IRET POLICY BULLETIN

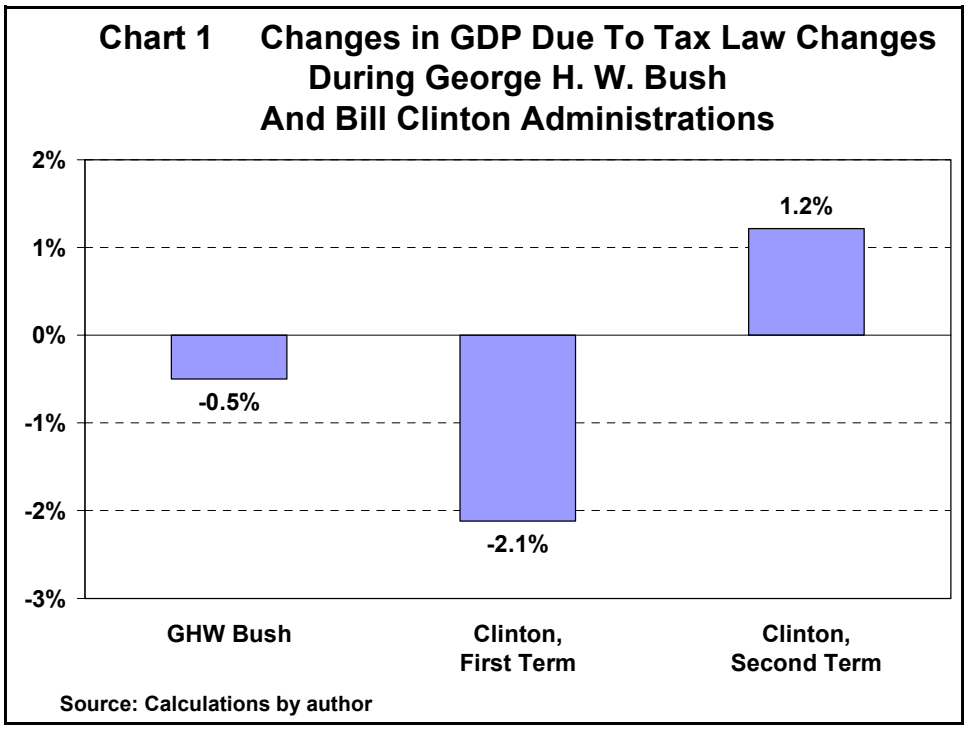
November 23, 2011
No. 103

ECONOMIC CONSEQUENCES OF THE TAX POLICIES OF THE GEORGE H. W. BUSH AND BILL CLINTON ADMINISTRATIONS

Introduction

This paper estimates the long term effects of the tax policies of the George H. W. Bush and Bill Clinton Administrations on the U.S. economy and the federal budget. The estimates project the ultimate effects if the policies had remained in place long enough for all economic adjustments to be made.

The tax bills of the period contained only a few changes that significantly altered production incentives "at the margin". However, those few changes would have made a difference in economic performance. The tax changes of the Bush Administration would have trimmed GDP by about half a percent within five to ten years, relative to the levels it would have achieved absent the policy changes. The tax policies of President Clinton's first term would have cut 1.2 percentage points from the GDP. His second term policies would have raised GDP by about 1.2 percent. (See Chart 1.)



After a brief description of the theory behind the

Institute for Research on the Economics of Taxation

1710 Rhode Island Avenue, N.W., 11th Floor • Washington, D.C. 20036
(202) 463-1400 • Fax (202) 463-6199 • Internet www.iret.org

economic and tax model used to analyze the tax policies, the paper covers the Bush and Clinton Administrations sequentially. The sections for each president start with an overview of the economic conditions they faced, followed by a description of the tax changes enacted under each Administration and the model estimates of the consequences of the policies. The Bush section contains a brief explanation of how to interpret the tables and charts.

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".[1]

The Economy in the George H. W. Bush Years

Then Vice President George H. W. Bush won the 1988 election to succeed Ronald Reagan. Entering office in January of 1989, President Bush inherited an economy that had been under-going a prolonged expansion since the end of 1982. Inflation, unemployment, and interest rates were all more moderate than in the stagflationary 1970s.

By the end of the 1980s, however, the recovery was aging. The additional capital accumulation spurred by the Economic Recovery Tax Act of 1981 had been largely completed. The Tax Reform Act of 1986 raised the cost of capital, especially for structures, although it lowered tax rates on labor income. That cut in labor income taxes was partially undone by two payroll tax increases in 1988 and 1990 that raised the payroll tax rate from 14.3% to 15.3%. The economy needed a new round of tax reduction on investment to rejuvenate the expansion. It was not forthcoming.

Real GDP growth slowed and inflation accelerated. Real output increased 4.1 percent year over year in 1988, 3.6 percent in 1989, and 1.9 percent in 1990. Inflation was 4.1 percent in 1988, 4.8 percent in 1989, and 5.4 percent in 1990. The Federal Reserve became increasingly restrictive as the inflation rate rose. Higher inflation also meant a higher tax rate on capital income, because it eroded the real value of the capital consumption allowances, boosting the effective business tax rate. In 1990, the Iraqi invasion of Kuwait sent oil prices soaring. By July, 1990, the economy had entered a mild recession dipping 1.4 percent from peak to trough. On an annual basis, GDP fell 0.2 percent in 1991, year over year.

The recession ended in March 1991. Real GDP grew 3.4 percent in 1992, and inflation moderated to 3 percent. Unemployment, which had been 5.3 in 1989, was 7.5 percent in 1992. The recession and outlays for the Gulf War (August 1990 - February 1991) increased the federal budget deficit. The deficit had fallen from $221.2 billion in fiscal year 1986 to 152.6 billion in FY 1989. It rose again to $221.0 billion in FY 1990, $269.2 billion in FY 1991, and to FY $290.4 in 1992.

---

[1] 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.

The rise in the deficit prompted a tax increase in 1990, effective in 1991. The increase slightly slowed the recovery, and did little to reduce the deficit. The tax increase was in violation of the President's statement at the Republican National Convention in 1988, "Read my lips: no new taxes." President Bush lost the 1992 election to Governor Bill Clinton of Arkansas.

Elements of the George H. W. Bush Tax Changes

As part of a budget agreement with Congress, President Bush signed the Revenue Reconciliation Act of 1990, which had some tax increases and some reductions, but was a net tax increase over all. (The tax legislation was included within the Omnibus Budget Reconciliation Act of 1990, or OBRA90.)

- *New top rate.* A new top tax rate of 31% replaced the 33% "bubble" created by the Tax Reform Act of 1986. (The 33% "bubble in the 1986 Act phased-out the 15% tax rate and personal exemptions, until the tax equalled a flat 28% on all income. Beyond that point, the marginal rate reverted to 28%.) The 31% rate bracket began at the income at which the 33% bubble had begun. Because it had no upper limit, the 31% bracket rate was higher than the old 28% rate on income above the "bubble" range. The top tax rate on long term capital gains was capped at 28 percent (extending the 28 percent top rate in the Tax Reform Act of 1986).

- *Peps and Pease.* Itemized deductions were reduced 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 thresholds at which the restrictions began were indexed for inflation). 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 increases the marginal tax rate. The 28% rate becomes 28.84%, and the 31% rate becomes 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.

- *AMT.* The legislation increased the rate of the alternative minimum tax rate (AMT) from 21 percent to 24 percent.

- *Expansion of the EITC.* The old EITC was 14% on the first $6,810 of wage and salary income (the credit base, indexed for inflation) for families with children under 18, resulting in a maximum credit of $953.40 in 1990. It was phased out at a rate of 10% for income over $10,730 (also indexed). The 1990 Act raised the credit rate in stages (1991-1994) to 23% for families with one eligible child, and created a higher credit rate, rising to 25%, for families with two or more children. Phase-out rates

were increased to 16.43% (for families with one child) and 17.86% (with two or more children). An additional credit of 6% of the eligible earnings base (phased out at 4.285%) was allowed for paying health insurance premiums.

- *HI tax cap increase.* The maximum wage subject to the FICA tax was $51,300 in 1990, indexed for inflation. FICA covered the Social Security retirement and disability programs (OASDI) and the hospital insurance program (HI, Medicare Part A). The 1990 Act raised the wage cap for the hospital insurance portion of the payroll tax to $125,000 for 1991, indexed thereafter.

- *Excise taxes.* The three percent telephone excise tax was made permanent. The gasoline excise tax for motor vehicles and boats was raised from 9 cents to 14 cents per gallon, and from 14 cents to 17.5 cents for aviation fuel. A luxury tax was imposed on high-end automobiles, and on furs, jewelry, boats, and airplanes. Tobacco taxes were increased by 25 percent. Alcohol taxes were increased: from $12.50 to $13.50 per proof gallon for distilled spirits, and by $0.90 per gallon of wine. Beer taxes were doubled from $9 per barrel to $18. The Act restored the Leaking Underground Storage Tank Trust Fund (LUST) tax.

Modeling the consequences of the G. H. W. Bush tax changes

Interpreting the tables and charts. Tables 1 through 18 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 and the Investment Tax Credit (ITC) affect both sectors. Personal income tax changes affect non-corporate business income and the non-corporate service price. The corporate service price is affected by the corporate tax rate and by personal income tax changes on capital gains and dividends.

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 the 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 it. 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 "NA")

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. In odd cases, where a tax reduction reduced GDP (due to adverse consequences of phase-outs of credits on work incentives), the dynamic effect is illustrated as negative, augmenting the static revenue loss.

Results of the George H. W. Bush tax changes.

- *OBRA90 total tax package.* As indicated in Table 1, the model estimates a 0.5 percentage point drop in GDP from the Bush tax program, or $31.7 billion at 1992 income levels. Private sector output would have fallen 0.7 percent. The estimated static revenue gain was $19.7 billion. The drop in GDP would have reduced revenue by about $9.3 billion, or about 47 percent of the expected revenue, leaving a net revenue gain of $10.5 billion. Each dollar of net revenue raised would have cost $3.03 in lost GDP, for a total after-tax loss of $4.03 for the taxpayer. Any dollar of government spending funded by these tax increases should have been worth at least $4.03 to justify the cost to the public. (See also Charts 2 and 3.)

