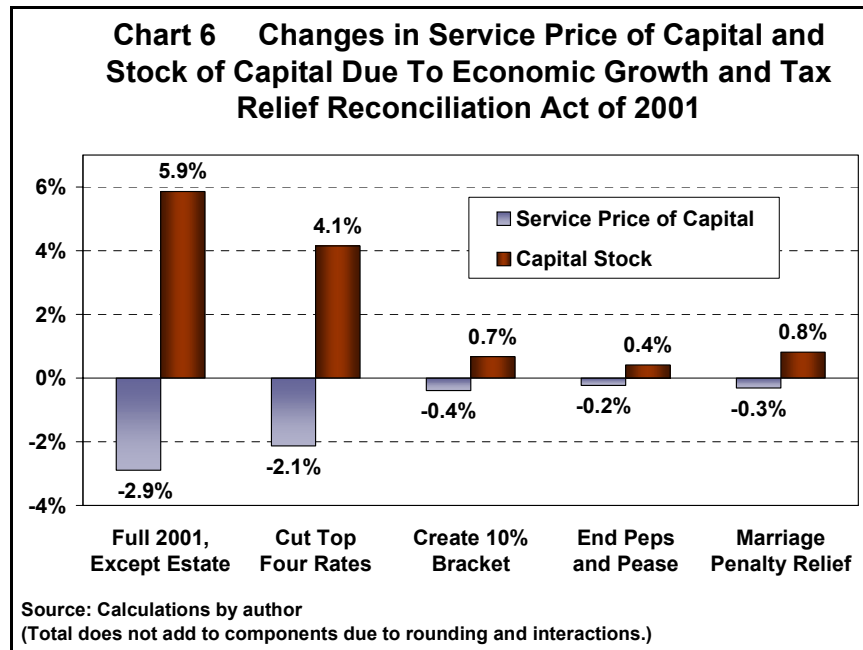
- *EGTRRA income tax changes combined (excluding the estate tax).* The combined income tax elements of EGTRRA are estimated to produce an increase in GDP of 2.6 percent, and in private sector output and labor income of 2.8 percent. (See Table 3). EGTRRA is estimated to reduce the service price of capital by 2.9 percent and raise the desired capital stock by 5.9 percent. Marginal tax rates on wages fall, on average, 2.7 percentage points, or 10.7 percent of the initial rate. They fall on non-corporate business income by 3.4 percentage points, or 11.3 percent of the initial rate. The marginal rate on dividends fall 2.8 percentage points, or 10.3 percent of the initial rate, decreasing the tax bias against corporate income.

Over time, the Act would recover 46 percent of its expected annual static revenue impact as a result of economic growth. Instead of costing \$135.8 billion (the static revenue estimate), it would cost only \$73.7 billion (after dynamic adjustments). For each dollar of dynamic revenue reduction, GDP rises \$3.61, for a net increase in after-tax income of \$4.61. (See also Chart 7.)

- *Individual top tax rate cuts and AMT exempt amount increase.* The reductions in the top four individual tax rates raises GDP by 1.8 percent. The gain in GDP recovered 67 percent of the expected static revenue loss. (Table 4.) For each dollar of dynamic revenue reduction, GDP rises \$8.58 and after-tax income rose \$9.58. Each dollar of government spending funded by top bracket taxes should be worth at least \$9.58 to be worth the cost to the public. (The AMT change had very minor effects. It is included here with the tax changes affecting upper income tax rates.)

The creation of the 10% tax bracket raises GDP by 0.3 percent, and recovered 21 percent of the expected static revenue loss (Table 5). On a dynamic basis, GDP rises \$1.06, and after-tax income rises \$2.06, for each dollar of revenue lost.

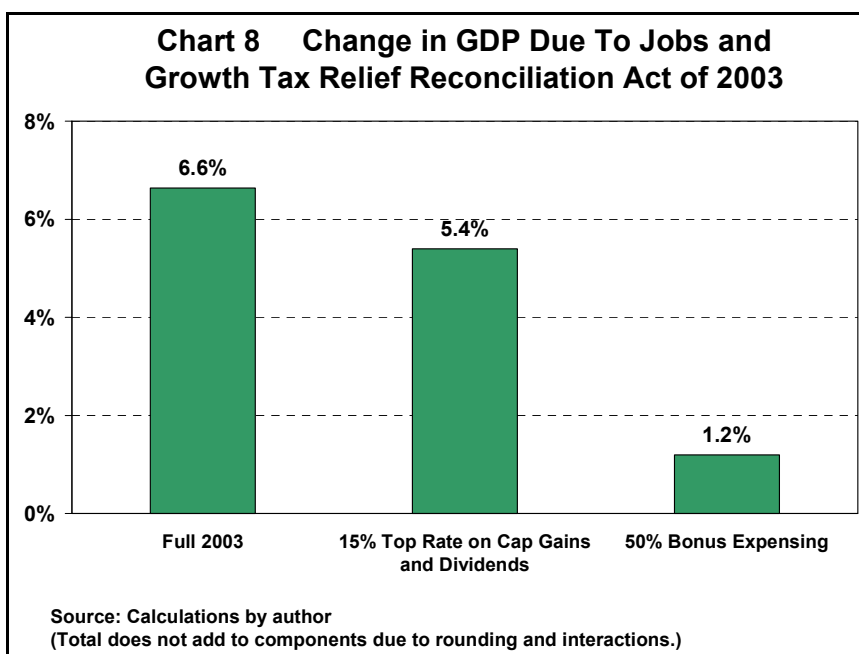
- *Peps and ease eliminated.* Ending the phase-out of the personal exemption and the limitation on itemized deductions raises GDP by 0.2 percent, and gains back about 23 percent of the expected static revenue loss (Table 6).



- *Marriage penalty relief, EITC, and child credit.* The marriage penalty relief raises GDP by 0.5 percent, and recovers 50 percent of the expected static revenue loss due to the rise in GDP. (Table 7). The provisions raise GDP by expanding the 15% bracket, which moved many couples from the bottom of the 28% bracket into the 15% tax bracket, and by expanding the standard deduction for couples, which drops some taxpayers off the tax rolls. The effect is not quite so strong as reductions in the higher bracket rates. The EITC change for married couples, which had a very minor economic effect, has been included in the estimate for the marriage penalty. The publicly available data in the IRS Statistics of Income to not provide sufficient information for us to model the child credit provision.

