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CAPITAL GAINS TAXATION: DISTRIBUTIONAL EFFECTS

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Abstract. Several different measures of the distribution of the capital gains tax are presented. These measures examine the absolute and relative distribution across income classes, the effects on the distribution of taxes, and the proportion of the population affected by the tax. These measures are presented for 1999 and indicate that capital gains taxes are concentrated among high income individuals.

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ABSTRACT

Several different measures of the distribution of the capital gains tax are presented. These measures examine the absolute and relative distribution across income classes, the effects on the distribution of taxes, and the proportion of the population affected by the tax. These measures are presented for 1999 and indicate that capital gains taxes are concentrated among high income individuals. This report will not be updated unless new data become available.

Capital Gains Taxes: Distributional Effects

Summary

Many types of data have been presented to illustrate who pays capital gains taxes (and who might benefit from a reduction in these taxes). These different approaches include absolute measures of distribution (such as how the tax is distributed relative to the distribution of the population and the average tax paid), relative measures of distribution (whether after-tax incomes would become more or less equal without the tax), measures of the distribution of tax liability, and measures of who pays the tax.

These measures are presented for 1999 and indicate that capital gains taxes are concentrated among high income individuals. Those with earnings over $200,000, who constitute the top 1.8 percent of income, account for 78.6 percent of capital gains taxes. While the average capital gains tax paid is $476, the average for the highest income class is $20,536 and the average for the bottom half is less than $10. Capital gains taxes contribute to a progressive tax system: while capital gains taxes average 1.3 percent of disposable income, they account for 5.7 percent in the highest income bracket and less than one tenth of one percent for the bottom 70 percent of the population.

Some of this concentration in higher income classes occurs because of the concentration of taxes at higher income levels. However, capital gains taxes are also concentrated relative to other taxes. The capital gains tax is 4.5 percent of total federal income, payroll and excise taxes; however, it is 14 percent of total taxes in the highest income bracket, and less than one half of one percent for the bottom 70 percent of the population. For the income tax alone, capital gains taxes are 8.1 percent of total income taxes, but 16.2 percent of income taxes in the top income class. In the bottom 70 percent of the distribution, the capital gains tax is less than one percent of income taxes.

About a quarter of taxpayers who pay a capital gains tax are in the bottom 70 percent of the distribution, while 11 percent of capital gains taxpayers are in the top 1.8 percent of the population. About 12 percent of all taxpayers pay a capital gains tax; in the highest income class, 75 percent pay a capital gains tax.

This report will not be updated unless new data become available.

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Capital Gains Taxes: Distributional Effects

Many types of data have been presented to illustrate who pays capital gains taxes (and who might benefit from a reduction in these taxes). These different approaches include absolute measures of distribution (such as how the tax is distributed relative to the distribution of the population and what the average tax is), relative measures of distribution (whether after-tax incomes would become more or less equal without the tax), measures of the distribution of tax liability, and measures of who pays the tax.

All of these measures are discussed below, and all are based on 1999 income levels and data provided by the Joint Committee on Taxation. Data supporting the calculations are presented at the end of this discussion.[1]

Measures of Absolute Burden

Table 1 provides a measure of absolute burden, which shows that the burden is highly concentrated in the higher income classes. Those with incomes over $200,000 constitute 1.8 percent of the population, but account for 78.6 percent of the tax.[2] Those with incomes over $100,000 constitute about 8 percent of the population but pay over 90 percent of the tax. By contrast, the bottom third of the population, and even the bottom half, pay virtually none of the tax, although that is in part because a larger fractions of individuals in lower income groups do not have income tax liability. The middle third of taxpayers pay about 1 percent of the tax.[3] The average tax is $476; in the lower income and middle income classes tax cuts are under $10, while the tax cut in the highest income bracket is about $20,000.

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[1] The analysis does not take into account the already legislated lower tax rates for property held for five years that are not in effect yet. If it did, the overall magnitude of the tax would be smaller. It also does not take account of corporate capital gains taxes.

[2] The income measure used is an expanded income definition which is adjusted gross income plus tax-exempt interest, employer contributions for health and life insurance, employer share of the FICA tax, worker's compensation, nontaxable social security benefits, insurance value of Medicare benefits, alternative minimum tax preference items and excluded income of individuals living abroad. This definition is narrower than that used by Treasury; however, the important point to focus on in understanding the meaning of the income classes is the share of the population in each class.

[3] Note that this distribution is slightly different from the distribution of capital gains income, because it is corrected for the fact that some taxpayers have no tax liability and also for the smaller tax rates for those in the 15 percent bracket.

