

**Effects of Taxation
on Financial Markets**

by

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In discussing the impact of taxation on financial markets, our major interest in this paper is in the differential effects of different kinds of taxes on the principal types of financial assets and liabilities, on the markets and institutions which deal in these instruments, and as a result on the economy as a whole. Obviously, any increase in total taxes lowers the funds available for private saving and investment as well as private consumption and, other things equal, adversely affects the financial markets. However, it will be assumed that the total levels of Government expenditures and taxes are held constant. Hence, we will be concerned here not with the effects of increasing or decreasing the total level of taxation, but with the differential impact of different taxes on total saving and hence on the financial markets and on the channeling of current and accumulated saving into the major types of financial instruments, markets and institutions. After discussing the effects of different taxes on total saving, we shall consider the effects of these taxes on the major types of assets and liabilities and the related markets and institutions. Special attention will be paid to the rationale for and consequences of the capital gains tax, because this tax has been one of the most controversial since the inception of the federal income tax and is frequently alleged to have a unique role in the market for risky assets, particularly common stock. This tax, like several other taxes affecting the financial markets, would undergo a major change under the new tax proposal made public by the U.S. Treasury Department at the end of 1984.

1. Effects of Taxation on Saving

Since the rate of private saving determines the overall real value of changes in and the level of household and business net worth, and has a pervasive effect on all types of assets and liabilities, we shall start our analysis of the effects of taxation on financial markets with an examination of their effects on saving. Because our primary interest is in aggregate or realized saving, with saving equal investment for the economy as a whole, we must consider the effects of taxation not only on the propensity to save but also on the propensity to invest. We shall be concerned only with private saving, since we are assuming that government revenues and expenditures and hence government saving are held constant.

For a given level of federal government revenues and expenditures, the primary tax mechanisms which have been used, either implicitly or explicitly, for affecting the propensity to save have been the allocation of total taxes as between taxes on capital income (levied directly on individuals or indirectly through corporations) and taxes on labor income. While we are mainly concerned here with the after-tax interest sensitivity of saving and investment propensities, and ultimately realized saving, we cannot completely ignore the effects of shifting taxes from capital income to labor income (or vice versa) on the incentive to work or on the burden of taxation on different socio-economic groups. Thus, if lower taxes on capital income do as commonly perceived increase realized saving, they might still be undesirable if they depressed work incentives or if they made the tax structure regressive, since the upper income groups receive a very much larger share of capital than of labor income. Some "supply-side" economists might question the implicit assumption that a decrease in tax rates is not likely to increase the demand for and income of both capital and labor sufficiently to offset the adverse effect of lower tax rates on the government deficit, but I know of no evidence, including the recent federal government

experiment in supply-side economics, which would support their position.

Before examining the relevant theory and empirical evidence on the effect of capital income taxation on aggregate saving, it should be noted that recent estimates by Joseph Pechman indicate that, as a result of changes in the tax structure over the last decade, capital income is no longer taxed more heavily than labor income. In fact, Pechman's estimates of the current tax burden imply that for most economic groups labor income is somewhat more heavily taxed than capital income -- a finding characterizing marginal as well as average tax rates. These estimates also indicate that combining all forms of taxation, the present tax structure is only moderately progressive and less progressive than it was a decade earlier.

While there is no consensus among economists about the after-tax return elasticities of private or aggregate saving, my own assessment (which I have documented in the technical literature) is that neither the relevant theory nor the empirical evidence provides much support for the belief that higher after-tax rates of return on assets stimulate the private sector's propensity to save. There is evidence that a redistribution of after-tax income from the lower to the upper income groups, regardless of the form it takes, would increase the private sector's saving-income ratio at least in the short or intermediate run though not necessarily in the long run. Thus, it might be possible to stimulate the aggregate propensity to save by shifting the overall burden of taxation (on both labor and capital incomes) from the upper to the lower income groups, but there is no strong evidence that the effect on saving of this regressive shift would be either large or sustained.

A shift in taxation from corporations to individuals would probably increase the aggregate propensity to save, at least in the short and intermediate run, in view of the substantially higher propensity to save by corporations than by individuals. A rise in the corporate saving-income ratio would probably be partly

offset by a decline in the household saving-income ratio, reflecting lower direct saving by stockholders but, except perhaps in the very long run as higher corporate saving is associated with higher household wealth, it is unlikely that the offset will be anywhere near complete. Yet, it should be noted that the fairly pronounced shift in taxes over the past decade from capital to labor income, and from corporations to individuals, together with the general decline in the progressiveness of the tax structure, especially for the top income group, was associated with a decline in the ratios to income of personal, private and total saving to their lowest levels since the post-World War II adjustment in the late 1940s. This was true in spite of the specific additional saving incentives provided by IRA, Keogh and similar plans.