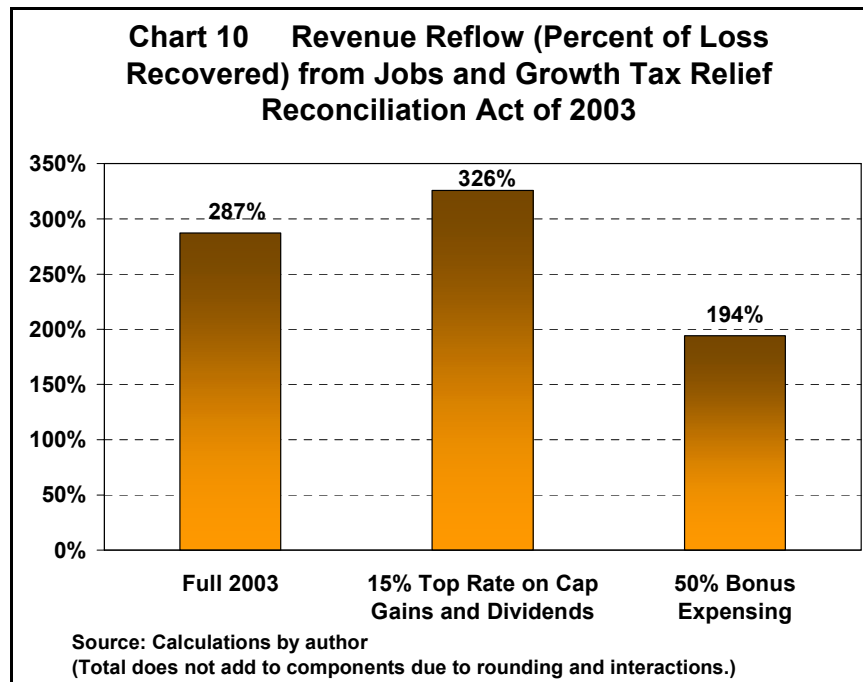
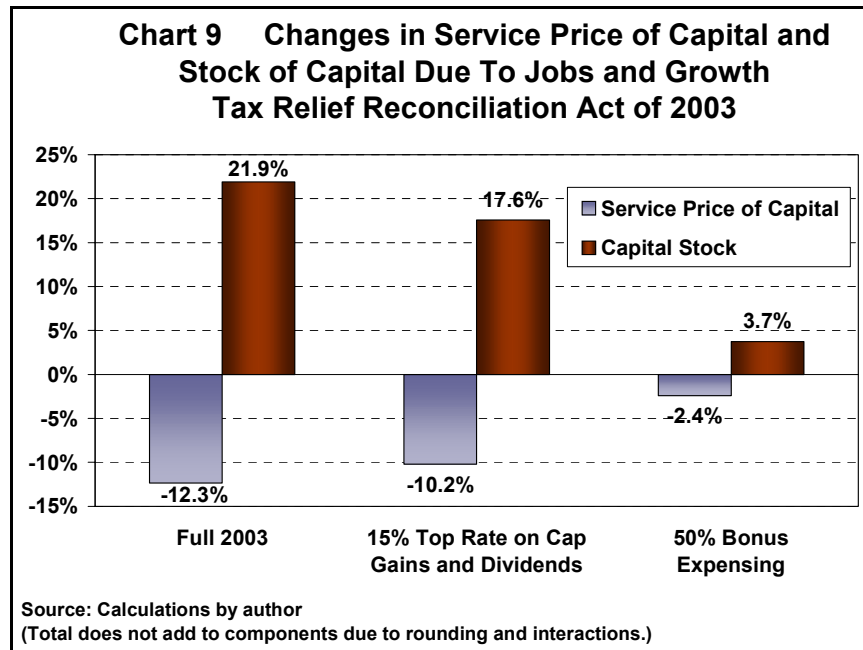
Economic and budget effects of JGTRRA 2003

JGTRRA 2003 brought forward a number of provisions of EGTRRA 2001, which we have modeled and described above. This section deals with the additional production incentives enacted or expanded in JGTRRA that cut the cost of capital and gave a major boost to the economic recovery: the capital gains and dividend relief and 50 percent bonus expensing. Their results are displayed together and then separately in Charts 8-10.

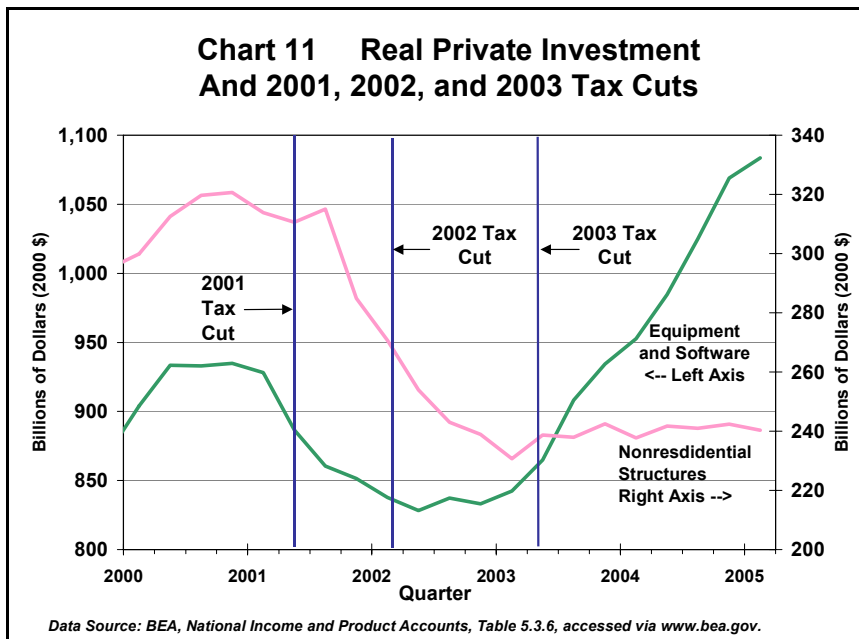


- *Effects of JGTRRA 2003 provisions not in the 2001 Act.* Together, the capital gains, dividend, and expensing provisions in JGTRRA are estimated to raise GDP by 6.6 percent, raise private sector output and labor income by 6.9 percent. The provisions reduce the service price of capital by 12.3 percent, and raise the desired stock of private capital by 21.9 percent. They regain 287 percent of the expected static revenue loss. (See Table 8.)

These are two key examples of the few types of tax reduction that can move GDP substantially and more than recover the static revenue loss with a dynamic revenue reflow. It is impossible to pay for additional government spending by eliminating these provisions, because doing so will reduce rather than raise tax revenue.