Table 1: Distribution of Capital Gains Taxes Across the Population and the Average Tax, 1999 Income Levels

Income Class	Percent of Total Taxpayers	Percent of Capital Gains Tax	Average Tax Per Return
Under $10,000	16.1	0.0	Less than $1
10,000 to 20,000	19.0	0.0	Less than $1
20,000 to 30,000	14.6	0.2	$7
30,000 to 40,000	11.5	0.5	21
40,000 to 50,000	9.4	0.7	33
50,000 to 75,000	14.3	2.8	94
75,000 to 100,000	7.2	4.4	295
100,000 to 200,000	6.1	12.7	993
200,000 and over	1.8	78.6	20,536
Total	100.0	100.0	476

Source: Congressional Research Service calculations based on Joint Committee on Taxation data.

Measures of Relative Burden and Progressivity

Some argue that the analysis above is not very meaningful because income is more concentrated at the higher income levels, and any income tax is concentrated among higher income individuals. An alternative way to assess distribution is to look at the effect on the relative distribution of income and to ask whether the tax makes incomes more equal or less equal. One can also use this approach to determine whether the provision makes the tax system less progressive or more progressive. The way to measure this type of effect is to compare the distribution of the tax with the distribution of after-tax income. If both distributions are the same, then the tax benefit is distributionally neutral. If higher income individuals pay a larger share of the tax relative to their after-tax income, the tax makes incomes less equal and increases the progressivity of the tax system.

Table 2 presents data on these measures of distribution, which indicate that the capital gains taxes reduce income inequality and increase progressivity. For example, those with incomes over $200,000 receive 18 percent of after-tax income, but pay 78 percent of the capital gains tax. Similarly, those with incomes over $100,000 who receive a third of the after-tax income, pay 90 percent of the tax. These differences are also reflected in the capital gains tax as a percent of after-tax income. At lower

and moderate income levels, the capital gains tax is less than a tenth of a percent of disposable income; at the highest income level it is almost 6 percent of income. Overall, capital gains taxes are slightly over one percent of disposable income.

Table 2: Effects of the Capital Gains Tax on the Distribution of After-tax Income, 1999 Income Levels

Income Class	Percentage Distribution of Total Disposable Income	Percentage Distribution of Capital Gains Tax	Capital Gains Tax as a Percent of Disposable Income
Under $10,000	1.7	0.0	0.00
10,000 to 20,000	7.0	0.0	0.01
20,000 to 30,000	8.3	0.2	0.03
30,000 to 40,000	8.8	0.5	0.07
40,000 to 50,000	9.2	0.7	0.09
50,000 to 75,000	18.5	2.8	0.20
75,000 to 100,000	12.7	4.4	0.45
100,000 to 200,000	15.9	12.7	1.03
200,000 and over	17.8	78.6	5.67
Total	100.0	13.0	1.29

Source: Congressional Research Service calculations based on Joint Committee on Taxation data

Effects on the Distribution of Tax Liability

Income taxes (other than those in the form of a refundable credit) inevitably do not affect lower income individuals because they pay no income taxes. Measures of distribution of a tax cut are often presented in the form of a percentage change in tax liability, perhaps in part for this reason. However, changes in the distribution of tax liability do not really tell us anything about inequality of incomes. For example, a proportional reduction in tax liability in a progressive tax system makes after-tax income shares less equal and, of course, benefits higher income individuals more in an absolute sense. Thus it cannot be said to be a distributionally neutral measure. Distributional indexes of tax burdens have, however, been used for certain measures

of progressivity (although other, and more common, measures are based on the distribution of pre- and post-tax income).[4]

Note that percentage changes can be very deceiving as measures of tax benefit. For example a taxpayer with tax liability of $10 who received a reduction in tax of $5 would have a 50 percent reduction in tax liability, which is a very large percentage. Yet it is not a very meaningful tax cut. Indeed, the percentage change in liability is undefined, mathematically, when taxes are zero and percentage changes approach infinity when taxes approach zero.

