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JOINT TAX COMMITTEE REVENUE ESTIMATES OMIT ECONOMIC IMPACT OF ESTATE TAX CHANGES ON ECONOMIC GROWTH, JOBS, AND INCOMES FOR ALL AMERICANS

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Introduction

Under the tax changes enacted in 2001 (EGTRRA, or the Economic Growth and Tax Relief and Reconciliation Act of 2001), the estate tax was scaled down over time until 2009, and expired as of January 1, 2010. It was scheduled to be gone for only one year, however, and then return in 2011 to the levels set under pre-2001 law (a top rate of 55% and an exempt amount of $1 million) as the Bush tax cuts expired. This was an untenable arrangement, favored by only the most liberal Members of Congress.

Two competing proposals were seriously considered during the December 2010 debate over extending the Bush tax cuts. The President and some Members had been favoring retention of the 2009 levels of the estate tax, with a 45% top rate and a credit offsetting the tax on the first $3.5 million of an estate. However, the Senate had been on record favoring a proposal by Senators Blanche Lincoln (D-AR) and Jon Kyl (R-AZ), which set a 35% top rate with a $5 million exempt amount. This Lincoln-Kyl option became the basis for the estate tax portion of the tax extension compromise agreed to by the President and the Democratic and Republican Congressional leadership. The compromise tax package was adopted in December 2010. It restores the estate tax with a 35% top rate and a unified $5 million exempt amount (for the estate tax, gift tax, and generation skipping tax) for two years, with the $5 million figure indexed for inflation in 2012. After 2012, the tax will revert to pre-Bush law if no action is taken.

During the debate, Representative Earl Pomeroy (D-ND) offered an alternative extending the estate tax at the 2009 levels, claiming that it would save $90 billion over ten years compared to the more generous proposal in the compromise. The $90 billion figure was provided by the Joint Tax Committee. In the short run, the less generous 2009 tax rules would bring in additional federal revenue. Longer term, however, the higher estate tax provision would bring in less federal revenue due to its more severe assault on economic growth. GDP, employment, wages, and the taxes they generate will be higher under the estate tax extension as passed than under the 2009 rules, assuming either becomes permanent. GDP and federal revenues would ultimately have been even higher had the tax been allowed to lapse permanently. Unfortunately, the Congress, the Joint Tax Committee, and the Treasury have adopted unrealistic revenue estimating conventions that ignore major economic consequences of taxation, and mislead Members about the true cost of tax and spending changes. These conventions make it harder to reduce or eliminate taxes, such as the estate tax, that damage the economy.

Joint Committee on Taxation scoring methods

One of the impediments to full repeal of the estate tax is the mistaken idea that the tax raises significant revenue for the federal government. The tax is unusually damaging to capital formation, productivity growth, wages, and employment. As a result, the estate tax reduces incomes and

associated tax revenues from all sources by more than the estate tax itself brings in. The result is a net revenue loss for the government.[1] Nonetheless, the official budget scoring agencies – the Joint Tax Committee of the Congress (JCT) and the Office of Tax Analysis of the Treasury (OTA) – represent the tax as raising revenue. They do this by ignoring the economic spill-over effects of the tax on investment, wages, and employment. (These scoring methods are discussed in more detail below.)

Selecting a single projection for GDP, incomes, inflation, and interest rates makes sense for projecting federal revenues and outlays consistent with ***existing*** tax rules and spending arrangements. However, the OTA and the JCT also hold to the same fixed economic projection when policy ***changes*** are contemplated, even when the policy change ought to affect the economy. Such scoring of proposals for tax and spending changes for Congressional work on the budget is called "static analysis." Static analysis is harmless for many budget proposals that do little to affect the total size of the economy and the tax base. Static analysis, however, is highly inaccurate for estimating the revenue effects of tax changes (such as the estate tax) that have direct and powerful effects on economic output and taxable income, profits, and sales. Congress needs to recognize when the static analysis is misleading, and work with the budget rules to allow room for reductions in such taxes, in the knowledge that the assumed revenue loss will be recouped through additional economic expansion resulting from the tax reduction.

It is important for the Members of Congress, their staffs, the media, and the general public to understand that the static estimates of federal revenues provided by the JCT and OTA are prepared under restrictive assumptions and flawed methods that do not always provide realistic forecasts of what proposed policy changes would do the federal budget. In particular, the Government revenue estimators deliberately exclude the macroeconomic effects of tax policy changes on their estimates. They hold GDP, investment, inflation, interest rates, wages, profits, and the revenues of state and local governments constant over the budget window. In a 2005 paper, the JCT explains:

> "In providing conventional estimates, the Joint Committee staff assumes that a proposal will not change total income and therefore holds Gross National Product (GNP) fixed. The use of fixed economic assumptions does not prevent the Joint Committee staff from taking into account possible shifts in economic activity across sectors or markets and/or changes in the timing of such activity in response to proposed tax changes, so long as GNP remains unaffected."[2]

From a 1992 Joint Tax Committee description of revenue estimation:

> "A revenue estimate predicts how Federal receipts will increase or decrease relative to the baseline projections if a proposed change in the tax law is enacted. However, although a revenue estimate may incorporate anticipated behavioral responses to a

> proposed change in the tax law, the estimate does not take into account the potential effect the proposal may have on aggregate economic growth, interest rates, or other macroeconomic variables. Thus, a revenue estimate does not predict the positive or negative effects a proposal might have on the overall economy."[3]

The same restrictions apply in particular to estimates of the revenue effects of changing the estate tax. The JCT and the OTA each has an estate tax estimation procedure that hews to their respective baseline economic and demographic forecasts.

The JCT estate tax model employs household wealth surveys, historical estate tax filings, and some sophisticated demographic methods to forecast the number of people expected to die in each year of the budget window, the sizes of their estates, and the amount and timing of the payments of the estate tax levies within the six month window after death. The projected growth of estate wealth over time is calibrated to be consistent with the rate of expansion of the population and the growth of assets assumed in the baseline demographic and economic forecasts prepared by the Congressional Budget Office for budget scoring purposes.

The JCT provides the following description in a 2005 briefing paper. (The model base year has been updated since.)

> "The estate and gift model consists of an estate tax calculator applied to a sample of estate tax returns. The estate tax returns, provided by SOI [the IRS Statistics of Income division], represent the population of those returns filed in 2001. The returns report on estates of decedents who died during 2000 and 2001. The returns are adjusted each year of the budget period to track demographic profiles and wealth targets for the expected estate tax filing population. The stratified sample contains approximately 10,800 estate tax returns that when weighted represent the approximately 108,000 estate tax returns filed with the IRS in their 2001 processing year."[4]

Since the demographic and economic baselines are fixed each year for budget scoring purposes, the revenue estimates for proposed changes in estate tax rates or exempt amounts are unaffected by any change in saving, investment, capital accumulation, asset valuation, or any other macroeconomic effect of the tax change on the size and distribution of the estates. Furthermore, there is no consideration given to any changes in capital per worker, productivity, wages, hours worked, or profits, dividends or capital gains resulting from the altered capital formation due to altered treatment of estates. As a result, spill-over effects of the estate tax on the economy and on the revenues from other federal taxes are omitted. The economic changes are deliberately assumed to be zero, and therefore to have no revenue consequences.

The JCT and OTA allow for some behavior changes in the presence of a tax. These are the "micro-economic behavioral effects," and they are the only sense in which the JCT and OTA scorings are "dynamic." For example, the presence of the corporate tax is assumed to induce some businesses to organize themselves as subchapter S corporations or partnerships. An increase in the tax rate on interest income is assumed to induce upper income taxpayers to shift toward tax-exempt bonds, while lower income taxpayers buy taxable securities. A change in the tax rate on capital gains is assumed to induce people to arrange the receipt of income as capital gains instead of ordinary income, or to defer the realization of the gains. An excise tax of cigarettes or gasoline is assumed to reduce the quantities of these items produced and consumed, but the resources diverted from producing these goods are assumed to find alternative employment of equal value. These microeconomic reactions are assumed not to affect the total output of the economy or the associated underlying real income streams. They do not make the revenue estimation process "dynamic" in the macroeconomic sense, where the "static" method prevails.

Economists' comments on the static approach

We asked a number of leading economists to comment on the use of static analysis for work on the federal budget, tax legislation, and economic policy. They contributed the following statements.