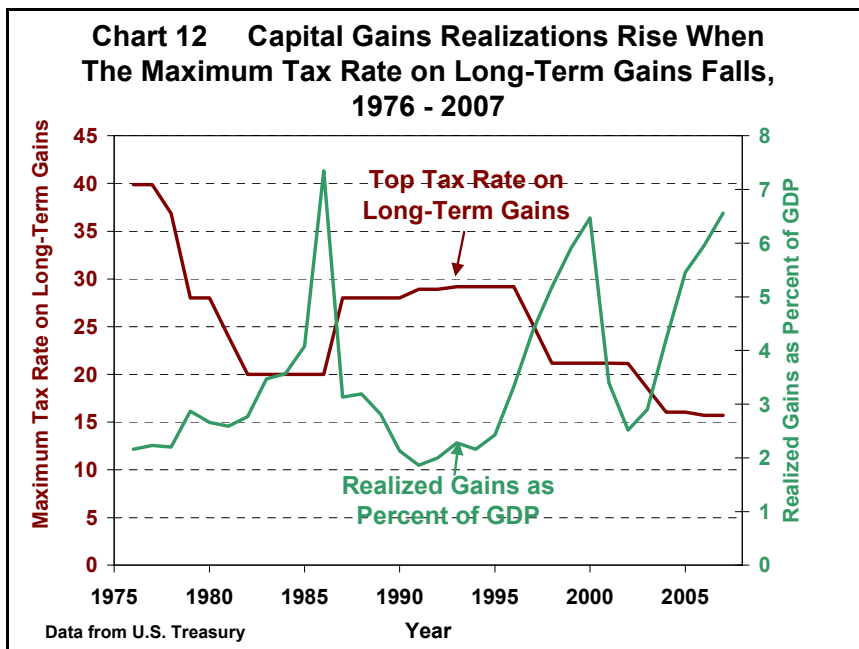


One can also see the impact of the 2003 Act in Chart 11. The 2001 recession was caused by a fall in investment spending. The 2001 tax reduction did not stop the slide. In the first year, too small a portion of the individual tax rate reductions were in force to boost non-corporate investment to any great extent. The 30 percent bonus expensing enacted in 2002 halted the decline in equipment spending. The 2003 Act sent equipment investment soaring and halted the slide in investment in structures. The changes in investment spending can be dated from the quarters in which the 2002 and 2003 tax bills became law.



- *Capital gains and qualified dividends taxed at 15%.* The capital gains and qualified dividend tax rate reductions in the 2003 Act are estimated to raise long run GDP by 5.4 percent, private sector output and labor income by 5.6 percent, and increase the capital stock by 17.6 percent. The service price in the corporate sector is reduced a significant 14.4 percent, and by 10.2 percent over all. A impressive 326 percent of the assumed revenue loss is recovered due to added GDP, making the tax cut a revenue raiser. No additional spending could be funded by letting this provision expire, because revenues would decrease. (See Table 9.)

The GDP and revenue estimates above are based on the effect of the capital gains





tax changes on economic performance. There was a further consequence of the tax rate reduction not captured by this model. Capital gains realizations are very sensitive to the tax rate. At higher tax rates, people take gains more slowly; at lower rates, they realize gains more rapidly. Chart 12 shows that realized gains jumped sharply after the tax rate was cut in 2003, and brought additional revenue into the Treasury until the recent recession. A similar jump occurred after the reductions in the capital gains tax rate in 1978 and 1981. A prolonged depression in realizations and tax revenue followed the rise in the capital gains rate in 1987 (enacted in the Tax Reform Act of 1986).<sup>3</sup>

One of the features of the Tax Reform Act of 1986 (TRA86) most admired by the traditional public finance community was its elimination of the lower, differential tax rate on capital gains. The Haig-Simons definition of income includes capital gains, with no acknowledgment that taxing capital gains is a form of double taxation. Advocates of the broad-based income tax, which derives taxable income from the Haig-Simons income concept, insist that treating capital gains as ordinary income is unbiased and helpful in raising revenue. They are wrong on both counts.

The experiences with capital gains surrounding TRA86, the Taxpayer Relief Act of 1997, and the JGTRRA of 2003 are clear proof that capital gains tax rates above 15% are likely to lose revenue due to slower realizations.<sup>4</sup> The contention that taxing capital gains is unbiased is also in error. It is clear that the tax on capital gains imposes a double tax on retained earnings of corporations (after-tax earnings kept for reinvestment that raise the value of the company and generate capital gains subject to additional tax). In fact, the capital gains tax is a form of double taxation even if the source of the gain is not related to corporate income. An asset's current value is the present value of its expected future after-tax earnings. If something causes an increase in the expected future earnings, the current price of the asset will increase. If the higher future earnings materialize, they will be taxed at that time. To tax the rise in the current price of the asset is to double tax the future earnings.

- *Enhanced expensing of equipment.* The bonus expensing of 50 percent of equipment spending, if made permanent, is estimated to raise GDP by 1.2 percent, and gain back 194 percent of the expected static revenue loss. (See Table 10.) It reduces the service price of capital by 2.4 percent, and raises the desired stock of private capital by 3.7 percent. No additional spending could be funded by letting this provision expire, because revenues would decrease.

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<sup>3</sup> The chart is based on a Treasury table detailing the history of capital gains realizations and revenue. That table is reproduced in Stephen J. Entin, "The Reagan Era Tax Policies," *IRET Policy Bulletin*, No. 102, November 11, 2011, available at <http://iret.org/pub/BLTN-102.PDF>.

<sup>4</sup> See Paul Evans, "The Relationship Between Realized Capital Gains and Their Marginal Rate of Taxation, 1976-2004," *IRET Capital Gains Series*, No. 2, October 9, 2009, available at <http://iret.org/pub/CapitalGains-2.pdf>. Evans finds a revenue maximizing tax rate for capital gains of just under 10%, taking into account only the changes in realizations behavior, and ignoring the economic gains from an even lower tax rate.

The bonus expensing provision was allowed to lapse in 2006, but was restored at 50% expensing in the Economic Stimulus Act of 2008. It was extended at that level in the American Recovery and Reinvestment Act of 2009 and the Small Business Jobs Act of 2010. It was increased to 100% for 2011 in the Tax Relief, Unemployment Insurance Reauthorization and Jobs Act of 2010 and extended at 50% for 2012, after which it will expire again. These later bills have treated the expensing provision as short run stimulus to counter the feeble recovery from the 2007-2009 recession. The provision would have more impact if it were made permanent. Additional capital is cheaper to buy while the expensing is in place, but becomes more expensive again once the expensing provision lapses. There is no permanent increase in the capital stock if the tax burden is allowed to go back up.

#### Economic and budget effects of EGTRRA estate tax changes

We assume 56% of the value of the estates subject to tax to be capital gains, based on estimates by James Poterba and Scott Weisbenner.<sup>5</sup> We also assume that 90 percent of the revenue from the estate and gift tax is from the estate tax portion, and 10 percent from the gift tax, in line with figures from recent years. The Act effectively replaces the estate tax, which formerly had a top rate of 55% plus a 5% surtax that raised the rate to 60% over a limited range of estate values, with a capital gains tax of 15% on 56 percent of the estate tax base. It also reduces the top gift tax rate to 35% from 55% on the gift tax portion. The combined effect of "eliminating" the estate tax in this framework is to reduce the marginal and effective rates to about 20 percent of their pre-Act levels.

The estate tax is a direct assault on capital, hitting principal and assets. The accumulated savings in an estate have already been taxed one or more times (or are in deferred saving plans that will be taxed when the heir accesses the money). The additional estate tax, which has a very high tax rate, greatly damages capital accumulation. Consequently, the estate tax is another one of the few taxes that probably loses revenue by reducing economic output and cutting other tax receipts by more than the tax itself brings in.