In any case, the following two tables show the distribution of the tax compared to the distribution of tax liability. Table 3 refers to federal income, payroll and excise

Table 3: Distribution of the Capital Gains Tax Compared to the Distribution of Federal Income Payroll and Excise Taxes, 1999 Income Levels

Income Class	Percentage Distribution of Federal Income, Payroll and Excise Taxes	Percentage Distribution of the Capital Gains Tax	Capital Gains Taxes as a Percent of Income and Payroll Taxes
Under $10,000	0.4	0.0	0.1
10,000 to 20,000	2.1	0.0	0.1
20,000 to 30,000	5.3	0.2	0.2
30,000 to 40,000	6.8	0.5	0.3
40,000 to 50,000	7.9	0.7	0.4
50,000 to 75,000	17.9	2.8	0.7
75,000 to 100,000	14.3	4.4	1.4
100,000 to 200,000	19.9	12.7	2.9
200,000 and over	25.4	78.6	14.0
Total	100.0	100.0	4.5

Source: Congressional Research Service calculations based on Joint Committee on Taxation data

[4] For a discussion of progressivity indices, see Donald W. Kiefer, "Distributional Tax Progressivity Indices." *National Tax Journal*, Vol. 37, December 1984, pp. 497-514.

taxes (thus excluding the corporate income tax and the estate and gift tax). Table 4 refers to the individual income tax. They also show the percentage reduction in tax liability. Note that in both cases, the capital gains tax cut is more concentrated among higher income individuals than is existing tax liability. For example, in table 3, the highest income class that pays 79 percent of the capital gains tax pays 25 percent of total taxes (excluding the corporate tax) and pays 39 percent of the income tax. The data on capital gains taxes as a percentage of income, payroll and excise tax liability also show that capital gains taxes are proportionally greater for high income taxpayers. Capital gains are 4.5 percent of taxes overall, but 14 percent of the taxes paid by those in the highest income class. For all other taxpayers, capital gains taxes as a share of total taxes are less than the average. Similarly, in table 4, in the case of the income tax, the capital gains tax accounts for 8.1 percent of overall income taxes, the 16.2 percent of taxes in the highest income group. For all other income classes, capital gains taxes as a percent of the income tax are less than the average.

Table 4: Effects on the Distribution of Federal Individual Income Taxes, 1999 Income Levels

Income Class	Percent of Federal Individual Income Taxes	Percent of Capital Gains Taxes	Capital Gains Taxes as a Percent of Income Taxes
Under $10,000	0.0	0.0	0.0
10,000 to 20,000	0.0	0.0	0.0
20,000 to 30,000	2.4	0.2	0.7
30,000 to 40,000	4.2	0.5	1.0
40,000 to 50,000	5.7	0.7	1.0
50,000 to 75,000	14.3	2.8	1.6
75,000 to 100,000	12.7	4.4	2.9
100,000 to 200,000	21.4	12.7	4.8
200,000 and over	39.3	78.6	16.2
Total	100.0	100.0	8.1

Source: Congressional Research Service calculations based on Joint Committee on Taxation data

Who Pays the Capital Gains Tax?

Another measure that is sometimes used to assess the distributional effect of a tax is to examine where the bulk of the population that pays any of the tax falls. For almost any tax, such a measure will tend to report that more low and middle income taxpayers pay a tax than high income individuals simply because there are many more people who fall in the lower and middle income classes. Moreover, without measures of magnitude, such measures are not very informative in determining burdens (or benefits of reducing taxes). Nevertheless, Table 5 reports this type of measure. It does demonstrate one of the reasons that capital gains tax cuts benefit high income individuals using virtually any distributional measures. Only 12 percent of individuals pay capital gains taxes, largely because many individuals do not have any income from capital gains (and, in the lower income brackets, because of lack of tax liability as well). However, in the highest income bracket, 75 percent of taxpayers pay capital gains taxes, while in the next highest bracket, 48 percent pay.

Table 5: Who Pays Capital Gains Taxes? 1999 Income Levels

Income Class	Percent of Individuals in Each Class with a Capital Gains Tax	Cumulative Shares Below an Income Level	Cumulative Shares Above an Income Level
Under $10,000	0.1	0.1	100.0
10,000 to 20,000	0.9	1.5	99.9
20,000 to 30,000	3.5	5.7	98.5
30,000 to 40,000	8.2	13.4	94.3
40,000 to 50,000	12.6	23.2	86.6
50,000 to 75,000	20.5	47.4	76.8
75,000 to 100,000	29.6	64.9	52.7
100,000 to 200,000	47.5	88.8	35.1
200,000 and over	74.8	100.0	11.2
Total	12.1		

Source: Congressional Research Service calculations based on Joint Committee on Taxation Data

The third column of table 5 shows the shares of individuals with a capital gains tax by cumulating from the bottom. For example, 23 percent of those who pay capital gains taxes have incomes under $50,000 and 47 percent of taxpayers who pay capital gains taxes have incomes under $75,000. Column 4 cumulates in the other direction. For example, it indicates that 76.7 percent of individuals who pay capital gains taxes have incomes above $50,000. These numbers suggest that the capital gains taxes are atypical in their concentration among higher income individuals.

