

Capital Gains Taxes and Federal Revenues

Capital gains taxes often garner policy attention that is disproportionate to their importance in generating federal revenues. One reason is that the realization of gains is very sensitive to capital gains tax rates, leading to speculation that changes in rates—and the alleged failure to take into account their effect on taxpayers' willingness to sell assets—explain how revenue forecasters have been surprised by movements in tax receipts. Another reason is that gains are a way in which earnings are paid to investors, prompting the idea that well-designed changes in the gains tax rate can significantly influence economic growth, with potentially large feedback effects on revenues. This revenue and tax policy brief outlines the basics of capital gains taxation in the context of estimating individual income tax receipts.

Characteristics of Gains and Gains Taxes

A capital gain is an increase in the value of an asset; a decrease in an asset's value is a capital loss. The concept applies to all assets, including corporate stock, commercial real estate, collectibles, homes, and nonincorporated businesses. Assets fluctuate in value all the time, and as their prices change, capital gains and losses accumulate. Those accrued losses and gains are not realized, however, until the assets are sold and the former owner captures the gain (or loss).

When a gain accrues, it is a form of income for the holder of the asset. But a gain is not counted as income for income tax purposes until it is realized.¹ At that time, the difference between the sale price and the asset's "basis"—the acquisition price minus depreciation and other adjustments—is includable in the owner's taxable income. Even then, the gain may not be subject to tax. A gain from the sale of an owner-occupied home, for example, typically is not taxed.

And when an asset holder dies, the basis of the asset that is passed along to heirs is "stepped-up"—that is, the basis becomes the asset's value at the time of the holder's death, effectively exempting from taxation the gains that had accrued until then.²

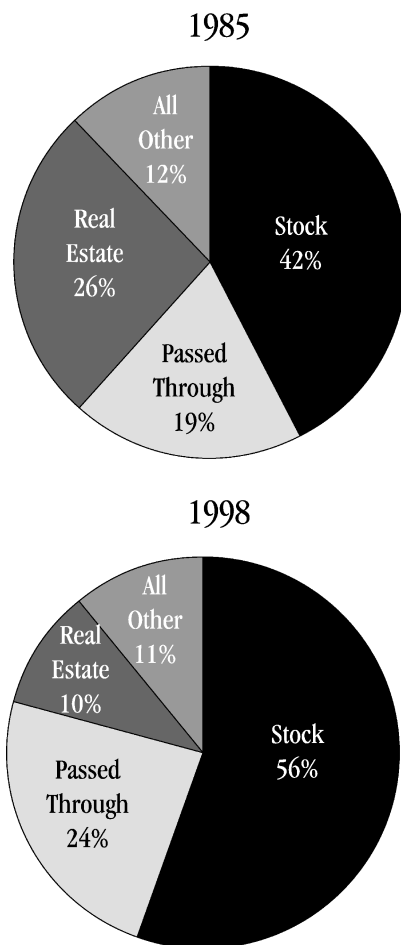
The way the tax code treats capital gains income is in certain respects more favorable and in others less favorable than the way it treats income from some other sources. Because of inflation, the difference between the sale price of an asset and its basis overstates the income that the asset holder earns; taxes are thus imposed on phantom income created by inflation, a characteristic that the taxation of gains has in common with the taxation of interest income. At the same time, gains are treated favorably by not being taxed when earned but when realized, which is often many years later. Because money today is worth more than the same amount of money in the future, deferring payment of capital gains taxes is a powerful advantage and can overwhelm the disadvantageous effects of inflation, especially for assets that are held a long time. Finally, realizations of long-term capital gains—defined generally as those on assets held for more than a year—are taxed at rates lower than those imposed on regular income. The result is that even after inflation is taken into account, capital gains are generally taxed at effectively lower rates than are most other forms of income.