The model indicates that elimination of the estate tax (even with the substitution of a capital gains tax on the carry-over basis) would have raised GDP by 1.4 percent, and recovered 150 percent of the expected static revenue loss, creating a net dynamic revenue gain. (Table 11.) Instead of costing \$22.4 billion, the tax reduction would have raised revenue by \$11.1 billion. Nonetheless, in 2010 legislation, Congress and President Obama reinstated the estate tax in 2011, with a top rate of 35% and a credit offsetting the tax on the first \$5 million in assets, with step-up in basis at death.

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<sup>5</sup> James M. Poterba and Scott Weisbenner, *The Distributional Burden of Taxing Estates and Unrealized Capital Gains at the Time of Death*, Working Paper 7811, NBER (Cambridge, MA: National Bureau of Economic Research, July 2000), accessed at <http://www/nber.org/papers/w7811>.

### Where is the growth?

The full power of the Bush tax changes to increase GDP by more than nine percent is difficult to recognize by looking at the current performance of the economy in 2011. It is only apparent after a careful analysis of the effects of the tax packages on the service price of capital and the incentives to work and hire.

There are three reasons why the impact of the Bush tax cuts appears muted. One is that the 2001 cuts were phased in slowly, and the most pro-growth elements were not even adopted until 2003. The second reason is that the estimated effects would only occur if the public could reasonably assume that the Bush tax cuts are permanent, when, in fact, they are scheduled to expire shortly to conform to the bizarre constraints of the Budget Act of 1964. The third reason is that other events and policy changes have done severe damage to the economy in recent years, leading to another recession and retarding the recovery.

The 2001 tax program focused on individual marginal tax rate reductions, marriage penalty relief, saving incentives, and a very slow reduction in the estate tax. The largest immediate change was the issuance of checks for advance rebates against the new, lower 10% tax bracket. The Administration assumed that these pre-refunds would provide short run Keynesian stimulus to consumption spending to avert a possible recession, buying time for the supposedly longer-term "supply side" incentive effects of the deferred tax rate reductions to take hold. The Bush economic team also assumed that there would be some revenue reflow from the short run stimulus to spend later on business investment incentives that were too difficult to explain or sell during the election campaign.

Both assumptions proved false. As Milton Friedman would have warned, there was no noticeable stimulus from the rebate-like introductory stages of the tax program. It did not fend off the 2001 recession. The Administration had to proceed with the 2003 tax reductions to get the economy moving faster in spite of the concerns over the budget. Once the full 2001 and 2003 tax changes were in place, however, the economic recovery strengthened markedly.

The period of stronger growth, 2003-2007, was brought to a halt by a series of policy errors. Over-reliance on the Federal Reserve to fight the 2001 recession with easy money led to a commodity and housing bubble. Congress encouraged Fannie Mae and Freddie Mac to lower lending standards to boost home ownership by people who could not afford it. Private lenders jumped on the same bandwagon. New types of mortgage-backed securities picked up vast quantities of sub-prime loans and hid the risk that was building in the system. The credit ratings agencies, the risk assessment officers in the financial institutions, and the securities regulators at the SEC failed to see the potential dangers in time. The result was serious over-building and an eventual collapse in housing prices. The ensuing financial crisis was the major cause of the 2007-2009 recession.

There were other factors depressing investment and output. Regulations have been issued in droves, some relating to the financial crisis, some to the environment, imposing additional costs on production and hiring. In response to the financial crisis and recession, the government spent hundreds of billions of dollars on bank and industrial bail-outs, and hundreds of billions more on two major stimulus packages. It has also enacted large future increases in spending and taxes for health care reform (the Patient Protection and Affordable Care Act). Government spending does not add to national output and employment. Rather, it redirects resources from the private sector to the public sector, away from the creation of goods and services that people want to buy to the provision of government services and activities of indeterminate value.

The rising budget deficits, due in part to the recession, and in part to the spending surges, have made it likely that there are significant tax increases ahead. That prospect discourages investment and hiring in the present.

## **Conclusion**

President George W. Bush delivered a set of tax rate adjustments that encourage significant increases in capital formation and work effort. The package has the potential to add more than nine percent to GDP over time. As a whole, the Bush tax program is roughly as pro-growth as President Kennedy's business and individual tax cuts, and President Reagan's 1981 tax rate reductions and investment incentives. Like these preceding reforms, the Bush package reduces the service price of capital, and lowers marginal tax rates on income from investment, saving, and work. In particular, it reduces the tax biases against corporate income (by reducing the shareholder level taxes on capital gains and dividends) and capital intensive industries (by moving toward expensing). If the Bush tax reductions are allowed to lapse, these gains would be lost.

Congress is considering using tax reform as part of a package, along with spending restraint, to deal with the deficit problem. The idea is to eliminate tax provisions that distort economic activity in exchange for lower tax rates. Supposedly, such a shift from a more distorting to a less distorting tax system would permit the collection of more revenue without harming the economy. The difficulty with that exercise is that there are conflicting ideas as to how taxes affect economic behavior, and what an ideal tax and spending program should look like.

It is easy to create a pro-growth tax program if a net tax cut is allowed. Some of the tax cut could be given away in the form of Keynesian hand-outs, hoping they would boost after-tax income and promote consumption (in the face of much evidence to the contrary). Some of the cut could be structured to improve production incentives at the margin (which worked well for Kennedy in the 1960s, Reagan in 1981, and Bush in 2003). With a net tax cut, Congress could try the remedies proposed by both schools of thought in the hope that one or both would do some good.

Currently, however, there is great pressure to raise revenue, or at least, not to reduce it. The tax reform process would be hobbled by the need to raise some taxes to lower others, and by the prevalent but misguided notion that government spending raises rather than reduces GDP and should not be trimmed to cut taxes. Some members of Congress and the public finance community are more interested in income redistribution than in economic growth. Some are misinformed about which tax changes are pro-growth and which are not, and the relative strength of each.

In considering tax legislation, Congress is hobbled by the reliance on static revenue estimation and the lack of dynamic revenue scoring. The Congressional Budget Office, the Joint Tax Committee, and the Treasury do not inform the tax writing committees of the effect of proposed tax changes on the service price of capital and the incentive to work or hire, which are the real channels through which taxes affect the economy. In the absence of adequate analysis, Congress could learn from history. The varied tax changes of the 1961-2011 period, some of which were highly favorable for growth and some of which were highly destructive, may serve as examples to the Congress of what approaches to tax reform would benefit employment and growth, and which would not.