Limitations of Distributional Measures

While these distributional measures provide a picture of where the burden of the capital gains tax falls, there are certain limitations to these measures. One potential problem is the measure of income. This measure of income is based on data taken from tax returns, and it is not the exact equivalent of economic income, since there are certain imputed and accrued income items, including unrealized capital gains, that are not included. At the same time, the tax measure differs from cash income as well. These limitations of the data can be addressed in part, however, by focusing on the population shares represented by each income class.

A problem specific to examining the capital gains tax is the fact that capital gains can be realized in large and uneven amounts. For example, a taxpayer may have sold a large asset that yields a large amount of gain.[5] Thus, some of the taxpayer's who have large gains may be classified as having higher income simply because of the gain. A recent study of capital gains during the 1980s suggests that, while there is some tendency of annual snapshots to overstate the gain at high income levels, it is typically not a serious enough distortion in most years to alter the basic pattern of distribution.[6]

[5] The largest asset owned by most taxpayers, their home, was typically not taxed or not fully subject to tax (and recent legislation exempts almost all owner-occupied housing from the capital gains tax).

[6] See Leonard E. Burman, *The Labyrinth of Capital Gains Tax Policy: A Guide for the Perplexed*. Washington, D.C., the Brookings Institution, 1999, pp.100. Taxpayers with $200,000 or more in income received 57 percent of capital gains in the ten years from 1979-1988. During the individual years, the share ranged from 59 percent to 91 percent, although the latter number was very atypical. In five of the years, the share was less than 65 percent; in seven of the years, it was less than 70 percent, and for all but one years, it was less than 80 percent.

Appendix: Sources of Data

The following two tables provide the basic sources of data used to calculate the various distributional measures used in this report. Table 6 reports the number of taxpayers in each class. In order to convert capital gains income to taxes, it is necessary to adjust by the percentage of returns that have positive tax liability, which is reported in column (3). It also reports number with capital gains and income in each class.

Table 6: Data on Number of Taxpayers, Percentage Taxable and Income, 1999

Income Class	Number of Taxpayers (thousands)	Percentage Taxable	Number With Capital Gains (thousands)	Income (millions)
Under $10,000	22,371	7.0	273	$94,036
10,000 to 20,000	26,314	33.8	677	390,202
20,000 to 30,000	20,301	61.0	1,165	502,468
30,000 to 40,000	15,902	79.4	1 639	551,205
40,000 to 50,000	13,082	90.6	1,823	586,599
50,000 to 75,000	19,829	98.4	4,130	1,208,043
75,000 to 100,000	10,042	98.6	2, 982	859,646
100,000 to 200,000	8,461	99.8	4,022	1,105,399
200,000 and above	2,527	99.8	1, 895	1,284,907

Source: Columns (2), (4) and (5) from Joint Committee on Taxation #D-99-49, July 9, 1999; Column (3) calculated by Congressional Research Service based on data for 1998 in Joint Committee on Taxation, "Estimates of Federal Tax Expenditures for FY 1999-2003," Committee Print, 105th Congress, 2nd Session, December 14, 1998.

Table 7 reports the remainder of the data needed to provide these calculations: the amount of total federal taxes (excluding corporate taxes) paid, the amount of individual income tax paid, and the distribution of capital gains income.

In addition, a tax rate is provided for each income class based on data indicating that 71 percent of taxpayers with tax liability pay at the 15 percent rate (Internal Revenue Service Statistics of Income, Individual Income Tax, 1996). The first five income classes are assigned an initial tax rate of 10 percent, the next class a weighted average of 12.9 percent, and the top three classes an initial tax rate of 20 percent.

Table 7: Data on Taxes Paid and Capital Gains Income, 1999

Income Class	Total Income, Payroll and Excise Taxes (millions)	Individual Income Tax (millions)	Capital Gains Income (millions)
Under $10,000	5,728	-$8,300	$444
10,000 to 20,000	31,141	- 8,519	1,071
20,000 to 30,000	77,249	18,898	2,244
30,000 to 40,000	98,341	34,291	4,227
40,000 to 50,000	115,336	46,655	4,795
50,000 to 75,000	260,363	116,354	14,638
75,000 to 100,000	207,798	102,779	14,855
100,000 to 200,000	290,271	173,919	42,082
200,000 and above	369,750	319,360	259,958

Source: Joint Committee on Taxation, #D-99-50, July 9, 1999.