Professor Edward C. Prescott of the W. P. Carey School of Business, Arizona State University, is the winner of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for 2004. He tells us:

> "Static scoring is counter to established scientific findings. People respond to incentives. Reinstating the estate tax will reduce the welfare of virtually everyone. Indeed the expectation of this happening deters entrepreneurial activity. Having more entrepreneurs creating more social surplus is good for everyone. The fact that the successful entrepreneurs become wealthy by getting a small share of the large social surplus they create is no reason to set up a tax system that results in these entrepreneurs not creating social surplus.
>
> I have cut back on income producing activities because I anticipate the estate tax will be reinstated with a $3.5 million exemption. This is reducing taxes I pay. The policies being proposed based upon misguided static scoring reasoning are killing the goose that lays the golden egg. The scientific evidence is that the estate tax has almost no consequences for the distribution of consumption."

Professor Dale Jorgenson is the Samuel W. Morris University Professor at Harvard. He is a leading economic model builder and an expert on tax reform. Dr. Jorgenson served on the JCT blue ribbon panel on dynamic revenue estimation. He writes:

> "Static revenue scoring of tax proposals is useful for budget purposes. However, macro-economic analysis is essential to capture the effects of these proposals on economic growth."

N. G. Mankiw is a professor of economics at Harvard University, author of a leading textbook on macroeconomics, and a former Chairman of the President's Council of Economic Advisors. He writes:

> "My research on dynamic scoring convinces me that the conventional static revenue estimates used in debates over tax policy can be highly misleading guides to the actual effects of alternative tax regimes. That is especially true for taxes levied on capital income, because higher capital taxes reduce saving, investment, and economic growth."[5]

R. Glenn Hubbard is Dean of the Columbia University Graduate School of Business and Russell L. Carson Professor of Finance and Economics. He is a former Chairman of the President's Council of Economic Advisors. He writes:

> "Revenue-estimating conventions assume that overall output remains constant after the tax change. Such a convention has a major drawback in assessing major tax changes affecting saving and investment: It necessarily overstates revenue from significant tax increases (after which, output will fall) and overstates the cost of major tax cuts (after which, output will rise)."

Russell Sobel is Professor of Economics and holder of the James Clark Coffman Distinguished Chair, West Virginia University. He is a coauthor of a popular textbook on macro- and microeconomics. He comments:

> "The estate tax discourages saving and investment. The unintended consequence is fewer jobs and lower wages, which also result in reductions in income and payroll taxes. The government will get much less revenue than the official revenue estimators are telling them to expect from reinstating the estate tax."

Professor Paul Evans teaches econometrics at Ohio State University, and has recently done a paper on the dynamic response of taxpayers to changes in the capital gains tax rate.[6] He writes:

> "The estate tax discourages capital formation, thereby eventually reducing wages, national income and the revenue from other taxes. The revenue estimators used by the Joint Committee on Taxation and the Treasury use static revenue scoring, which does not take these adverse effects into account."

Why is the static approach used for budget work?

Congress, and in particular, the House and Senate Budget Committees, like to have a single set of economic assumptions and a single projection of revenues as a baseline from which to work on the federal budget. They also prefer to have a fixed forecast against which to estimate the revenue effects for any tax changes they are contemplating. This may simplify their work, and avoid arguments about how a policy shift should be expected to play out, but it results in unrealistic projections of the costs and benefits of the policy changes being considered.

The Joint Tax Committee and the CBO find it easier to accede to the Congressional desire for a single simple forecast than to project the economic reactions to tax and spending changes.[7] They do not want to take macroeconomic considerations into account in part because there is no unanimous or even general agreement among economists about how taxation affects the economy. Their staffs do not want to take sides as to which economic theories are right or wrong; this might irritate one or another group of academics. They also do not relish the additional work to build models that can estimate the revenue feedback effects from economic changes. They are leery of the potential political controversy if they suggest that the economic evidence favors approaches to taxation that are looked on kindly by some parts of the political spectrum but are disliked by others. Even if the economic and historical evidence were plain and conclusive, there would be the piper to pay if they were to suggest that a bill offered by one Member would depress the economy and raise less money or lose more money than a static analysis would suggest, while a bill offered by another Member would improve the economy and cost less or raise more revenue than a static analysis would suggest.

As long as there is disagreement in the economics profession (which means forever), the revenue estimators feel justified in making a zero impact assumption for their convenience, and for the convenience of the Congress in having a fixed baseline to work from in dealing with the budget process. Unfortunately, this zero impact assumption is certainly an extreme position. The only question is whether it is modestly, moderately, or massively wrong.

The JCT asserts that its avoidance of these impacts "is not intended to suggest that Congress should ignore potential macroeconomic effects in its consideration of proposals to reduce the capital gains tax rate (or in the consideration of any other revenue proposal)."[8]

But from whom is the Congress to receive information about these effects if neither the JCT nor the Congressional Budget Office will provide objective guidance? Given that both offices are subject to Congressional pressure to bless favored policies, perhaps it is too much to expect them to be able to tell it like it is. In that case, Congress should feel free to consult outside advisors, and should insist on public access to JCT and CBO methods and forecasts. Their work should be made subject to outside criticism, peer review, and comparisons against actual economic and budget outcomes.

Modeling efforts to date

Although macro-economics effects are omitted from the revenue estimates for budget work, the budget agencies have been exploring the economic effects. The Treasury Office of Tax Analysis has been experimenting with economic models to gauge the reaction of the economy to tax changes. They used these models to analyze the economic effects of extending the 2001 and 2003 tax reductions (other than the estate tax repeal) and to estimate the growth effects of the tax proposals made by President Bush's Advisory Panel on Federal Tax Reform.[9] The models have not been used to estimate the added revenue that would result from the growth, and have not led to dynamic scoring of tax changes for budget purposes. Various Secretaries of the Treasury have not wanted to fight the political battle that would result. In August 2006, the Congress denied Treasury's request for additional funds to expand its modeling group work into a proposed Dynamic Analysis Division. In late December 2007, the Congress approved the funding, but the Treasury did not set up the Division during the waning days of the Bush Administration. This division has not been established under the new Administration.

The Congressional Budget Office runs and reviews private sector economic models when it makes its economic forecasts for the budget baseline. It does not generally analyze how proposed tax changes might alter the economic forecast or the budget, other than timing issues.

The Joint Committee on Taxation takes its budget baseline from the CBO. However, when former Representative Dennis Hastert was House Speaker, and former Representative Bill Thomas was Chairman of the House Ways and Means Committee, they obtained funding for the JCT to begin developing a model of how tax changes affect the economy and the associated revenue consequences. These results were to be presented for information only, not for budget scoring. That effort resulted in an unfocused and ineffective model that tries to forecast the economic universe at large, including the non-tax policies of the Federal Reserve. It is driven primarily by flows of funds instead of the effects of the tax shifts on the costs and benefits of doing more or less saving and investing, or the impact of taxes on the decision to increase or decrease work effort.

These efforts have various shortcomings, particularly with regard to capital formation and the taxation of capital income. Some of the models unrealistically assume a "closed economy", that is,

they assume no flow of savings and borrowing across national borders. This restricts the ability of the U.S. to pay for a rapid expansion of plant and equipment by borrowing more from abroad in the event of a tax cut on capital income, or by lending less abroad and redirecting our own saving to invest in more factories, mines, and farms in the United States. In decades past, these sources of funds have led to rapid additions to the capital stock. (Between 1982 and 1984, following the first Reagan tax cuts, U.S. bank lending abroad dropped from roughly $120 billion to $20 billion; the credit stayed home, financing the tax reductions and spurring the start of the economic recovery from the 1980-1982 downturns.)

Some models downplay the response by domestic savers to improved investment opportunities. Historically, people have worked and saved more to get the money needed for new investments whenever good opportunities for investment have arisen. By artificially constricting the flow of funds, the models low-ball the response to investment incentives.

Some modelers assert that the Federal Reserve would fight any growth resulting from a tax change by tightening credit. This confuses a monetary policy shift with the effects of the tax change alone, and assumes without justification that the Federal Reserve would fear inflationary consequences from an expansion of economic capacity (supply of labor, capital, and output) in the same manner it might fear a burst of spending on consumption (demand) when capacity was not rising.

Some of the models have tried to build in a fear of future tax increases to offset the deficits from the tax cuts, causing people to refrain from investing as they hoard cash to prepare for the tax increases. That, too, is a modeling error. No one can predict the timing or direction of future tax changes. And to the extent that such fears exist, they also existed in the past, yet there were strong responses to investment incentives in previous decades. Any model based on historical reactions to lower tax rates on capital already has such fears reflected in the behavior patterns. Additional restrictions on saving and investment should not be imposed on the equations.