Stephen J. Entin  
President and Executive Director

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**APPENDIX  
TABLES 1 - 11**

<b>Table 1</b>					
<b>2011 Tax Rate Schedules In Current Law</b>					
<b>Versus Pre-Bush Law</b>					
<b>The Bush Tax Cuts expire at the end of 2012. Unless Congress extends them, Tax Schedules will then revert to Pre-Bush Law.</b>					
<b>SINGLE FILERS</b>					
<b>Pre-Bush Law</b>			<b>Current Law</b>		
Brackets		Rates	Brackets		Rates
From	To		From	To	
0	34,500	15.0%	0	8,500	10.0%
34,500	83,600	28.0%	8,500	34,500	15.0%
83,600	174,400	31.0%	34,500	83,600	25.0%
174,400	379,150	36.0%	83,600	174,400	28.0%
379,150	-----	39.6%	174,400	379,150	33.0%
			379,150	-----	35.0%
<b>COUPLES FILING JOINTLY</b>					
<b>Pre-Bush Law</b>			<b>Current Law</b>		
Brackets		Rates	Brackets		Rates
From	To		From	To	
0	57,500	15.0%	0	17,000	10.0%
57,500	139,350	28.0%	8,500	69,000	15.0%
139,350	212,300	31.0%	34,500	139,350	25.0%
212,300	379,150	36.0%	83,600	212,300	28.0%
379,150	-----	39.6%	174,400	379,150	33.0%
			379,150	-----	35.0%

**Table 2**  
**FULL EGTRRA 2001 AND JGTRRA, EXCEPT ESTATE TAX**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	GW Bush	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$11,167.1	\$881.0	8.6%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,861.3	\$648.2	9.0%
Compensation of employees	\$4,950.0	\$5,394.8	\$444.8	9.0%
Gross capital income	\$2,263.2	\$2,466.6	\$203.4	9.0%
Private Business Stocks	\$17,001.9	\$21,408.8	\$4,406.9	25.9%
Wage rate \$/hr	\$25.55	\$27.11	\$1.6	6.1%
Private business hours of work (billions)	193.748	199.013	5.265	2.7%
Total government receipts (\$billions)	\$3,153.9	\$3,285.3	\$131.4	4.2%
Federal	\$2,048.2	\$2,053.4	\$5.2	0.3%
State & local	\$1,423.5	\$1,549.7	\$126.3	8.9%
Total Federal expenditures	\$2,019.8	\$2,046.0	\$26.2	1.3%
Federal surplus (+) or deficit (-)	\$28.4	\$7.4	-\$21.0	-73.9%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	23.3%	-2.5%	-9.8%
Federal marginal tax rates on wages	25.2%	23.1%	-2.1%	-8.3%
Federal marginal tax rates on dividends	28.3%	12.2%	-16.1%	-56.9%
Federal marginal tax rates on interest income	26.7%	23.4%	-3.3%	-12.5%
Federal marginal tax rates on business income	30.2%	26.9%	-3.3%	-11.0%
Federal marginal tax rates on long-term capital gains	18.3%	13.3%	-5.0%	-27.4%
<b>Weighted average service price</b>				
Corporate	14.8%	12.2%	-2.5%	-17.3%
Noncorporate	12.4%	12.0%	-0.5%	-3.8%
All business	14.0%	12.1%	-1.9%	-13.4%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$188.1	100%
"Dynamic" federal tax reflow from economic changes			\$193.3	-103%
Net federal tax change after dynamic effects			\$5.2	-3%
Federal outlay change if federal pay tracks private wages			\$26.2	-14%
Change in federal surplus (- is larger deficit, smaller surplus)			-\$21.0	11%
<b>Comparing change in GDP to change in tax revenue*</b>				
		GDP Change	Change per dollar	Change per dollar
		\$ Billions	Static	Dynamic
Rise in GDP, total, and per \$1 reduction in federal revenue		\$881.0	\$4.68	N/A
Rise in after-tax income, total, and per \$1 reduction in federal revenue		\$875.8	\$4.66	N/A
Revenue loss to government from tax cut that raises after-tax income \$1.			\$0.21	N/A

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.

**Table 3**  
**FULL EGTRRA 2001, EXCEPT ESTATE TAX**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	EGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,552.6	\$266.5	2.6%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,414.3	\$201.2	2.8%
Compensation of employees	\$4,950.0	\$5,088.0	\$138.0	2.8%
Gross capital income	\$2,263.2	\$2,326.3	\$63.1	2.8%
Private Business Stocks	\$17,001.9	\$17,997.0	\$995.0	5.9%
Wage rate \$/hr	\$25.55	\$25.85	\$0.3	1.2%
Private business hours of work (billions)	193.748	196.837	3.089	1.6%
Total government receipts (\$billions)	\$3,153.9	\$3,116.5	-\$37.4	-1.2%
Federal	\$2,048.2	\$1,974.5	-\$73.7	-3.6%
State & local	\$1,423.5	\$1,459.9	\$36.4	2.6%
Total Federal expenditures	\$2,019.8	\$2,026.2	\$6.4	0.3%
Federal surplus (+) or deficit (-)	\$28.4	-\$51.7	-\$80.1	-282.0%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	23.0%	-2.8%	-10.9%
Federal marginal tax rates on wages	25.2%	22.5%	-2.7%	-10.7%
Federal marginal tax rates on dividends	28.3%	25.6%	-2.7%	-9.6%
Federal marginal tax rates on interest income	26.7%	24.0%	-2.8%	-10.3%
Federal marginal tax rates on business income	30.2%	26.8%	-3.4%	-11.3%
Federal marginal tax rates on long-term capital gains	18.3%	17.5%	-0.8%	-4.2%
<b>Weighted average service price</b>				
Corporate	14.8%	14.3%	-0.4%	-2.8%
Noncorporate	12.4%	12.1%	-0.4%	-3.1%
All business	14.0%	13.6%	-0.4%	-2.9%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$135.8	100%
"Dynamic" federal tax reflow from economic changes			\$62.1	-46%
Net federal tax change after dynamic effects			-\$73.7	54%
Federal outlay change if federal pay tracks private wages			\$6.4	-5%
Change in federal surplus (- is larger deficit, smaller surplus)			-\$80.1	59%
<b>Comparing change in GDP to change in tax revenue*</b>				
	GDP Change	Change per dollar	Change per dollar	
	\$ Billions	Static	Dynamic	
Rise in GDP, total, and per \$1 reduction in federal revenue	\$266.5	\$1.96	\$3.61	
Rise in after-tax income, total, and per \$1 reduction in federal revenue	\$340.2	\$2.50	\$4.61	
Revenue loss to government from tax cut that raises after-tax income \$1.		\$0.40	\$0.22	

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.