While the impact of capital income taxes on saving behavior via an after-tax return effect is not entirely clear, even in direction, both theory and empirical evidence seem to indicate a negative impact of the cost of capital on investment. However, for risky investment, the cost of capital is not necessarily positively related, as might be expected, to the level of income taxes. Theoretical considerations do suggest a positive effect of higher corporate income taxes on the cost of capital and hence a negative effect on stock prices and investment. However, this is not necessarily true of higher personal income taxes, at least in the short run, since under certain plausible assumptions (including personal tax credits for investment losses) investor risk is decreased more than expected return so that the required rate of return on risky assets may be reduced by higher personal tax rates. On the other hand, both theory and empirical evidence point to a positive relation between the cost of capital and the level of corporate income taxation, and hence a negative relation between the cost of capital and the magnitude of investment tax credits and depreciation deductions. Even here, however, the effectiveness of changes in corporation income taxation on investment would be limited in the long run by the apparent long-run ineffective-

ness of such changes on saving incentives.

Combining these different strands of theoretical and empirical evidence relating to the separate effects of capital income taxation (corporate and personal) on saving and investment behavior, my judgment is that a reduction of capital income taxes, especially at the corporate level, would initially stimulate investment over the cycle, but the long run effect on capital formation is likely to be moderate if our assessment of the apparently low after-tax interest elasticity of saving is correct. Maximizing the effect on investment would require strongly regressive changes in the tax structure such as might be effected by the combination of eliminating corporate income taxes and either raising taxes on labor income or substituting flat consumption taxes for progressive income taxes. Such changes would probably raise corporations' propensity to invest both in the short and long run, and stimulate aggregate saving at least in the short and intermediate run, in view of the higher saving propensity of the upper income groups. Thus, it is possible but by no means certain that a significant increase in capital formation could be effected, at least for a number of years, by a substantial increase in the regressiveness of the tax structure.

It should be emphasized, however, that in the long run the apparently low after-tax interest elasticity of saving would limit any increase in capital formation and hence realized saving which might be associated with a more regressive tax structure or with the substitution of taxes on labor income for taxes on capital income. Moreover, any beneficial effect of such changes in the tax structure on economic growth as a result of the stimulation of investment might be offset at least in part by weakened labor incentives as the lower taxes on capital income are financed by higher taxes on labor income. More important for purposes of this paper, changes in the structure of taxes are not likely to greatly affect the aggregate level of realized saving.

2. Effects of Taxation on Different Financial Instruments

Although total saving does not seem to be affected very substantially by the structure of taxes, the demand for and supply of different financial instruments are quite sensitive to the large variations in effective tax rates applicable to the income from these instruments. While there is a substantial amount of econometric evidence to this effect, perhaps more convincing evidence to many people is the observed major shift of funds in recent years from one type of institution or investment to other types in response to fluctuations in relative after-tax returns as a result of the elimination of regulatory constraints on interest rates or the introduction of preferential tax treatment for certain forms of saving. (Such shifts of funds, of course, have no necessary implications for total saving.)

Thus, the extremely low effective tax rate on capital gains, which has been estimated to be in the neighborhood of 5% for common stock, has probably significantly increased the demand for and price of such securities. It would also be expected to decrease the corporate dividend pay-out ratio and correspondingly raise earnings retention, but surprisingly there is no evidence of such an effect in the U.S. time series data available since World War I in spite of the major increase in the tax advantage of capital gains over dividend (and other ordinary) income during this period.

Similarly, the preferential treatment now provided to the issuance of corporate bonds instead of stock as a result of the exemption of interest payments from corporate income taxes has served to stimulate the issuance of bonds at the expense of stocks, depressing the supply of new stock and hence again bolstering stock prices. The corporate tax advantage of bonds is appreciably greater than the personal tax advantage of stocks. Just as it is surprising, given the tax structure, that corporations pay out so much in dividends, it is almost as surprising that corporations do not issue more bonds. However, the risk aversion of

management, whose investment risk in their company's stock (associated with both human and non-human wealth) cannot be diversified away as easily as for other investors, may help to explain the relatively low corporate debt ratio in the U.S. but not the low earnings retention.