The Chairmen of the House and Senate Budget Committees, Senate Finance, and House Ways and Means Committees, and most of the Members of the Committees and the Congress have opposed using dynamic scoring for budget purposes. They seek a single set of numbers for use in the budget process, and do not want to see a range of outcomes for scoring or any shift from the baseline economic assumptions. The Committee staffs claim that they do not do dynamic scoring in part because their bosses in the Congress do not want them to do so. But their bosses do not want them to do so in part because the staffs have told their bosses that the work is too uncertain, slow, difficult, and expensive.

The real problem may be that too many people in the political and tax policy communities dislike the rather consistent message of modern economics that tax reductions at the margin on

capital income do the most to promote economic expansion, especially if matched with reductions in government spending, and that government spending does not expand GDP, it merely displaces private sector output. Models that show that a smaller government is good for growth, that discredit income redistribution, and that warn against multiple taxation at high tax rates on income from saving and investing are not well received.

Evidence of errors in modeling taxes on capital

The Treasury, CBO, and JCT have had trouble in the past in forecasting revenues from taxation of capital income, and in forecasting the effects of changes in the tax law relating to capital. The errors in the forecast of capital taxes – such as capital gains taxes and estate tax levies – often exceed those of other revenues.

Capital gains and estate tax estimates. Capital gains are reported to the Treasury every year as they are taken by millions of taxpayers. A change in the tax treatment of capital gains that alters the behavior of the taxpayers – either to accelerate or delay the gains – will begin to affect total tax collections immediately and in the years following. Detailed data on capital gains realizations and revenues are collated and published by the IRS two or three years after the tax year in which they were taken.

There is less immediate impact and less timely data on changes in revenue from the estate tax. The tax is only triggered at death, which may be many years after a change in the estate tax law. The taxpayer has very limited control over the timing of death, and, except for suicides, the general effort is to postpone it rather than advance it. Changes in business arrangements, the amount of gift giving while still alive, saving rates, and other factors that affect the ultimate sizes of estates take years to unfold and enter the data stream. The long time frame makes it harder to determine the effects of the estate tax and to spot errors in forecasting the estate tax.

Nonetheless, both types of taxes are affected by their tax rates in much the same way. Higher taxes make it less attractive to accumulate the assets that trigger the tax. This section looks at some of the historical errors made by the revenue estimators in connection with capital gains, to illustrate the uncertainty in estimating the effects of taxes on capital. People should be equally skeptical about the official forecasts for estate tax revenue.

Short run timing shifts in realized capital gains. After an unexpected tax rate reduction, analysts anticipate a temporary surge in capital gains as people realize gains that had been "locked up" under the previous higher tax rates. A sudden rate increase would be expected to cause people to realize fewer gains than normal immediately afterwards. This timing shift is assumed to be temporary, affecting the months immediately after the rate change.

If a tax rate reduction is pre-announced, the revenue estimators at CBO and the JCT expect a dip in realizations the year before the rate cut as people wait for the lower tax rate, a surge in the year after the rate cut, and then a return to normal levels. If a rate increase is pre-announced, they allow for a surge in realizations the year before the increase, and a dip in realizations in the year following the rate increase, with a return to normal levels soon after. These timing effects are visible in CBO forecasts of realizations as the 2003 tax cuts expire, as discussed below.

Permanent changes in the rate of realizations. A more permanent effect of a tax rate change is that taxpayers tend to defer the taking of gains when rates are high in order to reduce the present value of the tax paid. They are more likely to realize gains more quickly when tax rates are low. The step-up in basis at death and the age of the taxpayer are part of this process. The higher the capital gains tax rate, the more likely that elderly asset holders will feel the lock-in effect and defer the realization of gains. When an estate tax is in force, if assets are held until death, the beneficiary's tax basis in the asset is "stepped up" to the value at the time of the death of the decedent. Accrued gains up to that point are eliminated from the tax base. Though subject to estate tax, the asset does not trigger an additional capital gains tax on receipt of the asset by the beneficiary. If the recipient later sells the asset, he or she is subject to a capital gains tax only on any additional increase in value beyond the stepped-up basis.

This permanent realizations effect – an increase after rates are lowered and a reduction after rates are increased – is part of the taxpayers' micro-economic behavior that revenue estimators claim to consider. Studies show that the permanent realization effect is significant, yet it is consistently underestimated by the revenue estimators.[10]

Valuation and economic effects. Two additional effects are omitted from the estimate of the revenue from the tax rate change. There is a valuation effect from the change in the tax on the assets, because it will affect their market value and affect the stock market. The quantity of gains available to be taken will change. The economic effect arises as the change in the tax rate causes investment and GDP to rise or fall. These effects are not estimated as part of the predicted cost of a bill to change the tax rate. Later on, as they occur in the real world and affect revenues in later years, the CBO, JCT, and Treasury alter their future baseline assumptions to reflect the actual revenue collections. These adjustments are called technical corrections, and are not reported as stemming from the previous rate changes. They "just happened" and become the new starting point for future revenue forecasts under the new law.

A half century of capital gains realizations and revenue. Short-run timing effects aside, revenue estimators tend to project realized capital gains to be a fairly constant share of GDP over time. Consequently, they project revenues from the tax as a share of GDP to be fairly constant for any given tax rate, and to vary roughly in line with changes in the tax rate. Changes in the tax rate are not assumed to have much effect on the GDP in return. Yet the historical record is that capital gains

realizations and revenues have fluctuated quite substantially and have deviated from trend assumptions for long periods, not just for the year or two that timing effects of rate changes might suggest. This variation indicates that the permanent realization, valuation, and economic effects of the tax change can be significant.

The following table 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 2005.[11]

There have been four major reductions and two major increases in the capital gains tax rate since 1978.

The Steiger Amendment lowered the basic tax rate on long term gains in mid- 1978, from just under 40% to 28%. 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.

The longest and most interesting change occurred following the Tax Reform Act of 1986, which raised the top capital gains tax rate from 20% 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 in 1986/1987 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. The magnitude and duration of these swings in capital gains were unanticipated by the revenue estimators. As a result, the budgets of the period needed many "technical corrections" in addition to the effects of updated economic assumptions to reconcile the predictions of revenues with reality from one year to the next.

Changes in the growth of the economy may have affected the quantity of gains available for the taking over the period. For example, following the 1981 tax reduction, in 1981 through 1986, real growth of GDP averaged 3.2% per year (and 4.7% in 1983-1986). After the 1986 tax increases on capital gains and other investments, real GDP growth averaged 2.8% in 1987 through 1996. After the mid-1997 capital gains rate reduction, real growth averaged 4.2% in 1997 through 2000. These

TABLE 1
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	Realized Gains as a Percent	Maximum Tax Rate on Long-
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 1/	690,152	102,174	14.8	5.55	16.05

Department of the Treasury
Office of Tax Analysis

February 29, 2008

1/ Preliminary estimate, subject to revision.

changes in the growth rate were not well-anticipated in budget forecasts. Furthermore, some of the change in the growth rate and the rate of capital formation in these years was due to the change in the tax law, which affected the required minimum return on capital to make it profitable on an after-tax basis.

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 5.55% in 2005, as the economy expanded and the stock market improved. Capital gains realizations continued to increase in the years following, until the latest recession and stock market crash in 2008. (See the following CBO graphs.) In all these cases, 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 effect on realizations is permanent. Government revenue estimators should, but do not, take it into account. The data also indicates a correlation between economic performance and the tax treatment of capital that the estimators do not deal with. As a result of the unexpected changes in capital gains realizations, much of the expected static revenue loss from the Steiger Amendment and the 1981 and 1997 reductions in capital gains tax rates did not occur. Much, if not all, of the presumed revenue gain from the 1986 capital gains tax rate increase did not materialize. In each case, actual revenues may have moved in the opposite direction of the tax rates for some time.

