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THE REAGAN ERA TAX POLICIES

Introduction

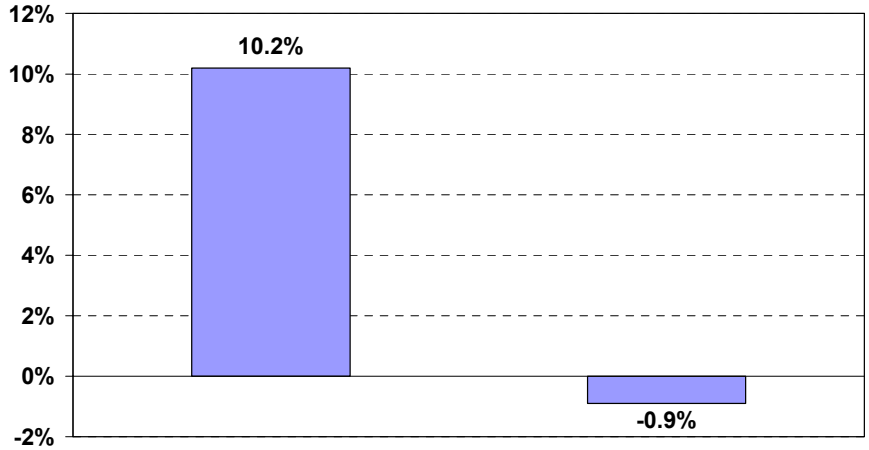
This paper estimates the effect of the Reagan era tax policies of the 1980s on the U.S. economy and the federal budget. It examines the differing policy objectives and economic outcomes of the early Reagan tax rate reductions and the later tax reform efforts.

The tax rate reductions of the early Reagan years were aimed at restoring economic growth and producing a tax system that weighed less heavily on saving and capital formation than prior law. By and large, they were successful once they were fully implemented. (See Chart 1.)

The tax reform of the second Reagan administration marked a return to the policies of the traditional public finance community, moving back toward the broad-based income tax, which favors consumption over saving and investment. That reform altered the tax base and effectively raised taxes on capital formation even as it lowered statutory marginal tax rates on individuals and corporations. The economy was not as strong after the shift in policy. (See Chart 1.)

These alternative approaches to taxation had significantly different economic consequences. The experience of the 1980s offers useful guidance for dealing with the current federal deficit and related tax reform proposals intended to be a part of the deficit fix. In particular, it is a warning against current efforts to mimic the Tax Reform Act of 1986 as a response to the federal budget gap.

Chart 1 Changes In GDP Due to Tax Changes in the First and Second Reagan Administrations



Source: Calculations by author

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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". 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.

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 Pre-Reagan

President Reagan inherited an economy that had been under-performing for twelve years, from 1969 through 1980, under three administrations. There had been three recessions (1969-70, 1973-75, and 1980). Inflation, unemployment, and interest rates were trending upward. Real wages, incomes, and GDP grew over the period, but more slowly than in the Eisenhower, Kennedy, and Johnson years. The phenomenon of rapid inflation and semi-stagnant real output was called "stagflation". Real wages were sliding at the end of the decade. The "misery index", the sum of the unemployment rate and the prime interest rate, had grown from 7.8% in 1968 to 20.6% in 1980. CPI inflation was 11.3 percent in 1979 and 13.5 percent in 1980, year-over-year.

Stop-and-go monetary policy, lack of spending restraint, and haphazard tax changes that did not fully counter the effects of inflation on the tax system all contributed to the economic problems of the 1970s. Nominal wages and salaries struggled to keep up with prices. Even when they did, higher nominal earnings pushed taxpayers into higher income tax brackets. In the worst years, real wages fell after taxes, because the tax code was not automatically adjusted, or indexed, for inflation. Every ten percent rise in wages and prices tended to raise federal income taxes by roughly fifteen or sixteen

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[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.

percent. The excess five or six percent tax increase was a rise in real, inflation-adjusted revenue, rewarding Washington for letting inflation continue.

Average tax rates were held down to some extent by several legislated increases in personal exemptions and standard deductions, but after-tax wages suffered nonetheless as taxes rose as a share of income. Marginal tax rates increased over time in spite of two modest reductions in marginal rates in 1971 and 1978. Higher marginal tax rates on labor and capital income led to reduced incentives to work, save, and invest. These factors were omitted from the prevailing Keynesian view of economics, which looked at the "income effect" of tax cuts on disposable income rather than on the "price effect" on the choices between work and leisure or investment versus consumption.

Inflation raised taxes on saving and investment in other ways. Capital gains due to inflation were taxed as if they were real gains. Capital consumption allowances (depreciation deductions) for purchases of plant and equipment and commercial and residential real estate lose value to inflation, understating business costs and overstating taxable business income. In some years, capital gains and business income were so severely overstated due to inflation that individuals and firms were paying taxes on nominal gains and profits that were actually real losses.

As inflation rose, capital had to earn a higher pre-tax return (service price) to break even after taxes, depressing the desired capital stock and reducing productivity and wage growth. Depreciation reform in 1971 and several tax bills in the later part of the decade offset the damage done to the service price by the 1973-75 spike in inflation. However, the tax relief was not sufficient to enable capital formation to keep pace with the rising work force as the baby boom entered its prime working years. Worker productivity and real wages lagged in the last part of the decade.

It had become apparent that inflation was harmful to production and employment because it raised tax rates on additional capital formation and hiring. Simply handing the money back though tax rebates or increases in personal exemptions and the standard deduction did not correct for the rising marginal tax rates. They also failed to stimulate "demand" as predicted.

Milton Friedman explained that the "demand effect" of tax cuts (or government spending increases) was a mirage. He asked, "If the government spends $300 billion, and cuts taxes to $250 billion, where does the $50 billion difference come from, the Tooth Fairy?" No, he explained, there are two possibilities. The first is that the government must increase its borrowing from the public by the amount of the tax cut (or spending increase), taking back through the credit markets with one hand what it gave out via the tax cut (or spending increase) with the other hand, negating the demand effect.[2]

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[2] Robert Barro puts a more sophisticated twist on this phenomenon, suggesting that taxpayers realize that the government will have to raise taxes down the road to service the added debt. The taxpayers will save the tax cut (buy the added federal debt) to pay the higher future taxes. Either explanation suggests that there is no initial rise in "demand" to trigger a rise in GDP from a tax cut (or a government spending increase).

The other is that the Federal Reserve buys the added government debt, which raises demand by increasing the money supply. Demand only rises if this change in monetary policy occurs, not because of the tax or spending change per se, and the faster money supply growth will eventually lead to higher prices rather than higher real output.

Friedman's insight, the success of the Kennedy business tax cuts and marginal income tax rate reductions for individuals, and the failure of later tax changes that were not "at the margin" to do much good led to the development of newer views of how monetary and fiscal policy work and how they could be used to create steady, non-inflationary growth.[3]

Among these new ideas was a focus on the price effects of taxation, that is, on how reductions in marginal income tax rates and faster cost recovery rules could lift incentives to work, save, and create capital. This view of economics was in the classical tradition, but came to be called "supply-side economics" because of its focus on the effect of tax rates on the supply of capital and labor services. Tax changes of the type that increase the supply of capital and labor can raise output, income, and demand together, generating additional private saving in the process to cover the government's borrowing needs without choking off the expansion.

A second insight was that the Federal Reserve should focus on maintaining price stability, rather than accelerating the growth of the money supply to stimulate the economy. Restraint of government spending and elimination of excessive regulation rounded out the new view of an ideal policy mix.

Some Members of Congress began to espouse these policies in the late 1970s. Representative Jack Kemp (R-NY) and Senator William Roth (R-DE) introduced the Kemp Roth Bill to reduce marginal income tax rates across the board by 30 percent. Several Republican Senators and Representatives offered amendments to index the income tax for inflation, but were opposed by the Ford and Carter Administrations. The Congressional Joint Economic Committee (JEC) Minority views in the Committee's annual and mid-year reports outlined the policy mix described above to counter stagflation.

Gradually, some bipartisan efforts to cut tax rates began to take shape. In 1978, Senators Sam Nunn (D-GA) and Lawton Chiles (D-FL) sponsored a combination of marginal tax rate reductions and spending caps in 1978, which passed the Senate, but they were opposed by the Carter Administration. However, more modest individual rate cuts that had passed the House did become part of the 1978 Tax Act, and were a step in the right direction. In 1979 and 1980, Senator Lloyd Bentsen (D-TX) and Representative Clarence Brown (R-OH) worked to produce two unanimous, bipartisan JEC reports on the need to spur investment, after Bentsen submitted his "10-5-3" proposal for shorter depreciation

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[3] See Stephen J. Entin, "The Nixon, Ford, And Carter Era Tax Policies," *IRET Policy Bulletin*, No. 101, November 1, 2011, available at http://iret.org/pub/BLTN-101.PDF.

lives for structures (10 years) and equipment (5 years or 3 years). The new policy mix was gaining understanding and support as the decade came to an end.

The Reagan Economy

President Reagan took office in January 1981. He was elected on a platform of a thirty percent reduction in marginal tax rates (Kemp-Roth) to spur economic output (supply), a gradual reduction in the growth rate of the money supply to rein in inflation, curbing the growth of federal spending to help pay for the tax cuts and to return manpower and other resources to private sector use, and reduction in unnecessary regulation to reduce the cost of production and improve the allocation of resources.

The Administration hoped that gradual monetary restraint combined with cost-reducing tax cuts could unwind inflation with minimal economic damage. The Federal Reserve, under Chairman Paul Volker, began to restrict the growth of money and credit from the day after the November 1980 election. The Federal Reserve policy shift was more abrupt than gradual. Monetary policy was very tight over the winter of 1981, with a slight easing in the spring before another round of tightness in the summer. Unfortunately, the tax reductions were not enacted in synch with the monetary restraint.

Reagan won a landslide election victory, and his coattails gave Republicans control of the Senate. Nonetheless, the Congress was skeptical that Reagan's proposed tax reductions would spur growth as advertised, and it feared that the deficit would grow too large. Congress was also reluctant to cut spending as much as the President advised. Budget Director David Stockman struggled to project a budget balance by 1984 (an Administration target). Stockman and the Senate leadership urged that the tax reduction program be scaled back and delayed. The first installment was cut in half and deferred until the fourth quarter of 1981, and the remaining rate cuts were pushed back six months, and were not fully effective until the fourth calendar year, 1984. With these compromises, Congress passed the Economic Recovery Tax Act of 1981 (ERTA), and President Reagan signed it into law on August 13, 1981.