With one notable exception, the tax treatment of preferred stock is less favorable than that of bonds and common stock. Bonds have the same type of corporate tax advantages over preferred stock that they have over common stock. This has resulted in a marked decline in the issuance of preferred stock as compared with bonds subsequent to the 1920s, when corporate tax rates were low and hence not a major factor in financing decisions. Common stock has the same type of personal tax advantages over preferred stock that they have over bonds since most return from preferred stock, like that from bonds, is subject to the ordinary income tax rather than capital gains rates.

The one tax advantage preferred stock has over bonds is that dividends received by corporations from investment in preferred as well as common stock are subject to a very low rate of taxation. As a result, many corporations prefer to hold preferred stock in their portfolios in preference to bonds. Apart from control purposes, corporations hold preferred in preference to common stock because of its generally higher quality rating.

As a result of these differential tax rates, individuals hold relatively small amounts of corporate bonds and preferred stock. Corporate bonds are held mainly by insurance organizations and other institutions which are tax-exempt or taxed at preferential rates, preferred stock is held mainly by taxable financial and non-financial corporations, and corporate common stock by individuals, tax-exempt institutions and for control purposes by other corporations.

Very substantial amounts of long-term U.S. government bonds are owned by all major sectors of the population, including taxable as well as non-taxable corporations, institutions and individuals. This widespread ownership in spite of the

general absence of any major tax advantages associated with income from such bonds is attributable to their great appeal to risk averse investors who want to insure a given flow of income for a prolonged period and to their high market-ability.

Tax-exempt state and local government obligations are owned mainly by individuals, commercial banks and non-life insurance companies. For obvious reasons, they are not held to any appreciable extent by tax-exempt institutions. In recent years, federal income tax exemption has been granted not only to general obligations of municipalities and revenue bonds associated with the financing of traditional types of public works but also to revenue bonds issued by private industrial corporations and to bonds for financing private housing, hospitals and universities, all under the auspices of municipalities.

Mortgages, largely for residential housing, constitute the remaining major type of financial investment whose demand and supply are greatly affected by differential taxation. They are held mainly by savings and loan associations and other savings institutions and to a lesser extent by commercial banks and individuals. The deduction of mortgage interest payments and the non-inclusion of imputed rental income on owned homes in the calculation of taxable income greatly increases the demand for owned homes and for mortgage financing. Prior to the changes in the corporate tax law under the Reagan administration, the taxation of income and expenses associated with home ownership was more favorable than the corresponding taxation for business investment, thus stimulating investment in housing at the expense of plant and equipment. After the recent changes in corporate taxes substantially lowered the marginal tax rates on most new investment, it is not so clear how the effective marginal tax rates compare on income from investment in housing and income from business investment. The average corporate income tax rates remain higher than those on income associated with housing investment, especially when allowance is made for the double taxation of

corporate income. However, both average and even more so marginal effective tax rates vary greatly for different corporate activities and investments.

It should be noted that while it is generally possible to determine the qualitative differences in the incidence of the tax structure on different financial instruments, it is much more difficult to estimate the quantitative differences. One reason for this difficulty is the existence of tax-exempt institutions and of other investors with widely different effective tax rates, so that computation of effective marginal tax rates is subject to a major margin of error, even where we know the relative importance of institutional and other holdings of the different instruments.

Another reason is the set of complications introduced by uncertainty which obscures even the direction of the effect of income taxes (with loss offsets) on the demand for risky assets. Finally, it is extremely difficult to hold risk constant in attempting to estimate the effect of taxes on two groups of financial investments subject to different tax rates.

State and local taxation generally does not have as significant an effect on investment in different assets as Federal income and capital gain taxes. The major state and local taxes bearing on the form of investment are the real estate tax which serves as a partial offset to the favorable Federal tax treatment of such assets, and less important in aggregate amount the personal property tax. State income taxes are also of some importance in certain states. Personal property and state income taxes, from the viewpoint of the financial markets, constitute an annoying impediment to market efficiency even though the total amounts involved are not very large. Thus securities issued by municipalities within a state are normally exempted from personal property and state personal income taxes, and preferential tax treatment is sometimes accorded to corporations paying a franchise tax to the state, so that there is a tax or non-economic incentive to invest in a relatively non-diversified or unnecessarily

risky portfolio. Less important, but also a nuisance from the viewpoint of the financial markets, it is possible in some states to avoid personal property taxes by shifting some assets (e.g., shares in non-load mutual stock funds or shares in money-market funds) into bank deposits for one day at the end of the year.