Short-term timing shift allowed for. In recent years, the Congressional Budget Office has issued annual baseline forecasts for GDP and the various types of income that underlie the revenue forecasts of the Joint Committee on Taxation. They reveal a good deal about the assumptions underlying the CBO and JCT estimates. Treasury produces baseline forecasts for the Administration in conjunction with the Council of Economic Advisers (CEA) and Office of Management and Budget (OMB), and the Department of Commerce. The CBO capital gains forecasts of January, 2003 through January 2008 are shown in the following charts. They display actual and forecasted capital gains realizations and tax revenue as a percent of GDP. The starting levels shifted for each new forecast as the actual data for the most recently available year became available. The January, 2003 forecast was issued before the capital gains rate was reduced from 20% to 15% in the tax legislation later that year. It forecast a gradual increase in the tax revenue to 3.2% of GDP by 2013. CBO may have estimated that the drop in the stock market following the 2001 recession was holding down gains early in the decade, and that they would rebound to a more normal level over the next ten years. The 2003 tax cut provided for a reduced 15% top tax rate on gains through 2008, returning to 20% in 2009. CBO forecast that the 2003 legislation would generate a timing effect as people sought to

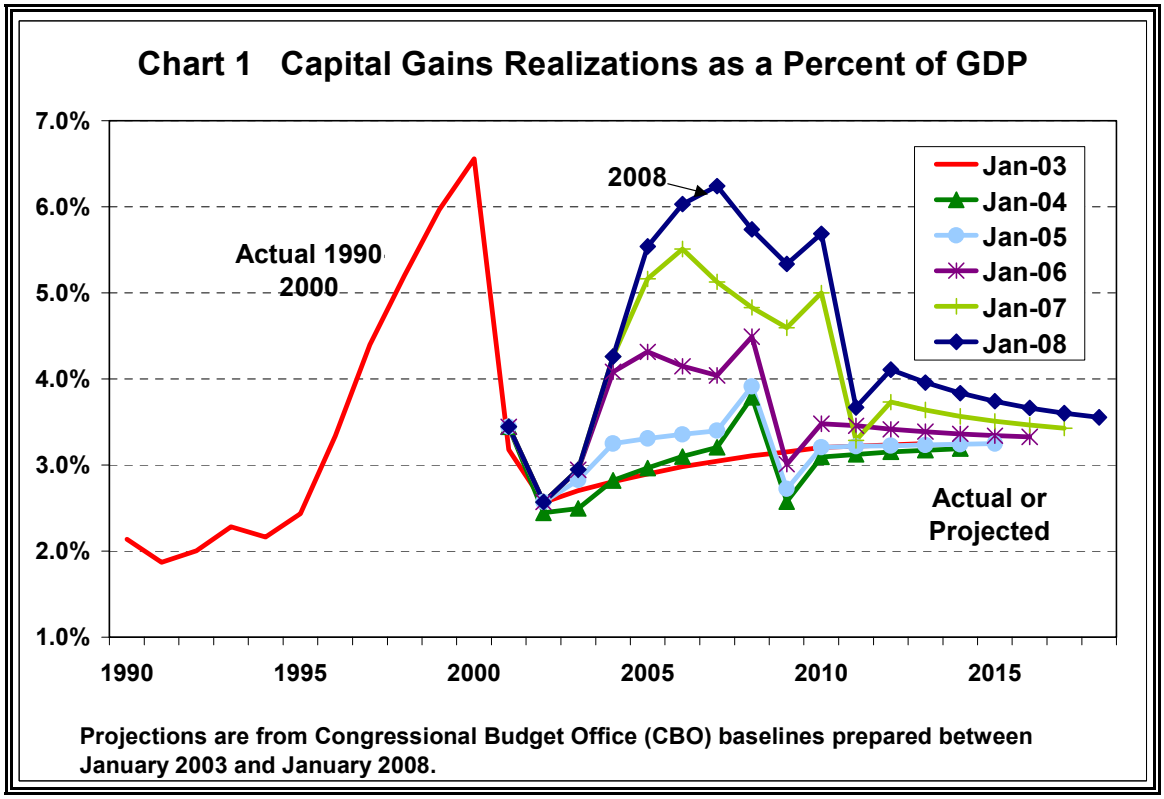
Chart 1 Capital Gains Realizations as a Percent of GDP
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
1990
1995
2000
2005
2010
2015
2008
Actual 1990
2000
Actual or
Projected
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Projections are from Congressional Budget Office (CBO) baselines prepared between
January 2003 and January 2008.

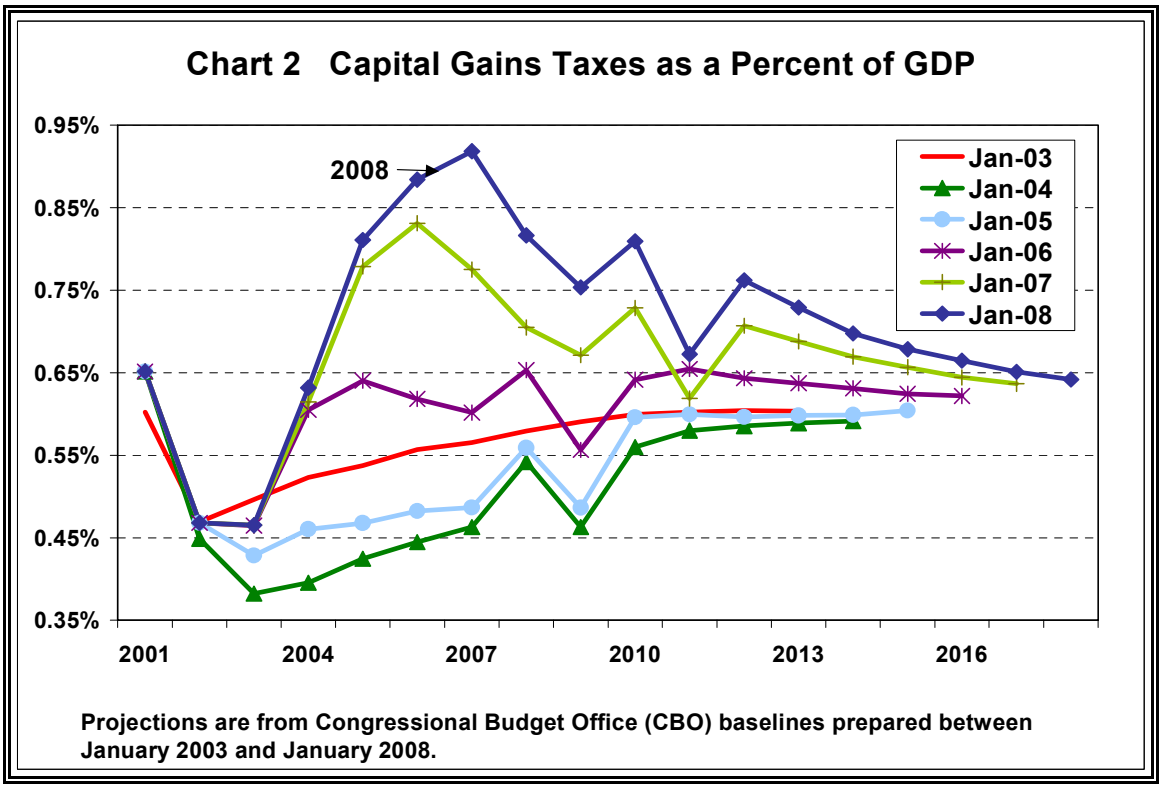
Chart 2 Capital Gains Taxes as a Percent of GDP
0.95%
0.85%
0.75%
0.65%
0.55%
0.45%
0.35%
2001
2004
2007
2010
2013
2016
2008
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Projections are from Congressional Budget Office (CBO) baselines prepared between
January 2003 and January 2008.

avoid the 2009 rate hike, creating a jump in realizations in 2008, a reduction in 2009, and a return to a trend toward the unchanged 3.2% long-run target at the 20% tax rate thereafter.

In each subsequent year, the chart shows the same timing event related to the expiration of the rate hike, followed by a return to a trend line pointing toward a 3.2% to 3.4% share of GDP some years out. In 2006, Congress extended the 15% rate through 2010, and the timing effect shifted in the next CBO forecast to occur in 2010 and 2011. The paths to the expected long run share of GDP shift over time as the changes in the actual realizations become available, which alters the starting point year after year. The end points of the CBO forecasts assume current law for the out years, which involves a return to the 20% tax rate on gains in effect before 2003, and they therefore show gains at about the same percent of GDP as before 2003.