The early onset of the monetary tightening, combined with the delayed phase-in of the tax rate reductions, contributed to an economic downturn that began in July of 1981. The recession lasted until November 1982. It involved a "double dip", with a quarter of growth in the spring of 1982 followed by a renewed decline until the end of the year. Year over year, real gross domestic product fell 2.0 percent in 1982.

Inflation in 1979 had been 11.3 percent, year over year, and 13.5 percent in 1980. It dropped to 10.3 percent in 1981, and fell rapidly to 6.2 percent in 1982, 3.2 percent in 1983. It popped up to 4.3 percent in 1984, but turned down again to 3.6 percent in 1985 and 1.9 percent in 1986. The rapid decline in inflation was a surprise to most forecasters. By 1982, the tax rate reductions were large enough to have rolled back the marginal tax rate increases due to inflation-related bracket creep of

1979-1981. (See Table 1.) The end of 1982 marked the start of a vigorous upturn, with GDP growth rates of 4.3 percent in 1983, 7.3 percent in 1984, and 3.8 percent in 1984.

Table 1
Marginal Federal Income Tax Rates (in Percent)

	1979	1980	1981	1982	1983	1984
Federal Mgl. Tax Rate on AGI	29.66	31.32	32.37	29.66	27.81	27.44
Federal Mgl. Tax Rate on Wages	28.36	30.01	31.11	28.41	26.32	25.96
Federal Mgl. Tax Rate on Dividends	43.78	45.14	43.14	36.91	35.31	33.85
Federal Mgl. Tax Rate on Interest Income	29.93	31.97	33.10	29.35	26.56	27.27
Federal Mgl. Tax Rate on Business Income	37.58	38.15	38.06	33.45	31.86	31.66
Federal Mgl. Tax Rate on Long-Term Capital Gains	16.99	17.45	17.89	15.10	15.58	13.21

Source: Calculated by author using model.

The spending reduction part of the Reagan policy agenda did not run smoothly. The Reagan Treasury appointees, led by Norman Ture, Under Secretary for Tax and Economic Affairs, and Beryl Sprinkel, Under Secretary for Monetary Affairs, recommended strong limits on nominal spending in the budget, because they felt that the Federal Reserve's shift to a tighter monetary policy would bring inflation down rapidly, and that tax rate reduction would moderate the cost of capital and labor. More traditional policy officials, including Murray Weidenbaum, Chairman of the Council of Economic Advisors, felt that inflation would be "sticky" and slow to retreat. Budget Director Stockman feared that a low forecast of inflation and nominal GDP growth would make it harder to show a reduction in the deficit. As a result of these pressures, the Administration forecast a very slow reduction in inflation, falling from 11 percent in 1981, to 8.2 percent in 1982, 6.2 percent in 1983, and 5.5 percent in 1984, 4.7 percent in 1985, and 4.2 percent in 1986.[4] These figures overshot the mark by a cumulative 10.5 percent.

With inflation forecast to remain high, the Administration and Congress over-budgeted for it. In 1981, Congress reluctantly passed a budget and spending bills that appeared to slow the growth of real, inflation-adjusted government spending by a respectable amount. In the event, inflation fell quickly during 1982, and instead of real government spending falling, it rose several percent. Congress later made some minor spending adjustments, but did not correct the overspending. This was a significant source of the rise in the deficit in the early 1980s. The recession also contributed to the deficit by lowering employment and income. These were larger sources of the increased deficits of the early Reagan years than the cost of the tax cuts.

[4] *America's New Beginning: Program for Economic Recovery*, The White House, Washington, DC, February 18, 1981, p. 25.

In response to the rising deficits, two tax increases were passed. The Tax Equity and Fiscal Responsibility Tax Act of 1982 (TEFRA) and the Deficit Reduction Act of 1984 (DEFRA) scaled back some of the business incentives in ERTA, reducing the potential long term economic benefits of the original bill. Short term, TEFRA in particular delayed the economic recovery and added to the budget woes.

Slower money growth, rising real output, and reduced inflation in the 1983-1985 period sent the dollar soaring on the foreign exchange market. Although the economy was growing rapidly by 1985, the export sector (including agriculture) and the import competing industries (including automobiles and other manufacturing) were placed at a competitive disadvantage by the strong dollar. The U.S. current account deficit was large and was leading to protectionist pressure in the Congress.

In September 1985, the Finance Ministers and central bank heads of the Group of Five largest industrial nations met in New York at the Plaza Hotel. On September 22, they agreed to the "Plaza Accord" under which Federal Reserve Chairman Paul Volcker was instructed to ease U.S. monetary policy and allow the dollar to depreciate relative to the other leading currencies, and the non-U.S. nations pledged to adopt policies to spur more domestic growth. The dollar did ease substantially, but the growth efforts abroad were only marginally successful. U.S. inflation rose from 1.9 percent in 1986, to 3.6 percent in 1987, and to 4.1 percent in 1988.

The next major piece of tax legislation was the Tax Reform Act of 1986 (TRA86). On balance, TRA86 raised taxes at the margin on capital income, which impeded capital formation later in the decade, and reduced marginal tax rates on labor income. The supply of capital is more sensitive to taxation than the supply of labor. As a result, TRA86 slightly retarded GDP growth. It was followed in 1988 and 1990 by two increases in the payroll tax mandated by the 1977 and 1983 Social Security Amendments. Real GDP growth moderated to a compound rate of 3.6 percent from 1985 to 1989. The investment expansion triggered by ERTA (offset in part by later tax increases) was winding down.

The decade of the 1980s began with rapid inflation, recession, and falling productivity and real wages. It ended with solid real growth, good productivity gains, and much slower price increases. Employment rose from 90.4 million in 1980 to 107.9 million in 1989, an increase of roughly 18 million. In that same period, there was virtually no employment growth in the European Union and Japan. The U.S. economy outperformed nearly all of the non-socialist world.

Modeling the Consequences of the Reagan Tax Changes

What drives the model.

This section of the study simulates the tax changes of the Reagan years using a simple model of the U.S. economy. The study takes a neo-classical view of the economy, in which decisions about work, saving, and capital formation are driven by the after-tax rewards "at the margin" for incremental

amounts of these activities. 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, 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.

Elements of the Reagan Tax Changes

Important tax changes were enacted in 1981, 1982, 1983, 1984, and 1986. Only the major provisions are described. Only the provisions for which there are sufficient IRS Statistics of income data, and which affected behavior at the margin, are modeled.

The Economic Recovery Tax Act of 1981 (ERTA). ERTA was aimed at reducing marginal tax rates on capital and labor income to spur growth. It reduced some of the tax biases inherent in an income tax against saving and investment, moving in the direction of a saving-consumption neutral system. It relied on across-the-board tax changes that did not favor one group of industries over another, and attempted to reduce distortions in the allocation of resources. ERTA's major provisions are described below.

- *Marginal tax rate reductions for individuals.* The marginal rate reductions in ERTA were scaled back from the original Reagan platform (three staged 10 percent rate reductions, effective January 1, 1981; January 1, 1982; and January 1, 1983). Instead, ERTA provided a 5 percent rate cut effect on October 1, 1981, and two 10 percent rate cuts, effective July 1, 1982 and July 1, 1983. The top tax rate of 70 percent was lowered to 50 percent, and the bottom tax rate of 20 percent was reduced to 14 percent, with intermediate rates reduced more or less in proportion. (See Table 2.) The rate cuts effectively lowered the maximum ordinary tax rate on long term capital gains from 28 percent to 20 percent.

The rate cuts "compounded", with each step a reduction from the reduced rates of the previous step. This resulted in a roughly 23 percent rate cut in the marginal rates, not the 25 percent usually assumed. The mid-year effective dates of the staged rate reductions meant that the calendar year (and tax year) reductions were slow to occur. The initial 5% marginal rate cut for the last quarter of 1981 amounted to a 1.25% reduction for all of 1981, a cut that was more than offset by ongoing bracket creep. The effective rate reduction for 1982 was 9.75%; for 1983, 18.78%; and for 1984, 23.05%. The last rate reduction was in mid-1983, but the first year in which the full rate reduction was in force for the entire tax year was 1984.

Table 2

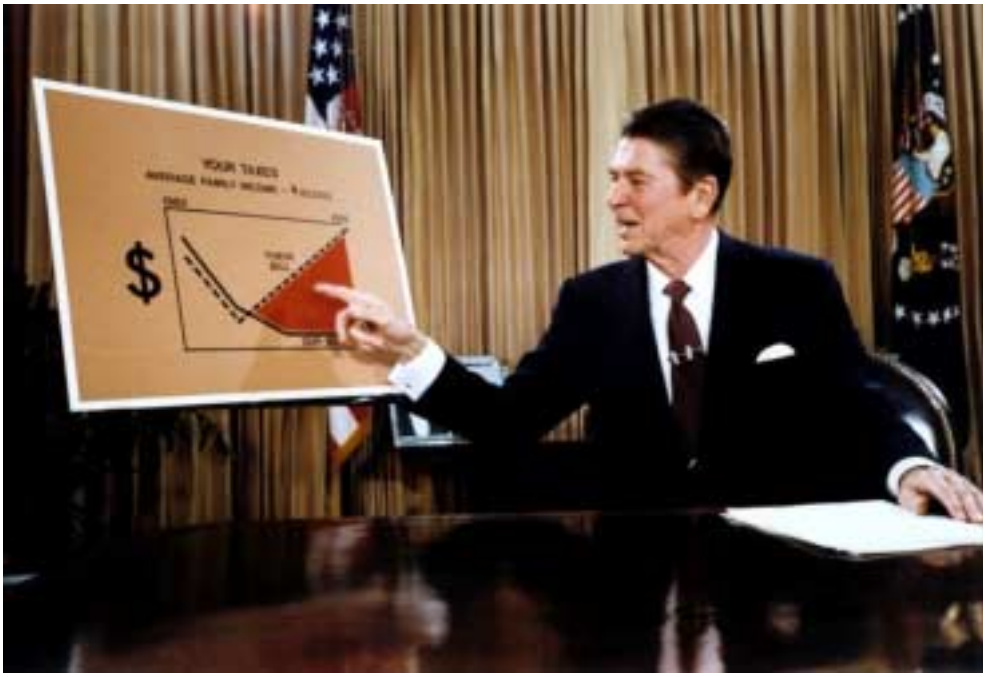
Economic Recovery Tax Act of 1981, Tax Rate Schedules for 1981 - 1984, Joint Returns

Taxable Income Bracket (dollars)	**1981**[1] Tax Rate on Income Bracket *(percent)*	**1982** Tax Rate on Income Bracket *(percent)*	**1983** Tax Rate on Income Bracket *(percent)*	**1984** Tax Rate on Income Bracket *(percent)*
$ 0 - 3,400	0%	0%	0%	0%
3,400 - 5,500	14	12	11	11
5,500 - 7,600	16	14	13	12
7,600 - 11,900	18	16	15	14
11,900 - 16,000	21	19	17	16
16,000 - 20,200	24	22	19	18
20,200 - 24,600	28	25	23	22
24,600 - 29,900	32	29	26	25
29,900 - 35,200	37	33	30	28
35,200 - 45,800	43	39	35	33
45,800 - 60,000	49	44	40	38
60,000 - 85,600	54	49	44	42
85,600 - 109,400	59	50	48	45
109,400 - 162,400	64	50	50	49
162,400 - 215,400	68	50	50	50
215,400 and over	70	50	50	50

Office of the Secretary of the Treasury, Office of Tax Analysis
[1] 1981 tax liabilities are calculated using the tax schedule and then reducing tax by 1.25 percent.