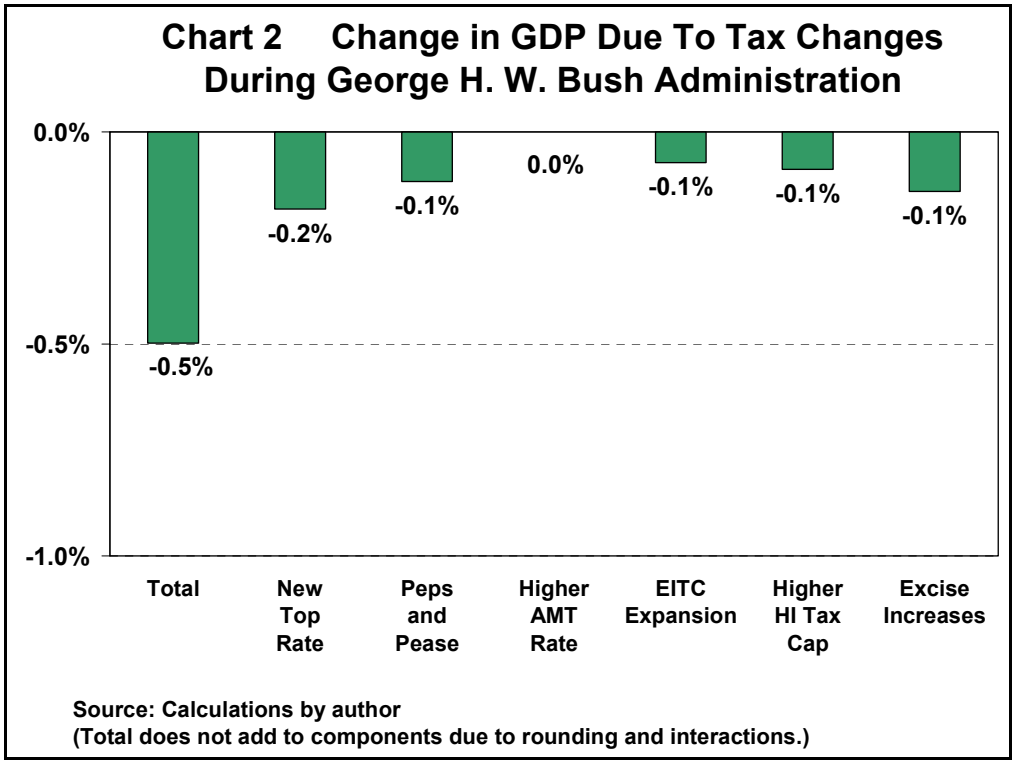


Chart 2 Change in GDP Due To Tax Changes During George H. W. Bush Administration
0.0%
-0.5%
-1.0%
-0.5%
-0.2%
-0.1%
0.0%
-0.1%
-0.1%
-0.1%
Total
New Top Rate
Peps and Pease
Higher AMT Rate
EITC Expansion
Higher HI Tax Cap
Excise Increases
Source: Calculations by author
(Total does not add to components due to rounding and interactions.)

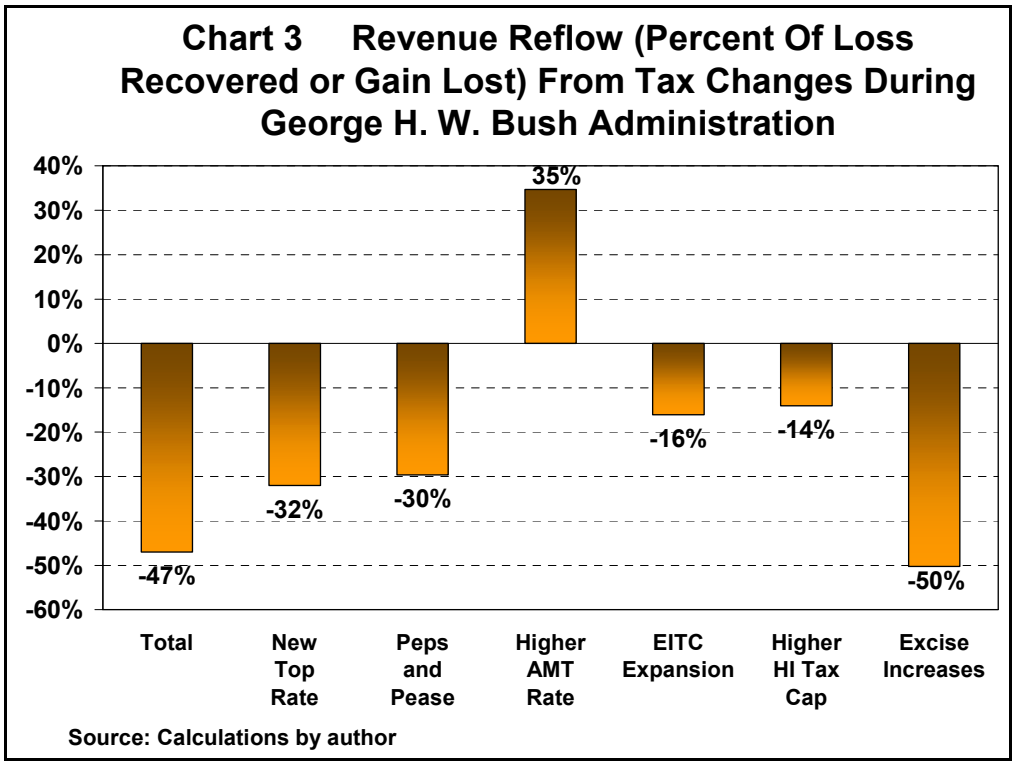


Chart 3 Revenue Reflow (Percent Of Loss Recovered or Gain Lost) From Tax Changes During George H. W. Bush Administration
40%
30%
20%
10%
0%
-10%
-20%
-30%
-40%
-50%
-60%
-47%
-32%
-30%
35%
-16%
-14%
-50%
Total
New Top Rate
Peps and Pease
Higher AMT Rate
EITC Expansion
Higher HI Tax Cap
Excise Increases
Source: Calculations by author

● *New top rate and Peps and Pease.* The individual tax rate increases reduced GDP by 0.2 percent (Table 2), and the Peps and Pease phaseout cut another 0.1 percent (Table 3). Each change lost sufficient GDP to offset about 30 percent of the expected revenue, and to cost the public about $3 in lost after-tax income for every dollar of revenue raised.

● *AMT.* The AMT change created a top rate below that of the regular income tax. In the tax sample drawn for the model, enough upper income taxpayers were diverted to the tax with the lower top rate to slightly reduce the marginal tax rate on additional income, leading to a slight gain in GDP (Table 4). This accounts for the odd positive revenue reflow from a tax increase. The number of people affected and the change in GDP ($1.1 billion out of $6.3 trillion) makes the effect too small to be reliable.

● *Expansion of the EITC.* The EITC increase reduced GDP by about 0.1 percent (Table 5). The more generous EITC produced an estimated static revenue loss of $6.9 billion and cost a further $1.1 billion because of dynamic feedbacks from the lower GDP, resulting in a total federal revenue decline of $8.0 billion. The EITC gives an incentive for people who are not working to take a low paying job. However, as people earn more and begin to lose the credit, they experience very high marginal tax rates, and are discouraged form earning additional income. The latter effect dominates the former, and the EITC is estimated to reduce hours worked and GDP. (A 15% income tax rate, a 15.3% payroll tax, a state income tax rate of perhaps 3%, and the phase-out rate of the EITC of between 16% and 18% can add up to about 50% of an additional dollar of earnings.)

● *HI tax cap increase.* The HI wage cap increase is estimated to reduce GDP by 0.1 percent, and to lose 14 percent of its expected revenue (Table 6). Payroll taxes have limited effect on GDP because the supply of labor is relatively insensitive to the tax, falling about 3 percent for each percent drop in the after-tax wage.

● *Excise taxes.* The model suggests that the excise taxes would have depressed GDP by 0.1 percent, based on the rise in the cost of production indicated by the taxes (Table 7). That is a large effect given the small share of the affected items in GDP. In fact, the economic damage was greater than the model suggests. The luxury taxes caused a virtual collapse of the boat building industry and significant harm to the other products affected, because consumers avoided the products in droves (not modeled). The drop in consumer demand for the taxed products was much greater than the predicted drop in total output based only on the weighted average production disincentives. The revenues raised were much less than forecast. The job losses in the affected industries were large, and the cost to the government in additional unemployment benefits exceeded the tax revenue. Congress had to scramble to repeal the luxury taxes in 1993 (except for the high-end auto taxes).

Table 1
GEORGE H. W. BUSH: ALL CHANGES
George H. W. Bush vs. Prior Law, at 1992 Income Levels

	Bush	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$6,342.3	$6,374.0	-$31.7	-0.5%
Private business output (less indirect taxes plus subsidies)	$4,365.7	$4,396.9	-$31.3	-0.7%
Compensation of employees	$2,951.1	$2,972.2	-$21.1	-0.7%
Gross capital income	$1,414.6	$1,424.7	-$10.1	-0.7%
Private Business Stocks	$10,744.6	$10,852.5	-$108.0	-1.0%
Wage rate $/hr	$18.44	$18.51	-$0.07	-0.4%
Private business hours of work (billions)	160.013	160.566	-0.553	-0.3%
Total government receipts ($billions)	$1,860.9	$1,855.0	$5.9	0.3%
Federal	$1,159.3	$1,148.8	$10.5	0.9%
State & local	$873.1	$877.7	-$4.6	-0.5%
Total Federal expenditures	$1,490.8	$1,492.2	-$1.4	-0.1%
Federal surplus (+) or deficit (-)	-$331.5	-$343.4	$11.8	-3.5%
Individual income tax				
Federal marginal tax rates on AGI	22.9%	22.8%	0.1%	0.5%
Federal marginal tax rates on wages	22.5%	22.3%	0.2%	1.0%
Federal marginal tax rates on dividends	25.3%	24.8%	0.5%	2.1%
Federal marginal tax rates on interest income	22.4%	22.1%	0.3%	1.4%
Federal marginal tax rates on business income	25.3%	24.6%	0.7%	2.8%
Federal marginal tax rates on long-term capital gains	24.7%	25.2%	-0.4%	-1.7%
Weighted average service price				
Corporate	14.2%	14.2%	0.0%	0.1%
Noncorporate	12.9%	12.8%	0.1%	0.6%
All business	13.8%	13.7%	0.0%	0.3%

Federal budget effects*		
Revenues	$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)	$19.7	100%
"Dynamic" federal tax reflow from economic changes	-$9.3	-47%
Net federal tax change after dynamic effects	$10.5	53%
Federal outlay change if federal pay tracks private wages	-$1.4	-7%
Change in federal surplus (- is larger deficit, smaller surplus)	$11.8	60%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$31.7	-$1.61	-$3.03
Drop in after-tax income, total, and per $1 increase in federal revenue	-$42.2	-$2.14	-$4.03
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.47	$0.25

* 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 2
GEORGE H. W. BUSH: INDIVIDUAL RATE INCREASES
George H. W. Bush vs. Prior Law, at 1992 Income Levels