One could not expect the January 2003 CBO report to anticipate the 2003 capital gains tax rate reduction, nor the unlocking effect that year. Note, however, that CBO underestimated the longer term effects of the rate reduction in each of its forecasts from 2004 through 2008. Each year, it had to ratchet up its starting points above the levels it had forecast in the previous reports to match the actual amounts revealed as the data came in. For example, the January 2005 and January 2006 reports had to show the actual 2004 realizations well above what the 2004 CBO forecast had predicted for 2004. That pattern of upward adjustments continued for forecasts through 2008. One would expect a surge in realizations in 2003 after the rate cut, and in 2010 before the tax rate reverts to 20%, but the multi-year elevation of realizations in 2004-2008 must reflect an ongoing sensitivity to the 15% tax rate. That is something that CBO obviously missed.

The important points revealed by these charts are: 1) that the CBO (and the Joint Tax Committee revenue estimators) do try to adjust for microeconomic timing decisions on the part of taxpayers in the months before and after a change in the capital gains tax rate, 2) the CBO (and JCT) analysts seem to underestimate what the longer term micro-economic realizations reaction to a tax rate change will be, and 3) results displayed as a share of GDP do not explain if and how the changes in the tax rate might affect the GDP and the given level of the economic baseline.[12]

Economic and revenue effects of the estate tax

In the case of the estate tax (and a few others, such as lower tax rates for capital gains and faster write-offs for capital expenditures), the effects on economic output and taxable income are particularly large per dollar of static revenue change. Reduction of these tax rates and faster write-off rules are among the few changes that would be expected to pay for themselves in higher tax revenues. The static revenue scoring methods of the JCT are unusually inaccurate in such circumstances, and the JCT revenue estimate should not be allowed to interfere with beneficial policy changes. The economic benefits for taxpayers and workers are the most important objective, of course, but the effects on federal revenue are what the Congress seems to be most concerned with.

Over the long term, it is cheaper for the federal government to repeal the estate tax than to keep it. The nearer it gets to repeal, the more money it saves over time. An earlier paper[13] presents our calculations of the economic and revenue consequences of adopting various forms of the estate tax once all economic adjustments have been made (about five to ten years after the tax change). The numbers are presented in 2007 dollars, and based on GDP and tax receipts collected in 2007, the latest available data. (Tables 2 and 3 from that document are attached.)

Compared to retaining the 2009 level of the tax (45% top rate with an exempt amount of $3 million), returning to old law (55% top rate, $1 million exempt amount) would ultimately reduce federal revenue by $42.8 billion a year. The economic damage – $183.2 billion less GDP) – would lower receipts from other taxes by more than the estate tax increase would bring in. Permanently adopting the Lincoln-Kyl proposal (35% top rate, $5 million exempt amount) would raise federal revenue from all sources by $1.5 billion a year, due to an improved economy – $26.5 billion in added GDP. A further cut (15% top rate with a $5 million exempt amount) would raise revenue by $15.7 billion a year, with $89.8 billion in added GDP. Eliminating the estate tax would increase federal revenue by $23.3 billion a year, after raising GDP by $118.8 billion. The more the estate tax is reduced, the more the GDP increases and the higher is the federal tax revenue.

The economic gains from reducing the estate tax build gradually, as additional capital is formed. After about five years, most of the additional equipment made profitable by the lower required rate of return on investment will have been put in place. Completing the additions to structures will take about ten years. Sometime between years five and ten, the short-run revenue losses from the tax rate reduction will be overcome by additional revenues from other taxes on the higher wages, profits, and sales. These ultimate annual gains in revenue are the figures shown above.

If the Congress is seriously concerned about the minor short term revenue losses from an immediate elimination of the tax, it could phase out the tax by trimming a few percentage points a year from the tax rate over a five to ten year period. For example, it could begin with the Lincoln-Kyl tax for 2010 (top rate 35%, $5 million exempt), and then reduce the top rate five percentage points a year for seven years while raising the exempt amount for inflation. By the time the tax disappeared in 2017, the added revenues from other sources would more than replace the lost estate tax revenue.

It should not come as a surprise that the estate tax has one of the most powerful negative effects on capital formation of all the taxes on capital. It is imposed at a very high rate on a very narrow base, which is always a recipe for distortion. It is imposed directly on the value of the property and capital assets, which, for comparison, translates into an even higher tax rate on the annual income flow.

TABLE 2

EFFECT OF ESTATE TAX ON RETURNS TO CAPITAL, OUTPUT, CAPITAL STOCK, HOURS WORKED, AND WAGES RELATIVE TO 2009 RATES AT 2007 INCOME LEVELS

	1 2009: 45% rate, $3.5 m exempt*	2 35% rate with $5 m exempt*	3 15% rate with $5 m exempt*	4 no death tax gift tax	5 old law reinstated*	6 28% rate with $3.5 m exempt*	7 18% rate with $1 m exempt*
Service Price (Required Return)	0.133797	0.133250	0.131945	0.131349	0.137689	0.132861	0.133301
% Change in Service Price	0.00%	-0.41%	-1.38%	-1.83%	2.91%	-0.70%	-0.37%
Levels							
Capital Stock ($billion)	26,256.6	26,430.6	26,851.9	27,047.4	25,070.7	26,554.2	26,413.7
Labor Hours (billion)	198.63	198.73	198.94	199.03	198.00	198.78	198.71
Pvt. Business Output ($billion)	10,539.2	10,565.6	10,629.0	10,657.9	10,355.9	10,584.1	10,563.0
GDP ($billion)	13,932.3	13,958.7	14,022.0	14,051.0	13,749.0	13,977.2	13,956.0
Wages ($ per hour)	35.37	35.44	35.62	35.70	34.87	35.50	35.44
Change							
Capital Stock ($billion)	0.0	174.0	595.3	790.9	-1,185.8	297.6	157.1
Labor Hours (billion)	0.00	0.09	0.30	0.39	-0.64	0.15	0.08
Pvt. Business Output ($billion)	0.0	26.5	89.8	118.8	-183.2	44.9	23.8
GDP ($billion)	0.0	26.5	89.8	118.8	-183.2	44.9	23.8
Wages ($ per hour)	0.00	0.07	0.25	0.33	-0.50	0.12	0.07
%Change							
Capital Stock	0.00%	0.66%	2.27%	3.01%	-4.52%	1.13%	0.60%
Labor Hours	0.00%	0.05%	0.15%	0.20%	-0.32%	0.07%	0.04%
Pvt. Business Output	0.00%	0.25%	0.85%	1.13%	-1.74%	0.43%	0.23%
GDP	0.00%	0.23%	0.64%	0.95%	-1.31%	0.32%	0.17%
Wages	0.00%	0.17%	0.70%	0.83%	-1.42%	0.35%	0.19%

* column 1) 2009: top rate 45%, credit exempts $3.5 million; column 2) reform with 35% rate, credit exempts $5 million;
column 3) reform with 15% rate, credit exempts $5 million; column 4) no death tax, but gift tax remains;
column 5) old law top rate 55%, credit exempts $1 million; column 6) reform with 28% rate, credit exempts $3.5 million;
column 7) reform with 18% rate, credit exempts $1 million;

TABLE 3

REVENUE EFFECTS OF ALTERNATIVE ESTATE AND GIFT TAX REGIMES ($ amounts in billions)
RELATIVE TO 2009 RATES AT 2007 INCOME LEVELS

	1 2009: 45% rate, $3.5 m exempt*	2 35% rate with $5 m exempt*	3 15% rate with $5 m exempt*	4 no death tax gift tax only*	5 old law reinstated*	6 28% rate with $3.5 m exempt*	7 18% rate with $1 m exempt*
Estate & Gift Tax, Initial Revenue	21.1	12.9	4.7	1.9	44.1	12.7	12.5
Static Change from 2009 Revenue	0.0	-8.2	-16.4	-19.2	23.0	-8.4	-8.6
Economic Impact on E&G Tax	0.0	0.1	0.1	0.1	-2.0	0.1	0.1
Net Dynamic E&G Revenue	0.0	13.0	4.8	2.0	42.1	12.9	12.6
Subtotal: Net Change E&G Tax	0.0	-8.1	-16.3	-19.2	21.0	-8.3	-8.5
Economic Impact on Income Tax	0.0	7.0	23.1	30.6	-45.6	12.9	7.1
Economic Impact on Payroll Tax	0.0	1.7	5.7	7.6	-11.7	2.9	1.5
Economic Impact on Misc. Taxes **	0.0	0.9	3.2	4.2	-6.5	1.6	0.8
Subtotal: Change, Other Taxes	0.0	9.6	32.0	42.4	-63.8	17.4	9.5
Net Revenue Change vs. 2007	0.0	1.5	15.7	23.3	-42.8	9.1	1.0
Rise in Income (GDP)	0.0	26.5	89.8	118.8	-183.2	44.9	23.8
Rise in After-Tax Income	0.0	25.0	74.1	95.5	-140.4	35.8	22.8