Most of the sources of taxable capital gains can be discerned from tax-return data, although some cannot be easily identified since many gains are passed through to taxpayers from other entities, such as partnerships and trusts. Examination of those data show that the composition of taxable gains has varied over time. In 1985, before the stock market began booming and when real estate was faring especially well, gains from directly held stock accounted for only about 40 percent of taxable realizations, with real estate accounting for

1. There are minor exceptions. Gains realized by mutual funds are taxed, even though they are not realized by the taxpayer directly. Another exception involves assets held for more than five years. To take advantage of lower rates in the future under the provisions of the Omnibus Budget Reconciliation Act of 1997, those assets must be "marked to market" and taxes paid on the accrued gains to that point, as if they had been sold.

2. With the repeal of the estate tax in 2010 under the Economic Growth and Tax Relief Reconciliation Act of 2001, gains of more than \$3.5 million will no longer be stepped up at death.

Figure 1.
Sources of Taxable Capital Gains
in 1985 and 1998



Source: Congressional Budget Office based on Internal Revenue Service, “Sales of Capital Assets Reported on Individual Income Tax Returns,” *SOI Bulletin* (forthcoming).

Note: Numbers in the figures do not add up to 100 percent because of rounding.

roughly another 25 percent. The most recent available data indicate that more than half of gross taxable realizations now come from corporate stock and about 10 percent come from real estate (see *Figure 1*).

Capital Gains in Revenue Forecasts

Individual income tax receipts from capital gains realizations normally make up about 4 percent to 7 percent of individual income tax revenues (see *Table 1*); they are usually between 2 percent and 3 percent of total receipts. Yet they receive a great deal of attention in revenue forecasting. First, they

figure significantly in why tax receipts do not move proportionately with the economy. Second, they are volatile and therefore contribute more to changes in total receipts than their size would indicate.

In general, federal revenues rise and fall with overall economic activity. The common measure of that activity, gross domestic product (GDP), and its components—such as taxable personal income and corporate profits, which make up much of the tax base for individual and corporate income taxes—do not include capital gains. Gains therefore become part of a wedge between overall income as measured in GDP and taxable income, with the result that growth in GDP or in the tax-base components of GDP does not yield the same growth in income tax receipts. Consequently, when the stock market rises rapidly or the real estate market collapses, for example, or when there are big changes in capital gains tax rates, total receipts may grow faster or more slowly than the overall economy because of what happens to capital gains realizations.

Because the prices of assets in well-developed markets are inherently impossible to predict, gains accruals are almost impossible to project. A further difficulty is the lack of understanding about how investors decide to realize those accrued gains. Even when asset prices are known, it is not clear how realizations will behave; sometimes a market for assets may be falling, and yet investors choose to realize the gains accrued over past years. A great deal of research has been devoted to modeling how gains realizations respond to various factors, but those attempts are all subject to big estimating errors.

Largely because of the stock market boom of the 1990s, gains rose as a percentage of individual income tax receipts from about 7 percent in each year in the first half of the decade to about 12 percent in 2000. The jump in realizations in the late 1990s accounted for about 30 percent of the growth in income tax receipts in excess of GDP growth that occurred from 1994 to 1999.³ No one yet knows for sure, but a fall in capital gains realizations may have played a similarly important role in the drop in receipts in 2002.⁴