	Bush I	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$6,342.3	$6,353.9	-$11.6	-0.2%
Private business output (less indirect taxes plus subsidies)	$4,365.7	$4,374.1	-$8.4	-0.2%
Compensation of employees	$2,951.1	$2,956.8	-$5.7	-0.2%
Gross capital income	$1,414.6	$1,417.3	-$2.7	-0.2%
Private Business Stocks	$10,744.6	$10,797.5	-$52.9	-0.5%
Wage rate $/hr	$18.44	$18.47	-$0.02	-0.1%
Private business hours of work (billions)	160.013	160.125	-0.112	-0.1%
Total government receipts ($billions)	$1,860.9	$1,857.1	$3.8	0.2%
Federal	$1,159.3	$1,153.8	$5.5	0.5%
State & local	$873.1	$874.8	-$1.6	-0.2%
Total Federal expenditures	$1,490.8	$1,491.3	-$0.5	0.0%
Federal surplus (+) or deficit (-)	-$331.5	-$337.5	$5.9	-1.8%
Individual income tax				
Federal marginal tax rates on AGI	22.9%	22.7%	0.2%	0.7%
Federal marginal tax rates on wages	22.5%	22.4%	0.1%	0.3%
Federal marginal tax rates on dividends	25.3%	24.8%	0.5%	1.9%
Federal marginal tax rates on interest income	22.4%	22.2%	0.3%	1.3%
Federal marginal tax rates on business income	25.3%	24.6%	0.7%	2.9%
Federal marginal tax rates on long-term capital gains	24.7%	25.1%	-0.4%	-1.6%
Weighted average service price				
Corporate	14.2%	14.2%	0.0%	0.1%
Noncorporate	12.9%	12.8%	0.1%	0.6%
All business	13.8%	13.7%	0.0%	0.3%
Federal budget effects*				% of static
Revenues			$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)			$8.0	100%
"Dynamic" federal tax reflow from economic changes			-$2.6	-32%
Net federal tax change after dynamic effects			$5.5	68%
Federal outlay change if federal pay tracks private wages			-$0.5	-6%
Change in federal surplus (- is larger deficit, smaller surplus)			$5.9	74%
Comparing change in GDP to change in tax revenue*		GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue		-$11.6	-$1.44	-$2.12
Drop in after-tax income, total, and per $1 increase in federal revenue		-$17.0	-$2.12	-$3.12
Revenue gain to government from tax hike that cuts after-tax income $1.			$0.47	$0.32

* 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
GEORGE H. W. BUSH: PEPS-PEASE
George H. W. Bush vs. Prior Law, at 1992 Income Levels

	Bush I	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$6,342.3	$6,349.7	-$7.4	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,365.7	$4,371.1	-$5.4	-0.1%
Compensation of employees	$2,951.1	$2,954.8	-$3.7	-0.1%
Gross capital income	$1,414.6	$1,416.4	-$1.8	-0.1%
Private Business Stocks	$10,744.6	$10,777.2	-$32.6	-0.3%
Wage rate $/hr	$18.44	$18.46	-$0.01	-0.1%
Private business hours of work (billions)	160.013	160.094	-0.081	-0.1%
Total government receipts ($billions)	$1,860.9	$1,858.0	$2.9	0.2%
Federal	$1,159.3	$1,155.3	$4.0	0.3%
State & local	$873.1	$874.2	-$1.0	-0.1%
Total Federal expenditures	$1,490.8	$1,491.1	-$0.3	0.0%
Federal surplus (+) or deficit (-)	-$331.5	-$335.8	$4.3	-1.3%
Individual income tax				
Federal marginal tax rates on AGI	22.9%	22.8%	0.1%	0.4%
Federal marginal tax rates on wages	22.5%	22.4%	0.1%	0.3%
Federal marginal tax rates on dividends	25.3%	25.1%	0.1%	0.5%
Federal marginal tax rates on interest income	22.4%	22.4%	0.1%	0.3%
Federal marginal tax rates on business income	25.3%	25.1%	0.2%	0.9%
Federal marginal tax rates on long-term capital gains	24.7%	24.6%	0.2%	0.6%
Weighted average service price				
Corporate	14.2%	14.2%	0.0%	0.2%
Noncorporate	12.9%	12.9%	0.0%	0.2%
All business	13.8%	13.8%	0.0%	0.2%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		$5.6	100%
"Dynamic" federal tax reflow from economic changes		-$1.7	-30%
Net federal tax change after dynamic effects		$4.0	70%
Federal outlay change if federal pay tracks private wages		-$0.3	-5%
Change in federal surplus (- is larger deficit, smaller surplus)		$4.3	76%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$7.4	-$1.32	-$1.88
Drop in after-tax income, total, and per $1 increase in federal revenue	-$11.4	-$2.03	-$2.88
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.49	$0.35

* 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
GEORGE H. W. BUSH: AMT RATE INCREASE
George H. W. Bush vs. Prior Law, at 1992 Income Levels

	Bush I	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$6,342.3	$6,341.2	$1.1	0.0%
Private business output (less indirect taxes plus subsidies)	$4,365.7	$4,364.9	$0.8	0.0%
Compensation of employees	$2,951.1	$2,950.6	$0.5	0.0%
Gross capital income	$1,414.6	$1,414.3	$0.2	0.0%
Private Business Stocks	$10,744.6	$10,738.4	$6.2	0.1%
Wage rate $/hr	$18.44	$18.44	$0.00	0.0%
Private business hours of work (billions)	160.013	160.011	0.002	0.0%
Total government receipts ($billions)	$1,860.9	$1,859.8	$1.1	0.1%
Federal	$1,159.3	$1,158.4	$0.9	0.1%
State & local	$873.1	$873.0	$0.2	0.0%
Total Federal expenditures	$1,490.8	$1,490.8	$0.1	0.0%
Federal surplus (+) or deficit (-)	-$331.5	-$332.4	$0.9	-0.3%
Individual income tax				
Federal marginal tax rates on AGI	22.9%	22.9%	0.0%	-0.1%
Federal marginal tax rates on wages	22.5%	22.5%	0.0%	0.0%
Federal marginal tax rates on dividends	25.3%	25.3%	-0.1%	-0.3%
Federal marginal tax rates on interest income	22.4%	22.5%	0.0%	-0.1%
Federal marginal tax rates on business income	25.3%	25.4%	0.0%	-0.1%
Federal marginal tax rates on long-term capital gains	24.7%	24.7%	0.0%	0.1%
Weighted average service price				
Corporate	14.2%	14.2%	0.0%	0.0%
Noncorporate	12.9%	12.9%	0.0%	0.0%
All business	13.8%	13.8%	0.0%	0.0%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		$0.7	100%
"Dynamic" federal tax reflow from economic changes		$0.2	35%
Net federal tax change after dynamic effects		$0.9	135%
Federal outlay change if federal pay tracks private wages		$0.1	8%
Change in federal surplus (- is larger deficit, smaller surplus)		$0.9	127%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Rise in GDP, total, and per $1 reduction in federal revenue	$1.1	-$1.58	-$1.17
Rise in after-tax income, total, and per $1 reduction in federal revenue	$0.2	-$0.23	-$0.17
Revenue loss to government from tax cut that raises after-tax income $1.		-$4.33	-$5.84

* 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
GEORGE H. W. BUSH: EITC INCREASES
George H. W. Bush vs. Prior Law, at 1992 Income Levels

	Bush I	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$6,342.3	$6,346.9	-$4.6	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,365.7	$4,369.3	-$3.6	-0.1%
Compensation of employees	$2,951.1	$2,953.5	-$2.4	-0.1%
Gross capital income	$1,414.6	$1,415.8	-$1.2	-0.1%
Private Business Stocks	$10,744.6	$10,753.1	-$8.5	-0.1%
Wage rate $/hr	$18.44	$18.44	$0.00	0.0%
Private business hours of work (billions)	160.013	160.148	-0.135	-0.1%
Total government receipts ($billions)	$1,860.9	$1,869.4	-$8.5	-0.5%
Federal	$1,159.3	$1,167.2	-$8.0	-0.7%
State & local	$873.1	$873.7	-$0.6	-0.1%
Total Federal expenditures	$1,490.8	$1,490.9	-$0.1	0.0%
Federal surplus (+) or deficit (-)	-$331.5	-$323.7	-$7.9	2.4%
Individual income tax				
Federal marginal tax rates on AGI	22.9%	22.9%	0.0%	0.0%
Federal marginal tax rates on wages	22.5%	22.3%	0.2%	0.8%
Federal marginal tax rates on dividends	25.3%	25.3%	0.0%	0.0%
Federal marginal tax rates on interest income	22.4%	22.4%	0.0%	0.0%
Federal marginal tax rates on business income	25.3%	25.3%	0.0%	-0.1%
Federal marginal tax rates on long-term capital gains	24.7%	24.7%	0.0%	0.0%
Weighted average service price				
Corporate	14.2%	14.2%	0.0%	0.0%
Noncorporate	12.9%	12.9%	0.0%	0.0%
All business	13.8%	13.8%	0.0%	0.0%
Federal budget effects*				% of static
Revenues			$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)			-$6.9	100%
"Dynamic" federal tax reflow from economic changes			-$1.1	16%
Net federal tax change after dynamic effects			-$8.0	116%
Federal outlay change if federal pay tracks private wages			-$0.1	1%
Change in federal surplus (- is larger deficit, smaller surplus)			-$7.9	115%
Comparing change in GDP to change in tax revenue*		GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue		-$4.6	$0.67	$0.58
Drop in after-tax income, total, and per $1 increase in federal revenue		$3.4	-$0.49	-$0.42
Revenue gain to government from tax hike that cuts after-tax income $1.			$2.03	$2.36

* 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
GEORGE H. W. BUSH: HI CAP INCREASE
George H. W. Bush vs. Prior Law, at 1992 Income Levels

	Bush I	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$6,342.3	$6,347.9	-$5.6	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,365.7	$4,370.1	-$4.5	-0.1%
Compensation of employees	$2,951.1	$2,954.1	-$3.0	-0.1%
Gross capital income	$1,414.6	$1,416.0	-$1.4	-0.1%
Private Business Stocks	$10,744.6	$10,754.3	-$9.7	-0.1%
Wage rate $/hr	$18.44	$18.44	$0.00	0.0%
Private business hours of work (billions)	160.013	160.184	-0.171	-0.1%
Total government receipts ($billions)	$1,860.9	$1,853.5	$7.5	0.4%
Federal	$1,159.3	$1,151.1	$8.2	0.7%
State & local	$873.1	$873.8	-$0.7	-0.1%
Total Federal expenditures	$1,490.8	$1,490.9	-$0.1	0.0%
Federal surplus (+) or deficit (-)	-$331.5	-$339.8	$8.3	-2.4%
Individual income tax				
Federal marginal tax rates on AGI	22.9%	22.9%	0.0%	-0.1%
Federal marginal tax rates on wages	22.5%	22.5%	0.0%	-0.1%
Federal marginal tax rates on dividends	25.3%	25.3%	0.0%	0.0%
Federal marginal tax rates on interest income	22.4%	22.5%	0.0%	-0.1%
Federal marginal tax rates on business income	25.3%	25.3%	0.0%	-0.1%
Federal marginal tax rates on long-term capital gains	24.7%	24.8%	0.0%	0.0%
Weighted average service price				
Corporate	14.2%	14.2%	0.0%	0.0%
Noncorporate	12.9%	12.9%	0.0%	0.0%
All business	13.8%	13.8%	0.0%	0.0%