* column 1) 2009: top rate 45%, credit exempts $3.5 million; column 2) reform with 35% rate, credit exempts $5 million;
column 3) reform with 15% rate, credit exempts $5 million; column 4) no death tax, but gift tax remains;
column 5) old law top rate 55%, credit exempts $1 million; column 6) reform with 28% rate, credit exempts $3.5 million;
column 7) reform with 18% rate, credit exempts $1 million;

** corporate tax, excise taxes, tariffs

People invest in capital to obtain a desired return after taxes. Taxes that reduce the expected after-tax return on capital shrink the capital stock until returns are driven up to cover the taxes. These include the corporate tax, the personal income tax on interest and dividends, and the capital gains taxes for businesses and individuals, as well as the estate tax. This effect is strong for businesses that invest directly in capital equipment, structures, and inventory. It also affects savers who invest indirectly through financial assets. The reduction in capital formation in turn depresses the productivity of labor and demand for labor, lowers the wage rate, discourages the supply of labor, and reduces employment. Lower output and income depress tax revenues.

The depressing effect on capital accumulation is particularly strong for estates, and strongest of all for estates that consist of unincorporated businesses. Unlike the capital gains tax, which can be deferred by the taxpayer to a more convenient time by holding onto the asset, the estate tax must be paid a few months after the death of the decedent. The cash must be raised at once. The task is not so difficult for an estate consisting of certificates of deposit, bonds, and stocks, for which there is a ready market. It is far less convenient for an estate consisting of an unincorporated small business, which cannot easily be liquidated either in part or in whole to pay the tax. Nor is it always possible to obtain a loan against the business to raise an amount that may equal half of the value.

Insurance is not a panacea for the ills of the estate tax. It must not be imagined that small businesses can painlessly avoid the danger to their survival posed by the estate tax if their owners simply purchase enough life insurance to cover the tax liability. Insurance does not reduce the tax burden. The totality of the premiums paid by the people in an insurance pool, plus the earnings on the premiums as they are invested by the insurer must equal the payout to the decedents, plus a small management fee and a fee for taking on the timing risks for the insurance company.

Insurance is a form of saving. The businesses are just saving, collectively, for taxes they must all pay. The insurance merely protects the participants against the possibility that they might die early before setting enough aside to cover the tax. It does so by transferring saving from those who die later to those who die sooner. On average, these businesses must save enough of their earnings to cover the estate taxes, either through insurance or by direct saving (self-insurance). The need to save twice, once to build the business, a second time to keep it, is an added burden for small businesses and other savers, and it must reduce the willingness and ability to create and employ assets.

Flawed studies downplay gains from repeal

Economic studies are split in their views of the estate tax. Should it be viewed as a tax on capital income, discouraging saving and investment? Or should it be viewed as an obstacle to the granting of bequests, lead to reduced saving if people are unwilling to make heavy sacrifices for their

beneficiaries, or to increased saving if people are absolutely determined to give some targeted amounts to their children in spite of the tax?

A tax on capital. The most sensible view of the estate tax is that it discourages capital formation. According to James Poterba:

> "Estate taxes are taxes on capital. An individual who earns labor income and consumes this income over the course of his lifetime is not liable for estate taxes, but an individual who saves part of his labor income and accumulates a stock of capital assets may face the estate tax... Most research on capital income taxation does not consider estate taxes as part of the capital tax burden. Estate taxes are typically omitted in formulating the user cost of capital for corporations and in estimating the total tax burden on corporate income... [yet] estate taxes are large enough to represent a substantial component of the capital income tax burden."[14]

This omission hides a portion of the cost of capital from researchers looking into what drives capital accumulation and growth, and hides much of the damage done by the estate tax from people trying to decide on a sensible tax system.

Life cycle theory. Life cycle theory describes how people are observed to allocate their earnings and consumption over their lifetimes, consuming more than they earn when young by borrowing or receiving transfers from their parents, earning more than they consume in order to repay debt and save for retirement when in middle age, dissaving when old, and perhaps leaving a bequest at death. It explores how they arrange transfers of income between generations, how government transfer programs affect the allocations, and how such transfers affect the work and saving behavior of the population.

In particular, life cycle theory deals with the transfer of large amounts of money within families as parents raise and educate children and leave them bequests, and as adult children aid their parents. Large transfers also occur through government programs such as Social Security, Medicare, and Medicaid, and tax-supported education. The theory estimates the effect of the transfers on what people feel that they have to do to provide for themselves, and what they leave to government.

Life cycle theory is often presented based on a few simplifying assumptions that lead to a variety of possible sustainable "steady state" paths for economic activity over time.[15] The paths vary according to the tastes that the population may have for sharing income between the young and the old, levels of fertility and population growth, and the rate of technological progress. They may be affected by government transfer programs that are assumed either to replace or augment private allocation arrangements.

There is substantial disagreement among life cycle theorists about some of these effects. For example, Martin Feldstein believes that Social Security transfers from the young to the elderly reduce the amount of saving that people must do to provide for their retirement, thereby reducing capital formation and GDP. Robert Barro believes that there is little impact on saving because people return a large part of their Social Security benefits to their children by saving additional money to leave larger bequests. Note that neither discussion examines the price effect of the payroll tax rate on the labor supply decision.[16]

Being able to determine the future on the basis of a handful of assumptions about wants and wishes is very attractive, but the approach is almost mechanical in nature, and it leaves out key variables known to drive economic behavior. It basically ignores how the money is raised, omitting whatever effects the taxes levied to raise the money might have on the decision to work or take leisure, to save or to consume. That is to say, the taxes and transfers are assumed to shift income, and produce income effects. Any price effects of the transfers, such as the effect of taxes on the returns to capital or the supply of labor, are ignored. Any reaction by taxpayers, workers, and savers to the changes in incentives, rewards, and opportunities from earning or saving an extra dollar at the margin are ignored.

Life cycle theory employs an assumed steady state interest rate equal to the rate of growth of population and technology (which sum to the rate of growth of economic output or GDP). The interest rate is taken to be pre-tax. However, in the real world, individuals make investment decisions based on the after-tax expected rates of return. Changes in tax rates therefore have significant effects on the level of the capital stock and the quantity of economic output quite independently of the bulk transfers of income and assets assumed in the life cycle models. Life cycle models cannot predict the consequences of tax changes that alter the opportunities people have to accumulate savings or build a business over their lifetimes, and how they re-evaluate their plans if the tax treatment changes. The theory is not a good predictor of the consequences of having, altering, or eliminating the estate tax.

Generational studies derived from the life cycle approach downplay the damage from the estate tax. Some observers contend that the estate and gift taxes have little or no effect on capital formation, because people are willing to make the extra effort to save more to reach their goals for wealth accumulation in spite of the taxes. This concept is discussed in papers by Craig E. Johnson and David Joulfaian of the Office of Tax Analysis, U.S. Department of the Treasury.[17]

One supposed motivation is the "joy of giving" theory. Assume that people enjoy leaving bequests, making the gifts a sort of consumption good, and that people have a target amount they wish to give their beneficiaries. If the estate tax is going to take a portion of the estate, perhaps people will save more to attain the estate they desire to leave, after-tax, for their heirs.

Basic economics suggests very strongly that when you make something harder to do, people do less of it. They may struggle against the obstruction, and partially offset the damage, but they will never fully make up for it. There are no fixed targets for any use of income, including bequests. In this case, it means that when people confront an estate tax, they re-evaluate their choices and decide to leave less of a bequest and use more of their income for ordinary consumption. They will save only enough to reach the lower bequest target. In the process, there will be less private capital (less plant, equipment, buildings, and inventory) created and employed. Workers will be less productive due to the lower capital stock, and wages and employment will be reduced.

The claim that people will choose to save more in the presence of an estate tax, and that this added saving might be good for the country, is quite mistaken. Governments spend more when they find new revenue sources. The estate tax is not likely to be paired with reductions in other taxes. The added private saving supposedly triggered to pay for the estate tax would be taken by government and spent. It would not necessarily lead to added national saving and additional capital formation.[18]

Even if the government were to spend the added revenue on added infrastructure, instead of current government consumption, its economic benefits would be in doubt. The added government infrastructure would have to be a more productive and satisfying use of the resources than the alternative private sector use, whether that would have been for private investment or private consumption.