- *Tax indexing for inflation.* ERTA introduced tax indexing, effective in 1985, after the rate reductions were in place for a full year. Indexing adjusts the personal exemption, standard deduction, and the dollar amounts separating the marginal tax rate brackets for inflation. These items are increased by the rise in the consumer price index (calculated as the rise from the CPI in the third quarter two years earlier to the third quarter of the previous year). Indexing eliminates the inflation-related bracket creep that had pushed up marginal tax rates severely in the inflationary 1970s. It is a protection against hidden tax hikes and removes one of the incentives for the government to indulge in inflation. (Other incentives, to erode the value of the national debt, and overstate capital gains and business income, remain.)

President Reagan illustrated the indexing provision during an address to the nation before the key vote on ERTA in the House. It was an important distinction between his proposal and a competing,



Source: Reagan Presidential Library

smaller rate cut being offered by the Democratic leadership. Reagan stressed that, without indexing, tax rates would creep back up again. (See photo.)

● *Second (lower) earner deduction for married couples.* ERTA allowed a deduction of ten percent of the wage or salary income of the lower earning spouse, up to a $3,000 deduction against a $30,000 salary. This had the effect of reducing the marginal tax rate on the second earner by 10 percent (for example, from 32% to 28.8%). Two worker couples filing jointly pool their income for tax purposes. In a graduated tax rate system, the first dollar earned by the second worker is effectively taxed at the highest tax rate reached by the first worker's earnings. This can discourage labor force participation by the second worker. Indeed, an added dollar of income earned by either party is taxed at a higher rate the higher is the income of the spouse. The second earner provision reduced the disincentive.

● *Individual retirement accounts (IRAs).* Individual retirement accounts were liberalized. The tax deductible contribution limit was raised from 15% of employment income with a maximum of $1,500 to 20% of employment income with a maximum of $2,000. Individuals participating in certain employer-sponsored plans had been ineligible to have IRAs. ERTA allowed them to open IRAs with contributions reduced by the amounts individuals voluntarily added to their employer plans. The accounts gave small savers an incentive to increase saving. Savers who set aside more than the IRA contribution limits did not get new incentives "at the margin" to add to saving. (Not modeled.)

● *Accelerated Depreciation.* ERTA reduced asset lives for calculating capital consumption allowances (depreciation) to lower the cost of plant and equipment. Most dramatically, the write-off period for structures was lowered to 15 years from the old range of 16 to 45 years, depending on the type of structure, with the bulk having been between 40 and 45 years. The new system was called the Accelerated Cost Recovery System (ACRS). It replaced the ADR system (Asset Depreciation Range) that had been introduced in 1971. Under ADR, firms could use the double (200%) declining balance method of depreciation for equipment (a form of acceleration). To hold down the initial cost of the 1981 tax reductions, ERTA only incorporated 150 percent declining balance for 1981-1983 in the ACRS depreciation schedules. It was to have returned to 175 percent declining balance in 1984 and 200 percent in 1985. TEFRA, enacted in 1982, forestalled this promised return to double declining balance.

● *Investment tax credit.* The investment tax credit for three year equipment was increased from 3-1/3% to 6%, and for five year equipment from 6-2/3% to 10%. The small ITC previously allowed for structures was eliminated in favor of a major reduction in asset lives. The rehabilitation tax credit was introduced.

● *Safe harbor leasing.* ERTA provided an easier method for firms that were running deficits, and unable to use depreciation write-offs immediately, to lease equipment from other firms that could use the write-offs. The provision was called "safe harbor leasing", and its aim was to boost investment to hasten the emergence from the recession. (Not modeled.)

● *Research and experimentation tax credit.* ERTA introduced the tax credit for incremental research outlays. (Not modeled.)

● *Small business corporate tax rate.* ERTA cut the marginal tax rates in the lower corporate tax brackets from 17% to 15% and from 20% to 18%. (Not modeled.)

● *Estate tax relief.* ERTA increased the unified credit from $47,000 to $192,800 over six years. It effectively raised the amount of an estate sheltered from the tax from $175,000 to $600,000.

The Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). Two major elements of TEFRA are discussed here.

● *Double declining balance.* TEFRA repealed the gradual return to the 175 percent and 200 percent declining balance method of depreciation scheduled for ACRS in1984 and 1985 in ERTA.

● *Safe harbor leasing.* TEFRA repealed the safe harbor leasing provision of ERTA. A few weeks after the passage of ERTA, Senate Finance Committee Chairman Robert Dole (R-KA) had pledged to eliminate it in the next tax bill. He took this position after several firms with large leasing divisions announced major investment contracts related to the provision, and were poised to pay little or no tax

as their investment expenses soared. Following Dole's announcement, several billion dollars worth of these investment agreements were canceled. The associated decline in investment spending contributed heavily to the second half of the double dip recession of 1981-1982. (Not modeled.)

The Deficit Reduction Act of 1984 (DEFRA).

- *Structures.* ERTA had reduced the asset life for structures from as long as 45 years to 15 years. DEFRA raised the lives to 18 and then 19 years.

These three acts, ERTA, TEFRA, and DEFRA, can be viewed together as the adjusted framework for investment and business taxation in the first Reagan Administration.

The Social Security Act Amendments of 1983. The Social Security Act Amendments of 1983 were needed to forestall a temporary shortfall in Social Security cash flow and spending authority in the mid-1980s.

- *Payroll tax increase advanced.* The Social Security Act Amendments of 1977 had scheduled a one percentage point payroll tax increase (from 11.4 percent to 12.4 percent) in 1990 for the retirement and disability program (OASDI). The increase was projected to come soon enough to prevent any cash flow deficits in the system as the baby boom retired. The economy had experienced more inflation and less real growth in the interim, and the new projections showed that the System would run short of funds by 1985. The 1983 Amendments accelerated a portion of the scheduled 1990 payroll tax increase to 1988, raising the rate in that year to 12.12 percent.

- *Benefits subjected to tax.* Of more economic import, individuals had not previously paid income taxes on their Social Security benefits, but the 1983 amendments changed that and subjected to tax up to half of Social Security benefits as single retirees' modified adjusted gross incomes (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.

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 of interest or dividends in the 28 percent bracket would be 42 cents. It effectively taxed tax exempt bond interest at half the normal tax rate of taxable income, and raised the effective tax rate on capital gains by half as well. 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.

The Tax Reform Act of 1986 (TRA86). TRA86 cut the corporate income tax rate, and further reduced personal income tax rates, which lowered the tax rates on wages and salaries, and cut the tax rates on dividends and non-corporate business income. These changes gave some reduction to the tax on capital income. In exchange, however, TRA86 raised taxes on capital in several ways, listed below. In addition, access to IRAs was limited for upper income taxpayers. Passive loss limitations were tightened to deny non-managing investors in real estate a portion of their deductions for depreciation.

Numerous other changes eliminated preferences for some favored investments and ended some abusive practices. Miscellaneous "loophole" closings and base broadeners raised corporate taxes at the margin by enough to offset about half of the effective marginal corporate tax rate reduction. On the individual side, offsets that were generally proportional to income offset nearly six percent of the reduction in the individual marginal tax rates.

- *Individual income tax rates and brackets.* The number of ordinary individual income tax brackets was reduced to two, with rates of 15 percent and 28 percent. At higher income levels, a 5% surtax raised the effective marginal rate to 33 percent on an amount of income large enough to recoup the tax "saved" by the 15 percent tax rate (versus a flat 28 percent rate), bringing the total tax to 28 percent of income. Income above the "bubble" again faced a marginal tax rate of 28 percent. (See Table 3.)

- *Long term capital gains.* The 60 percent exclusion of long term capital gains was repealed. Capital gains were treated as ordinary income and taxed at ordinary income tax rates. The top tax rate on long term capital gains was raised from 20 percent to 28 percent or 33 percent.

- *Individual income tax rates and brackets.* The Act nearly doubled the personal exemption from $1,080 in 1986 to $2,000 in 1989. The standard deduction was increased significantly. For joint filers, it rose from $3,679 in 1986 to $5,000 in 1988 (with proportional increases for single filers and heads of households).

Table 3
Individual Income Tax Rates And Brackets
Before And After The Tax Reform Act Of 1986
Joint Returns

1986			1888		
Brackets		Rates	Brackets		Rates
From	To		From	To	
0	3,670	0%	0	29,750	15%
3,670	5,940	11%	29,750	71,900	28%
5,940	8,200	12%	71,900	149,250	33%
8,200	12,840	14%	149,250 and over		28%
12,840	17,270	16%			
17,270	21,800	18%			
21,800	26,550	22%			
26,550	32,270	25%			
32,270	37,980	28%			
37,980	49,420	33%			
49,420	64,750	38%			
64,750	92,370	42%			
92,370	118,050	45%			
118,050	175,250	49%			
175,250 and over		50%			

● *Deductible IRAs restricted for upper income taxpayers.* Top income earners were denied a deduction for contributions to IRAs if they were covered under an employer provided pension. They were allowed a non-deductible contribution which could build up tax deferred.