Federal budget effects*			$ Billions	% of static tax change
Revenues				
"Static" federal revenue gain (+) or loss (-)			$9.5	100%
"Dynamic" federal tax reflow from economic changes			-$1.3	-14%
Net federal tax change after dynamic effects			$8.2	86%
Federal outlay change if federal pay tracks private wages			-$0.1	-1%
Change in federal surplus (- is larger deficit, smaller surplus)			$8.3	87%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$5.6	-$0.59	-$0.69
Drop in after-tax income, total, and per $1 increase in federal revenue	-$13.8	-$1.45	-$1.69
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.69	$0.59

* 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
GEORGE H. W. BUSH: EXCISE INCREASES
George H. W. Bush vs. Prior Law, at 1992 Income Levels

	Bush I	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$6,342.3	$6,351.2	-$8.9	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,365.7	$4,379.6	-$14.0	-0.3%
Compensation of employees	$2,951.1	$2,960.5	-$9.4	-0.3%
Gross capital income	$1,414.6	$1,419.1	-$4.5	-0.3%
Private Business Stocks	$10,744.6	$10,776.7	-$32.1	-0.3%
Wage rate $/hr	$18.44	$18.49	-$0.04	-0.2%
Private business hours of work (billions)	160.013	160.137	-0.124	-0.1%
Total government receipts ($billions)	$1,860.9	$1,858.4	$2.6	0.1%
Federal	$1,159.3	$1,155.2	$4.1	0.4%
State & local	$873.1	$874.6	-$1.5	-0.2%
Total Federal expenditures	$1,490.8	$1,491.5	-$0.7	0.0%
Federal surplus (+) or deficit (-)	-$331.5	-$336.3	$4.7	-1.4%
Individual income tax				
Federal marginal tax rates on AGI	22.9%	22.9%	0.0%	-0.2%
Federal marginal tax rates on wages	22.5%	22.5%	0.0%	-0.1%
Federal marginal tax rates on dividends	25.3%	25.3%	0.0%	0.0%
Federal marginal tax rates on interest income	22.4%	22.5%	0.0%	-0.1%
Federal marginal tax rates on business income	25.3%	25.4%	0.0%	-0.2%
Federal marginal tax rates on long-term capital gains	24.7%	24.8%	0.0%	0.0%
Weighted average service price				
Corporate	14.2%	14.2%	0.0%	0.0%
Noncorporate	12.9%	12.9%	0.0%	0.0%
All business	13.8%	13.8%	0.0%	0.0%
Federal budget effects*				% of
Revenues			$ Billions	tax
"Static" federal revenue gain (+) or loss (-)			$8.2	100%
"Dynamic" federal tax reflow from economic changes			-$4.1	-50%
Net federal tax change after dynamic effects			$4.1	50%
Federal outlay change if federal pay tracks private wages			-$0.7	-8%
Change in federal surplus (- is larger deficit, smaller surplus)			$4.7	58%
Comparing change in GDP to change in tax revenue*		GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue		-$8.9	-$1.09	-$2.19
Drop in after-tax income, total, and per $1 increase in federal revenue		-$13.0	-$1.59	-$3.19
Revenue gain to government from tax hike that cuts after-tax income $1.			$0.63	$0.31

* 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.

The Clinton Economy

President Clinton took office in January 1993. During his first term, the economy recovered from the shallow 1990-1991 recession. Real GDP growth averaged a moderate 3.3 percent (1993: 2.9 percent; 1994: 4.1 percent; 1995: 2.5 percent 1996: 3.7 percent). Unemployment fell to 6.1 percent in 1994 and to 5.4 percent in 1996. Inflation remained between 2.6 percent and 3.0 percent. The recovering economy reduced the federal deficit, which fell from $290.3 billion in FY 1992 to $203.2 billion in FY 1994. Republicans gained control of the Senate and the House of Representatives in the by-election of 1994. The Republican Congress pressed for spending caps, which helped to reduce the federal deficit further, to $107.4 billion in FY 1996.

Clinton's second term saw further progress for the economy, the federal budget deficit, and inflation control. In cooperation with the Republican House, Clinton continued the slowdown in the growth of federal spending, and signed into law a reduction in the capital gains tax rate. Real GDP growth averaged 4.5 percent over the period 1997-2000. By 2000, the civilian unemployment rate was 4.0 percent. Inflation dipped to 1.6 percent in 1998, and was back to 3.4 percent in 2000. The federal budget was in surplus by $69.3 billion in 1998 and by $236.2 billion in FY 2000.

Elements of the Clinton Tax Changes

Two major tax bills were enacted, the Omnibus Budget Reconciliation Act of 1993 and the Taxpayer Relief Act of 1997. Several other tax changes were more technical in nature or related to health care.

The Omnibus Budget Reconciliation Act of 1993 (OBRA93).

- *Individual tax rate increases*. The former top tax rate of 31% was increased to 36%, and an effective new top bracket was created with a 10% surtax on the 36% rate, making the rate 39.6%.

- *Peps and Pease made permanent*. The phase-outs of the personal exemption and itemized deductions, enacted temporarily in OBRA90, were made permanent.

- *AMT tax rate increase*. The AMT tax rates, which had been raised to 24% during the George H. W. Bush Administration, were further increased to 26% and 28%, and the exempt amounts were raised.

- *EITC increase*. The Act made childless workers eligible for the EITC on wages up to $9,000, with a 7.65% credit and phase-out rate. The Act also raised the credit rates for families with children, in two stages. By 1995, the credit rate was 34% for families with one child, and 40% for families with two or more children. The former phase-out rate of 13.21% for a one-child family credit was increased

to 15.98%; for a two-or-more-child family, from 13.93% to 21.06%. The higher phase-out rates imposed an increased marginal tax penalty on additional income in the phasse-out range.

- *Second tier of tax imposed on Social Security benefits*. Up to 85 percent of Social Security benefits became taxable for single retirees with Modified Adjusted Gross Income (MAGI) above $34,000 and couples with MAGI above $44,000. The 1983 Social Security Amendments had subjected to tax up to half of Social Security benefits as single retirees' MAGI exceeded $25,000, and retired couples' incomes exceeded $32,000 (amounts not adjusted for inflation). MAGI is ordinary taxable income plus half of Social Security benefits plus tax-exempt bond income. For each dollar of income above the threshold, $0.50 in benefits is added to taxable income, up to half of benefits. In effect, $1.00 of additional income from sources other than Social Security raised taxable income $1.50. In the new second tier, $1.00 of additional income above the higher thresholds would raise taxable income by $1.85.

Within the income phase-in range, the addition of Social Security benefits to taxable income effectively raised the marginal tax rate on interest, dividends, and wages of retirees by half. For example, the tax on an additional dollar in the 28 percent bracket would be 42 cents in the first tier of tax. In the second tier, it would be 51.8 cents. For taxpayers in the phase-in range, it effectively taxed tax-exempt bond interest at either one-half or 85% of the normal tax rate of taxable income. It also raised the effective tax rate on capital gains by either half or 85% of the ordinary tax bracket rate.[2] Combined with the payroll tax on wage income, and the loss of either $0.50 or $0.33 of benefits if wages exceeded the Social Security retirement earnings limit (for workers respectively below, or at and above, normal retirement age), marginal tax rates on labor income of the elderly could reach truly confiscatory rates.

- *HI wage cap eliminated.* All wages without limit were made subject to the Hospital Insurance portion of the payroll tax.

- *Corporate tax rate increase.* The top corporate tax rate was increased from 34% to 35%.

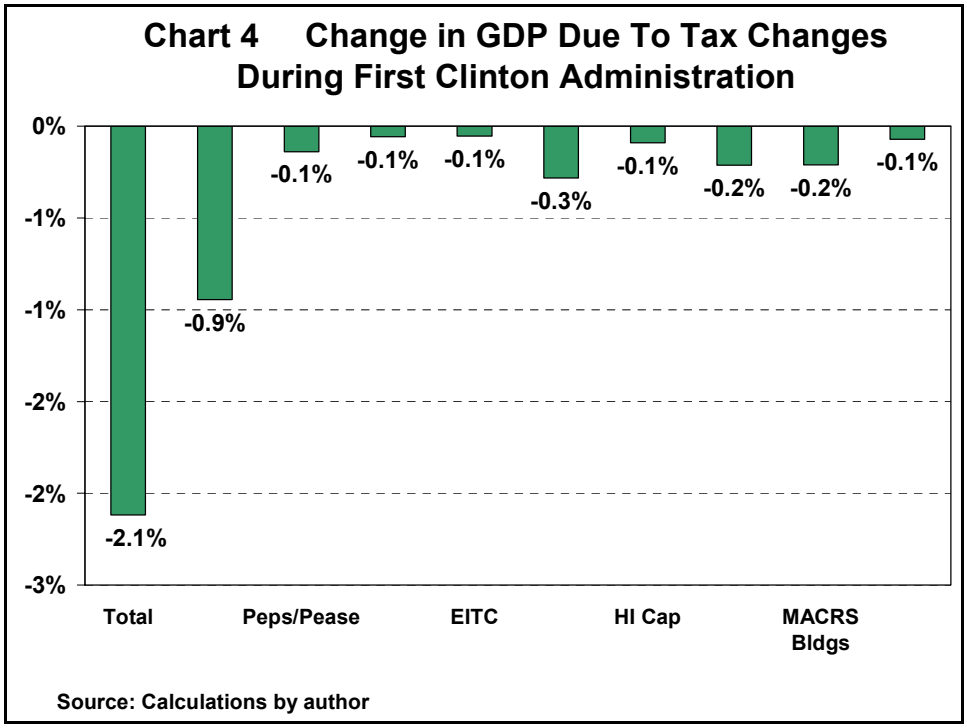
- *Longer asset lives for structures.* The asset life for non-residential real estate was increased from 31.5 years to 39 years.

- *Gas tax increase.* The Act raised the motor fuels tax by 4.3 cents per gallon.

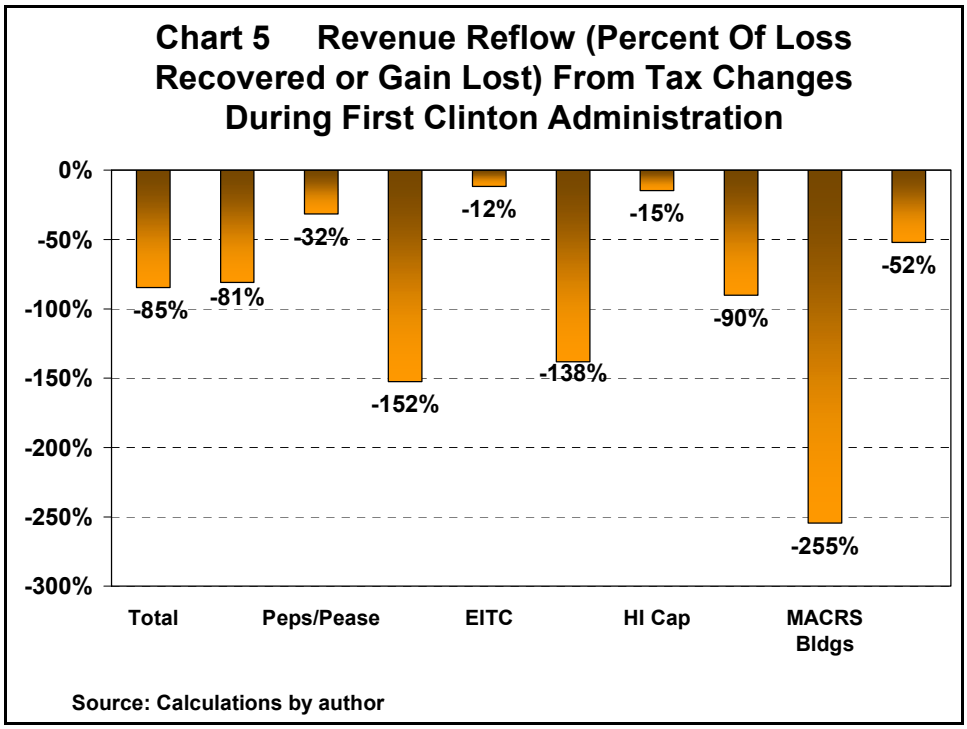
---

[2] An added dollar of capital gain above the threshold income for taxation of benefits forced the taxpayer to add $0.50 or $0.85 to taxable income, where it would be taxed at ordinary income tax rates. For a taxpayer in the 28% bracket, an extra $1 in capital gain would trigger a $0.20 capital gain tax plus either $0.14 or $0.238 in additional tax on ordinary income on the benefit, brining the total tax caused by the $1 in additional gain to $0.34 or $0.438.