Johnson and Joulfaian write, "The estate tax increases the price of bequests, leading to offsetting income and substitution effects. The substitution effect leads households to shift away from bequests and towards consumption earlier in life, while the income effect leads to reduced consumption earlier in life, thus the overall effect on savings is ambiguous."[19]

But what of the federal budget constraint? Elsewhere in the presentation, the authors isolate the incentive effect of any changes by making the alteration budget neutral. The change in the estate tax is offset with a lump sum reduction of federal transfer payments or a lump sum tax increase, neither of which influences the rewards to additional saving or to earning an extra dollar of wages.

In this case, that rule is dropped, and it is assumed that the higher estate tax reduces personal after-tax (disposable) income. But if the estate tax is returned as a lump sum transfer, or a cut in some other tax, then the estate tax imposes no immediate negative disposable income effect for the country as a whole, and no reason for the population as a whole to reduce consumption (and increase saving) early in life due to feeling poorer.

The only effect of the tax would be through the substitution effect, which would lead to less saving and more consumption. That, in turn should reduce the capital stock, reduce output and income, and depress both consumption and saving further over time, because people would indeed

become poorer and would have less income either to save or to consume. If instead the income tax is lowered, there should be less initial substitution away from saving, and some positive labor response, but because the estate tax is more distorting than the income tax, its imposition should still result in some reduction in GDP, consumption, and saving even if the revenue is used to reduce the income tax.

Keep them hungry, keep them working. Another argument offered for having an estate tax is that people who receive or who expect to receive a bequest may work and save less than those without bequests.[20] People who are given large fortunes are able to take more leisure and reduce their supply of labor. However, an estate tax has a negative incentive effect on the current work effort and saving of the donors who are accumulating the fortune to begin with. We know that the donors are highly productive and thrifty. We know that their saving creates capital that makes other workers more productive and eager to work in the here and now. The frugality and productivity of the future heirs is much more of a gamble. It is better to encourage the proven current ability to work and save of the donors and those they employ, than to gamble on getting more output from the beneficiaries by blocking the transfer of wealth.

The idea that people will work harder if you take away their fortunes, and somehow we will all be better off, is bizarre. It is akin to the notion that Germany and Japan benefitted from Allied bombing in WWII, because it forced them to rebuild with modern factories. It is debunked by the parable of the broken window, in "Things That Are Seen and Things that Are Not Seen" by French economist Frederic Bastiat. If a boy breaks a window in the grocer's shop, the grocer must spend five francs on new glass. The glazier can then spend five francs on additional clothing. The tailor can then buy additional groceries. Is this prosperity through destruction? No. If the window had not been broken, the grocer could have spent the five francs on something else, with the same chain of additional benefits, but with the window intact too.

All these efforts to elevate the "motivation" for bequests and saving, and diminish the brute force assault on the return to saving and investment, appear to fall flat.

The "benefits are real but slow in coming" school. Some studies admit that the repeal of the estate tax would increase investment and expand economic output and income, but cast doubt on the speed of the improvement. It might take thirty to sixty or more, for the capital stock to achieve the bulk of its response.[21] Such studies may ask how the repeal would affect the federal budget during the adjustment period. The concerns often revolve around the relationship between private sector saving and federal borrowing.

One way (not the best) to view how a reduction in the estate tax boosts small business and private saving is to assume that individuals who are spared the tax (or the life insurance premiums paid to prepare for it) can divert the tax money into an expansion of their savings or their businesses. If private saving is otherwise fixed, and the tax reduction is the only source of additional saving, then

the stock of private capital can only rise by as much as the reduction in the estate tax collections. The savings accumulate only slowly, retarding growth in the capital stock.

However, the initial reduction in federal revenue will affect the federal budget. If the repeal of the estate tax is matched by a reduction in federal spending, then the tax reduction can be used for adding to private capital formation, as just described. These studies regard that as the most favorable case for economic expansion. If government spending is not cut, and the reduction in federal revenue is covered by additional government borrowing, then the additional private sector saving must be used to buy the additional federal debt, and is not available for private investment. If the reduction in estate tax receipts is offset by an increase in the individual or corporate income tax, there is no additional money for expanding the stock of private capital, and the detrimental incentive effects of these taxes will discourage saving and capital formation; there will be little or no gain in capital investment.

The difficulty with such studies is the assumption of inflexible saving behavior by the public. It assumes that people do not increase their saving out of current income if investment opportunities improve. It also assumes a closed economy, that is, no flow of saving and investment across international borders. In reality, how much additional capital appears profitable and worth creating is many times the dollar amount of the tax reduction. An additional annual cash flow of $25 billion after-tax would justify accumulating several hundred billion dollars in additional capital.

There are several ways of financing such an expansion of the capital stock other than the tax cut itself. People may increase their rate of saving, either by cutting consumption or by working harder to earn more money to save. Saving by U.S. residents that has been directed into foreign assets may be redirected into domestic assets, or saving and investment by foreigners in U.S. assets may increase. That would mean a net capital inflow into the United States. Entrepreneurs can borrow from banks, and from other lenders in the credit markets. They can take on partners from the venture capital industry.

Historically, increases in the after-tax return on investment have been followed by rapid expansion of the capital stock. It takes only about five years to complete the desired additions to the stock of equipment, and about ten years to complete the additions to the desired stock of structures. The economic benefits of the additional capital formation to workers and savers come quickly. The revenue reflow to the federal budget keeps pace.

Conclusion

OTA and JCT scoring techniques are ill-suited to evaluating the revenue effect of eliminating or reducing the estate tax. The scoring methods they employ are "static" in the sense that they ignore

the macroeconomic feedback from a lower cost of capital that would result from a lower estate tax. GDP, profits, and wages would rise if the tax were repealed, which would benefit people in all income brackets, and increase federal revenues from income, payroll, and other taxes. Congress must recognize the limits of the official scoring methods, and make room in the Budget Resolution for ending the estate tax. It may do so without fear of cutting federal revenues, except in the very short run. Longer term, ending the tax would benefit the federal budget, and would greatly benefit the general public, including workers, savers, and business owners.

Stephen J. Entin
President and Executive Director

Endnotes

1. See: Stephen J. Entin, "Economic Impact of the Estate Tax: Effects of Various Possible Reform Options," American Family Business Institute study, June 2009, available at http://www.nodeathtax.org/files/ AFBF_ Entin_2009.pdf. Also issued as *IRET Policy Bulletin*, No. 93, June 4, 2009, available at http://iret.org/pub/BLTN 93.PDF. Also see Douglas Holtz Eakin, "Changing Views of the Estate Tax," American Family Business Institute study, February 2009, available at http://www.nodeathtax.org/files/ AFBF_Holtz_Eakin_2009.pdf, and Stephen J. Entin, "Kill the Death Tax," American Family Business Institute study, September 2007, available at http://www.nodeathtax.org/files/kill_the_death_tax_2007.pdf.

2. Joint Committee on Taxation, "Overview of Revenue Estimating Procedures and Methodologies Used by the Staff of the Joint Committee on Taxation," February 2, 2005 (JCX-1-05), page 9. Available on the Internet at http://www.jct.gov/publications.html?func=startdown&id-1181.

The report goes on to explain the use of "micro-economic" behavior changes but not "macro-economic" changes:

> "The starting point for a revenue estimate prepared by the Joint Committee staff is the Congressional Budget Office ("CBO") 10-year projection of Federal receipts, referred to as the `revenue baseline.' ... Underlying the baseline revenue forecast is a 10-year forecast of macroeconomic conditions, which CBO produces at the beginning of each calendar year, and updates each August. Revenue estimates produced by the Joint Committee staff generally incorporate as underlying assumptions relevant parts of the CBO baseline macroeconomic forecast, including total output, investment, inflation and interest rates, and growth rates for specific income flows such as corporate profits and wages...
>
> In providing conventional estimates, the Joint Committee staff assumes that a proposal will not change total income and therefore holds Gross National Product (GNP) fixed. The use of fixed economic assumptions does not prevent the Joint Committee staff from taking into account possible shifts in economic activity across sectors or markets and/or changes in the timing of such activity in response to proposed tax changes, so long as GNP remains unaffected."

