

Impact on Sensex of Scrapping Double Taxation of Dividends

By

V. Raghunathan & J. R. Varma

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**INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD - 380 015
INDIA**

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Abstract

The taxation of dividends has generated an active debate in recent months in the media. While the industry representatives have been critical of the double taxation of dividends, the Government seems to be questioning the very premise that dividends are double taxed in India. The argument that scrapping the double taxation of dividends will give the Sensex a much needed boost seems to have tilted the scales. What will be the impact of scrapping of dividend tax on Sensex? One finds that the standard valuation models of Gordon, Modigliani, Miller et. al. suffer from too many shortcomings to be of much help in answering this question. First, many of them do not provide for differential tax rates, such as, corporate tax rate, personal tax rate on dividends and capital gains. Second, they deal with only a small number of variables at a time. And third, they implicitly assume the capital gains to the investors to be the same as the firm's retained earnings. In this paper, we therefore answer the question by employing one of our own models, which not only includes a wide range of variables and differential tax rates, but also captures the capital gains realistically.

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By

V. Raghunathan & J. R. Varma*

The taxation of dividends has generated an active debate in recent months in the media. The industry representatives have understandably been critical of the double taxation of dividends - even though this form of double taxation of equity returns is not a practice unique to India. The Government on the other hand has been questioning the very premise that dividends are double taxed in India. The depressed stock market in recent times has lent a different dimension altogether to the debate. The hope that scrapping the double taxation of dividends will give the Sensex a much needed boost seems to have tilted the scales. Expectations have been aroused that before long, dividends may not be taxable at all at the hands of the investors. If the boost to Sensex is the driving force underlying the move then it is important to estimate the likely impact of the move on Sensex. How much will this impact be and how do we go about estimating this impact? This paper attempts to provide an answer.

If one relies purely on intuition, one is faced with a confusing and even contradictory picture. At one level, one may argue that since dividend payments barely comprise a 3 or 4 per cent yield on one's investment, the impact of freeing the dividend income from taxation cannot be all that substantial. On the other hand, if one were to guide one's intuition using theoretical models such as Gordon (1962) model or that of the Nobel Prize winning duo, Modigliani and Miller (1963), which assert that share prices are merely the discounted value of future dividend streams, then the impact of dividend taxation can be truly dramatic. It would appear that if the investors are typically in a tax bracket of, say, 40%, scrapping the tax on dividends must increase the future stream of after tax dividends and therefore the market capitalisation by over 66%. Further confusion is created when one considers the zero tax companies. If in any case some of the

* The authors are Professors of Finance at IIM, Ahmedabad.

major corporates are paying no taxes at all, or paying very small amount of taxes, can the dividend be said to be taxed at the hands of the corporate? With a little imagination, it is easy to go round in circles trying to get a fix on the impact of scrapping the dividend tax on the share prices.

But the question is not purely academic; a clear understanding of the phenomenon has important policy implications. Evidently, the decision to scrap dividend tax can depend heavily upon whether the Sensex would rise by 5% or 60% following the move. We therefore decided to study the issue with some rigour.

A quick survey of literature reveals little that directly addresses the question. The original Modigliani-Miller model of 1963 is too rudimentary, since it makes no distinction between different tax rates, such as, corporate tax rate, personal tax rate on dividends and capital gains. Other models, for example, those of Miller (1977), Modigliani (1983) and Howe (1988), take into account the tax differentials in varying degrees, but all of them suffer from two major defects. Firstly, most of them deal with only a small number of variables at a time. Secondly, and more importantly, all of them implicitly assume the capital gains to the investors to be the same as the firm's retained earnings.

In reality, the market value of a firm is a function of a host of variables, such as corporate and personal taxes, reinvestments, leverage, dividend policy, inflation and so forth. Further, the capital gains to the investors are in fact the increase in the market value of shares due to corporate retention of profits and not the retained profits themselves. Further, these capital gains, realised by the investors in the form of increase in the market value of shares, are taxed at a much lower tax rate. Clearly, a model which does not take these nuances into account can be deceptive in the world of discounted cash flows.