Economic and budget effects of OBRA93.



● *OBRA93 as a whole.* OBRA93 is estimated to have reduced long run GDP by 2.1%, and private sector output and labor income by 2.3 percent (Table 8). It is estimated to have reduced the desired capital stock by 5.3 percent. Marginal tax rates on dividend income rose 2.8 percentage points, or 11.2 percent of the initial rate, increasing the tax bias against corporate income. Marginal tax rates on non-corporate business income were increased by 3.3 percentage points, or 13.0 percent of the baseline rate. The Act would have lost 85 percent of its expected revenue to slower growth. Instead of raising $42.3 billion (the static revenue estimate), it would have netted only $6.5 billion (after dynamic adjustments). For each dollar of revenue raised, GDP would have fallen $23.71, for a net drop in after-tax income of $24.71. This was a very expensive way to fund a marginal dollar of government spending. (See also Charts 3 and 4.)



● *Individual tax rate increases.* The individual tax rate

increases reduced GDP by 0.9 percent, which cost 81 percent of the expected revenue gain (Table 9). GDP fell $18.43, and after-tax income fell $19.43, for each dollar of revenue raised.

- *Peps and Pease made permanent.* The phase-outs of the personal exemption and itemized deductions reduced GDP by 0.1 percent, and lost about 32 percent of the expected revenue gain to slower growth of GDP (Table 10).

- *AMT tax rate increase.* This combination of AMT tax rate and exemption increases lowered GDP by 0.1 percent, or $4.2 billion at 1994 income levels (Table 11). It had mixed effects on marginal tax rates on labor, dividend, interest, and non-corporate business income. However, it raised marginal tax rates on capital gains, which accounts for the rise in the service price of capital and the loss in GDP. The loss in GDP more than wiped out the expected revenue gain from the AMT tax increase.

- *EITC increase.* The EITC increase is estimated to have reduced GDP 0.1 percent by discouraging more work in the phase-out range than it encouraged from new entrants into the work force (Table 12).

- *Second tier of tax imposed on Social Security benefits.* The increase in the tax on Social Security benefits reduced GDP and labor income by 0.3 percent and reduced the capital stock by 0.8 percent (Table 13). It is estimated to have lost 138 percent of its expected static revenue gains by so strongly raising the tax on capital income.

- *HI wage cap eliminated.* The elimination of the wage cap on the HI tax reduced GDP by 0.1 percent (Table 14). The labor supply is somewhat inelastic, so the change in GDP was relatively small. The tax lost only 15 percent of its estimated static revenue to lower output.

- *Corporate tax rate increase.* The increase in the top corporate tax rate is estimated to have reduced GDP, private sector output, and labor income by 0.2 percent (Table 15). It cut the private capital stock by 0.6 percent. The drop in GDP offset about 90 percent of the expected static revenue gain. After-tax GDP fell by $40.52 for every dollar of net revenue increase for the government.

- *Longer asset lives for structures.* The longer asset life for non-residential real estate is estimated to have reduced GDP and labor income by 0.2 percent (Table 16). It raised the service price of capital by 0.4 percent and cut the private capital stock by 0.6 percent. The lower GDP wiped out 255 percent of the projected static revenue gain, resulting in a revenue loss to the Treasury.

- *Gas tax increase.* The gas tax hike lowered GDP by 0.1 percent, losing about 52 percent of the projected revenue gain (Table 17). Some excise taxes that fall only on consumption goods have less impact on GDP. Motor fuels, however, are not just final consumer goods, bought to fuel passenger cars. They are also production inputs, used to transport materials and deliver finished goods to market.

Table 8
CLINTON: Total, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,238.5	-$153.4	-2.1%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$5,013.8	-$117.0	-2.3%
Compensation of employees	$3,274.9	$3,353.2	-$78.3	-2.3%
Gross capital income	$1,621.8	$1,660.6	-$38.8	-2.3%
Private Business Stocks	$11,264.5	$11,896.7	-$632.2	-5.3%
Wage rate $/hr	$19.24	$19.53	-$0.29	-1.5%
Private business hours of work (billions)	170.208	171.711	-1.503	-0.9%
Total government receipts ($billions)	$2,112.1	$2,126.3	-$14.2	-0.7%
Federal	$1,337.2	$1,330.8	$6.5	0.5%
State & local	$974.8	$995.4	-$20.7	-2.1%
Total Federal expenditures	$1,570.3	$1,575.8	-$5.6	-0.4%
Federal surplus (+) or deficit (-)	-$233.1	-$245.1	$12.0	-4.9%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	23.0%	1.1%	4.7%
Federal marginal tax rates on wages	23.4%	22.7%	0.7%	3.1%
Federal marginal tax rates on dividends	27.5%	24.7%	2.8%	11.2%
Federal marginal tax rates on interest income	24.8%	22.6%	2.1%	9.5%
Federal marginal tax rates on business income	28.8%	25.4%	3.3%	13.0%
Federal marginal tax rates on long-term capital gains	24.8%	24.7%	0.1%	0.5%
Weighted average service price				
Corporate	15.5%	15.0%	0.5%	3.1%
Noncorporate	14.2%	13.8%	0.5%	3.3%
All business	15.1%	14.6%	0.5%	3.1%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		$42.3	100%
"Dynamic" federal tax reflow from economic changes		-$35.8	-85%
Net federal tax change after dynamic effects		$6.5	15%
Federal outlay change if federal pay tracks private wages		-$5.6	-13%
Change in federal surplus (- is larger deficit, smaller surplus)		$12.0	28%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$153.4	-$3.63	-$23.71
Drop in after-tax income, total, and per $1 increase in federal revenue	-$159.8	-$3.78	-$24.71
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.26	$0.04

* 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
CLINTON: TWO TOP INCOME TAX BRACKETS, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,152.8	-$67.7	-0.9%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,946.5	-$49.8	-1.0%
Compensation of employees	$3,274.9	$3,308.2	-$33.3	-1.0%
Gross capital income	$1,621.8	$1,638.3	-$16.5	-1.0%
Private Business Stocks	$11,264.5	$11,538.6	-$274.1	-2.4%
Wage rate $/hr	$19.24	$19.36	-$0.11	-0.6%
Private business hours of work (billions)	170.208	170.918	-0.710	-0.4%
Total government receipts ($billions)	$2,112.1	$2,117.9	-$5.7	-0.3%
Federal	$1,337.2	$1,333.6	$3.7	0.3%
State & local	$974.8	$984.2	-$9.4	-1.0%
Total Federal expenditures	$1,570.3	$1,572.6	-$2.3	-0.1%
Federal surplus (+) or deficit (-)	-$233.1	-$239.1	$6.0	-2.5%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	23.3%	0.8%	3.6%
Federal marginal tax rates on wages	23.4%	22.9%	0.5%	2.3%
Federal marginal tax rates on dividends	27.5%	25.7%	1.8%	6.8%
Federal marginal tax rates on interest income	24.8%	23.4%	1.4%	5.8%
Federal marginal tax rates on business income	28.8%	25.8%	3.0%	11.5%
Federal marginal tax rates on long-term capital gains	24.8%	25.4%	-0.6%	-2.5%
Weighted average service price				
Corporate	15.5%	15.3%	0.1%	0.8%
Noncorporate	14.2%	13.8%	0.4%	2.7%
All business	15.1%	14.9%	0.2%	1.4%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		$19.2	100%
"Dynamic" federal tax reflow from economic changes		-$15.6	-81%
Net federal tax change after dynamic effects		$3.7	19%
Federal outlay change if federal pay tracks private wages		-$2.3	-12%
Change in federal surplus (- is larger deficit, smaller surplus)		$6.0	31%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$67.7	-$3.52	-$18.43
Drop in after-tax income, total, and per $1 increase in federal revenue	-$71.3	-$3.71	-$19.43
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.27	$0.05

* 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
CLINTON: PEPS - PEASE, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,095.0	-$9.8	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,904.0	-$7.3	-0.1%
Compensation of employees	$3,274.9	$3,279.8	-$4.9	-0.1%
Gross capital income	$1,621.8	$1,624.2	-$2.4	-0.1%
Private Business Stocks	$11,264.5	$11,302.5	-$38.0	-0.3%
Wage rate $/hr	$19.24	$19.26	-$0.02	-0.1%
Private business hours of work (billions)	170.208	170.325	-0.117	-0.1%
Total government receipts ($billions)	$2,112.1	$2,108.5	$3.6	0.2%
Federal	$1,337.2	$1,332.2	$5.0	0.4%
State & local	$974.8	$976.1	-$1.4	-0.1%
Total Federal expenditures	$1,570.3	$1,570.6	-$0.3	0.0%
Federal surplus (+) or deficit (-)	-$233.1	-$238.4	$5.3	-2.2%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	24.0%	0.1%	0.5%
Federal marginal tax rates on wages	23.4%	23.3%	0.1%	0.4%
Federal marginal tax rates on dividends	27.5%	27.3%	0.2%	0.7%
Federal marginal tax rates on interest income	24.8%	24.6%	0.1%	0.5%
Federal marginal tax rates on business income	28.8%	28.5%	0.3%	1.0%
Federal marginal tax rates on long-term capital gains	24.8%	24.7%	0.1%	0.2%
Weighted average service price				
Corporate	15.5%	15.4%	0.0%	0.2%
Noncorporate	14.2%	14.2%	0.0%	0.3%
All business	15.1%	15.0%	0.0%	0.2%
Federal budget effects*				% of static
Revenues			$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)			$7.3	100%
"Dynamic" federal tax reflow from economic changes			-$2.3	-32%
Net federal tax change after dynamic effects			$5.0	68%
Federal outlay change if federal pay tracks private wages			-$0.3	-4%
Change in federal surplus (- is larger deficit, smaller surplus)			$5.3	73%
Comparing change in GDP to change in tax revenue*		GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue		-$9.8	-$1.35	-$1.97
Drop in after-tax income, total, and per $1 increase in federal revenue		-$14.8	-$2.04	-$2.97
Revenue gain to government from tax hike that cuts after-tax income $1.			$0.49	$0.34