● *Corporate income tax rate.* The top corporate income tax rate was reduced 12 percentage points from 46 percent to 34 percent. The Act eliminated various corporate "loopholes", deductions, and credits that had been reducing the effective marginal rate by about 6 percentage points. The combined effect was about equal to a 6 percentage point reduction in the tax rate.

● *Capital cost recovery.* TRA86 replaced ACRS with the Modified Accelerated Cost Recovery System (MACRS), which somewhat slowed and reduced the value of depreciation write-offs. The investment tax credit was repealed. The tax life of structures was raised to 31.5 years. The bill sent to the Congress by the Administration included the indexation of the depreciation allowances for equipment for inflation in MACRS. The Congressional tax committees rejected that provision. Had it been retained, the capital cost recovery provisions would have been less anti-growth.

Subsequent tax bills were relatively minor. The Revenue Act of 1987 and the Miscellaneous Revenue Act of 1987 made technical corrections, increased or extended some excise taxes on alcohol and telecommunication services, and extended Social Security coverage to agricultural workers.

Economic and Budget Consequences of Reagan Tax Changes.

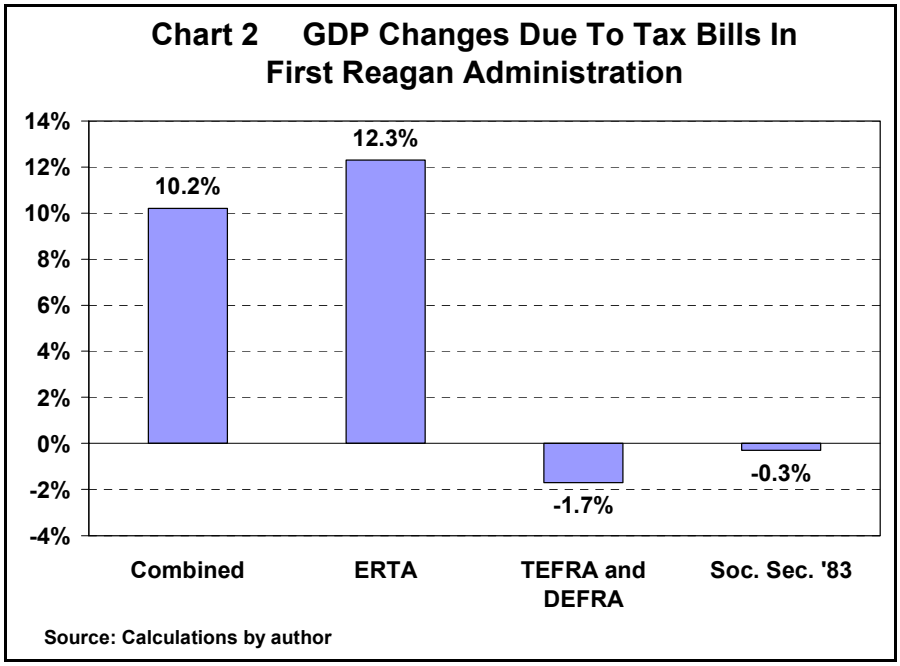
The following tables display the estimated **long run equilibrium changes** in the economy and the federal budget due to the Reagan business and individual tax changes.

Each table displays estimates of the difference between the economy under the Reagan tax regime, and one in which the Reagan tax changes had never occurred (that is, had pre-existing tax law continued in force), **after allowing time for all economic adjustments**.

Results of the first Reagan Administration tax bills - ERTA, TEFRA, DEFRA, and the 1983 Social Security Amendments. The model simulation is based on a sample of tax returns and the national income and federal budget levels of 1986, when all the earlier tax changes were fully in place, but before the Tax Reform Act of 1986.

Combined effects. Long run equilibrium changes in GDP due to ERTA, TEFRA, DEFRA, and the 1983 Social Security Amendments are shown in Chart 2. Together, they would have increased GDP by 10.2 percent over time. Had ERTA remained fully effective, it would have raised GDP 12.3 percent on its own. TEFRA and DEFRA shaved 1.7 percentage points from ERTA's potential benefit. The Social Security Amendments reduced long run GDP by another 0.3 percent.

ERTA, TEFRA, and DEFRA. Table 4 provides additional detail. The three income tax bills (ERTA, TEFRA, and DEFRA) together would have increased total GDP by 10.5 percent, raised private sector output and labor compensation by 11.4 percent, and raised the capital stock (plant, equipment, structures and inventory) by 27.9 percent. Marginal tax rates on wages were reduced by 22 percent, on dividends by 20.5 percent, on long term capital gains by 29.7 percent, and on non-corporate business income by 24 percent. The weighted average service price on capital fell by roughly 13 percent.



As a package, the three bills cost about $135 billion annually on a static basis. The additional economic growth they generated would have returned $121 billion in additional revenue, offsetting 90 percent of the static revenue loss. More important, real GDP and national income rose by more than $3 for each dollar of static revenue loss to the government, and by more than $30 for each dollar of dynamic revenue loss after the revenue feedback from economic growth.

The GDP effects of the major elements within ERTA, as amended by TEFRA and DEFRA, are shown in Chart 3. The individual tax rate reductions contributed 8.2 percent to GDP, the ITC and ACRS added 1.6

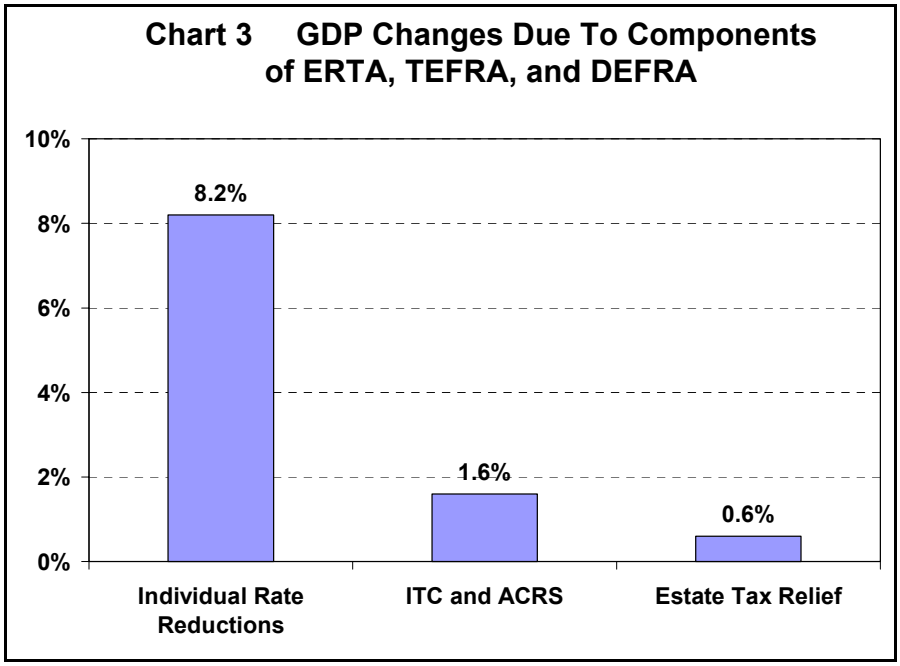


Table 4
REAGAN: ERTA, TEFRA, And DEFRA
vs Prior Law (Carter Administration), at 1986 Income Levels

	Reagan	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$4,460.1	$4,034.7	$425.4	10.5%
Private business output (less indirect taxes plus subsidies)	$3,156.8	$2,834.9	$322.0	11.4%
Compensation of employees	$2,130.8	$1,913.5	$217.3	11.4%
Gross capital income	$1,026.0	$921.4	$104.6	11.4%
Private Business Stocks	$8,650.3	$6,762.2	$1,888.1	27.9%
Wage rate $/hr	$13.97	$13.16	$0.81	6.1%
Private business hours of work (billions)	152.544	145.408	7.136	4.9%
Total government receipts ($billions)	$1,300.1	$1,261.1	$39.0	3.1%
Federal	$823.0	$836.9	-$13.9	-1.7%
State & local	$584.7	$531.8	$52.9	9.9%
Total Federal expenditures	$1,058.7	$1,038.7	$19.9	1.9%
Federal surplus (+) or deficit (-)	-$235.7	-$201.8	-$33.9	16.8%
Individual income tax				
Federal Marginal Tax Rates on AGI	27.8%	35.4%	-7.6%	-21.4%
Federal Marginal Tax Rates on Wages	26.3%	33.7%	-7.4%	-22.0%
Federal Marginal Tax Rates on Dividends	31.9%	40.1%	-8.2%	-20.5%
Federal Marginal Tax Rates on Interest Income	26.3%	32.1%	-5.7%	-17.9%
Federal Marginal Tax Rates on Business Income	32.2%	42.4%	-10.2%	-24.0%
Federal Marginal Tax Rates on Long-term Capital Gains	12.8%	18.2%	-5.4%	-29.7%
Weighted average service price				
Corporate	13.3%	15.3%	-2.0%	-13.1%
Noncorporate	10.4%	11.9%	-1.5%	-12.6%
All business	12.3%	14.1%	-1.8%	-12.9%
Federal budget effects*				% of static
Revenues			$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)			-$135.1	100%
"Dynamic" federal tax reflow from economic changes			$121.2	-90%
Net federal tax change after dynamic effects			-$13.9	10%
Federal outlay change if federal pay tracks private wages			$19.9	-15%
Change in federal surplus (- is larger deficit, smaller surplus)			-$33.9	25%
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		$425.4	$3.15	$30.54
Rise in after-tax income, total, and per $1 reduction in federal revenue		$439.3	$3.25	$31.54
Revenue loss to government from tax cut that raises after-tax income $1.			$0.31	$0.03

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

percent, and the estate tax changes added 0.6 percent. The individual rate cuts provide the largest gains in GDP, but they also cost the largest share of revenue in static terms.