From page 18 of the same report:

> "Although conventional revenue estimates are sometimes referred to as 'static,' ... Joint Tax Committee staff revenue estimates have taken into account taxpayers' likely behavioral responses to proposed changes in the tax law. Because such responses are constrained by the fixed-macroeconomic convention (fixed GNP), they are sometimes referred to as microeconomic behavioral effects..."

3. Joint Committee on Taxation, "Explanation of Methodology Used to Estimate Proposals Affecting the Taxation of Income From Capital Gains, Joint Committee on Taxation," March 27, 1990, pp. 7-8.

The report goes on to rationalize the restriction:

> "It has been suggested that in making revenue estimates of a tax proposal the Joint Committee staff should take into account the projected macroeconomic effects that would result from that particular tax proposal. For the following reasons, the Joint Committee staff believes it would be inappropriate to

introduce macroeconomic consequences into the revenue estimating process by varying the baseline assumptions provided by CBO.

(1) The performance of the economy is influenced [by] the Federal Government's overall monetary and fiscal policy, as well as [by] many factors largely outside the control of government. These factors are incorporated into the baseline receipts estimates. It would be difficult, if not impossible, to isolate and quantify the macroeconomic effects resulting from proposed changes in the tax law. Despite extensive theoretical and empirical research, there is still a great deal of uncertainty and controversy as to the effects of taxation on economic growth, investment, savings, productivity, and interest rates.

(2) Given this lack of consensus, and given the wide range of available empirical estimates from respected business and academic economists, any estimate of macroeconomic consequences would inevitably become unduly subject to influences reflecting partisan, political debate concerning overall government policy.

With respect to estimates of the macroeconomic effects of taxes, well-intended professional judgments by economists are easily perceived as politically motivated, while biased views can be readily disguised as professional judgment. Given their importance in the Congressional budget process, it is essential that revenue estimates be determined on a nonpartisan, apolitical basis. Moreover, if macroeconomic factors were to be taken into account with respect to revenue estimates, it would seem that similar factors ought to be considered in connection with outlay estimates.

(3) Analysis of the potential macroeconomic effects of even a fraction of tax proposals would require a considerable investment of staff resources. This could only come from a substantial increase in resources allocated to the revenue estimating function.

The foregoing discussion is not intended to suggest that Congress should ignore potential macroeconomic effects in its consideration of proposals to reduce the capital gains tax rate (or in the consideration of any other revenue proposal). It is only meant to suggest that such effects should be considered cautiously and separately, rather than as part of the revenue estimating process."

4. JCT, "Overview," JCX-1-05, op. cit., p. 32.

5. The research to which Dr. Mankiw is referring is: N. Gregory Mankiw and Matthew Weinzierl, "Dynamic Scoring: A Back-Of-The-Envelope Guide," *Journal of Public Economics*, Elsevier, vol. 90(8-9), September, 2006, pp. 1415-1433. It is also available at http://www.economics.harvard.edu/faculty/mankiw/files/dynamicscoring_05-1212.pdf.

6. Paul D. Evans, "The Relationship Between Realized Capital Gains And Their Marginal Rate Of Taxation, 1976-2004," *Dynamic Tax Analysis Series: Capital Gains*, No. 2, Institute for Research on the Economics of Taxation, October 9, 2009. It is available at http://iret.org/pub/CapitalGains-2.pdf.

7. See note 3.

8. See note 3.

9. U.S. Department of the Treasury, Office of Tax Analysis, "A Dynamic Analysis of Permanent Extension of the President's Tax Relief," July 25, 2006. Also see the Report of the President's Advisory Panel on Federal Tax Reform, "Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System," November 2005, p. 190.

The Advisory Panel Report states:

> "The Growth and Investment Tax Plan retains a tax burden on capital income, while the Progressive Consumption Tax Plan eliminates this burden. Both plans would encourage economic growth, but the effects would be larger under the Progressive Consumption Tax Plan. The Treasury Department has evaluated the growth effects of both plans using a range of economic models.
>
> The Treasury Department estimates that the Progressive Consumption Tax Plan could increase national income by up to 2.3 percent over the budget window, by up to 4.5 percent over 20 years, and by up to 6.0 percent over the long run. The Treasury Department models also suggest that the Plan could increase the capital stock (the economy's accumulation of wealth), with estimates ranging from 0.7 percent to 5.1 percent over the budget window, from 2.5 percent to 16.7 percent over 20 years, and from 8.90 percent to 27.9 percent over the long run.
>
> For the Growth and Investment Tax Plan, Treasury estimates that the pan could increase national output (national income) by up to 2.4 percent over the budget window, by up to 3.7 percent over 20 years, and by up to 4.8 percent over the long run. The Treasury Department models also suggest that the plan could increase the capital stock, with estimates ranging from 0.5 percent to 3.7 percent over the budget window, from 1.8 percent to 12.1 percent over 20 years, and from 5.6 percent to 20.4 percent over the long run."

10. For a discussion of the studies, see Stephen J. Entin, "Revenue Estimation of Capital Gains Taxes Needs Improvement," *IRET Capital Gains Series*, No. 3, Institute for Research on the Economics of Taxation, Washington, DC, November 9, 2009, available at http://iret.org/pub/CapitalGains-3.pdf.

11. 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 alternative 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. Thus, for example, the basic top tax rate on capital gains is currently 15 percent, but the Treasury calculates that the AMT and the phase-out of itemized deductions can boost the marginal rate to 16.05%. In our discussion, we refer mainly to the basic rates.

12. For additional discussion of the shortcomings of static scoring of tax reductions, see: Daniel Clifton, "Learning From History Part II: Estate Tax repeal Will Have No Effect On The Budget Deficit," American Family Business Institute study, May 2006, available at http://www.nodeathtax.org/uploads/view/843/afbi_budget_impact.pdf; and Daniel Clifton, "Learning From History: JCT's Static Score Can Not Determine The Real Revenue Effect Of Repealing The Estate Tax," American Family Business Institute study, July 2005.

13. Stephen J. Entin, "Economic Impact of the Estate Tax: Effects of Various Reform Options," *op. cit.*

14. James M. Poterba, "The Estate Tax and After-Tax Investment Returns,"in *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, Joel B. Slemrod, editor, Russell B. Sage Foundation, New York; Harvard University Press, Cambridge, Massachusetts, and London, England, 2000, Chapter 10, pp. 335-336.

15. For example, see Richard D. Lee with the assistance of Timothy Miller, "Population Age Structure, Intergenerational Transfer, and Wealth: A New Approach, With Applications to the United States," *The Journal of Human Resources*, XXIX.4, Autumn, 1994, pp. 1027-1063.

16. Lee, *op. cit.*, p. 1032.

17. For a discussion of this type of approach, see Craig E. Johnson and David Joulfaian, "A Dynamic Analysis of Estate Tax Repeal," presented at the American Economic Association annual meetings, January 2005. Also see David Joulfaian, "Estate Taxes and Charitable Bequests: Evidence from Two Tax Regimes," OTA Paper 92, Department of the Treasury, March 2005.

18. National saving is private saving plus the government budget surplus. If there is a government budget deficit, national saving is private saving less the government deficit. It is asserted that a rise in the budget surplus or drop in the deficit adds to national saving and private investment, because the government is either paying down debt or reducing the amount it must borrow. Either situation supposedly leaves more saving for private firms to borrow and invest. There are two fallacies in that line of reasoning. First, higher taxes on saving and investment can reduce the amount that the private sector is willing and able to save by more than it cuts government borrowing, so national saving goes down, not up; and second, the higher taxes can reduce the amount of capital that can profitably be acquired and employed even if national saving rises. Investment inside the United States could still fall.

19. Johnson and Joulfaian, *op. cit*., p. 14.

20. See Jeffrey R. Brown and Scott J. Weisbenner, "Is a Bird in the Hand Worth More Than a Bird in the Bush? Intergenerational Transfers and Saving Behavior," NBER Working Paper 8753, National Bureau of Economic Research, Cambridge, Massachusetts, February 2002. The authors undertake a "life-cycle" analysis of bequests. They find that people who have actually received bequests tend to save less than those who have not, but people who merely expect to receive bequests do not reduce their saving. They also report that people who receive a bequest do not reduce saving immediately. People who received a bequest twenty or forty years ago are seen to be spending more of it than people who have just received a legacy.

21. For example, see Marco Cagetti and Mariacristina De Nardi, "Estate Taxation, Entrepreneurship, and Wealth," NBER Working Paper 13160, National Bureau of Economic Research, Cambridge, Massachusetts, June 2007.