* 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
CLINTON: AMT INCREASE, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,089.3	-$4.2	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,899.7	-$3.0	-0.1%
Compensation of employees	$3,274.9	$3,276.9	-$2.0	-0.1%
Gross capital income	$1,621.8	$1,622.8	-$1.0	-0.1%
Private Business Stocks	$11,264.5	$11,284.5	-$19.9	-0.2%
Wage rate $/hr	$19.24	$19.25	-$0.01	-0.1%
Private business hours of work (billions)	170.208	170.224	-0.015	0.0%
Total government receipts ($billions)	$2,112.1	$2,113.0	-$0.9	0.0%
Federal	$1,337.2	$1,337.6	-$0.3	0.0%
State & local	$974.8	$975.4	-$0.6	-0.1%
Total Federal expenditures	$1,570.3	$1,570.5	-$0.2	0.0%
Federal surplus (+) or deficit (-)	-$233.1	-$232.9	-$0.2	0.1%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	24.1%	0.0%	-0.1%
Federal marginal tax rates on wages	23.4%	23.4%	0.0%	-0.1%
Federal marginal tax rates on dividends	27.5%	27.4%	0.0%	0.1%
Federal marginal tax rates on interest income	24.8%	24.8%	0.0%	0.1%
Federal marginal tax rates on business income	28.8%	28.8%	0.0%	-0.1%
Federal marginal tax rates on long-term capital gains	24.8%	24.5%	0.3%	1.1%
Weighted average service price				
Corporate	15.5%	15.4%	0.0%	0.2%
Noncorporate	14.2%	14.2%	0.0%	0.0%
All business	15.1%	15.1%	0.0%	0.1%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		$0.6	100%
"Dynamic" federal tax reflow from economic changes		-$0.9	-152%
Net federal tax change after dynamic effects		-$0.3	-52%
Federal outlay change if federal pay tracks private wages		-$0.2	-28%
Change in federal surplus (- is larger deficit, smaller surplus)		-$0.2	-25%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$4.2	-$6.71	NA
Drop in after-tax income, total, and per $1 increase in federal revenue	-$3.8	-$6.19	NA
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.16	NA

* 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 12
CLINTON: EITC INCREASES, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,089.0	-$3.8	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,899.8	-$3.1	-0.1%
Compensation of employees	$3,274.9	$3,276.9	-$2.0	-0.1%
Gross capital income	$1,621.8	$1,622.8	-$1.0	-0.1%
Private Business Stocks	$11,264.5	$11,270.2	-$5.7	-0.1%
Wage rate $/hr	$19.24	$19.24	$0.00	0.0%
Private business hours of work (billions)	170.208	170.323	-0.115	-0.1%
Total government receipts ($billions)	$2,112.1	$2,121.7	-$9.6	-0.5%
Federal	$1,337.2	$1,346.3	-$9.1	-0.7%
State & local	$974.8	$975.2	-$0.5	0.0%
Total Federal expenditures	$1,570.3	$1,570.3	-$0.1	0.0%
Federal surplus (+) or deficit (-)	-$233.1	-$224.0	-$9.0	4.0%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	24.1%	0.0%	-0.1%
Federal marginal tax rates on wages	23.4%	23.3%	0.1%	0.6%
Federal marginal tax rates on dividends	27.5%	27.5%	0.0%	0.0%
Federal marginal tax rates on interest income	24.8%	24.8%	0.0%	-0.1%
Federal marginal tax rates on business income	28.8%	28.8%	0.0%	0.0%
Federal marginal tax rates on long-term capital gains	24.8%	24.8%	0.0%	0.0%
Weighted average service price				
Corporate	15.5%	15.5%	0.0%	0.0%
Noncorporate	14.2%	14.2%	0.0%	0.0%
All business	15.1%	15.1%	0.0%	0.0%

Federal budget effects*	$ Billions	% of static tax change
Revenues		
"Static" federal revenue gain (+) or loss (-)	-$8.1	100%
"Dynamic" federal tax reflow from economic changes	-$1.0	12%
Net federal tax change after dynamic effects	-$9.1	112%
Federal outlay change if federal pay tracks private wages	-$0.1	1%
Change in federal surplus (- is larger deficit, smaller surplus)	-$9.0	111%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$3.8	$0.47	$0.42
Drop in after-tax income, total, and per $1 increase in federal revenue	$5.2	-$0.65	-$0.58
Revenue gain to government from tax hike that cuts after-tax income $1.		$1.55	$1.73

* 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 13
CLINTON: SOCIAL SECURITY TAX HIKE, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,105.3	-$20.1	-0.3%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,911.3	-$14.5	-0.3%
Compensation of employees	$3,274.9	$3,284.6	-$9.7	-0.3%
Gross capital income	$1,621.8	$1,626.6	-$4.8	-0.3%
Private Business Stocks	$11,264.5	$11,355.3	-$90.8	-0.8%
Wage rate $/hr	$19.24	$19.28	-$0.04	-0.2%
Private business hours of work (billions)	170.208	170.333	-0.124	-0.1%
Total government receipts ($billions)	$2,112.1	$2,115.5	-$3.4	-0.2%
Federal	$1,337.2	$1,338.5	-$1.3	-0.1%
State & local	$974.8	$976.9	-$2.1	-0.2%
Total Federal expenditures	$1,570.3	$1,571.1	-$0.8	0.0%
Federal surplus (+) or deficit (-)	-$233.1	-$232.6	-$0.5	0.2%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	23.9%	0.2%	0.7%
Federal marginal tax rates on wages	23.4%	23.4%	0.0%	0.1%
Federal marginal tax rates on dividends	27.5%	26.7%	0.7%	2.8%
Federal marginal tax rates on interest income	24.8%	24.1%	0.6%	2.7%
Federal marginal tax rates on business income	28.8%	28.7%	0.1%	0.2%
Federal marginal tax rates on long-term capital gains	24.8%	24.5%	0.3%	1.1%
Weighted average service price				
Corporate	15.5%	15.4%	0.1%	0.7%
Noncorporate	14.2%	14.2%	0.0%	0.1%
All business	15.1%	15.0%	0.1%	0.5%

Federal budget effects*	$ Billions	% of static tax change
Revenues		
"Static" federal revenue gain (+) or loss (-)	$3.3	100%
"Dynamic" federal tax reflow from economic changes	-$4.6	-138%
Net federal tax change after dynamic effects	-$1.3	-38%
Federal outlay change if federal pay tracks private wages	-$0.8	-23%
Change in federal surplus (- is larger deficit, smaller surplus)	-$0.5	-15%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$20.1	-$6.00	$15.71
Drop in after-tax income, total, and per $1 increase in federal revenue	-$18.8	-$5.62	$14.71
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.18	-$0.07

* 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 14
CLINTON, HI CAP ELIMINATED, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,091.6	-$6.4	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,901.8	-$5.1	-0.1%
Compensation of employees	$3,274.9	$3,278.3	-$3.4	-0.1%
Gross capital income	$1,621.8	$1,623.5	-$1.7	-0.1%
Private Business Stocks	$11,264.5	$11,274.5	-$10.0	-0.1%
Wage rate $/hr	$19.24	$19.24	$0.00	0.0%
Private business hours of work (billions)	170.208	170.397	-0.189	-0.1%
Total government receipts ($billions)	$2,112.1	$2,103.6	$8.5	0.4%
Federal	$1,337.2	$1,327.9	$9.3	0.7%
State & local	$974.8	$975.5	-$0.8	-0.1%
Total Federal expenditures	$1,570.3	$1,570.4	-$0.1	0.0%
Federal surplus (+) or deficit (-)	-$233.1	-$242.4	$9.4	-3.9%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	24.1%	0.0%	-0.1%
Federal marginal tax rates on wages	23.4%	23.4%	0.0%	-0.1%
Federal marginal tax rates on dividends	27.5%	27.5%	0.0%	0.0%
Federal marginal tax rates on interest income	24.8%	24.8%	0.0%	-0.1%
Federal marginal tax rates on business income	28.8%	28.8%	0.0%	0.0%
Federal marginal tax rates on long-term capital gains	24.8%	24.8%	0.0%	-0.1%
Weighted average service price				
Corporate	15.5%	15.5%	0.0%	0.0%
Noncorporate	14.2%	14.2%	0.0%	0.0%
All business	15.1%	15.1%	0.0%	0.0%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		$10.9	100%
"Dynamic" federal tax reflow from economic changes		-$1.6	-15%
Net federal tax change after dynamic effects		$9.3	85%
Federal outlay change if federal pay tracks private wages		-$0.1	-1%
Change in federal surplus (- is larger deficit, smaller surplus)		$9.4	86%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$6.4	-$0.59	-$0.69
Drop in after-tax income, total, and per $1 increase in federal revenue	-$15.7	-$1.45	-$1.69
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.69	$0.59

* 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 15
CLINTON: CORPORATE RATE INCREASE, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,100.3	-$15.2	-0.2%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,907.6	-$10.9	-0.2%
Compensation of employees	$3,274.9	$3,282.2	-$7.3	-0.2%
Gross capital income	$1,621.8	$1,625.4	-$3.6	-0.2%
Private Business Stocks	$11,264.5	$11,335.9	-$71.4	-0.6%
Wage rate $/hr	$19.24	$19.28	-$0.04	-0.2%
Private business hours of work (billions)	170.208	170.274	-0.066	0.0%
Total government receipts ($billions)	$2,112.1	$2,113.9	-$1.8	-0.1%
Federal	$1,337.2	$1,336.8	$0.4	0.0%
State & local	$974.8	$977.0	-$2.2	-0.2%
Total Federal expenditures	$1,570.3	$1,570.9	-$0.6	0.0%
Federal surplus (+) or deficit (-)	-$233.1	-$234.1	$1.0	-0.4%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	24.2%	0.0%	-0.1%
Federal marginal tax rates on wages	23.4%	23.4%	0.0%	-0.1%
Federal marginal tax rates on dividends	27.5%	27.5%	0.0%	-0.1%
Federal marginal tax rates on interest income	24.8%	24.8%	0.0%	-0.1%
Federal marginal tax rates on business income	28.8%	28.8%	0.0%	-0.1%
Federal marginal tax rates on long-term capital gains	24.8%	24.8%	0.0%	-0.1%
Weighted average service price				
Corporate	15.5%	15.4%	0.1%	0.6%
Noncorporate	14.2%	14.2%	0.0%	0.0%
All business	15.1%	15.0%	0.1%	0.4%
Federal budget effects*				
Revenues			$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			$3.9	100%
"Dynamic" federal tax reflow from economic changes			-$3.5	-90%
Net federal tax change after dynamic effects			$0.4	10%
Federal outlay change if federal pay tracks private wages			-$0.6	-16%
Change in federal surplus (- is larger deficit, smaller surplus)			$1.0	26%
Comparing change in GDP to change in tax revenue*		GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue		-$15.2	-$3.90	-$39.52
Drop in after-tax income, total, and per $1 increase in federal revenue		-$15.6	-$4.00	-$40.52
Revenue gain to government from tax hike that cuts after-tax income $1.			$0.25	$0.02