**Table 4**  
**EGTRRA - LOWER FOUR TOP RATES AND RAISE AMT EXEMPTION**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	EGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,470.9	\$184.8	1.8%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,352.3	\$139.1	1.9%
Compensation of employees	\$4,950.0	\$5,045.4	\$95.5	1.9%
Gross capital income	\$2,263.2	\$2,306.8	\$43.7	1.9%
Private Business Stocks	\$17,001.9	\$17,707.5	\$705.6	4.1%
Wage rate \$/hr	\$25.55	\$25.77	\$0.2	0.9%
Private business hours of work (billions)	193.748	195.799	2.051	1.1%
Total government receipts (\$billions)	\$3,153.9	\$3,157.7	\$3.8	0.1%
Federal	\$2,048.2	\$2,026.7	-\$21.5	-1.1%
State & local	\$1,423.5	\$1,448.8	\$25.3	1.8%
Total Federal expenditures	\$2,019.8	\$2,024.3	\$4.5	0.2%
Federal surplus (+) or deficit (-)	\$28.4	\$2.3	-\$26.1	-91.8%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	24.0%	-1.8%	-7.1%
Federal marginal tax rates on wages	25.2%	23.4%	-1.7%	-6.9%
Federal marginal tax rates on dividends	28.3%	26.3%	-2.1%	-7.3%
Federal marginal tax rates on interest income	26.7%	24.9%	-1.8%	-6.9%
Federal marginal tax rates on business income	30.2%	27.5%	-2.7%	-8.9%
Federal marginal tax rates on long-term capital gains	18.3%	18.4%	0.1%	0.4%
<b>Weighted average service price</b>				
Corporate	14.8%	14.5%	-0.3%	-2.0%
Noncorporate	12.4%	12.1%	-0.3%	-2.4%
All business	14.0%	13.7%	-0.3%	-2.1%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$65.7	100%
"Dynamic" federal tax reflow from economic changes			\$44.1	-67%
Net federal tax change after dynamic effects			-\$21.5	33%
Federal outlay change if federal pay tracks private wages			\$4.5	-7%
Change in federal surplus (- is larger deficit, smaller surplus)			-\$26.1	40%
<b>Comparing change in GDP to change in tax revenue*</b>				
	GDP Change	Change per dollar	Change per dollar	
	\$ Billions	Static	Dynamic	
Rise in GDP, total, and per \$1 reduction in federal revenue	\$184.8	\$2.81	\$8.58	
Rise in after-tax income, total, and per \$1 reduction in federal revenue	\$206.3	\$3.14	\$9.58	
Revenue loss to government from tax cut that raises after-tax income \$1.		\$0.32	\$0.10	

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.

**Table 5**  
**EGTRRA - 10% TAX BRACKET**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	EGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,314.0	\$27.8	0.3%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,233.9	\$20.7	0.3%
Compensation of employees	\$4,950.0	\$4,964.2	\$14.2	0.3%
Gross capital income	\$2,263.2	\$2,269.7	\$6.5	0.3%
Private Business Stocks	\$17,001.9	\$17,116.7	\$114.8	0.7%
Wage rate \$/hr	\$25.55	\$25.59	\$0.0	0.2%
Private business hours of work (billions)	193.748	193.999	0.251	0.1%
Total government receipts (\$billions)	\$3,153.9	\$3,131.6	-\$22.3	-0.7%
Federal	\$2,048.2	\$2,022.1	-\$26.2	-1.3%
State & local	\$1,423.5	\$1,427.4	\$3.9	0.3%
Total Federal expenditures	\$2,019.8	\$2,020.6	\$0.7	0.0%
Federal surplus (+) or deficit (-)	\$28.4	\$1.5	-\$26.9	-94.7%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	25.6%	-0.2%	-0.9%
Federal marginal tax rates on wages	25.2%	25.0%	-0.2%	-0.7%
Federal marginal tax rates on dividends	28.3%	28.0%	-0.3%	-1.1%
Federal marginal tax rates on interest income	26.7%	26.3%	-0.4%	-1.7%
Federal marginal tax rates on business income	30.2%	30.0%	-0.2%	-0.6%
Federal marginal tax rates on long-term capital gains	18.3%	17.7%	-0.7%	-3.6%
<b>Weighted average service price</b>				
Corporate	14.8%	14.7%	-0.1%	-0.5%
Noncorporate	12.4%	12.4%	-0.0%	-0.2%
All business	14.0%	14.0%	-0.1%	-0.4%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$33.0	100%
"Dynamic" federal tax reflow from economic changes			\$6.9	-21%
Net federal tax change after dynamic effects			-\$26.2	79%
Federal outlay change if federal pay tracks private wages			\$0.7	-2%
Change in federal surplus (- is larger deficit, smaller surplus)			-\$26.9	82%
<b>Comparing change in GDP to change in tax revenue*</b>				
	GDP Change	Change per dollar	Change per dollar	
	\$ Billions	Static	Dynamic	
Rise in GDP, total, and per \$1 reduction in federal revenue	\$27.8	\$0.84	\$1.06	
Rise in after-tax income, total, and per \$1 reduction in federal revenue	\$54.0	\$1.63	\$2.06	
Revenue loss to government from tax cut that raises after-tax income \$1.		\$0.61	\$0.48	

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.

**Table 6**  
**EGTRRA - END PEPS AND PEASE**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	EGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,303.7	\$17.5	0.2%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,226.3	\$13.1	0.2%
Compensation of employees	\$4,950.0	\$4,959.0	\$9.0	0.2%
Gross capital income	\$2,263.2	\$2,267.3	\$4.1	0.2%
Private Business Stocks	\$17,001.9	\$17,071.7	\$69.8	0.4%
Wage rate \$/hr	\$25.55	\$25.57	\$0.0	0.1%
Private business hours of work (billions)	193.748	193.924	0.177	0.1%
Total government receipts (\$billions)	\$3,153.9	\$3,141.7	-\$12.2	-0.4%
Federal	\$2,048.2	\$2,033.7	-\$14.6	-0.7%
State & local	\$1,423.5	\$1,425.9	\$2.4	0.2%
Total Federal expenditures	\$2,019.8	\$2,020.3	\$0.5	0.0%
Federal surplus (+) or deficit (-)	\$28.4	\$13.4	-\$15.0	-52.8%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	25.6%	-0.2%	-0.7%
Federal marginal tax rates on wages	25.2%	25.0%	-0.1%	-0.5%
Federal marginal tax rates on dividends	28.3%	28.2%	-0.2%	-0.7%
Federal marginal tax rates on interest income	26.7%	26.6%	-0.1%	-0.6%
Federal marginal tax rates on business income	30.2%	29.9%	-0.3%	-1.0%
Federal marginal tax rates on long-term capital gains	18.3%	18.2%	-0.1%	-0.4%
<b>Weighted average service price</b>				
Corporate	14.8%	14.7%	-0.0%	-0.2%
Noncorporate	12.4%	12.4%	-0.0%	-0.3%
All business	14.0%	14.0%	-0.0%	-0.2%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$18.9	100%
"Dynamic" federal tax reflow from economic changes			\$4.3	-23%
Net federal tax change after dynamic effects			-\$14.6	77%
Federal outlay change if federal pay tracks private wages			\$0.5	-2%
Change in federal surplus (- is larger deficit, smaller surplus)			-\$15.0	80%
<b>Comparing change in GDP to change in tax revenue*</b>				
	GDP Change	Change per dollar	Change per dollar	
	\$ Billions	Static	Dynamic	
Rise in GDP, total, and per \$1 reduction in federal revenue	\$17.5	\$0.93	\$1.20	
Rise in after-tax income, total, and per \$1 reduction in federal revenue	\$32.1	\$1.70	\$2.20	
Revenue loss to government from tax cut that raises after-tax income \$1.		\$0.59	\$0.45	

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.