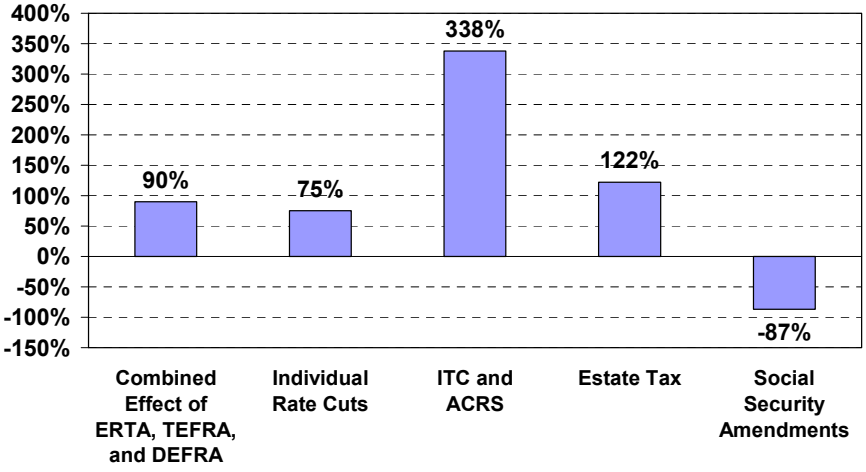
The individual tax rate reductions reduced the service price of capital by 9 percent. (Table 5.) They represented 93 percent of the total static cost of the bills but accounted for 78 percent of the growth of GDP. Their static cost of $125 billion generated $93 billion in additional revenue from economic growth for a net loss of $32 billion (75% revenue reflow). After-tax GDP increased by $11.62 for each $1 that federal revenue fell, a clear bargain for taxpayers even if government spending had to be reduced by $1 to pay for the tax cut. (Table 5.)

The ITC and ACRS changes reduced the service price of capital by 3.1 percent. (Table 6.) They represented 3 percent of the total static cost of the bills but accounted for 15 percent of the growth of GDP. Their static cost of $4.4 billion generated $14.8 billion in additional revenue from economic growth for a net gain of $10.4 billion (338% revenue reflow). The tax cut ultimately increased government revenue. The country enjoyed higher after-tax income with no loss of federal services due to these provisions.

The estate tax changes reduced the service price of capital by 1.2 percent. (Table 7.) They represented 3 percent of the total static cost of the bills but accounted for 6 percent of the growth of GDP. Their static cost of $4.7 billion generated $5.7 billion in additional revenue from economic growth for a net gain of $1 billion (122% revenue reflow). The estate tax cut increased government revenue long term.

Chart 4 displays in graph form the dynamic revenue reflow associated with the economic changes. As a package, the three income tax bills expanded GDP sufficiently to recover about 90 percent of their apparent static revenue cost. The ITC, depreciation, and estate tax changes more than covered their budget cost. The individual rate cuts recovered about 75 percent of their static revenue cost.

Chart 4 Dynamic Revenue Reflows Due To Tax Changes In First Reagan Administration, As Percent of Static Revenue Change



Source: Calculations by author

Social Security Amendments. The taxation of benefits in the Social Security Amendments penalized saving and work. The

Table 5
REAGAN: Individual Tax Rate Cuts in ERTA, TEFRA, And DEFRA vs Prior Law (Carter Administration), at 1986 Income Levels

	Reagan	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$4,460.1	$4,121.0	$339.1	8.2%
Private business output (less indirect taxes plus subsidies)	$3,156.8	$2,897.6	$259.2	8.9%
Compensation of employees	$2,130.8	$1,955.8	$175.0	8.9%
Gross capital income	$1,026.0	$941.8	$84.3	8.9%
Private Business Stocks	$8,650.3	$7,222.7	$1,427.6	19.8%
Wage rate $/hr	$13.97	$13.42	$0.55	4.1%
Private business hours of work (billions)	152.544	145.752	6.792	4.7%
Total government receipts ($billions)	$1,300.1	$1,288.9	$11.2	0.9%
Federal	$823.0	$855.0	-$31.9	-3.7%
State & local	$584.7	$541.5	$43.2	8.0%
Total Federal expenditures	$1,058.7	$1,043.8	$14.9	1.4%
Federal surplus (+) or deficit (-)	-$235.7	-$188.9	-$46.8	24.8%
Individual Income Tax:				
Federal Marginal Tax Rates on AGI	27.8%	35.9%	-8.0%	-22.4%
Federal Marginal Tax Rates on Wages	26.3%	34.3%	-8.0%	-23.3%
Federal Marginal Tax Rates on Dividends	31.9%	40.7%	-8.8%	-21.7%
Federal Marginal Tax Rates on Interest Income	26.3%	32.6%	-6.3%	-19.2%
Federal Marginal Tax Rates on Business Income	32.2%	41.9%	-9.6%	-23.0%
Federal Marginal Tax Rates on Long-term Capital Gains	12.8%	18.7%	-5.9%	-31.5%
Weighted Average Service Price				
Corporate	13.3%	14.6%	-1.3%	-9.0%
Noncorporate	10.4%	11.5%	-1.1%	-9.2%
All business	12.3%	13.5%	-1.2%	-9.0%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		-$125.2	100%
"Dynamic" federal tax reflow from economic changes		$93.3	-75%
Net federal tax change after dynamic effects		-$31.9	25%
Federal outlay change if federal pay tracks private wages		$14.9	-12%
Change in federal surplus (- is larger deficit, smaller surplus)		-$46.8	37%

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	$339.1	$2.71	$10.62
Rise in after-tax income, total, and per $1 reduction in federal revenue	$371.0	$2.96	$11.62
Revenue loss to government from tax cut that raises after-tax income $1.		$0.34	$0.09

* 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
REAGAN: ITC and ACRS Components of ERTA, TEFRA, and DEFRA vs Prior Law (Carter Administration), at 1986 Income Levels

	Reagan	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$4,460.1	$4,390.5	$69.6	1.6%
Private business output (less indirect taxes plus subsidies)	$3,156.8	$3,105.8	$51.0	1.6%
Compensation of employees	$2,130.8	$2,096.3	$34.4	1.6%
Gross capital income	$1,026.0	$1,009.5	$16.6	1.6%
Private Business Stocks	$8,650.3	$8,247.2	$403.1	4.9%
Wage rate $/hr	$13.97	$13.78	$0.19	1.4%
Private business hours of work (billions)	152.544	152.182	0.362	0.2%
Total government receipts ($billions)	$1,300.1	$1,282.1	$18.0	1.4%
Federal	$823.0	$812.6	$10.4	1.3%
State & local	$584.7	$577.1	$7.6	1.3%
Total Federal expenditures	$1,058.7	$1,054.8	$3.9	0.4%
Federal surplus (+) or deficit (-)	-$235.7	-$242.2	$6.5	-2.7%
Individual Income Tax:				
Federal Marginal Tax Rates on AGI	27.8%	27.6%	0.2%	0.8%
Federal Marginal Tax Rates on Wages	26.3%	26.0%	0.3%	1.2%
Federal Marginal Tax Rates on Dividends	31.9%	31.6%	0.3%	0.9%
Federal Marginal Tax Rates on Interest Income	26.3%	26.1%	0.3%	1.0%
Federal Marginal Tax Rates on Business Income	32.2%	32.7%	-0.4%	-1.4%
Federal Marginal Tax Rates on Long-term Capital Gains	12.8%	12.7%	0.2%	1.3%
Weighted Average Service Price				
Corporate	13.3%	13.8%	-0.5%	-3.6%
Noncorporate	10.4%	10.6%	-0.2%	-1.8%
All business	12.3%	12.7%	-0.4%	-3.1%

Federal budget effects*			
Revenues		$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)		-$4.4	100%
"Dynamic" federal tax reflow from economic changes		$14.8	-338%
Net federal tax change after dynamic effects		$10.4	-238%
Federal outlay change if federal pay tracks private wages		$3.9	-89%
Change in federal surplus (- is larger deficit, smaller surplus)		$6.5	-148%

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	$69.6	$15.87	-$6.68
Rise in after-tax income, total, and per $1 reduction in federal revenue	$59.2	$13.50	-$5.68
Revenue loss to government from tax cut that raises after-tax income $1.		$0.07	-$0.18

* 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
REAGAN: Estate Tax Relief In First Reagan Administration vs Prior Law (Carter Administration), at 1986 Income Levels

	Reagan	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$4,460.1	$4,433.2	$26.8	0.6%
Private business output (less indirect taxes plus subsidies)	$3,156.8	$3,137.1	$19.7	0.6%
Compensation of employees	$2,130.8	$2,117.5	$13.3	0.6%
Gross capital income	$1,026.0	$1,019.6	$6.4	0.6%
Private Business Stocks	$8,650.3	$8,494.1	$156.2	1.8%
Wage rate $/hr	$13.97	$13.89	$0.07	0.5%
Private business hours of work (billions)	152.544	152.400	0.144	0.1%
Total government receipts ($billions)	$1,300.1	$1,295.4	$4.7	0.4%
Federal	$823.0	$822.0	$1.0	0.1%
State & local	$584.7	$581.0	$3.6	0.6%
Total Federal expenditures	$1,058.7	$1,057.2	$1.5	0.1%
Federal surplus (+) or deficit (-)	-$235.7	-$235.2	-$0.5	0.2%
Individual Income Tax:				
Federal Marginal Tax Rates on AGI	27.8%	27.7%	0.1%	0.4%
Federal Marginal Tax Rates on Wages	26.3%	26.2%	0.1%	0.4%
Federal Marginal Tax Rates on Dividends	31.9%	31.8%	0.1%	0.4%
Federal Marginal Tax Rates on Interest Income	26.3%	26.2%	0.1%	0.5%
Federal Marginal Tax Rates on Business Income	32.2%	32.1%	0.1%	0.4%
Federal Marginal Tax Rates on Long-term Capital Gains	12.8%	12.7%	0.1%	0.8%
Weighted Average Service Price				
Corporate	13.3%	13.5%	-0.2%	-1.3%
Noncorporate	10.4%	10.5%	-0.1%	-0.9%
All business	12.3%	12.4%	-0.1%	-1.2%

Federal budget effects*			% of static
Revenues		$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)		-$4.7	100%
"Dynamic" federal tax reflow from economic changes		$5.7	-122%
Net federal tax change after dynamic effects		$1.0	-22%
Federal outlay change if federal pay tracks private wages		$1.5	-32%
Change in federal surplus (- is larger deficit, smaller surplus)		-$0.5	10%

