INCENTIVE EFFECTS OF ALTERNATIVE TAX TREATMENTS OF CAPITAL GAINS

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There seems to have been an uncritical acceptance of the view that the present tax treatment of capital gains deters the realization of gains and thus impairs the fluidity of the securities markets and accentuates price fluctuations. According to the following analysis, this view is founded on erroneous assumptions about the nature of the demand and supply curves for securities, and ignores the incentives to disinvest created by the lower rates of tax applicable to capital gains compared with other forms of income.

EFFECT ON THE SUPPLY OF SECURITIES IN GENERAL

The traditional argument as developed by Prof. Somers has been that holders of a security whose price has appreciated will be deterred from selling that security and moving into another asset because of the potential liability to tax upon the realized capital gain. Thus if there has been a general rise in security prices, it may seem plausible to draw the conclusion that the supply of securities offered at any given price will be less than would have been the case had there been no tax on realized capital gains. If the supply curve thus shifts to the left, prices will tend to be higher and transactions fewer.[1]

This conclusion might very well be the appropriate one if one considers only the effects of a tax on capital gains while supposing no tax on other forms of income or lower taxes on other forms of income. However compared with the situation in which capital gains are subject to the same tax rates as other forms of income, the taxation of capital gains at rates lower than the rates at which yields (annual net income) are taxed tends to shift the supply curve of securities and other property to the right, i.e., instead of acting as a deterrent to the realization of gains, the present tax treatment encourages their realization. There are several reasons for this effect.

In the first place, the favorable treatment of capital gains tends to make yields subject to the higher rates of tax less attractive relatively. It has been noted elsewhere that mergers are frequently motivated on the part of the seller by the low rates applicable to capital gains. Some have erroneously attributed this phenomenon to the high rates on yields. However it is the *difference* in the rates applicable to capital gains and to yields which is the culprit. When both are taxed at the same rate, however high they may be, no particular incentive to disinvest is created. A hypothetical case may serve to show the incentives to disinvest created by the differential treatment of capital gains compared with yields.

[1] *Vide* Harold M. Somers, "An Economic Analysis of the Capital Gains Tax", National Tax Journal, I, 1948.

Suppose A is the owner of a business. His contribution to capital, i.e., the basis for determining the capital gain, is, say, $500,000. The annual net income of the business over the years has grown to $1 million per year, the effective tax rate on his annual net income is 80%, thus netting him $200,000 per year after taxes. The capitalized value of the business is, let us say, $10.5 millions. His liability to income tax on his capital gain would be $2.5 millions, netting him after taxes $7.5 millions plus his basis. At one fell swoop, he can realize 37.5 times his anticipated net annual income after taxes.

Below we shall have occasion to note that even if he should decide not to realize his capital gain, his propensity to consume may rise—not because of the high tax on yields, but because consumption is a function of net wealth as well as income. What concerns us at this point is that the favorable treatment of capital gains makes retention of assets for their yields less attractive, encouraging their realization. Thus favorable treatment of capital gains tends to increase the supply of securities and property, i.e., to shift the supply curve to the right.

Second, many individuals purchase securities and property with the "expectation" of realizing capital gains which, however unhappy it may make the economist, the individual considers spendable. There is no need to detail this point. We are exposed on all sides to the solicitations of brokers and financial services to purchase securities in the hopes of realizing capital gains. The advertisements on the financial pages speak for themselves. The rampant speculative (defined as the purchase of securities for gains rather than yields) fever reaches into the investment clubs, and does not need to be documented. However, one practice is worth calling to one's attention. Corporate dividends may be distributed, a portion of which may consist of capital gains. This is a regular practice of mutual investment companies and holding companies. The dollars received as dividends are "homogeneous"—they are just as spendable as that part of the dividend which represents net yields, although perhaps more enjoyable than the latter because of the lower personal income tax liability. In fact pressures are exerted by stockholders on the management of such companies to realize capital gains as an alternative to yields.

The purchase of securities in the expectation of realizing gains, stimulated by the favorable treatment accorded capital gains compared with yields, tends to promote the sale of securities on which capital gains have accrued—tending to shift the supply of securities to the right compared with the situation in which capital gains are taxed at the same rates as yields.

Third, the incentive to realize an accrued capital gain is stimulated by the fact that special treatment is accorded capital assets which are subject to the allowance for depreciation. This seems to be particularly true of real estate held for income. The capital gains in this instance can be manufactured by accelerated or unrealistic depreciation. The incentive works earlier in the life of such assets as a result of the use of the declining balance method of depreciation and other approved

methods of accelerating depreciation, as well as the conservative bias of accountants and entrepreneurs in estimating the useful life of such assets.