3. See Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2003-2012* (January 2002).

4. See Congressional Budget Office, “Where Did the Revenues Go?” *Revenue and Tax Policy Brief*, no. 1 (August 2002).

Table 1.**Capital Gains and Capital Gains Taxes, 1976 Through 2000**

Year	Realizations (Calendar Year)		Tax Liabilities (Calendar Year)		Receipts (Fiscal Year)		
	Billions of Dollars	Percentage Change	Billions of Dollars	Percentage Change	Billions of Dollars	Percentage Change	Percentage of Income Taxes
1976	39	28	7	46	5	25	4
1977	45	15	8	24	7	34	5
1978	51	11	9	11	9	17	5
1979	73	45	12	29	10	19	5
1980	74	1	12	6	12	17	5
1981	81	9	13	3	13	5	4
1982	90	11	13	0	13	2	4
1983	123	36	19	45	16	20	5
1984	141	14	21	15	20	29	7
1985	172	22	26	23	24	19	7
1986	328	91	53	100	38	62	11
1987	148	-55	34	-36	44	15	11
1988	163	10	39	15	36	-19	9
1989	154	-5	35	-9	37	3	8
1990	124	-20	28	-21	32	-14	7
1991	112	-10	25	-11	27	-17	6
1992	127	14	29	16	27	1	6
1993	152	20	36	25	32	20	6
1994	153	0	36	0	36	12	7
1995	180	18	44	22	40	10	7
1996	261	45	66	50	54	36	8
1997	365	40	79	19	72	33	10
1998	455	25	89	12	84	16	10
1999	553	21	112	26	99	19	11
2000	644	17	131	17	121	21	12

Sources: Congressional Budget Office; Department of the Treasury.

Note: Data for 2000 are preliminary.

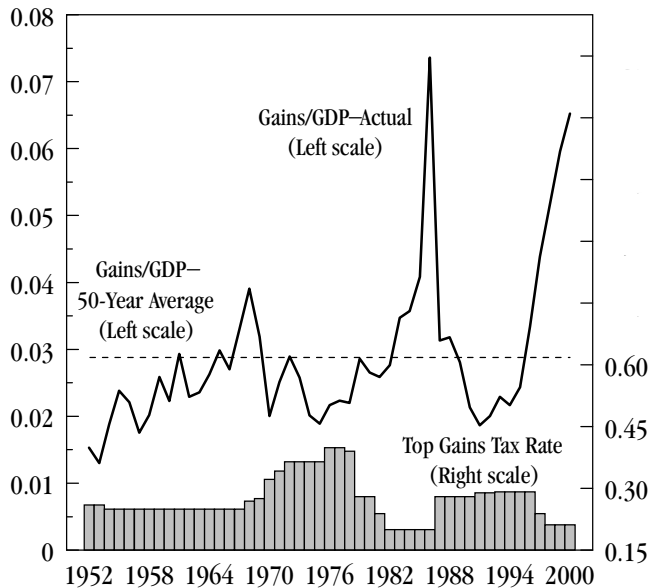
The Response to Capital Gains Tax Rates

Because taxes are paid on realized rather than accrued capital gains, taxpayers have a great deal of control over when they pay their capital gains taxes. By choosing to hold on to an asset, a taxpayer defers the tax. The incentive to do that—even when it might otherwise be financially desirable to sell an asset—is known as the lock-in effect. As a consequence of that incentive, the level of the tax rate can substantially influence when asset holders realize their gains, as can be seen particularly clearly when tax rates change (*see Figure 2*). For instance, the Tax Reform Act of 1986 boosted capital gains tax rates effective at the beginning of 1987. Anticipating that increase, investors realized a huge amount of gains in 1986. Then, in 1987, realizations fell by almost

as much, returning to a level comparable to that before the tax increase.

The sensitivity of realizations to gains tax rates raises the possibility that a cut in the rate could so increase realizations that revenue from capital gains taxes might rise as a consequence. Rising gains receipts in response to a rate cut are most likely to occur in the short run. Postponing or advancing realizations by a year is relatively easy compared with doing so over much longer periods. In addition, a stock of accumulated gains may be realized shortly after the rate is cut, but once that accumulation is “unlocked,” the stock of accrued gains is smaller and realizations cannot continue at as fast a rate as they did initially. Thus, even though the

Figure 2.
The Ratio of Realized Gains to GDP and the Top Gains Tax Rate, 1952 to 2000



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of the Treasury.

responsiveness of realizations to a tax cut may not be enough to produce additional receipts over a long period, it may do so over a few years. The potentially large difference between the long- and short-term sensitivity of realizations to tax rates can mislead observers into assuming a greater permanent responsiveness than actually exists.