* 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 16
CLINTON: LONGER ASSET LIFE FOR NON-RESIDENTIAL STRUCTURES, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,100.2	-$15.0	-0.2%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,907.5	-$10.8	-0.2%
Compensation of employees	$3,274.9	$3,282.1	-$7.2	-0.2%
Gross capital income	$1,621.8	$1,625.4	-$3.6	-0.2%
Private Business Stocks	$11,264.5	$11,335.3	-$70.8	-0.6%
Wage rate $/hr	$19.24	$19.28	-$0.04	-0.2%
Private business hours of work (billions)	170.208	170.273	-0.065	0.0%
Total government receipts ($billions)	$2,112.1	$2,116.1	-$4.0	-0.2%
Federal	$1,337.2	$1,339.3	-$2.1	-0.2%
State & local	$974.8	$976.6	-$1.9	-0.2%
Total Federal expenditures	$1,570.3	$1,570.9	-$0.6	0.0%
Federal surplus (+) or deficit (-)	-$233.1	-$231.6	-$1.5	0.6%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	24.1%	0.0%	-0.1%
Federal marginal tax rates on wages	23.4%	23.4%	0.0%	-0.1%
Federal marginal tax rates on dividends	27.5%	27.5%	0.0%	-0.1%
Federal marginal tax rates on interest income	24.8%	24.8%	0.0%	-0.1%
Federal marginal tax rates on business income	28.8%	28.7%	0.0%	0.0%
Federal marginal tax rates on long-term capital gains	24.8%	24.8%	0.0%	0.0%
Weighted average service price				
Corporate	15.5%	15.4%	0.1%	0.5%
Noncorporate	14.2%	14.2%	0.0%	0.3%
All business	15.1%	15.0%	0.1%	0.4%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		$1.3	100%
"Dynamic" federal tax reflow from economic changes		-$3.4	-255%
Net federal tax change after dynamic effects		-$2.1	-155%
Federal outlay change if federal pay tracks private wages		-$0.6	-46%
Change in federal surplus (- is larger deficit, smaller surplus)		-$1.5	-109%

Comparing change in GDP to change in tax revenue*	GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue	-$15.0	-$11.16	NA
Drop in after-tax income, total, and per $1 increase in federal revenue	-$12.9	-$9.61	NA
Revenue gain to government from tax hike that cuts after-tax income $1.		$0.10	NA

* 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 17
CLINTON: GAS TAX INCREASE, OBRA93
Clinton vs. pre-Clinton Law, at 1994 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$7,085.2	$7,090.3	-$5.2	-0.1%
Private business output (less indirect taxes plus subsidies)	$4,896.7	$4,904.9	-$8.1	-0.2%
Compensation of employees	$3,274.9	$3,280.4	-$5.4	-0.2%
Gross capital income	$1,621.8	$1,624.5	-$2.7	-0.2%
Private Business Stocks	$11,264.5	$11,281.2	-$16.7	-0.1%
Wage rate $/hr	$19.24	$19.26	-$0.02	-0.1%
Private business hours of work (billions)	170.208	170.280	-0.071	0.0%
Total government receipts ($billions)	$2,112.1	$2,110.7	$1.4	0.1%
Federal	$1,337.2	$1,334.9	$2.3	0.2%
State & local	$974.8	$975.6	-$0.9	-0.1%
Total Federal expenditures	$1,570.3	$1,570.6	-$0.3	0.0%
Federal surplus (+) or deficit (-)	-$233.1	-$235.7	$2.6	-1.1%
Individual income tax				
Federal marginal tax rates on AGI	24.1%	24.1%	0.0%	-0.1%
Federal marginal tax rates on wages	23.4%	23.4%	0.0%	0.0%
Federal marginal tax rates on dividends	27.5%	27.5%	0.0%	0.0%
Federal marginal tax rates on interest income	24.8%	24.8%	0.0%	-0.1%
Federal marginal tax rates on business income	28.8%	28.8%	0.0%	-0.1%
Federal marginal tax rates on long-term capital gains	24.8%	24.8%	0.0%	0.0%
Weighted average service price				
Corporate	15.5%	15.5%	0.0%	0.0%
Noncorporate	14.2%	14.2%	0.0%	0.0%
All business	15.1%	15.1%	0.0%	0.0%
Federal budget effects*				% of static
Revenues			$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)			$4.8	100%
"Dynamic" federal tax reflow from economic changes			-$2.5	-52%
Net federal tax change after dynamic effects			$2.3	48%
Federal outlay change if federal pay tracks private wages			-$0.3	-7%
Change in federal surplus (- is larger deficit, smaller surplus)			$2.6	55%
Comparing change in GDP to change in tax revenue*		GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Drop in GDP, total, and per $1 increase in federal revenue		-$5.2	-$1.07	-$2.25
Drop in after-tax income, total, and per $1 increase in federal revenue		-$7.4	-$1.55	-$3.25
Revenue gain to government from tax hike that cuts after-tax income $1.			$0.64	$0.31

* 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.

Elements of the Taxpayer Relief Act of 1997. The main features of the 1997 Act reduced the capital gains and estate taxes, and introduced the child credit. The bill was a bipartisan effort. House Ways and Means Committee Chairman Bill Archer (R-TX) made a significant mark on the 1997 Act, shepherding a cut in the capital gains tax rate through the Congress. President Clinton signed the bill willingly.

- *Capital gains.* The top tax rate on long term capital gains was reduced from 28% to 20%. For people in the 15% tax bracket for ordinary income, the capital gains rates was cut to 10%. For gains held five years or more, these rates were reduced further to 18% and 8%.

- *Child credit.* The child credit was introduced to the income tax, at $500 per child per year. Publicly released IRS data do not provide sufficient detail to simulate the credit in this model. However, the child credit's incentive effects should be small because the credit does not have much impact on marginal tax rates, except to raise marginal tax rates in the range of income over which the credit is phased out.

- *Estate tax reduction.* The unified credit was expanded from $600,000 per person in 1998 to $1 million per person by 2006, and indexed for inflation thereafter. (Not modeled.)

Economic and budget effects of the Taxpayer Relief Act of 1997. The capital gains tax rate reductions in the 1997 Act are estimated to have raised long run GDP by 1.2 percent, private sector output and labor income by 1.3 percent, and increased the capital stock by 3.6 percent (Table 18). The service price in the corporate sector was reduced a significant 3.0 percent. About 68 percent of the assumed revenue loss was recovered due to added GDP. The estate tax change would have reduced the service price slightly and added to the GDP gains, but there was insufficient data to allow the calculation.

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. The following table and chart deal with the realizations issue. Chart 6 and Table 19 show that realized gains jumped sharply after the tax rate was cut in 1997, and brought additional revenue into the Treasury.

The chart and table suggest strongly that the reduction in the capital gains tax rate in 1997 raised revenue, after taking the realizations behavior into account. They also suggests that the previous increase in the capital gains rate in 1986 cost revenue, and that raising the capital gains tax rate today would also depress GDP and lose revenue.

Table 18
CLINTON: CAPITAL GAINS RATE CUT, TAXPAYER RELIEF ACT OF 1997
Clinton vs. pre-Clinton Law, at 1998 Income Levels

	Clinton	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$8,793.5	$8,688.0	$105.5	1.2%
Private business output (less indirect taxes plus subsidies)	$6,178.6	$6,101.7	$76.8	1.3%
Compensation of employees	$4,176.5	$4,124.6	$51.9	1.3%
Gross capital income	$2,002.1	$1,977.2	$24.9	1.3%
Private Business Stocks	$13,951.4	$13,460.3	$491.2	3.6%
Wage rate $/hr	$22.01	$21.79	$0.22	1.0%
Private business hours of work (billions)	189.751	189.294	0.456	0.2%
Total government receipts ($billions)	$2,762.2	$2,759.5	$2.7	0.1%
Federal	$1,803.0	$1,815.4	-$12.4	-0.7%
State & local	$1,200.4	$1,185.3	$15.1	1.3%
Total Federal expenditures	$1,765.8	$1,762.3	$3.5	0.2%
Federal surplus (+) or deficit (-)	$37.2	$53.1	-$15.9	-29.9%
Individual income tax				
Federal marginal tax rates on AGI	25.4%	25.4%	0.0%	0.0%
Federal marginal tax rates on wages	24.6%	24.5%	0.1%	0.4%
Federal marginal tax rates on dividends	28.4%	28.9%	-0.5%	-1.8%
Federal marginal tax rates on interest income	26.2%	26.5%	-0.3%	-1.0%
Federal marginal tax rates on business income	30.0%	29.9%	0.0%	0.1%
Federal marginal tax rates on long-term capital gains	18.5%	24.8%	-6.3%	-25.5%
Weighted average service price				
Corporate	16.6%	17.1%	-0.5%	-3.0%
Noncorporate	11.6%	11.6%	0.0%	0.0%
All business	15.0%	15.4%	-0.4%	-2.3%
Federal budget effects*				
Revenues			$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-$38.4	100%
"Dynamic" federal tax reflow from economic changes			$26.0	-68%
Net federal tax change after dynamic effects			-$12.4	32%
Federal outlay change if federal pay tracks private wages			$3.5	-9%
Change in federal surplus (- is larger deficit, smaller surplus)			-$15.9	41%
Comparing change in GDP to change in tax revenue*		GDP Change $ Billions	Change per dollar Static	Change per dollar Dynamic
Rise in GDP, total, and per $1 reduction in federal revenue		$105.5	$2.75	$8.52
Rise in after-tax income, total, and per $1 reduction in federal revenue		$117.9	$3.07	$9.52
Revenue loss to government from tax cut that raises after-tax income $1.			$0.33	$0.11

* 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.