The obvious question which arises is "what are the implications of the differential taxation of the various type of financial instruments?" Clearly, the financial institutions and markets which specialize in tax-favored instruments benefit at the expense of other institutions and markets, at least until the economy fully adjusts to the differential taxes and an equilibrium with competitive returns is achieved for all investors and business organizations. However, more fundamentally, differential tax rates on different financial instruments or financial institutions interfere with their basic objective -- to funnel current and accumulated saving into those investments perceived as offering the highest rate of economic (before-tax) return for a given degree of risk and to do so for the lowest possible transaction cost. Preferential taxation may stimulate activity in economically inefficient markets and institutions, and contribute to an inefficient allocation of economic investment and to non-optimal portfolios for investors. The quantitative cost in loss of allocational efficiency associated with differential taxes of income from different financial or economic sources is virtually impossible to estimate with any precision, but crude efforts which have been made to estimate these losses in specific cases, e.g. the double taxation of corporate income and the preferential corporate tax treatment of bond interest as compared with dividend payout, have suggested that such costs could be sizable. In any case, there is no obvious reason why such costs should be borne.

The differential taxation of the various types of financial instruments also have an undesirable effect on the corporate capital structure, artificially stimulating the issuance of bonds, and raising the corporate risk exposure ,

though as noted above its effect does not seem to be as large as might have been anticipated. When equity is used, the current structure of taxes encourages internal financing through retention of earnings rather than external financing through the capital markets. It is frequently argued, though it is not clear how validly, that allocational efficiency would be improved if new equity financing were systematically exposed to the discipline of the competitive capital markets.

Finally, differential taxation of several major classes of financial investments may have a significant impact on the burden of taxation on different income and other groups in the population. Stocks which are taxed more favorably than fixed-interest-bearing obligations are owned mainly by the wealthy. This is especially true for stocks whose returns come largely from capital gain and for investors who can afford not to realize their gains.

3. Effects of Capital Gains Taxes on Stock Market

In the past, capital gains have been treated as ordinary income on occasion, and subject to preferential tax rates at other times, the degree of preferential treatment varying widely over different periods. The treatment of capital losses has also varied greatly in different years, ranging from no allowance for such losses to limited and full deductibility from capital gains or other income. Long-term and short-term capital gains have also been treated differently for tax purposes, with the specific provisions subject to substantial changes from time to time. In particular, provisions relating to the holding period distinguishing short-term from long-term capital gains have varied significantly.

Currently, for assets held longer than six months, 40% of realized net gains are included in adjusted gross revenues for tax purposes, while 50% of losses from shorter-term transactions are deductible from taxable income. Only realized gains are subject to taxation, and capital gains taxes can be completely avoided if the assets are held until the owner's death. As a result, the effective rate

of capital gains taxation is very much smaller than the normal rate on realized gains. Thus, as noted earlier, for several years in the past the effective capital gains tax on common stock is estimated to have been only about 5%.

As distinguished from their treatment in taxable income, all real capital gains, which consist of net gains adjusted for inflation, would be considered as part of economic income. This would be true for unrealized as well as realized gains. In the presence of inflationary price movements, nominal capital gains should be adjusted downward (and may be negative) since only the value (in current dollars) of the change in real assets should be included in income. The effective tax rate on capital gains as a whole is, in most periods and for most taxpayers, substantially less than it would be if all real capital gains, both realized and unrealized, were included in taxable as well as in economic income. This is not necessarily true in periods of rampant inflation when owners of financial assets, including equities and debt, may suffer large real losses. However, the likelihood of sizable losses on common stocks resulting from unexpected inflation has been substantially reduced by changes in corporate taxation in recent years resulting in a much more rapid write-off of plant and equipment expenditures. In addition the rate of inflation has moderated greatly.

Many reasons have been advanced for the preferential tax treatment of capital gains. Perhaps most important, it is widely believed that the more favorable this treatment, the better for saving and investment. From this point of view, private saving is supposed to be stimulated by the higher after-tax rate of return brought on by lower taxes on all forms of capital income, while the effective cost of capital to all forms of investment is lowered. However, as discussed above, there is no strong theoretical or empirical reason for believing that a decline in personal income taxes will have a substantial, sustained effect on the propensity to save or on the cost of capital. While there are strong theoretical and empirical grounds for expecting the cost of capital to be posi-

tively related to the level of corporate income taxes so that a reduction in such taxes would probably stimulate investment, the long-run effect on capital formation is likely to be moderate if the after-tax interest elasticity of saving is as low as the evidence suggests. Moreover, as noted earlier, for a given overall level of taxation, any favorable effects on capital formation of lower marginal tax rates on capital income would be counter-balanced by unfavorable effects on labor incentives of higher taxation of labor income.