Because of the other influences on realizations, the relationship between them and tax rates can be hard to detect and easy to confuse with other phenomena. For example, a number of observers have attributed the rapid rise in realizations in the late 1990s to the 1997 cut in capital gains tax rates. But the 45 percent increase in realizations in 1996—before the cut—exceeded the 40 percent and 25 percent increases in 1997 and 1998 that followed it. Careful studies have failed to agree on how responsive gains realizations are to changes in tax rates, with estimates of that responsiveness varying widely.

Nevertheless, the Congressional Budget Office's (CBO's) revenue forecasting takes into account the influence of tax rates on realizations. In projecting capital gains realizations for the current year in order to estimate tax liabilities, CBO includes in its estimating equation both the legislated tax

rate for the following year (to model the permanent response) and any difference between that rate and the current rate (to model the transitory response). Measures of output, the current level of the stock market, and other relevant factors are also part of the equation. In projecting realizations beyond the current year, CBO gradually moves them to their historical level relative to output, adjusted for the tax rate on gains. That latter adjustment recognizes that with lower tax rates—even in the long run—realizations should be higher relative to GDP than they would be with higher tax rates.⁵

Estimates of the revenue effects of capital gains tax changes by the Congress's Joint Committee on Taxation (JCT) and the Treasury's Office of Tax Analysis (OTA) also take into account how realizations respond to tax rates.⁶ In 1990, when the Congress considered a 30 percent cut in the rate on gains, OTA estimated that such a cut would increase revenues by \$12 billion over five years; the JCT projected a loss of \$11 billion. If they had not factored in a realizations response, the two agencies would have estimated revenue costs of \$80 billion and \$100 billion, respectively—effectively illustrating how large a behavioral response is incorporated in capital gains revenue estimates.

The Effects of Gains Taxes on Growth

The JCT's and OTA's cost estimates include the feedback effects that gains tax rate changes exert on the tax base through the realizations response. But they do not include the revenues that might result from the effects on overall economic activity. That omission has been criticized as a failure to perform "dynamic" scoring.⁷ Critics often claim that the omitted feedback effects on output, and thus revenues, are substantial, and that not taking them into account

5. See Congressional Budget Office, *Forecasting Capital Gains Realizations*, Technical Paper 2000-5 (August 1, 2000), and *Description of CBO's Models and Methods for Projecting Federal Revenues* (May 2001).

6. Although CBO provides cost estimates for bills that would change federal outlays, responsibility for estimating revenue effects is split between CBO and the JCT. Generally, the JCT estimates the effects of bills that would alter the Internal Revenue Code, and CBO estimates the revenue effects of other bills.

7. See the statements of the Honorable Paul Ryan and the Honorable Chris Cox before the Subcommittee on the Legislative and Budget Process of the House Rules Committee, May 9, 2002.

both biases policy against cuts in capital gains taxes and contributes to large forecasting errors. Yet feedback effects on growth are likely to be small, and their omission from cost estimates has no bearing on the accuracy of CBO's budget projections, which include growth effects.

In general, there is significant consensus that broad-based reductions in taxes on capital have the potential to boost economic growth over the long run. Reductions in capital taxation increase the return on investment and therefore the formation of capital. The resulting increase in the capital stock yields greater output and higher incomes throughout much of the economy.

But the potential for big growth effects from a capital gains tax cut is much smaller than it is for a more general cut in the tax on capital. For example, Congressional researchers estimated that a cut of the magnitude proposed in 1990 or enacted in 1997 (25 percent to 30 percent) would reduce the tax on corporate capital by only 2.7 percent and would decrease the cost of capital by less than 1 percent.⁸ Some additional reduction in the cost of capital might result from the salutary effects of improved liquidity as a consequence of less lock-in. But such an impact would also be small.

