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DOES THE INVESTMENT INTEREST LIMITATION EXPLAIN THE EXISTENCE OF DIVIDENDS?

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ABSTRACT

Miller and Scholes show that under certain conditions the Federal Income tax taxes dividend income at a rate no higher than the rate on capital gains. Tabulations of actual 1977 tax returns show that the special circumstances under which this can occur apply to less than 3% of dividend income and no significant role can be ascribed to their result in the determination of corporate dividend policy.

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> "[the deduction of interest] permits the taxpayer to make loans for the purchase of wholly exempt securities and then deduct the interest paid on such loans from his otherwise taxable income, thereby reducing the tax."
> -- A Senate report of 1918[1]

Miller and Scholes (1978) propose the following strong dividend invariance proposition: "Given the firm's investment decision, the firm's dividend decision will have no effect on the wealth or economic welfare of its [rational] shareholders." This stands in sharp contrast to the conventional view that taxable shareholders will prefer capital gains to dividends both because capital gains are taxed at a lower rate and because taxation of such gains is deferred until realization. This note begins with a short restatement of the conditions necessary for dividend invariance to hold, and concludes with a measurement made from a large sample of the U.S. tax returns of the extent to which these conditions hold. It is shown that the special circumstances under which Miller and Scholes' hypothesis can occur are so rare that no role may logically be ascribed to the hypothesis in the determination of corporate dividend policy.

Conventional finanical wisdom suggests that individual shareholders could have saved half or more of the over eight billion dollars in taxes paid on twenty-six billion dollars in dividend income reported on their 1977 individual income tax returns. This would require only that firms make more extensive use of well known techniques for converting dividends to capital gains.

Miller and Scholes present a clever explanation for this seemingly irrational behavior of firms. They suggest that earlier authors have not read the

tax code carefully, and that the rational, wealth-maximizing taxpayer-shareholder will actually pay a lower rate of tax on dividends than on capital gains. This surprising outcome is the result of the interaction of a time honored tax dodge -- borrowing to finance tax favored investment --and a little known section of the current tax law which regulates that practice. In essence, Miller and Scholes propose that for each dollar of dividend income that shareholders receive they should borrow a sufficient sum of money to produce a one dollar interest expense deduction. If the loan proceeds are invested in a single payment annuity or some other tax favored security a net reduction in taxable income is achieved.[2] Furthermore, if the altered cash flow presents a problem for the taxpayer, it may be possible to borrow against the increasing cash value of the annuity to finance the interest payments due on the loan. By this strategy, which Miller and Scholes dub "dividend laundering" it is possible to build a portfolio with the risk-return structure of the stock, but with the tax deferral advantage of the annuity.[3] In an optimal portfolio enough income would be sheltered in this fashion to bring the taxpayer's current bracket rate on ordinary income down to the effective bracket rate on capital gains. Because this strategy minimizes taxes without changing the risk-return structure of the portfolio, it dominates any portfolio with a lesser amount of debt.

Absent any other consideration this arbitrage opportunity would not explain the existence of dividends, because capital gains could be sheltered through the same mechanism. Indeed, because of the sixty percent capital gains exclusion, the distribution of profits as capital gains would economize on the possibly costly tax shelter. The hypothesized preference for dividends is a consequence of Section 163(d) of the Internal Revenue Code, the investment interest limitation.[4]

That regulation effectively limits the deduction of interest paid to mortgage payments plus dividend and interest income plus 10,000 dollars.[5]

The intent of this rule was to allow deductions for interest paid on mortgages and loans used to purchase assets producing taxable income and to disallow the deduction if the proceeds of the loan are invested in a tax favored device. Actually, any amount of interest or dividend income may be sheltered with this device but the regulation does restrict the ability of taxpayers to shelter labor income from taxation and it introduces an additional distinction between the taxation of dividends and that of capital gains. For the taxpayer constrained by this section marginal capital gains are taxed at the regular capital gains rate but each additional dollar of dividend income would allow the taxpayer to increase his borrowing sufficiently to wipe out the additional tax liability. Such taxpayers may be expected to prefer firms to pay out profits as dividends rather than convert those profits to capital gains. Simply put, increased dividends allow the taxpayer who is constrained by the limit on interest deductions to increase his borrowing for investment in tax shelter annuities. If this situation were widespread, and the reasoning in Miller and Scholes' paper suggests it might be, section 163(d) would provide an explanation for the observed dividend policy of pubic corporations.

Section 163(d) is a recent addition to the tax law. An early version in effect from 1969 to 1975 set a maximum investment interest deduction of 150% of the sum of $25,000 and investment income, but investment income was defined to <u>include</u> realized capital gains as well as interest, dividends, rents and royalties. Only in the Tax Reform Act of 1975 were capital gains

excluded from investment income, so that only for tax years 1976 and beyond does section 163(d) have any possible relevance to the dividend payout decision. While there has been some increase in dividend payouts since 1975 there remains a very large base --23 billion dollars -- wanting explanation.

Miller and Scholes' article contains almost no data to support their conclusions about the importance of section 163(d). The figures offered by them on aggregate tax sheltered investment and aggregate interest deductions are consistent with all or no taxpayers preferring dividends to capital gains, depending on the correlation between investment in tax shelters and debt.