In the absence of any ready made model from other researchers, we were constrained to fall back upon our own comprehensive valuation model (Raghunathan and Varma, 1991), which not only includes a wide range of variables and differential tax rates, but also captures the capital gains realistically. In fact, we are able to derive virtually every other model as a special case of our

generalised model by setting the values of selected parameters suitably. A slightly simplified

Box 1: Valuation Model

The valuation model used in the paper is:

$$\frac{P}{PBIT} = \frac{(1 - t_e) - \mu(1 - t_g)}{k_E(1 - \delta) + r\delta(1 - t_e) - g(1 - t_g)} (1 - \delta)$$

where

P is the price per share;

$PBIT$ is the profit before interest and taxes;

$t_e = 1 - [b(1 - t_d) + (1 - b) * (1 - t_g)](1 - t_c)$ is the composite (corporate *plus* personal) tax rate on equity;

t_c , t_d , and t_g are the tax rates on corporate profits, dividend income and capital gains respectively;

b is the dividend payout ratio;

δ is the financial leverage, $\frac{Debt}{Debt + Equity}$, in terms of market values;

μ is the new net investment as a fraction of PBIT;

k_E is the after tax cost of equity;

r is the cost of debt; and

g is the growth rate in dividends.

version of this model suitable for answering the dividend taxation question is presented in Box 1.

The next step was the appropriate selection of parameter values in this model. Since our objective was to estimate the impact of scrapping of dividend tax on the Sensex, we estimated the parameter values in the model by aggregating the data pertaining to the Sensex companies.

Using these values, we then estimated the average Sensex P/E multiple with and without dividend taxation. The average dividend pay-out ratio, the average new investment as a fraction of earnings (profit before interest and taxes or PBIT) and the average corporate tax rate were all computed from the CMIE data base for the Sensex companies for a period of eight years, from 1988-89 to 1995-96. For the corporate tax rate, what is relevant is not the maximum marginal tax rate, but the average effective tax rate. The average tax rate (provision for taxes as a proportion of reported pre-tax profits) for the Sensex companies works out to about 25%. The debt to equity ratio in terms of market values is roughly 1:1. The cost of debt is assumed at 16 % per annum and the after tax equity capitalisation rate assumed at 25% per annum. The after tax equity capitalisation rate is the post tax rate of return expected by the investors on an average. Thus, it is assumed that whether dividend tax applies or it does not, the investor expects a net return of 25% per annum.

The growth rate in pre-tax dividends was estimated at 18%. This is the implicit growth rate that produces a realistic P/E multiple (market price to profit after tax ratio). While an assumption of a growth rate of 19% yielded a P/E multiple in the vicinity of 75, an assumption of 17% yielded a P/E multiple of about 7. Hence, the choice of a growth rate of about 18%, which implies a more realistic P/E multiple, in the vicinity of 12 to 15.

The average tax rate on dividends is difficult to estimate since several investors (e.g. companies and mutual funds) are not taxed on dividend income, and many individual investors do not pay taxes on dividends either because of the section 80L benefit or because of non reporting of dividend income. We have therefore worked with three alternative values for the effective dividend tax rate: the maximum marginal rate of 40% which is certainly on the high side, a more realistic rate of 25% and a relatively low rate of 15%.

The parameter values used in the model for estimating the impact of scrapping of dividend tax are presented in Box 2. The Box also shows the Sensex P/E multiple (with a slightly altered definition of Earnings - See Box 2) using the above parameter values both when dividends are taxed and when they are not. As can be seen, the estimated increase in the Sensex following the scrapping of dividend tax, ranges from about 4% to 11% for the three values of the effective dividend tax rate. In the base case (the more realistic dividend tax rate of 25%), we expect the

Sensex to register roughly a 6% jump if dividend taxation is abolished. This may translate to about 200 points rise in the Sensex.

Box 2: Impact on Sensex When Dividend Tax Is Scrapped					
Parameter Values					
Corporate Income Tax Rate	t_c	0.25	New Investment as a fraction of PBIT	μ	0.45
Capital Gains Tax Rate	t_g	0.20	Annual Growth Rate of Dividends	g	0.18
(Debt) to (Debt+Equity) Ratio	δ	0.5	After tax Cost of Equity	k_E	0.25
Dividend Payout Ratio	b	0.25	Cost of Debt	r	0.16
Impact on Sensex					
Personal Tax Rate on Dividend (t_d)			40%	25%	15%
Price/PBIT Ratio with Dividend Taxation			3.90	4.08	4.19
Price/PBIT Ratio when dividend tax is scrapped ($T_d = 0$), all other parameter values remaining the same			4.35	4.35	4.35
Percentage increase in the Sensex when dividend tax is scrapped			11%	6 %	4%

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