So far, we have considered taxation of real capital gains to be approximately equivalent in their impact on capital formation to the same amount of taxes on any other form of capital income. This is not necessarily true theoretically in view of the greater uncertainty associated with capital gains than with ordinary income and the more asymmetric impact of capital gains taxation. It has been shown that on theoretical grounds a reduction in capital gains taxes (or a shortening in the holding period) can either increase or decrease saving. Empirically, the evidence on the impact of the level of capital gains taxation on capital values (and hence on the cost of capital) is quite scanty and not at all conclusive. Thus, for common stocks which have been subject to more analysis of price effects of capital gains taxation than other capital assets, the evidence available from time-series analysis is quite weak and inconsistent. The problem with time-series analysis is the difficulty in using the small number of changes in the relevant tax laws to explain the extremely volatile movements in stock prices. Basically, the case for a substantial impact of capital gains taxation on stock prices has yet to be proven or refuted, but there is no strong reason for believing that the effect of such taxes on stock prices is markedly different than that for other forms of capital income taxation.

A second important reason advanced for the preferential tax treatment of at least unrealized capital gains, which is normally a much larger component of the total than the realized gains, is the great difficulty in measuring a high

proportion of unrealized gains and in financing the tax payments which would be associated with these gains without forcing undesirable and costly asset liquidation. Such problems are generally unimportant for readily marketable securities but are important for non-marketable securities and owned homes, two other major forms of assets held by individual taxpayers. For all assets, including marketable securities, the desirability of adjusting nominal capital gains in a period of marked inflation introduces a further complication.

Another argument which is frequently adduced in favor of a more favorable tax treatment of capital gain than of other income is that capital gains are an especially important part of the returns on risky ventures, which are claimed to play a particularly important role in economic growth and to be discriminated against by the capital markets. However, the available evidence points to no such discrimination which if it existed presumably would involve a higher risk-adjusted required rate of return on unseasoned new stocks than on new stock issues or on outstanding shares of seasoned companies. Even without a risk-adjustment, the realized rates of return on stock issues from the 1920's to the 1970's were on the average no higher, and some evidence suggests may have been lower, than on seasoned stock issues. Presumably a risk-adjustment would reinforce this finding.

There is one other respect in which capital gains taxation is frequently claimed to have an adverse effect on financial markets and economic efficiency, i.e., by depressing market liquidity. The theoretical rationale for this claim is that since capital gains taxes can be substantially reduced by holding the assets for a period in excess of six months and can be avoided altogether if carried over into the taxpayer's estate, a taxpayer has a strong financial incentive to hold the asset for at least six months or longer, even if non-tax economic considerations would lead him to switch his funds into more attractive investments. Such a constraint on his investments would presumably lead to a

less efficient allocation of economic resources, though it is extremely difficult to determine the magnitude of the effect and more difficult still to assess its economic importance. It has even been argued that the discouragement of short-term realization of capital gains is economically desirable as a means of reducing market speculation, but there is no strong theoretical or empirical support for this position.

A substantial amount of empirical analysis has been devoted to the effect of the holding period provisions in the tax laws on the timing and amount of capital gains realizations and on the implications for tax revenues collected, but the results are again inconclusive. Virtually all of them show a significant positive effect of liberalized holding period provisions (i.e., permitting the more favorable taxation of long-term capital gains to apply to shorter-term holding periods) on accelerating realizations. However, they differ widely on the size of the effect and on whether the greater realizations are sufficient to offset the lower levels of effective tax rates or whether the level of increased realizations found at the time of capital gains tax changes is likely to carry over to longer periods of time.

Combining the results in these different studies, it appears that capital gains taxes do inhibit realizations, thus probably introducing some allocational inefficiencies, but it is not clear that the effect is large in the long run, or very important in the short run, or sufficient to offset the loss in tax revenues associated with lower tax rates.

My own evaluation of the available evidence is that the only significant reason for taxing real capital gains, i.e., capital gains adjusted for inflation, differently from other income is the inadvisability of forcing realization of the gain, and in the absence of realization the difficulty of measuring the gain for many assets and financing the tax payment on that gain. On the other hand, differential taxation of different assets results in allocational inefficiencies and

distributional inequities. One reasonably satisfactory solution to this problem would be to tax all realized real capital gains at the ordinary income tax rates and to insure that all real capital gains are ultimately considered realized, whether at the time of a gift of an asset to a charitable organization or at the time of death.