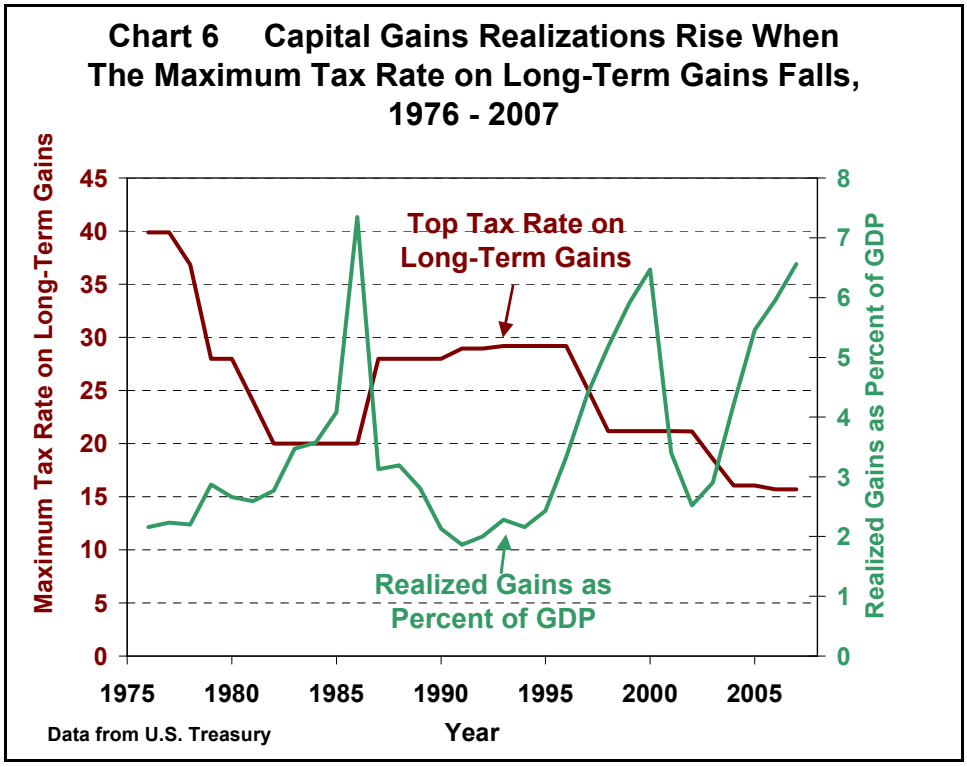


Table 19 is from the Department of the Treasury, Office of Tax Analysis. It displays the amount of capital gains realized, the taxes paid on the gains, the average effective tax rate, the realized gains as a percent of GDP, and the maximum tax rate on long-term gains from 1954 to 2007. The numbers cover all types of capital gains, including those on real estate, corporate stock, non-corporate businesses, bonds, and other assets. The maximum rate includes adjustments for exclusions, surcharges, the minimum tax and alternative minimum tax, and the phase-out of itemized deductions as income rises. These are features of the tax code that have been in place at various times.

There have been four major reductions and two major increases in the capital gains tax rate since 1968.

The Johnson surtax and increases in the Minimum Tax under Nixon and Ford raised the top tax rate on long term gains from 25% in 1967 to nearly 40%. Realizations fell from over 3% of GDP in 1967-69 to about 2% of GDP in 1974-78. The Steiger Amendment lowered the top tax rate most commonly found on long term capital gains in mid-1978, from just under 40% to 28%. It eliminated capital gains as a preference item under the minimum tax and created a 60% exclusion of long term gains from taxable income. Realizations were 2.20% of GDP in 1978, and rose by about a fourth to between 2.58% and 2.86% of GDP in 1979-1981. The Economic Recovery Tax Act of 1981 reduced the top rate to 20% in the spring of that year. Realizations were 2.77% of GDP in 1982, rising to 3.47% in 1983 and 4.08% in 1985.

This two-year rise and fall could have been due to a simple timing shift, moving gains from 1987 to 1986. However, gains remained depressed as a share of GDP for a decade. Realizations continued falling to 1.86% of GDP in 1991 (a recession year), and struggled back only to 3.34% of GDP in 1996, still below the 1985 share. Gains did not recover their 1985 share of GDP until 1997, when the capital

Table 19
Capital Gains and Taxes Paid on Capital Gains
for Returns with Positive Net Capital Gains, 1954-2005
(dollar amounts in millions)

Year	Total Realized Capital Gains	Taxes Paid on Capital Gains	Average Effective Tax Rate (percent)	Realized Gains as a Percent of GDP	Maximum Tax Rate on Long-Term Gains
1954	7,157	1,010	14.1	1.88	25.00
1955	9,881	1,465	14.8	2.38	25.00
1956	9,683	1,402	14.5	2.21	25.00
1957	8,110	1,115	13.7	1.76	25.00
1958	9,440	1,309	13.9	2.02	25.00
1959	13,137	1,920	14.6	2.59	25.00
1960	11,747	1,687	14.4	2.23	25.00
1961	16,001	2,481	15.5	2.93	25.00
1962	13,451	1,954	14.5	2.29	25.00
1963	14,579	2,143	14.7	2.36	25.00
1964	17,431	2,482	14.2	2.62	25.00
1965	21,484	3,003	14.0	2.98	25.00
1966	21,348	2,905	13.6	2.70	25.00
1967	27,535	4,112	14.9	3.30	25.00
1968	35,607	5,943	16.7	3.91	26.90
1969	31,439	5,275	16.8	3.19	27.50
1970	20,848	3,161	15.2	2.01	32.21
1971	28,341	4,350	15.3	2.51	34.25
1972	35,869	5,708	15.9	2.89	36.50
1973	35,757	5,366	15.0	2.58	36.50
1974	30,217	4,253	14.1	2.01	36.50
1975	30,903	4,534	14.7	1.89	36.50
1976	39,492	6,621	16.8	2.17	39.875
1977	45,338	8,232	18.2	2.23	39.875
1978	50,526	9,104	18.0	2.20	39.875/33.85
1979	73,443	11,753	16.0	2.86	28.00
1980	74,132	12,459	16.8	2.65	28.00
1981	80,938	12,852	15.9	2.58	28.00/20.00
1982	90,153	12,900	14.3	2.77	20.00
1983	122,773	18,700	15.2	3.47	20.00
1984	140,500	21,453	15.3	3.57	20.00
1985	171,985	26,460	15.4	4.08	20.00
1986	327,725	52,914	16.1	7.36	20.00
1987	148,449	33,714	22.7	3.13	28.00
1988	162,592	38,866	23.9	3.18	28.00
1989	154,040	35,258	22.9	2.81	28.00
1990	123,783	27,829	22.5	2.13	28.00
1991	111,592	24,903	22.3	1.86	28.93
1992	126,692	28,983	22.9	2.00	28.93
1993	152,259	36,112	23.7	2.29	29.19
1994	152,727	36,243	23.7	2.17	29.19
1995	180,130	44,254	24.6	2.43	29.19
1996	260,696	66,396	25.5	3.34	29.19
1997	364,829	79,305	21.7	4.39	29.19/21.19
1998	455,223	89,069	19.6	5.18	21.19
1999	552,608	111,821	20.2	5.96	21.19
2000	644,285	127,297	19.8	6.56	21.19
2001	349,441	65,668	18.8	3.45	21.17
2002	268,615	49,122	18.3	2.57	21.16
2003	323,306	51,340	15.9	2.95	21.05/16.05
2004	499,154	73,213	14.7	4.27	16.05
2005	690,152	102,174	14.8	5.46	16.05
2006	798,214	117,793	14.8	5.96	15.70
2007 1/	924,164	137,042	14.8	6.56	15.70

Department of the Treasury, Office of Tax Analysis January 14, 2010
1/ Preliminary estimate, subject to revision.

gains tax rate was again reduced to 20% by the Taxpayer Relief Act of 1997, effective as of May 8th of that year. This episode of a decade-long depression in realizations and tax revenue simply cannot be dismissed as either short-term timing or a fluke.

Following the 1997 rate cut to 20%, realizations remained elevated until the dot.com stock market crash and economic recession in 2001. The Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) reduced the top rate from 20% to 15%. Realizations rose from 2.95% of GDP to 4.27% in 2004 and to 6.56% in 2007. In each of these years, government revenue estimators under-estimated the rise in the gains and the duration of the increase, and had to revise their projected gains and revenues up in each new year's budget work. Gains have undoubtedly swung widely since the latest recession and stock market crash in 2008.

Treasury, CBO, and Joint Tax Committee revenue estimators acknowledge and try to take account of short run timing effects of tax rate changes in their capital gains revenue estimates, such as the realizations spikes in 1968 and 1986 in anticipation of rates increases, and declines in realizations immediately after the capital gains rates increase. In all these historical cases, however, there appears to have been a longer-term response to higher or lower rates, in addition to a short-run unlocking event after a rate cut or a timing shift in anticipation of a rate hike. This thirty-year period indicates that people hold assets longer, and take fewer gains over time, at higher capital gains tax rates than they do at lower rates. This is a permanent realizations effect that government revenue estimators should take into account.

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 for tax purposes includes capital gains, with no acknowledgment that it is a form of double taxation. Advocates of the broad-based income tax, which derives from the Haig-Simons 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.[3] 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

---

[3] See Paul Evans, "The Relationship Between Realized Capital Gains and Their Marginal Rate of Taxation, 1976-2004," *Capital Gains Series*, No. 2, Institute for Research on the Economics of Taxation, October 9, 2009, available on the Internet 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.

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.

Conclusion

Presidents George H. W. Bush and Bill Clinton, in his first Administration, attempted to raise revenue by increasing taxes on income from capital. The AMT was increased, top tax rates were raised, and asset lives were lengthened. The results were not good. Much or all of the static revenue gains anticipated from the tax increases were lost to reduced GDP and lower revenues from other taxes. Lower GDP depressed wages and incomes across the board.

In the second Clinton Administration, with a Republican House led by Newt Gingrich (R-GA) and a Ways and Means Committee Chaired by Bill Archer, the growth of government spending was slowed and the capital gains tax was reduced. Annual growth of real GDP averaged a percent higher, revenues from capital gains realizations rose, and the budget moved into surplus.

It is often said that Bill Clinton raised tax rates on the upper income earners, but GDP and employment grew anyway, and the unemployment rate fell, so why not raise the top tax rates again today? That the economy grew in the 1990s s not evidence that the 1993 tax rate increases did no harm. A rise in tax rates depresses the level of the labor supply and reduces the desired capital stock. It takes several years of reduced capital formation to complete the adjustment, after which growth resumes in line with population and technological advances, but from a lower level.

The model simulations and the real world economic record show that GDP grew less rapidly after the Bush tax hike. They also suggest that the tax increases in 1993 did not help GDP or the budget. Growth in real GDP dipped from 3.4 percent in 1992 to 2.9 percent in 1993. The economy and federal revenues were stronger in the second Clinton term than the first, after the adoption of the capital gains tax rate cut and federal spending restraint. Federal spending restraint added to economic growth by leaving more capital and labor resources for private sector use, where it could be employed to create goods and services that consumers value and are willing to pay for. The Federal Reserve also aided growth by reining in the inflation spike (over 6 percent) in 1990. Lower inflation later in the decade reduced the tax rate on capital by reducing the erosion of the real value of the capital consumption allowances.

Tax reform efforts today are subject to the same competing ideas as to what an ideal tax and spending program should look like as they were in the 1990s. There is even more pressure now to raise revenue, or at least, not to reduce it. The tax reform process is still hobbled by the reliance on static revenue estimation and the lack of dynamic revenue estimates. The Congress is still not informed of the combined effect of proposed tax changes on the service price of capital and the incentive to work or hire. The tax changes of the 1990s, building on similar evidence from the 1980s,

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

This study was made possible by a grant from the Searle Freedom Trust.

Note: Nothing here is to be construed as necessarily reflecting the views of IRET or as an attempt to aid or hinder the passage of any bill before the Congress.