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	$26.8	$5.74	-$25.78
Rise in after-tax income, total, and per $1 reduction in federal revenue	$25.8	$5.52	-$24.78
Revenue loss to government from tax cut that raises after-tax income $1.		$0.18	-$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 8
REAGAN: 1983 Social Security Amendments
vs Prior Law (Carter Administration), at 1986 Income Levels

	Reagan	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$4,460.1	$4,472.8	-$12.7	-0.3%
Private business output (less indirect taxes plus subsidies)	$3,156.8	$3,166.2	-$9.4	-0.3%
Compensation of employees	$2,130.8	$2,137.1	-$6.4	-0.3%
Gross capital income	$1,026.0	$1,029.1	-$3.1	-0.3%
Private Business Stocks	$8,650.3	$8,721.6	-$71.3	-0.8%
Wage rate $/hr	$13.97	$14.00	-$0.03	-0.2%
Private business hours of work (billions)	152.544	152.652	-0.107	-0.1%
Total government receipts ($billions)	$1,300.1	$1,300.7	-$0.6	0.0%
Federal	$823.0	$822.6	$0.4	0.0%
State & local	$584.7	$585.6	-$1.0	-0.2%
Total Federal expenditures	$1,058.7	$1,059.4	-$0.7	-0.1%
Federal surplus (+) or deficit (-)	-$235.7	-$236.7	$1.1	-0.5%
Individual income tax				
Federal Marginal Tax Rates on AGI	27.8%	27.6%	0.2%	0.7%
Federal Marginal Tax Rates on Wages	26.3%	26.3%	0.0%	0.0%
Federal Marginal Tax Rates on Dividends	31.9%	30.9%	1.0%	3.2%
Federal Marginal Tax Rates on Interest Income	26.3%	25.2%	1.2%	4.7%
Federal Marginal Tax Rates on Business Income	32.2%	32.0%	0.2%	0.6%
Federal Marginal Tax Rates on Long-term Capital Gains	12.8%	12.9%	0.0%	-0.3%
Weighted average service price				
Corporate	13.3%	13.2%	0.1%	0.7%
Noncorporate	10.4%	10.4%	0.0%	0.2%
All business	12.3%	12.2%	0.1%	0.5%
Federal budget effects*				
Revenues			$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			$3.1	100%
"Dynamic" federal tax reflow from economic changes			-$2.7	-87%
Net federal tax change after dynamic effects			$0.4	13%
Federal outlay change if federal pay tracks private wages			-$0.7	-22%
Change in federal surplus (- is larger deficit, smaller surplus)			$1.1	35%
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		-$12.7	-$4.08	-$31.19
Drop in after-tax income, total, and per $1 increase in federal revenue		-$13.1	-$4.21	-$32.19
Revenue gain to government from tax hike that cuts after-tax income $1.			$0.24	$0.03

* 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
REAGAN: TEFRA and DEFRA vs FULL ERTA
at 1986 Income Levels

	Full ERTA	TEFDEF	Difference	% Diff
Gross domestic product ($ billions)	$4,535.9	$4,460.1	-$75.8	-1.7%
Private business output (less indirect taxes plus subsidies)	$3,212.4	$3,156.8	-$55.6	-1.7%
Compensation of employees	$2,168.3	$2,130.8	-$37.5	-1.7%
Gross capital income	$1,044.1	$1,026.0	-$18.1	-1.7%
Private Business Stocks	$9,103.1	$8,650.3	-$452.8	-5.0%
Wage rate $/hr	$14.18	$13.97	-$0.2	-1.5%
Private business hours of work (billions)	152.938	152.544	-$0.4	-0.3%
Total government receipts ($billions)	$1,318.4	$1,300.1	-$18.3	-1.4%
Federal	$832.6	$823.0	-$9.6	-1.1%
State & local	$593.4	$584.7	-$8.7	-1.5%
Total Federal expenditures	$1,062.9	$1,058.7	-$4.3	-0.4%
Federal surplus (+) or deficit (-)	-$230.4	-$235.7	-$5.3	2.3%
Individual income tax				
Federal Marginal Tax Rates on AGI	28.2%	27.8%	-0.4%	-1.3%
Federal Marginal Tax Rates on Wages	26.7%	26.3%	-0.3%	-1.3%
Federal Marginal Tax Rates on Dividends	32.3%	31.9%	-0.4%	-1.3%
Federal Marginal Tax Rates on Interest Income	26.7%	26.3%	-0.4%	-1.5%
Federal Marginal Tax Rates on Business Income	32.2%	32.2%	0.0%	0.0%
Federal Marginal Tax Rates on Long-term Capital Gains	13.5%	12.8%	-0.6%	-4.8%
Weighted average service price				
Corporate	12.7%	13.3%	0.5%	4.2%
Noncorporate	10.3%	10.4%	0.2%	1.6%
All business	11.9%	12.3%	0.4%	3.4%
Federal budget effects*				
Revenues			$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			$6.2	100%
"Dynamic" federal tax reflow from economic changes			-$15.7	-255%
Net federal tax change after dynamic effects			-$9.6	-155%
Federal outlay change if federal pay tracks private wages			-$4.3	-69%
Change in federal surplus (- is larger deficit, smaller surplus)			-$5.3	-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		-$75.8	-$12.30	$7.93
Drop in after-tax income, total, and per $1 increase in federal revenue		-$66.3	-$10.75	$6.93
Revenue gain to government from tax hike that cuts after-tax income $1.			$0.09	-$0.14

* 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.

payroll tax increase discouraged work. The model shows the amendments causing a drop in GDP sufficient to lose 87 percent of its anticipated static tax revenue. Each dollar of benefits protected by these amendments cost the population $32.19 after tax. (See also Table 8.)

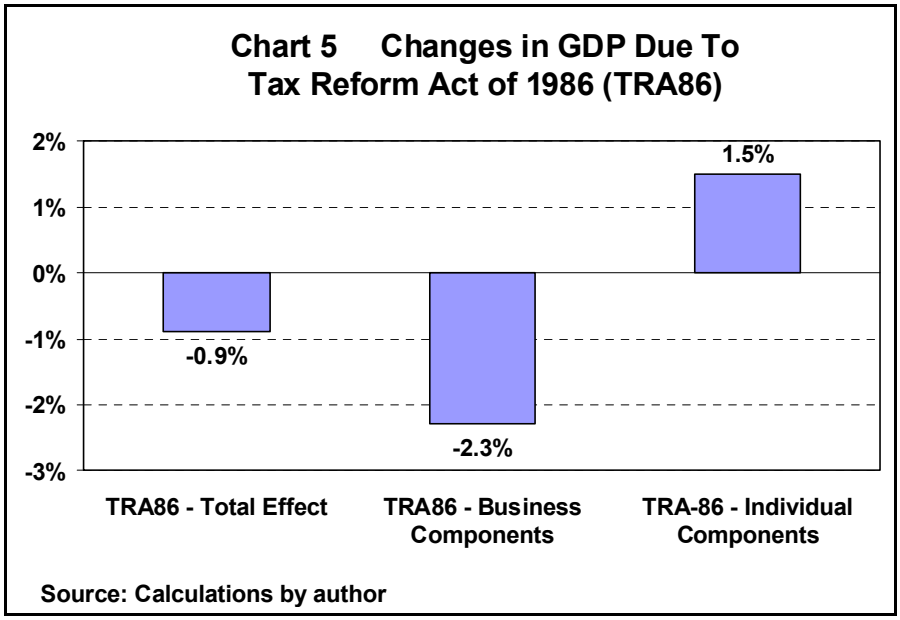
TEFRA and DEFRA alone. TEFRA and DEFRA had the most negative effect on growth of the tax changes of the 1980s. Table 9 shows the additional GDP that would have been achieved had TEFRA and DEFRA not been enacted, and ERTA been allowed to become fully effective. TEFRA and DEFRA took dead aim at capital investment, and raised the service price 3.3 percent and cut the capital stock by 5 percent compared to the levels that would have occurred had ERTA not been amended. The static estimate is that TEFRA and DEFRA raised $6.2 billion, but they would have ultimately reduced GDP by 1.7 percent and cost $15.7 billion in other revenue, for a net loss to the Treasury of $9.6 billion, on a dynamic basis. The loss of revenue gave the lie to their titles "Tax Equity and Fiscal Responsibility Act" and "Deficit Reduction Act".

First term summary. The first term Reagan tax cuts improved the economy, and were responsible for the strong rebound from the 1981-1982 recession. They increased labor compensation, especially on an after-tax basis. The bulk of the tax reduction went to individuals. The business tax cuts were a much the smaller portion of the package, particularly after they were curbed by TEFRA and DEFRA. Growth and labor compensation would have been higher, and the deficit smaller, had these latter two tax increases not been enacted.

GDP is shown to be more than 10 percent higher long term than without the tax changes, and well worth the modest spending cuts required to pay for the tax reduction. The revenue reflow due solely to the higher GDP was not quite big enough to repay the Treasury for the cost of the bills, although it would have come very close to doing so without TEFRA and DEFRA. These estimates do not take into account the potential revenue gains from the reduced use of tax shelters and tax exempt securities as a result of the lower marginal tax rates, nor the increase in the rate of realization of capital gains due to the lower tax rate on long term gains.

Results of the Tax Reform Act of 1986. The long-run equilibrium economic and revenue results for TRA86 are presented for the bill as a whole and for the individual tax rate changes and the business tax changes. The totals for the parts may not exactly match the results for the total package due to interactions when they are implemented together.

- *TRA86 as a whole.* TRA86 reduced GDP long term by about 0.9 percent. (Chart5.) The business components of the Act lowered GDP by 2.3 percent by raising taxes at the margin on capital. The individual tax changes raised GDP by 1.5 percent, by lowering tax rates on dividends, interest, and non-corporate income, as well as on wages. The cut in taxes on dividends offset the damage from raising taxes on capital gains.



TRA86 raised the weighted service price of capital for all businesses by 5.8 percent. (Chart 5 and Table 10.) The corporate service price rose by 9.6 percent, as the corporate tax rate reductions were countered by "base broadening" provisions, the loss of the ITC, MACRS, and the rise in the tax on long term capital gains. The non-corporate service price fell by 4.2 percent, due to the relatively large decrease in the individual income tax rate, and the lower utilization of capital and the ITC by non-corporate business. The capital stock was reduced by 6.2 percent.