**Table 7**  
**EGTRRA - END MARRIAGE PENALTY AND EITC CHANGE**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	EGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,333.7	\$47.6	0.5%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,249.8	\$36.6	0.5%
Compensation of employees	\$4,950.0	\$4,975.1	\$25.1	0.5%
Gross capital income	\$2,263.2	\$2,274.7	\$11.5	0.5%
Private Business Stocks	\$17,001.9	\$17,140.7	\$138.8	0.8%
Wage rate \$/hr	\$25.55	\$25.58	\$0.0	0.1%
Private business hours of work (billions)	193.748	194.503	0.755	0.4%
Total government receipts (\$billions)	\$3,153.9	\$3,148.1	-\$5.8	-0.2%
Federal	\$2,048.2	\$2,036.3	-\$11.9	-0.6%
State & local	\$1,423.5	\$1,429.7	\$6.2	0.4%
Total Federal expenditures	\$2,019.8	\$2,020.7	\$0.9	0.0%
Federal surplus (+) or deficit (-)	\$28.4	\$15.5	-\$12.9	-45.3%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	25.1%	-0.7%	-2.6%
Federal marginal tax rates on wages	25.2%	24.4%	-0.8%	-3.0%
Federal marginal tax rates on dividends	28.3%	28.1%	-0.3%	-1.0%
Federal marginal tax rates on interest income	26.7%	26.3%	-0.4%	-1.6%
Federal marginal tax rates on business income	30.2%	29.8%	-0.4%	-1.2%
Federal marginal tax rates on long-term capital gains	18.3%	18.2%	-0.1%	-0.7%
<b>Weighted average service price</b>				
Corporate	14.8%	14.7%	-0.0%	-0.3%
Noncorporate	12.4%	12.4%	-0.0%	-0.3%
All business	14.0%	14.0%	-0.0%	-0.3%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$24.0	100%
"Dynamic" federal tax reflow from economic changes			\$12.1	-50%
Net federal tax change after dynamic effects			-\$11.9	50%
Federal outlay change if federal pay tracks private wages			\$0.9	-4%
Change in federal surplus (- is larger deficit, smaller surplus)			-\$12.9	54%
<b>Comparing change in GDP to change in tax revenue*</b>				
	GDP Change	Change per dollar	Change per dollar	
	\$ Billions	Static	Dynamic	
Rise in GDP, total, and per \$1 reduction in federal revenue	\$47.6	\$1.98	\$3.98	
Rise in after-tax income, total, and per \$1 reduction in federal revenue	\$59.5	\$2.48	\$4.98	
Revenue loss to government from tax cut that raises after-tax income \$1.		\$0.40	\$0.20	

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.

**Table 8**  
**EGTRRA - END ESTATE TAX**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	EGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,425.7	\$139.5	1.4%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,314.4	\$101.2	1.4%
Compensation of employees	\$4,950.0	\$5,019.4	\$69.5	1.4%
Gross capital income	\$2,263.2	\$2,294.9	\$31.8	1.4%
Private Business Stocks	\$17,001.9	\$17,725.3	\$723.4	4.3%
Wage rate \$/hr	\$25.55	\$25.84	\$0.3	1.2%
Private business hours of work (billions)	193.748	194.224	0.476	0.2%
Total government receipts (\$billions)	\$3,153.9	\$3,185.7	\$31.8	1.0%
Federal	\$2,048.2	\$2,059.3	\$11.1	0.5%
State & local	\$1,423.5	\$1,444.2	\$20.7	1.5%
Total Federal expenditures	\$2,019.8	\$2,024.4	\$4.6	0.2%
Federal surplus (+) or deficit (-)	\$28.4	\$35.0	\$6.5	23.1%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	26.0%	0.2%	0.6%
Federal marginal tax rates on wages	25.2%	25.3%	0.2%	0.7%
Federal marginal tax rates on dividends	28.3%	28.4%	0.1%	0.3%
Federal marginal tax rates on interest income	26.7%	26.8%	0.1%	0.4%
Federal marginal tax rates on business income	30.2%	30.3%	0.1%	0.4%
Federal marginal tax rates on long-term capital gains	18.3%	18.3%	0.0%	0.2%
<b>Weighted average service price</b>				
Corporate	14.8%	14.3%	-0.4%	-2.9%
Noncorporate	12.4%	12.2%	-0.3%	-2.2%
All business	14.0%	13.6%	-0.4%	-2.7%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$22.4	100%
"Dynamic" federal tax reflow from economic changes			\$33.5	-150%
Net federal tax change after dynamic effects			\$11.1	-50%
Federal outlay change if federal pay tracks private wages			\$4.6	-20%
Change in federal surplus (- is larger deficit, smaller surplus)			\$6.5	-29%
<b>Comparing change in GDP to change in tax revenue*</b>				
	GDP Change	Change per dollar	Change per dollar	
	\$ Billions	Static	Dynamic	
Rise in GDP, total, and per \$1 reduction in federal revenue	\$139.5	\$6.24	N/A	
Rise in after-tax income, total, and per \$1 reduction in federal revenue	\$128.4	\$5.74	N/A	
Revenue loss to government from tax cut that raises after-tax income \$1.		\$0.17	N/A	

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.

**Table 9**  
**JGTRRA - 2003 BONUS EXPENSING AND LOWER RATES ON CAP GAINS AND DIVIDENDS**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	JGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,969.0	\$682.8	6.6%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,708.9	\$495.8	6.9%
Compensation of employees	\$4,950.0	\$5,290.2	\$340.2	6.9%
Gross capital income	\$2,263.2	\$2,418.7	\$155.6	6.9%
Private Business Stocks	\$17,001.9	\$20,727.2	\$3,725.2	21.9%
Wage rate \$/hr	\$25.55	\$26.98	\$1.4	5.6%
Private business hours of work (billions)	193.748	196.096	2.348	1.2%
Total government receipts (\$billions)	\$3,153.9	\$3,358.3	\$204.5	6.5%
Federal	\$2,048.2	\$2,153.1	\$104.9	5.1%
State & local	\$1,423.5	\$1,523.0	\$99.5	7.0%
Total Federal expenditures	\$2,019.8	\$2,042.1	\$22.3	1.1%
Federal surplus (+) or deficit (-)	\$28.4	\$111.1	\$82.7	291.0%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	26.2%	0.4%	1.7%
Federal marginal tax rates on wages	25.2%	25.9%	0.8%	3.0%
Federal marginal tax rates on dividends	28.3%	12.5%	-15.8%	-55.9%
Federal marginal tax rates on interest income	26.7%	26.2%	-0.5%	-1.9%
Federal marginal tax rates on business income	30.2%	30.4%	0.2%	0.7%
Federal marginal tax rates on long-term capital gains	18.3%	14.3%	-4.0%	-22.1%
<b>Weighted average service price</b>				
Corporate	14.8%	12.3%	-2.5%	-16.9%
Noncorporate	12.4%	12.3%	-0.1%	-0.8%
All business	14.0%	12.3%	-1.7%	-12.3%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$56.1	100%
"Dynamic" federal tax reflow from economic changes			\$161.0	-287%
Net federal tax change after dynamic effects			\$104.9	-187%
Federal outlay change if federal pay tracks private wages			\$22.3	-40%
Change in federal surplus (- is larger deficit, smaller surplus)			\$82.7	-147%
<b>Comparing change in GDP to change in tax revenue*</b>				
		GDP Change	Change per dollar	Change per dollar
		\$ Billions	Static	Dynamic
Rise in GDP, total, and per \$1 reduction in federal revenue		\$682.8	\$12.17	N/A
Rise in after-tax income, total, and per \$1 reduction in federal revenue		\$577.9	\$10.30	N/A
Revenue loss to government from tax cut that raises after-tax income \$1.			\$0.10	N/A

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.