A measure of the fraction of dividends received by taxpayers constrained or nearly constrained by section 163(d) would be the most powerful empirical test of dividend laundering as an explanation for observed dividend payouts. Fortunately quite conclusive evidence on who receives dividends is available in the 1977 Tax Model file prepared by the U.S. Treasury. The Tax Model is a public use sample of 155,000 actual federal income tax returns selected from the universe of 86 million returns. Because the sample is weighted heavily towards high income taxpayers (and includes the return of every taxpayer with any income item over 200,000 dollars) sampling errors are roughly independent of income level. For reasons of economy in this tabulation a subset of the treasury file is used including one half of the returns with adjusted gross income over 200,000 dollars and one tenth of all other returns.

In Table one column five shows the number of taxpayers constrained or nearly constrained by section 163(d). A taxpayer is regarded as being nearly constrained if a reduction in dividends of one thousand dollars would subject him to the limitation on the deduction of investment interest. The estimate number of such taxpayers is small; however in the highest income categories almost 1/3 of taxpayers are constrained. Columns six and seven show the total dividends received by all taxpayers and by constrained (or nearly constrained) taxpayers, respectively. Miller and Scholes do suggest that the number of constrained shareholders may not be very relevant to the dividend payout decision --they may be few in number but important in corporate decision making. In no income class do constrained taxpayers receive as much as fifteen percent of dividend income for that class, and overall they receive only about two and one half of percent of such income. It is not credible that so small a segment of the ownership of a public corporation could determine dividend policy to the detriment of the other taxable owners of the stock. Nor does the conclusion change significantly if the point estimate of dividends received by constrained taxpayers is off by several standard errors.

Because the constraint implicit in section 163(d) is not binding for any significant fraction of taxpayers, or for taxpayers receiving any significant fraction of dividend income, it is impossible to ascribe to that section any significant role in the determination of corporate dividend policy.

TABLE 1
(Standard errors of estimate in parenthesis)
(Notes on following page are indexed by column number)

Income class (1)	Taxpayers (2)	Taxpayers with strictly positive net property Income (3)	Taxpayers with strictly negative net property Income (4)	Taxpayers constrained by 163(d) (5)	Dividends received by constrained Taxpayers (000 omitted) (6)	Dividends received (000 omitted) (7)
< 5000	22,911,260	7,893,400 (277,986)	195,920 (53,862)	6,290 (9,691)	14,907 (75,635)	933,151 (983,980)
5,000-10,000	19,279,160	7,849,770 (279,191)	994,930 (125,717)	1,340 (4,737)	0.0	2,167,753 (351,837)
10,000-15,000	13,142,210	5,880,500 (169,120)	1,896,470 (119,519)	4,790 (6,492)	0.0	2,179,483 (345,398)
15,000-20,000	11,553,600	5,473,520 (143,505)	3,195,640 (128,560)	37,360 (16,316)	329 (2,184)	1,686,611 (264,624)
20,000-50,000	17,545,430	8,509,820 (136,861)	7,894,250 (136,235)	154,090 (25,550)	29,842 (16,788)	6,738,624 (538,438)
50,000-100,000	1,239,740	831,560 (12,743)	404,920 (12,717)	78,840 (6,617)	204,586 (32,933)	4,687,483 (299,589)
100,000-500,000	309,302	224,494 (1,605)	84,174 (1,601)	45,486 (1,274)	342,461 (23,095)	6,159,213 (172,223)
500,000-1,000,000	6,918	4,694 (62)	2,212 (62)	2,040 (61)	71,283 (4,378)	996,977 (31,800)
1,000,000 Plus	1,916	1,588 (23)	328 (23)	284 (22)	39,465 (8,671)	1,028,422 (70,329)
Totals	85,989,536	36,669,346 (2,579,686)	14,668,844 (171,979)	330,520 (35,135)	702,875 (476,124)	26,577,721 (4,161,979)

TABLE 1 Continued

1. Income is adjusted gross income plus the excess of interest deductions over "investment income."

2. Includes all single and joint returns but not married filing separately.

3. Interest income + rent + royalties + dividends - (interest deductions - mortgage interest) greater than zero.

4. As in column 3 but with sign of inequality reversed.

5. Number of taxpayers whose interest deductions placed them at or within 1,000 dollars of the point where section 163(d) is binding. For those taxpayers not filing form 4952 the 'other interest' line of schedule B is used as an upper limit on the amount of investment interest.

Footnotes

[1]Senate Report No. 617, 65th Congress, 3rd Session 7 (1918), quoted in Klein (1962).

[2]There is an alternative simpler strategy not mentioned by Miller and Scholes. The taxpayer could sell his stock and purchase an insurance policy with the same risk and return as the stock. We know that the insurance company could offer such a policy; it need only add the relevant stock to its portfolio to be perfectly hedged. The more complicated procedure does manage to avoid a capital gains realization. The point to remember is that the borrowing and lending doesn't create any new tax shelters, it simply alters the rewards of those which already exist.

[3]For fairly detailed, but hardly conclusive views of the legality of this procedure, the reader is referred to Klein (1962) and Asimov (1977). In principle the interest deduction may be disallowed if the combination of loan and tax shelter has no significant beneficial function other than the reduction of taxes. In practice the IRS is likely to disallow the deduction if the only security for the loan is the cash value of the shelter. For the taxpayer with a small enough spread between his borrowing and lending rate this need not be a serious obstacle, since some other collateral may be used.

[4]Details of Section 163(d) are in Bierman and Stechel (1977).

[5]Briefly, the investment interest deduction is the interest deduction less the home mortgage deduction.

Footnotes Continued

[6]If the realization of the capital gain can be deferred indefinitely then it is effectively tax-free and taxpayers should display complete indifference between dividends and unrealized capital gains.

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