In the early years of the ownership of improved real estate, liability to income tax is small as most of the gross income is offset by the depreciation and interest expenses. Later in the life of the asset, or when it is fully depreciated in the case of those inclining to the straight line method, less of the gross income is offset by depreciation allowances and more of the gross income is taxable. What is more natural than to realize the capitalized value of the future income stream, taxable at a maximum rate of 25% rather than to hold the asset subject to much higher rates of tax on its annual net yield? Moreover, since the depreciation allowance does not follow the asset, the value of the asset is greater to the purchaser because he may depreciate his purchase price over the life of the improvement. In effect, the process results in income being realized at a maximum income tax rate of 25%. It should be pointed out in passing that the declining interest payments on the mortgage balances also act as a spur to realization of the gain. A hypothetical case may serve to illustrate the incentives created to realize the capital gain, rather than to hold the property for yields.

B builds an apartment building costing $500,000 on land costing $40,000, borrowing $400,00. The gross income, let us say, is $50,000 per year. Ignoring miscellaneous items, the statements of profit and loss in the first year and in the 31st year look something like this:

Statement of Profit and Loss, Year One

Rents		$50,000
Less interest on 30 year mortgage	$20,000	
" depreciation	20,000	
" taxes	10,000	50,000
Net income		none

Statement of Profit and Loss, Year 31

Rents		$40,000
Less interest on mortgage	$ none	
" depreciation	4,500	
" taxes	8,000	
" repairs	3,000	15,500
Net income		$26,500

In the above situation, depreciation is calculated on the declining balance method over 40 years, a 5% mortgage is assumed and decreased rentals and increased repairs assumed for the sake of creating an illusion of reality. The basis for depreciation has been reduced to about $80,000. The property can be sold for $340,000 including land, the accrued capital gain being about $220,000. The yield after taxes assuming the taxpayer to be in the 75% bracket would be about $6625. After paying the tax on the capital gain, the taxpayer would realize $165,000 or more than 24 times the annual net income after taxes.

In many similar instances, the taxpayer can advantageously sell his property or exchange with another taxpayer for a similar property

and begin the depreciation process all over again. It is made attractive by the lower rates applicable to capital gains. In effect, a large part of the "yield" of the property is converted into capital gains and taxed at the more favorable rate. For our purposes, it suffices at this point to show that depreciation allowances produce many situations in which realization of the capital gain is advantageous to the taxpayer, encouraging the sale of properties, i.e., shifting the supply curve to the right.

Effects on the Demand for Securities in General

Not only do the lower rates applicable to capital gains tend to shift the supply curve to the right compared with the situation in which capital gains are taxed at the same rates as yields but such favorable treatment of gains tends to stimulate speculative purchases of securities and other assets. Capital appreciation becomes relatively more attractive than the increased yields, the capitalized value of which they represent. This point has been discussed under the second point in the preceding discussion. At this point, it is worth while to indicate that the behavior of the stock market tends to substantiate this observation. Purchases of securities (as well as sales!) tend to increase during a period of rising market prices, indicating a shift in the demand for securities to the right. There is little empirical evidence for Prof. Somer's statement that "the prospect of having to pay a tax on a gain will probably dampen the *demand . . . to a limited extent.*"[2]

The following table shows that in the predominantly rising market from World War II to date, the demand for securities increased. The data are consistent with a shift in supply curve to the left, to the right, or with no shift at all. But they are consistent only with a shift in the demand for securities to the right.

Stock Price Index, Transactions, and Yields

Year	Index of stock price (average)	Average monthly transactions (million shares)	Average 4th quarter yield percent
1944	12.47	21.92	2.78
1945	15.16	31.46	2.61
1946	17.08	30.31	2.51
1947	15.17	21.14	2.58
1948	15.53	25.18	2.80
1949	15.23	22.68	2.65
1950	18.40	43.73	2.59
1951	22.34	36.96	2.84
1952	24.50	27.82	2.95
1953	24.73	29.57	3.18
1954	29.69	47.78	2.87
1955	40.49	47.19	3.04
1956	46.62	46.36	3.38
1957	44.38	46.66	3.91
1958	46.24	62.26	3.80
1959	57.38	68.24	4.38

Source: Standard & Poor's Trade and Securities Statistics.

[2] Somers, *op. cit.*, p. 226

Of course, not all of the shift in the demand for securities can be attributed to the favorable tax treatment of capital gains, but without doubt the latter has been stimulating to speculative (defined as above) purchases. The data shows that rising prices have been accompanied by a rising number of transactions. The present tax treatment of capital gains has thus obviously not dampened the demand for securities, or has not dampened the demand enough to overcome the effects of improved anticipations or other forces tending to increase the demand for securities in a rising market.

Effect on Interest Rates

If it were true that the potential liability to tax on the realized capital gain deterred sales in a generally rising market so that prices would rise higher than they would otherwise, i.e., if there were no potential tax liability, the effect would be to diminish yields (as % of price) in the stock market. The favorable treatment of capital gains appears to more than compensate for any deterrent effect. The preceding table shows that in the generally rising market from 1944 to 1959 yields did not in fact diminish.