While the foregoing discussion suggests that there is no very good reason for treating real capital gains more favorably than other income, capital gains taxation does introduce a number of problems not associated with the taxation of ordinary income. As a result, it should be pointed out that if taxation is shifted from an income to a consumption base, the problem of appropriate capital gains taxation would disappear in the long run but only at the expense of a new set of problems, including major transitional difficulties.

4. Effects of Taxation on Different Financial Institutions

Financial institutions as a whole -- including commercial banks, savings and loan associations, savings banks, credit unions, and insurance companies -- are subject to a number of different tax rules from those for non-financial corporations. These rules are generally more favorable than for other companies but differ widely among the major institutional groups. Credit unions are now tax-exempt. Banks and other thrift institutions are permitted special bad debt reserve deductions which significantly lower their effective tax rates. The most favorable tax deductions are provided to the thrift institutions which specialize in residential mortgage financing, clearly distorting investment allocations. Moreover, this favorable tax provision is of benefit only to profitable thrift institutions, raising further questions of equity as well as of allocational efficiency.

As noted by the U.S. Treasury Department in an analysis of its new tax proposal, "The special bad reserve rules are clearly a large subsidy for most

savings and loan associations and commercial banks, and a significant distortion from the measurement of economic income" (Tax Reform for Fairness, Simplicity and Economic Growth, Vol. 2, U.S. Department of the Treasury, November 1984, p. 248).

It should be pointed out, however, that many non-financial corporations also effectively receive large subsidies in connection with the current tax treatment of new investments.

Banks, thrifts and certain other financial institutions receive an additional significant tax preference over other institutions in their ability to invest their depository funds in tax-exempt obligations without losing the deduction for the entire interest paid on deposits or other short-term obligations used to finance their investments in tax-exempts. The exclusion from income of FSLIC payments to thrift institutions in connection with reorganization is another special tax treatment accorded to saving institutions.

Insurance companies also receive substantial tax preferences. Current law permits life insurance policyholders to earn tax-free income on premium payments in excess of costs. Such income is reflected in an increase in the company's insurance reserves which shield the investment income from taxes at the company level. Since the payments of a life insurance policy at death of the insured is excluded from income of the beneficiary, the investment income on the policy can escape tax permanently. This preferential tax treatment of income earned on investment in life insurance, which the Treasury describes as "the largest tax distortion in the financial services area" (p. 260), is a tax-deferral or tax-avoidance mechanism which has been used primarily by individuals in high-income brackets. Lower income taxpayers who buy term insurance would receive no tax benefits since there is no investment component in such policies.

There are other significant tax advantages received by life insurance companies and their policyholders. Perhaps most important among these are the advantages provided by life insurance policies with fixed borrowing schedules

which are frequently marketed mainly as tax shelters. Another significant advantage possessed by life insurance companies is that tax-deferred annuities can only be purchased from them. In addition, life insurance companies benefit from an initial overstatement of reserves allowed under current law and from a special deduction equal to 20% of their otherwise taxable income. Again a number of these tax advantages of life insurance companies, such as those associated with a fixed borrowing schedule and with tax-deferred annuities, are primarily beneficial to the upper income groups.

Property and casualty insurance companies, like the life insurance companies, are also subject to favorable tax treatment, with a wide range of special tax rules applicable to their income. Mutual property and casualty company policyholders receive additional tax benefits, and a number of nonprofit organizations engage in the property and casualty as well as other insurance business without any tax liability.

Enough has been said about the differential tax treatment of the various groups of financial institutions to suggest the types of inequities and allocational inefficiencies which would be associated with these disparities in taxation. It is difficult to attach a numerical magnitude to the implicit tax subsidies, and even more difficult to assess the economic importance of the associated distortions. However, the resulting inequities and allocational inefficiencies may be substantial and could be largely avoided at little cost except perhaps in the transitional period.

5. Some Policy Implications

Both on efficiency and equity grounds, the same tax rates should apply as a general rule to all sources of economic return, whether the return comes from investment in housing or plant and equipment, from stocks or bonds, from capital gains or ordinary income, from deposits in commercial banks and other depository

institutions or policies in life insurance companies. This does not mean that there may not be products or periods when national policy considerations would lead to differential taxation on different forms of economic activity, e.g. the consumption of cigarettes, liquor or gasoline. However, such exceptions should be kept to a minimum, should require a very strong justification, and would not appear to be desirable in the taxation of returns earned on investment in financial instruments or in financial institutions.