Marginal tax rates fell sharply, between 25 percent and 33 percent, for most types of income. The exception was a 53 percent increase in the weighted marginal tax rate on long term capital gains.

The model estimates the Act to have lost $125 billion in static terms (for the provisions estimated). The slight decline in GDP would have increased the loss by about $4 billion more. Many of the highly specific revenue offsets costed out by the Joint Tax Committee would have made the static estimate for the bill more nearly revenue neutral to begin with. The model shows the Act to have lost revenue on a static basis but reduced GDP nonetheless by raising taxes on capital formation.

- *Individual income tax details: deductions, rates, brackets, and long term capital gains.* The net effect of the TRA86 individual tax changes, by themselves, would have been to ultimately increase GDP by 1.5 percent, and raise private sector output and labor compensation by 1.8 percent. (Table 11.) Lower taxes on wages would have lowered the wage rate pre-tax, but raised it after-tax, and given a strong boost to hours worked. The capital stock would have rising by 1.1 percent. The capital stock increase would have been higher without the increase in the capital gains tax rate. The supply of labor is less elastic than that of capital. The increase in GDP per dollar of revenue loss would have been modest, with a revenue reflow of only 17 percent. GDP would have barely increased by $0.67 for each dollar of dynamic revenue loss (and by $1.67 after-tax per $1 of revenue loss).

- *Business tax details.* TRA86 business provisions were decidedly anti-growth. By themselves, they would have depressed GDP by 2.3%, and private sector output and labor compensation by 2.4 percent.

Table 10
TRA-86 vs. Prior Law, at 1988 Income Levels

	Reagan	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$5,100.4	$5,144.9	-$44.4	-0.9%
Private business output (less indirect taxes plus subsidies)	$3,591.0	$3,615.2	-$24.2	-0.7%
Compensation of employees	$2,457.4	$2,474.0	-$16.6	-0.7%
Gross capital income	$1,133.5	$1,141.2	-$7.6	-0.7%
Private Business Stocks	$9,659.6	$10,293.5	-$633.9	-6.2%
Wage rate $/hr	$15.26	$15.66	-$0.40	-2.6%
Private business hours of work (billions)	161.071	158.021	3.051	1.9%
Total government receipts ($billions)	$1,513.6	$1,668.0	-$154.4	-9.3%
Federal	$966.2	$1,095.2	-$129.0	-11.8%
State & local	$658.6	$666.5	-$7.9	-1.2%
Total Federal expenditures	$1,139.7	$1,145.0	-$5.4	-0.5%
Federal surplus (+) or deficit (-)	-$173.5	-$32.4	-$141.1	436.2%
Individual income tax				
Federal Marginal Tax Rates on AGI	23.0%	31.7%	-8.7%	-27.4%
Federal Marginal Tax Rates on Wages	22.4%	29.8%	-7.4%	-24.9%
Federal Marginal Tax Rates on Dividends	25.3%	37.5%	-12.2%	-32.6%
Federal Marginal Tax Rates on Interest Income	22.6%	31.4%	-8.8%	-27.9%
Federal Marginal Tax Rates on Business Income	24.7%	36.7%	-12.0%	-32.7%
Federal Marginal Tax Rates on Long-term Capital Gains	27.2%	17.8%	9.4%	52.8%
Weighted average service price				
Corporate	14.0%	12.8%	1.2%	9.6%
Noncorporate	8.6%	9.0%	-0.4%	-4.2%
All business	12.1%	11.5%	0.7%	5.8%
Federal budget effects*				% of static
Revenues			$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)			-$125.3	100%
"Dynamic" federal tax reflow from economic changes			-$3.7	3%
Net federal tax change after dynamic effects			-$129.0	103%
Federal outlay change if federal pay tracks private wages			-$5.4	4%
Change in federal surplus (- is larger deficit, smaller surplus)			-$123.6	99%
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		-$44.4	$0.35	$0.34
Drop in after-tax income, total, and per $1 increase in federal revenue		$84.6	-$0.67	-$0.66
Revenue gain to government from tax hike that cuts after-tax income $1.			$1.48	$1.53

* 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
Individual Provisions of TRA86 vs. Prior Law
at 1988 Income Levels

	Reagan	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$5,100.4	$5,023.1	$77.3	1.5%
Private business output (less indirect taxes plus subsidies)	$3,591.0	$3,526.4	$64.5	1.8%
Compensation of employees	$2,457.4	$2,413.3	$44.2	1.8%
Gross capital income	$1,133.5	$1,113.1	$20.4	1.8%
Private Business Stocks	$9,659.6	$9,557.9	$101.8	1.1%
Wage rate $/hr	$15.26	$15.33	-$0.08	-0.5%
Private business hours of work (billions)	161.071	157.378	3.694	2.3%
Total government receipts ($billions)	$1,513.6	$1,638.0	-$124.4	-7.6%
Federal	$966.2	$1,081.0	-$114.9	-10.6%
State & local	$658.6	$650.7	$7.9	1.2%
Total Federal expenditures	$1,139.7	$1,138.6	$1.0	0.1%
Federal surplus (+) or deficit (-)	-$173.5	-$40.1	-$133.4	332.4%
Individual income tax				
Federal Marginal Tax Rates on AGI	23.0%	31.4%	-8.4%	-26.7%
Federal Marginal Tax Rates on Wages	22.4%	29.4%	-7.0%	-23.9%
Federal Marginal Tax Rates on Dividends	25.3%	37.3%	-12.0%	-32.2%
Federal Marginal Tax Rates on Interest Income	22.6%	31.1%	-8.5%	-27.3%
Federal Marginal Tax Rates on Business Income	24.7%	36.9%	-12.2%	-33.1%
Federal Marginal Tax Rates on Long-term Capital Gains	27.2%	17.7%	9.5%	53.6%
Weighted average service price				
Corporate	14.0%	13.4%	0.6%	4.3%
Noncorporate	8.6%	9.4%	-0.8%	-8.8%
All business	12.1%	12.1%	0.1%	0.8%
Federal budget effects*				
Revenues			$ Billions	% of static tax change
"Static" federal revenue gain (+) or loss (-)			-$138.2	100%
"Dynamic" federal tax reflow from economic changes			$23.3	-17%
Net federal tax change after dynamic effects			-$114.9	83%
Federal outlay change if federal pay tracks private wages			$1.0	-1%
Change in federal surplus (- is larger deficit, smaller surplus)			-$115.9	84%
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		$77.3	$0.56	$0.67
Rise in after-tax income, total, and per $1 reduction in federal revenue		$192.2	$1.39	$1.67
Revenue loss to government from tax cut that raises after-tax income $1.			$0.72	$0.60

* 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
Business Provisions of TRA86 vs. Prior Law
at 1988 Income Levels

	Reagan	Old Law	Difference	% Diff
Gross domestic product ($ billions)	$5,100.4	$5,221.1	-$120.7	-2.3%
Private business output (less indirect taxes plus subsidies)	$3,591.0	$3,679.1	-$88.1	-2.4%
Compensation of employees	$2,457.4	$2,517.8	-$60.3	-2.4%
Gross capital income	$1,133.5	$1,161.3	-$27.8	-2.4%
Private Business Stocks	$9,659.6	$10,376.7	-$717.0	-6.9%
Wage rate $/hr	$15.26	$15.56	-$0.31	-2.0%
Private business hours of work (billions)	161.071	161.780	-0.708	-0.4%
Total government receipts ($billions)	$1,513.6	$1,538.6	-$25.0	-1.6%
Federal	$966.2	$975.6	-$9.4	-1.0%
State & local	$658.6	$674.2	-$15.6	-2.3%
Total Federal expenditures	$1,139.7	$1,145.8	-$6.2	-0.5%
Federal surplus (+) or deficit (-)	-$173.5	-$170.2	-$3.2	1.9%
Individual income tax				
Federal Marginal Tax Rates on AGI	23.0%	23.2%	-0.2%	-0.9%
Federal Marginal Tax Rates on Wages	22.4%	22.6%	-0.3%	-1.3%
Federal Marginal Tax Rates on Dividends	25.3%	25.4%	-0.2%	-0.6%
Federal Marginal Tax Rates on Interest Income	22.6%	22.8%	-0.2%	-0.9%
Federal Marginal Tax Rates on Business Income	24.7%	24.6%	0.1%	0.5%
Federal Marginal Tax Rates on Long-term Capital Gains	27.2%	27.3%	-0.1%	-0.4%
Weighted average service price				
Corporate	14.0%	13.3%	0.7%	5.1%
Noncorporate	8.6%	8.3%	0.3%	4.1%
All business	12.1%	11.6%	0.6%	4.8%
Federal budget effects*				% of static
Revenues			$ Billions	tax change
"Static" federal revenue gain (+) or loss (-)			$15.5	100%
"Dynamic" federal tax reflow from economic changes			-$24.9	-161%
Net federal tax change after dynamic effects			-$9.4	-61%
Federal outlay change if federal pay tracks private wages			-$6.2	-40%
Change in federal surplus (- is larger deficit, smaller surplus)			-$3.2	-21%
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		-$120.7	-$7.81	$12.79
Drop in after-tax income, total, and per $1 increase in federal revenue		-$111.3	-$7.20	$11.79
Revenue gain to government from tax hike that cuts after-tax income $1.			$0.14	-$0.08

* 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.

They raised the service price of capital by 4.8%, and would have ultimately cut the capital stock by 6.9 percent. (Table 12.) Expected to raise $15.5 billion, they would have lost $24.9 billion due to the lower GDP, for a net loss of $9.4 billion. (The business changes exclude the change in capital gains and non-corporate business tax rates shown with the individual tax changes.)

The elimination of the ITC, slower depreciation, and loophole closings were expected to pay for the corporate tax rate reductions with room to spare. However, they had a more powerful effect on the service price of capital than the corporate tax rate reduction. As a result, the trade was detrimental to capital formation, GDP, and federal revenue. This history should be a caution for current efforts to reform the tax system. TRA86 is not a good model for encouraging growth.

- *Response of capital gains realizations to higher tax rates.* One of the features of 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. (See the discussion of alternative tax concepts, below.) Advocates of the broad-based income tax insist that treating capital gains as ordinary income is unbiased and helpful in raising revenue. They are wrong on both counts. The experience with capital gains surrounding TRA86 is clear proof.