**Table 10**  
**JGTRRA - 15% TOP RATE ON CAPITAL GAINS AND DIVIDENDS**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	JGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,841.1	\$554.9	5.4%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,616.1	\$402.9	5.6%
Compensation of employees	\$4,950.0	\$5,226.5	\$276.5	5.6%
Gross capital income	\$2,263.2	\$2,389.6	\$126.4	5.6%
Private Business Stocks	\$17,001.9	\$19,991.1	\$2,989.1	17.6%
Wage rate \$/hr	\$25.55	\$26.71	\$1.2	4.5%
Private business hours of work (billions)	193.748	195.671	1.923	1.0%
Total government receipts (\$billions)	\$3,153.9	\$3,329.5	\$175.6	5.6%
Federal	\$2,048.2	\$2,140.4	\$92.2	4.5%
State & local	\$1,423.5	\$1,506.9	\$83.5	5.9%
Total Federal expenditures	\$2,019.8	\$2,037.9	\$18.1	0.9%
Federal surplus (+) or deficit (-)	\$28.4	\$102.5	\$74.1	260.7%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	26.1%	0.3%	1.3%
Federal marginal tax rates on wages	25.2%	25.8%	0.6%	2.4%
Federal marginal tax rates on dividends	28.3%	12.5%	-15.9%	-56.1%
Federal marginal tax rates on interest income	26.7%	26.1%	-0.6%	-2.3%
Federal marginal tax rates on business income	30.2%	30.5%	0.3%	1.0%
Federal marginal tax rates on long-term capital gains	18.3%	14.2%	-4.1%	-22.2%
<b>Weighted average service price</b>				
Corporate	14.8%	12.6%	-2.1%	-14.4%
Noncorporate	12.4%	12.5%	-0.0%	0.3%
All business	14.0%	12.6%	-1.4%	-10.2%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$40.8	100%
"Dynamic" federal tax reflow from economic changes			\$133.0	-326%
Net federal tax change after dynamic effects			\$92.2	-226%
Federal outlay change if federal pay tracks private wages			\$18.1	-44%
Change in federal surplus (- is larger deficit, smaller surplus)			\$74.1	-181%
<b>Comparing change in GDP to change in tax revenue*</b>				
		GDP Change	Change per dollar	Change per dollar
		\$ Billions	Static	Dynamic
Rise in GDP, total, and per \$1 reduction in federal revenue		\$554.9	\$13.59	N/A
Rise in after-tax income, total, and per \$1 reduction in federal revenue		\$462.8	\$11.33	N/A
Revenue loss to government from tax cut that raises after-tax income \$1.			\$0.09	N/A

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.

**Table 11**  
**JGTRRA - 50% BONUS EXPENSING**  
**Bush vs. pre-Bush Law, at 2001 Income Levels**

	Old Law	JGTRRA	Difference	% Diff
Gross domestic product (\$ billions)	\$10,286.2	\$10,408.7	\$122.6	1.2%
Private business output (less indirect taxes plus subsidies)	\$7,213.2	\$7,302.1	\$88.9	1.2%
Compensation of employees	\$4,950.0	\$5,011.0	\$61.0	1.2%
Gross capital income	\$2,263.2	\$2,291.1	\$27.9	1.2%
Private Business Stocks	\$17,001.9	\$17,636.0	\$634.1	3.7%
Wage rate \$/hr	\$25.55	\$25.81	\$0.3	1.0%
Private business hours of work (billions)	193.748	194.169	0.422	0.2%
Total government receipts (\$billions)	\$3,153.9	\$3,183.2	\$29.3	0.9%
Federal	\$2,048.2	\$2,062.6	\$14.3	0.7%
State & local	\$1,423.5	\$1,438.4	\$15.0	1.1%
Total Federal expenditures	\$2,019.8	\$2,023.8	\$4.0	0.2%
Federal surplus (+) or deficit (-)	\$28.4	\$38.7	\$10.3	36.3%
<b>Individual income tax</b>				
Federal marginal tax rates on AGI	25.8%	25.9%	0.1%	0.4%
Federal marginal tax rates on wages	25.2%	25.3%	0.2%	0.6%
Federal marginal tax rates on dividends	28.3%	28.5%	0.1%	0.4%
Federal marginal tax rates on interest income	26.7%	26.8%	0.1%	0.4%
Federal marginal tax rates on business income	30.2%	30.1%	-0.1%	-0.3%
Federal marginal tax rates on long-term capital gains	18.3%	18.3%	0.0%	0.2%
<b>Weighted average service price</b>				
Corporate	14.8%	14.3%	-0.4%	-2.9%
Noncorporate	12.4%	12.3%	-0.1%	-1.1%
All business	14.0%	13.7%	-0.3%	-2.4%
<b>Federal budget effects*</b>				
Revenues			\$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-\$15.2	100%
"Dynamic" federal tax reflow from economic changes			\$29.6	-194%
Net federal tax change after dynamic effects			\$14.3	-94%
Federal outlay change if federal pay tracks private wages			\$4.0	-26%
Change in federal surplus (- is larger deficit, smaller surplus)			\$10.3	-68%
<b>Comparing change in GDP to change in tax revenue*</b>				
	GDP Change	Change per dollar	Change per dollar	
	\$ Billions	Static	Dynamic	
Rise in GDP, total, and per \$1 reduction in federal revenue	\$122.6	\$8.04	N/A	
Rise in after-tax income, total, and per \$1 reduction in federal revenue	\$108.2	\$7.10	N/A	
Revenue loss to government from tax cut that raises after-tax income \$1.		\$0.14	N/A	

\* Notes: Most static revenue changes (+ or -) will move GDP in the opposite direction (- or +).

Dynamic revenue reflows due to the changes in GDP usually offset some but not all of the static tax change.

If the dynamic GDP response is very large, the revenue reflow may offset all of the static change. If so, the net tax change after dynamic effects would be the same sign as the GDP change, and opposite in sign from the static numbers. For that type of tax provision, a cut raises tax revenue, an increase loses revenue.