While the source of economic return should generally not be a basis for differential taxation, the economic status of the taxpayer, measuring his ability to pay, may legitimately be used as a basis for the payment of different tax rates by households in upper and lower income groups. The justification for such differences in tax rates, which contribute at this time to a moderate progressivity in the overall tax structure, is ethical rather than economic. The basic economic argument against progressivity is its association with high marginal tax rates and the possibly adverse effects of such rates on savings, investment and labor incentives. However, as discussed earlier, the evidence on these incentive effects suggests that they are not very large, especially for savings and investment.

The recent Treasury Department proposal for reform of the federal income tax system would substantially improve the taxation of the capital markets as well as of economic activity generally. If that proposal is enacted, financial institutions would be taxed much more equitably and a high proportion of the inefficiencies and inequities associated with unequal taxation of institutional groups would disappear.

The Treasury proposal also would effect significant improvement in the taxation of different financial instruments and in particular in the taxation of corporate income and the resulting dividends and capital gains. The current major differences in the tax rates paid by different corporations depending on

their investment policy and capital intensity would largely disappear so that stock values would much more clearly approximate the before-tax productivity of corporations rather than their tax treatment. In view of an explicit adjustment for inflation, the major disparities between taxable and economic income of corporations in periods of high inflation would be greatly diminished. The exemption of half the dividends paid by a corporation from corporate income would greatly reduce the current differential tax advantages of bonds over stocks and of retained over distributed corporate earnings and may be regarded as a step toward the ultimate elimination of the double taxation of corporate income. Assuming the Treasury's estimates of the distributional effects of this proposed tax changes are correct, these improvements are made without any shift in taxation from corporation to individual or from upper income to lower income groups. In fact, according to the Treasury, the share of the total federal income taxes borne by corporations would be increased moderately from the greatly reduced share of recent years.

The Treasury proposal would introduce two significant improvements in capital gains taxation; it would adjust realized capital gains for inflation and then tax the adjusted gains at the normal rather than the preferential tax rate and would eliminate the tax deductions for unrealized real gains on property contributed to charitable organizations. From the viewpoint of economic efficiency and equity, one major gap in the Treasury's proposed tax treatment of capital gains is that no provision is made for the taxation of unrealized capital gains even at the time of death of the taxpayer. Although it may not be practical to tax unrealized capital gains systematically as they accrue, there does not seem to be any justification for not taxing them at some convenient time, such as at death. It might also be noted that although the indexation of realized capital gains as recommended by the Treasury may be desirable, indexation would make more sense if applied to the taxation of all capital gains, both realized and unrealized.

Otherwise there may be an incentive for taxpayers to postpone realization on their more successful investments and use their less successful investments, which show tax losses when adjusted for inflation, as a basis for minimizing taxes.

It should be further pointed out that the indexation of capital gains can be regarded as an insurance by the federal government that stocks will constitute a satisfactory inflation hedge. So long as the taxpayers possess sufficient other income, any inadequacies of stocks as an inflation hedge would be underwritten by the government which would assume the risk of stock losses attributable to inflation.

The federal government's tax policy could also contribute to economic efficiency generally and to the demand for risky assets in particular by a symmetric tax treatment of capital income and losses both for corporations and individuals. The market for financial assets seems to price unique (or specific asset) as well as common (or market) risks while the government need not concern itself with unique risks (unless they are extremely large). As a result, the government assumption of unique risks associated with the taxation of returns from capital assets should contribute to efficient asset pricing. Even the assumption of market risk by the government in its tax policy can be justified on the grounds that if higher returns associated with higher risks are to be taxed at the same rate as risk-free returns, losses associated with such risks should receive a tax offset.

The ultimate improvement in the taxation of income from the most important marketable risky assets, viz. corporate securities and especially common stock, would require full integration of corporate and personal income taxes. Initially, this might entail a substantial reduction in ordinary corporate tax rates, offset by elimination of special corporate tax preference (the so-called corporate tax-expenditure items) along the lines suggested by recent "flat-tax" proposals. The

subsequent move to full integration could be accomplished by one of two approaches. The first would involve the gradual reduction of corporate taxes from the lower base set by the "flat-tax" proposals until they can be set at zero, offsetting the reduction by the inclusion of a pro-rata share of corporate retained earnings in the stockholders' personal tax base. A second approach would also gradually eliminate the double taxation of corporate income but retain corporate taxation as a convenient withholding device. Whatever approach is used, it will be necessary to insure that there are no undue windfall gains to corporate shareholders and that regressivity is not introduced into the tax structure.