The revenue estimates tied to changes in the capital gains or dividend tax rates described above are based on the effect of the tax changes on economic performance. The following table and chart deal with a different issue: how do changes in the capital gains tax affect the rate at which people choose to take gains? It offers additional support to the warning that raising these tax rates may lose revenue rather than gain revenue.

Table 13 is from the Department of the Treasury, Office of Tax Analysis. It displays the amount of capital gains realized and the tax paid in dollars, the average effective tax rate, 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 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.

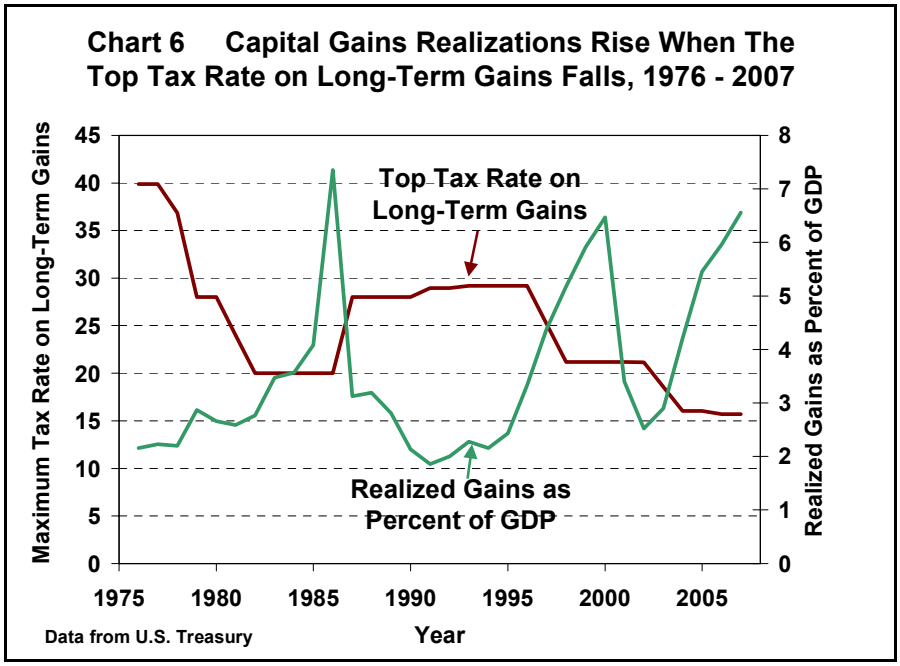
The Johnson surtax and increases in the Minimum Tax under Nixon and Ford raised the top tax rate on long term gains from 25% in 1967 to nearly 40%. Realizations fell from over 3% of GDP in 1967-69 to about 2% of GDP in 1974-78. The Steiger Amendment lowered the top tax rate most commonly found on long term capital gains in mid-1978, from just under 40% to 28%. It eliminated

Table 13
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.

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. (See Chart 6.)



The longest and most interesting change occurred in relation to the Tax Reform Act of 1986, which raised the top capital gains tax rate from 20% back to 28%. The rate hike was effective January 1, 1987. To beat the 1987 rate hike, asset holders realized a large amount of capital gains in the last months of 1986. Realizations surged from 4.08% of GDP in 1985 to 7.36% in 1986. There was a subsequent drop in realizations in 1987, to 3.13% of GDP.

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 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 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 realization spikes in 1968 and 1986 in anticipation of rate increases, and declines immediately after the rates rise. They assume these effects last only a year or two. In all these historical cases, however, there appears to have been a longer term response to the 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.

Second term versus first term perspectives. ERTA partially shifted the base of the tax system away from the traditional "broad-based income" concept, which favors consumption over saving and investment, and moved toward a more neutral tax system based on consumed income or cash flow that has fewer tax barriers to capital formation. In that sense, it was a small first step in the direction of a fundamental tax reform that would rebase the system on a different concept of taxable income, in which saving and investment would either be tax deferred, or the returns on after-tax saving would be exempt from additional tax.

By contrast, TRA86 moved back in the direction of a broad-based income tax. It discarded many provisions that had protected some forms of saving and investment from double taxation more than others. It thereby made the tax treatment of various industries and various forms of saving and investment more uniform, but in the process it left them all more exposed to the tax biases against saving and investment inherent in the income tax.

Tax Reform: What Is the Ideal Tax Base?

The current income tax system is heavily biased against saving and investment, and is seriously depressing output and income. The "broad-based" income tax hits income used for saving and investment repeatedly and more harshly than income used for consumption. Pay tax on your income (tax layer one) and consume the remainder, and there are few added federal taxes (other than alcohol, tobacco, and gasoline). But save your after-tax income (outside of limited pension and IRA options), and the profit, interest, dividends, or capital gains are taxed (tax layer two). Dividends and stock-related capital gains also face the corporate tax (tax layer three). For all businesses, corporate and non-corporate, investment expenses must be deducted over many years instead of when they are made (when expensing is not in force), overstating income, and creating a back-door increase in effective tax rates. Save too much, and you become subject to the estate tax (tax layer four).

Note that the taxation of capital gains is a form of double taxation (as a return on already-taxed saving) even when it is not associated with corporate stock and the corporate income tax. Put another way, the price of an asset today is the present value of its expected future after-tax earnings. If there is a rise in the expectation of future earnings, the asset price will rise today. If the earnings do increase

in the future, they will be taxed at that time. To tax the current increase in the share price is to tax the increase in the future earnings twice.

Real income tax reform would end these biases and over-statements or double counting of capital income by taking a few key steps. They would fundamentally shift the tax base from "broad-based income" to "consumed income" or "cash flow".

- Step 1: Give all saving the same treatment received by pensions; either defer tax on saving and its returns until the money is withdrawn for consumption, or tax the saving up front and do not tax the earnings.

- Step 2: Adopt expensing instead of depreciation; alternatively, adjust the depreciation allowances for the time value of money (index unused portions by an appropriate discount rate) to preserve their present value.

- Step 3: Tax income in the corporate sector either at the level of the firm or at the level of the shareholder, but not both; that is, integrate the corporate and personal income taxes.

- Step 4: Eliminate the estate tax.

- Step 5: Move to a territorial tax system.

The broad-based income tax was designed by its intellectual godfathers, Professors Robert Haig and Henry Simons, to redistribute income at the expense of thrift and production, not to foster economic growth. (Although even Haig and Simons thought the corporate tax on top of the personal tax was going too far.) Their definition of taxable income was the increase in the ability to consume. It includes current earnings from wages, salaries, and savings, plus increases in the value of assets held (capital gains, whether realized or not). The cost of capital investment deductible each year as a business expense would not be the full amount paid when it was purchased. Instead, the deduction would only be the economic depreciation, the annual decline in the value of the asset as it aged, because, in theory, one could sell the asset and recover the remaining value for consumption. This approach ignores the opportunity cost of locking up the full purchase price from the start (time value of money plus inflation). Simons acknowledged that his tax proposals would dampen saving and reduce GDP. His disciples tend to forget that warning, or they consider the harm to be outweighed by the added redistribution of wealth supposedly made possible by the higher taxes on capital.

There are several less-biased, more growth-friendly "consumed income" tax alternatives to the broad-based income tax, such as the cash flow tax in the Report of the President's Panel on Tax Reform — the G. W. Bush panel — or the Hall-Rabushka-Armey Flat Tax, various versions of the USA Tax, the Bradford "X" tax, or the straightforward inflow-outflow tax developed at IRET by Norman Ture. Other types of taxes are also saving-consumption neutral, such as a national sales tax

or value added tax.[5] All of these systems take the steps outlined above to end the tax biases against saving and investment. Real tax reform would move toward one of these systems.[6]

Conclusion

In ERTA, 1981, President Reagan nudged the tax system slightly away from the broad-based income tax in the direction of a more saving-consumption neutral, more pro-growth cash flow tax. The expansion of IRAs deferred more saving from immediate taxation. Lower marginal tax rates reduced the shareholder level tax on corporate income. ACRS and the ITC came close to equalling immediate expensing at the then-prevailing inflation rate. Estate taxes were cut. ERTA was a sizable net tax cut, which improved the economy and recouped a fair amount of its static revenue loss.

Many of these steps were unpopular with the traditional government finance community. TRA86 can be thought of as a counter-revolution. The capital consumption treatment was moved away from expensing back toward economic depreciation. Saving incentives were restricted. The capital gains differential was ended. The corporate tax rate and the tax rate on dividends were lowered, but not by enough to lower the over-all service price of capital. In effect, taxes on capital were raised to pay for lower tax rates on labor income, and to drop a large number of people from the tax rolls. The result, supposed to be revenue neutral, was a tax change that reduced GDP and reduced revenue.

Tax reform efforts today are subject to the same competing ideas as to what an ideal tax system should look like. 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 or the incentive to work or hire. The tax changes of the 1980s may serve as examples to the Congress of what approaches to tax reform would benefit employment and growth, and which would not.

Controlling the deficit while improving the economy is not a simple task. Tax reform must be done right if it is to help the situation. It is important to understand three things:

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[5] For a fuller discussion of the Inflow Outflow Tax, see Stephen J. Entin and Dr. Norman B. Ture, "The Inflow Outflow Tax; A Savings-Deferred Neutral Tax System," IRET Study, 1998, available at http://iret.org/pub/InflowOutflowSum.PDF.

[6] A national retail sales tax or a VAT are equally "neutral" between consumption and investment. Both incorporate expensing and avoid multiple taxation of capital income. Their major drawback is that they tend to mask the cost of government from the taxpayer/voter, which is a bad policy in a democracy. It is also difficult to exclude the poorest citizens from these taxes except by exempting large amounts of "necessities", which drives up the rate on other items.

First, government spending does not increase employment and output; it crowds out private sector output, usually with a decrease in value to the public, and creates dead-weight losses from the taxes imposed to fund the spending.

Second, "perfecting" the income tax by "broadening the base and lowering the rate" would hurt, not help, the economy; we need a more fundamental shift to a different tax base.

Third, real tax reform may be impossible in a "revenue neutral" or "revenue enhancing" situation in which only the static revenue effect of tax changes is counted, and the economic consequences and possible dynamic revenue reflows are ignored. If the effects of the tax changes on the service price, capital formation, and labor productivity are not even calculated, the Congress will not have sufficient information to craft a pro-growth tax reform, and may end up costing jobs and reducing income for everyone.

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