Moreover, it is not clear *a priori* that a reduction in supply would necessarily cause a reduction in yields. If yields were to decrease in the stock market, investable funds should flow into alternative investment opportunities, e.g., bonds, real estate, new enterprises, etc. Even if capital gains were to be taxed at the same or higher rates than other forms of income, it is not clear that the deterrent effect on sales would raise the prices of stocks. In order for this to happen, there must occur a general reduction in interest rates (yields) and/or the demand for stock must be inelastic, i.e., other forms of investment must not be open to funds ordinarily available for stock purchases, i.e., other investment opportunities must not be good substitutes for investments in common stocks. This may be so, but the reverse appears more likely. Funds available for real estate and bonds purchases are more likely to be inelastic in supply than funds for common stocks purchases.

Effects on the Price of a Specific Security

The preceding discussion has considered the effects of favorable tax treatment of capital gains on the supply and demand for securities in general. The arguments raised seem just as pertinent when considering the effects on the price of a single security. But in this case there is a further consideration which needs to be raised in order to avoid a fallacy of composition. It is conceivable that a rise in security prices in general would occur through heavy taxation of capital gains. This implies that individual securities on the average would rise in price. It is not however necessarily true that a heavy capital gains tax would raise the price of a specific security on which capital gains have accrued.

This is so because different securities are good substitutes for one another. The price of one security cannot rise significantly if prices of other securities with similar expectations have not. The individual who owns a security on which capital gains have accrued cannot affect the price of it by withholding it from the market since the demand for it is dependent on the prices of competitive securities. In other words, the demand for a specific security is better portrayed by a horizonal demand curve than by a negatively sloped demand curve à la Somers. A shift in the supply curve for a specific security to the left will not necessarily raise its price because the demand for it is almost perfectly elastic. Buyers will shift to alternative securities rather than accept lower yields.

Some Macro-Economic Effects of Favorable Treatment of Capital Gains

We have had occasion to note above that favorable treatment of capital gains results in the purchase of securities in the expectation of realizing gains, creates incentives to disinvest by making yields relatively less attractive and also because of the possibility of manufacturing capital gains out of yields. In these situations, realization will finance a high level of consumption out of "social capital". The realization of capital gains and subsequent expenditure of part of the gains on consumption is disinvestment from the social as well as the private point of view, i.e., it represents consumption of capital.

The favorable treatment of capital gains however provides an incentive to invest. Gains can only be realized by investing in capital assets. While on the one hand, favorable treatment encourages realization of gains and disinvestment, it would seem on the other hand that the search for gains stimulates investment. However, much investment from the private point of view, e.g., the purchase of common stock on the exchanges, is not investment from the social point of view. The latter includes only the formation of real capital, i.e. buildings, machinery, equipment, plant, and the like. Since most of the capital gains are realized from the sale of common stocks and results in disinvestment from the social point of view, they are not offset by the purchase of common stocks, since at most the latter represents intended savings, not investment from the social point of view.

The favorable treatment of capital gains is thus seen to divert "intended savings" from investment to consumption. In our concern the past few years about our growth rate it would seem that we have given encouragement to practices which tend to reduce the growth rate. Savings might well have been adequate to finance a higher level of investment and to sustain a higher rate of growth, but such savings may have been channelled via the stock market into personal consumption.

Summary

In the discussion which has taken place in recent years on the economic effects of the taxation of capital gains, the discussants have tended to ignore the effects of the lower rates of tax applicable to capital gains compared with other forms of income. When the difference in rates is taken into account, it is seen that favorable treatment of capital gains tends to encourage realization of capital gains. Instead of the tax on capital gains acting as a deterrent to realization thus shifting the supply of securities to the left, favorable tax treatment acts as a spur to realization thus shifting the supply of securities to the right. Which of the two effects will dominate depends on the magnitude of the difference in rates applicable to capital gains on the one hand and yields on the other.

Writers have tended to blame taxation of capital gains for accentuating price fluctuations in the market due to the restriction of supply when gains are prevalent and increased supply when losses are prevalent. According to our analysis, favorable treatment of capital gains has tended to stimulate the demand for securities, while having little or no effect on the supply. Blame for accentuating price fluctuations lies not on the taxation of capital gains but on their favored tax treatment.

A common error made in discussions of the effects of taxation of capital gains was the assumption that withholding securities from the market necessarily raises the price of the securities. In the case of individual securities, others are such near perfect substitutes that a higher reservation price will simply shift demand toward other securities. In the case of widely prevalent unrealized capital gains, higher reservation prices would likewise tend to direct investment toward alternative investment opportunities. In order for the restricted supply to raise prices, a general fall in the interest rate would be required, or other investment opportunities would have to be poor substitutes, i.e., the supply of capital to the stock market would have to be inelastic.

Finally, favorable treatment of capital gains tends to encourage realization of gains and represents disinvestment from the social point of view to the extent that the proceeds are used for consumption. This is not offset by the purchase of stocks in the interest of realizing gains, since purchases of stock are not investment from the social point of view. At best they represent intended savings. The stock market in recent years has been dissipating intended savings by financing increased personal consumption through realization of capital gains and their subsequent expenditure on consumption.