REFERENCES

1. Albert Ando, Marshall Blume & Irwin Friend, The Structure and Reform of the U.S. Tax System, M.I.T. Press, forthcoming June 1985.
2. Henry J. Aaron & Joseph A. Pechman (eds.), How Taxes Affect Economic Behavior, (Washington: Brookings Institution, 1981).
3. Gerald E. Auten, "The Taxation of Capital Gains," mimeo, Bowling Green State University, December 1982.
4. Gerald E. Auten & Charles T. Clotfelter, "Permanent Versus Transitory Tax Effects and the Realization of Capital Gains," Quarterly Journal of Economics, November 1982.
5. Alan J. Auerbach, The Taxation of Capital Income, (Cambridge: Harvard University Press, 1983).
6. Alan J. Auerbach, Lawrence J. Kotlikoff & Jonathan Skinner, "The Efficiency Gains from Dynamic Tax Reforms," International Economic Review, February 1983.
7. Marshall Blume, Jean Crockett & Irwin Friend, "Stimulation of Capital Formation: Ends and Means," in Toward a New U.S. Industrial Policy, Michael and Susan Wachter (eds.), (Philadelphia: University of Pennsylvania Press, 1981).
8. Marshall Blume & Irwin Friend, "The Effect of a Reduction in Corporate Taxes on Investment in Riskfree and Risky Assets," Rodney White Center for Financial Research Working Paper 3-84, University of Pennsylvania.
9. Martin Feldstein, "The Rate of Return, Taxation and Personal Saving," Economic Journal, September 1978.
10. Martin S. Feldstein, "Tax Incentives, Corporate Saving and Capital Accumulation in the United States," Journal of Public Economics 2, 1973.
11. Martin Feldstein & George Fane, "Taxes, Corporate Dividend Policy and Personal Saving: The British Postwar Experience," Review of Economics and Statistics, November 1973.
12. Martin Feldstein, "Inflation, Tax Rates and the Stock Market," Journal of Monetary Economics, July 1980.
13. Irwin Friend, "Economic and Equity Aspects of Securities Regulation," Research in Finance, Supplement 1, (1984) (see sections on relationships of asset returns to risk).
14. Irwin Friend & Joel Hasbrouck, "Saving and After-Tax Rates of Return," Review of Economics and Statistics, November 1983.
15. Irwin Friend & Joel Hasbrouck, "Comment on Inflation and the Stock Market," American Economic Review, March 1982 (see section on the effect of personal income taxes on investments in riskfree and risky assets).

16. A.C. Harberger, "Efficiency Effects of Taxes on Income from Capital," in Effects of Corporation Income Tax, M. Krzyzaniak (ed.), (Detroit: Wayne State University Press, 1966).
17. Jerry A. Hausman, "Taxes and Labor Supply," National Bureau of Economic Research Working Paper No. 1102, March 1983.
18. Mervyn A. King & Don Fullerton, "The Taxation of Income from Capital: A Comparative Study of the U.S., U.K., Sweden and West Germany - Comparisons of Effective Tax Rates," National Bureau of Economic Research Working Paper No. 1073, February 1983.
19. Joseph J. Minarik & Martin Feldstein, Joel Slemrod & Shlomo Yitzhaki, "The Effects of Taxation on the Selling of Corporate Stock and the Realization of Capital Gains," Quarterly Journal of Economics, February 1984.
20. Joseph A. Pechman, Who Paid the Taxes, 1966-1985?, (Washington: Brookings Institution, forthcoming 1985).
21. New York Stock Exchange, An Analysis of the Capital Gains Holding Period, Office of Economic Research, July 1982.
22. Peter Saunders, Evidence on Income Redistribution by Government, OECD Economics and Statistics Department Working Paper No. 11, January 1984.
23. John Shoven, "The Incidence of Efficiency Effects of Taxes on Income from Capital," Journal of Political Economy 84 (6), 1976.
24. Joseph E. Stiglitz, "Some Aspects of the Taxation of Capital Gains," National Bureau of Economic Research Working Paper No. 1094, March 1983.
25. J. Ernest Tanner, "Fiscal Policy and Consumer Behavior," Review of Economics and Statistics, May 1979.
26. Taxation and Incentives, Institute for Fiscal Studies, (Bath, England: The Mandip Press, 1976).
27. Theoretical and Empirical Aspects of the Effects of Taxation on the Supply of Labor, Organization for Economic Co-operation and Development, 1975.
28. John Yinger, William D. Nordhaus, Minarik & Feldstein, "Comments on the Effect of Capital Gains Taxation," Tax Notes, October 30, 1978; December 4, 1978; April 5, 1983; May 2, 1983; May 9, 1983.
29. U.S. Department of the Treasury, "Tax Reform for Fairness, Simplicity and Economic Growth," Report to the President, November 1984 (see especially Volume 2).