One reason for those limited effects is that about half of gains are not taxed anyway because they are associated with assets whose basis is stepped up at death. A second reason is that although a cut in capital gains taxes helps reduce the cost of capital, it only affects the cost of a portion of a firm's financing. It has no effect on the roughly one-third of corporate investment financed through debt. And it does not affect the estimated half of the return on equity-financed capital that comes in the form of dividends, which are subject to regular rather than capital gains tax rates. A third reason is that the tax rate on gains is already low relative to regular rates, so even a large percentage cut in the gains rate would have a relatively small effect on the cost of capital.

Reducing the taxes imposed on the return from capital raises investment demand, but an increase in the capital stock depends as well on how much of its resources an economy

makes available for investment—that is, how much it saves and how much capital it attracts from abroad. Analysts disagree about the effect on saving of cutting taxes. And the availability of resources would also depend on how the government financed any loss in revenue resulting from a tax cut. If the loss was offset by reduced spending, the outcome would be increased economic growth. If it was not offset, the cut's overall impact on the economy might be negative: its growth-promoting effects on investment demand could be insufficient to overcome either the decline in investment resources resulting from additional government borrowing or the effects of the government's need to raise taxes later to make up for the lost revenue.

The Effects of Gains Taxes on the Allocation of Capital

Capital gains taxes may influence the level of output not only through their effects on the accumulation of capital but also through the way that capital is allocated among various uses. By shifting capital from lower-value to higher-value activities, a change in capital gains taxes may increase the overall efficiency of the economy by increasing the return from capital that is placed in service. In particular, treating capital gains favorably can reduce the inefficiency caused by the double taxation (under both the corporate income tax and the individual income tax) of corporate profits. And innovation and entrepreneurship may also respond positively to lower capital gains tax rates.

Eliminating the lock-in effect on the allocation of capital is often cited as a potential economic benefit from reducing capital gains rates. However, that effect is not about actual capital being locked in to particular uses but about asset holders being locked in to their ownership of existing capital. Moreover, the lock-in effect is unlikely to influence relative returns on different investments or to impede the movement of capital to new or promising growth firms because a large portion of capital gains—such as those earned by pension funds—are tax-exempt. Consequently, while lock-in makes it both more difficult and costly for individual asset holders to diversify their portfolios, its effect on the allocation of capital is likely to be minimal.

The favorable efficiency effects derived from lowering capital gains tax rates may be offset by the inefficiency generated by increasing the wedge between the tax treatment of capital gains and other income from capital. The differential between those tax rates can channel economic activity into

8. See Jane Gravelle, *Can a Capital Gains Tax Cut Pay for Itself?* CRS Report 90-254 (Congressional Research Service, March 1990); and Congressional Budget Office, *An Analysis of the Potential Macroeconomic Effects of the Economic Growth Act of 1998* (August 1998).

endeavors that lend themselves to accruing gains: they distort a firm's choice, for instance, between reinvesting earnings internally (to provide capital gains) and paying dividends that stockholders might reinvest more productively elsewhere. Indeed, the favorable treatment of capital gains plays a role in many tax shelters that misallocate investment. It is difficult to determine the net impact on the allocation of existing capital that might be produced by these second-order efficiency effects from changing the treatment of gains.

Conclusion

Revenue estimators are often faulted for the way they project tax receipts and prepare legislative cost estimates related to capital gains taxes. But the relationship of realizations and receipts to gains tax rates is neither predictable nor obvious. And while reductions in the overall taxation of capital income can measurably increase economic growth, a cut in

capital gains taxes alone is likely to produce much smaller macroeconomic effects. Inaccuracies in projecting revenue and disagreements about the effects of tax changes stem not from a failure to incorporate the behavioral responses of asset holders but from the complexities inherent in the nature of gains and gains realizations.

Related CBO Publications: *Forecasting Capital Gains Realizations*, Technical Paper 2000-5 (August 2000); *The Contribution of Mutual Funds to Taxable Capital Gains* (October 1999); *Projecting Federal Tax Revenues and the Effect of Changes in Tax Law* (December 1998); and *Perspectives on the Ownership of Capital Assets and the Realization of Capital Gains* (May 1997).

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