

## DIVIDEND TAXATION, OWNERSHIP STRUCTURE AND PAYOUT POLICY: EVIDENCE FROM INDIA

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### Abstract

Despite the widespread criticism against double taxation of dividends, most countries follow the policy of taxing the same income twice – once when the corporations earn it and a second time when shareholders receive it. Critics of the double taxation policy clamor for its abolition citing the economic inefficiencies it engenders. In 1997, the Indian government eliminated double taxation of dividends by exempting dividend income from personal taxes but requiring the firms to pay a 10% tax on the amount of dividend distributed. Using this rule change as a natural experiment, we examine the impact of this rule change on firm valuation. We show that elimination of double taxation on dividends is not unambiguously beneficial to the stockholders of the firm. We find that tax status and ownership structure play a significant role in explaining the direction of observed changes in valuation. An interesting finding of this paper is that shareholders seem to value visibility. Visible firms are subject to the disciplining effect of more stringent disclosures in the financial press. We do find pervasive evidence that firms increased their dividends subsequent to rule change. We however, do not find any association between the change in dividends and ownership structure.

**Keywords:** ownership structure, payout policy, dividend taxation

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### 1. Introduction

The dividend payout policy of a firm represents one of the most important decisions taken by the top management as dividend payments play a multiple role. Dividends serve as signals of the firm's future earnings (John and Williams, 1985), as a method of monitoring managers (Jensen and Meckling, 1976; Easterbook, 1984) and as a hedge against uncertain future income (Shefrin and Statman, 1984). In addition to the above considerations, the payout policy of the firm is also significantly influenced by the tax status of investors with respect to dividend income and capital gains (*see endnote 1*). Studies, particularly those conducted after the Tax Reform Act (TRA) of 1986 in the U.S., have examined the role of taxes on the payout decision of the firm. Ben-Horim, Hochman and Palmon (1987) consider the impact of TRA for various categories of firms and shareholders and predict that dividend payout ratios should increase in the post-TRA period. Papaianou and

Savarese (1994) find that the payout ratios of firms in the low-to-medium quintiles increased significantly in the post-TRA period, whereas payout ratios of firms in the highest-ratio quintile have declined (*see endnote 2*).

Another factor that affects the payout policy of the firm is its ownership structure, which largely determines the ability to monitor the incumbent managers. If the firm is dominated by a class of investors with a superior ability to monitor the incumbent management, they would be able to enforce their preferences regarding the payout policy. A high payout policy would not necessarily be beneficial to investors. In fact, shareholders in high tax brackets may actually demand that the firm adopt a low payout policy. Lie and Lie (1999) provide confirmatory empirical evidence indicating that managers are more sensitive to the shareholders' tax position if a large fraction of the firm is held by institutional investors. We thus believe that the interaction between the tax status of investors and

their ability to monitor the incumbent management determines the payout policy. If the incumbent management follows a policy that substantially deviates from the desired policy of dominant investors, then the market value of the firm is likely to reflect this divergence. A regulatory change regarding the taxation of dividends occurred in India in 1997 and this event like the TRA of the U.S. offers an opportunity to examine the role of taxes and ownership structure on dividend policy of the firm (see endnote 3). The focus of the paper is consequently on the details of the rule change and its impact on firms and shareholders.

Despite the variations in tax codes across countries, the prevalence of double taxation of corporate income is nearly universal. The pervasiveness of double taxation is all the more baffling given the widespread criticism of this occurrence. The double taxation of corporate income has been criticized on the grounds that it (a) distorts the allocation of capital and other resources between corporate and non-corporate forms of business (Harberger, 1962; Ballentine and McLure, 1980), (b) encourages high profit retention and thus avoidance of the market discipline (Poterba, 1987), (c) encourages debt over equity financing (Litzenberger and Van Horne, 1978) and (d) increases the cost of equity financing and thus reduces investment and capital formation (Poterba and Summers, 1985) (see endnote 4). Despite the nearly total censure of double taxation of corporate income, most countries have retained this practice, perhaps fearing that tax integration would lead to substantial revenue losses (Bradford, 1981). Rather than risking revenue loss by complete abolition of double taxation, most countries have sought to appease shareholders by providing partial to full relief from the burden of double taxation.

Until 1997, tax regulations pertaining to dividends in India were similar to that of the major western countries. In particular, shareholders of Indian companies were responsible for paying the taxes on dividends received. In 1997, the government of India made a radical policy change in taxing dividend payments. The new policy entailed shifting the responsibility for tax payments from the investor to the company itself. While the earlier policy called for tax payments to be made by investors based on the marginal tax rates applicable to them, the new policy taxed dividends at the uniform rate of 10%. The investors now received their dividends "tax-free", in the sense that they were not required to declare their income from dividends in their tax returns or pay a tax on them. Of course, the investors are implicitly paying a tax, since the company pays the dividend tax

and this reduces the amount of funds available for dividend payment by the firm. We consider this event in Indian capital markets as an interesting experiment in corporate finance with few parallels. The policy change has a bearing on the wealth of investors and the cost of equity of firms. Furthermore, the rule change has a potential to influence the payout policy and capital structure of the firm through its impact on wealth of shareholders and cost of equity of the firm.

We utilize the rule change regarding taxation of dividends in India to study the following issues:

(1) *What is the impact on the cost of equity of a firm when a flat tax rate on dividend substitutes differential tax on dividend income?*

(2) *What is the wealth effect of the rule change on different types of shareholders? Does it matter who pays the dividend tax – the investor or the firm?*

(3) *What is the impact of the rule change on dividend policy? How does the ownership structure influence the dividend payout policy?*

The primary contribution of this paper is that the stock price reaction to the rule change depends on ownership structure and visibility of the firm. We also discover that firms increase their dividend payouts subsequent to the rule change perhaps indicating that the rule change event has altered the dividend policy in favor of a higher payout.

The paper is motivated on the following lines. The rule change in India is unique and has no parallels in terms of practices in other countries. Thus, we are able to study the financial and welfare implications on the various parties involved: the firm in itself, different classes of investors and the owner-managers of the firm (see endnote 5). Our work draws upon the framework used by Amihud and Murgia (1997) in their study of stock price reaction of dividends paid by German firms (see endnote 6).

The rest of the paper is structured as follows. In the next section, we describe the rule change regarding dividend taxation in India that forms the basis of this paper. In section three, we explain the expected impact of the rule change on the firm. Section four outlines the impact of the rule change on various classes of investors. Section five describes the results of the empirical study conducted to measure the wealth effects of the tax-rule change. The observed effects of rule change on dividend policy are described in section 6. The final section concludes.

## **Dividend Tax in India**

In 1997, the Indian government had changed the manner in which the dividend tax is collected. We first briefly outline the practices pertaining to dividend payment and their taxation in the Indian

corporate sector prior to the rule change and then explain the rule change that took place in 1997.

As in many other countries, tax on dividend is one of the most controversial areas of taxation in India. Till the year 1958-59, there was no double taxation on dividend income in India. India followed the imputation system of taxation with respect to dividends. Though companies were required to pay tax on their income, the dividend received by their shareholders were included in their income after being grossed and the shareholders were credited with the amounts deemed to have been paid by the company on their behalf. Thus, the part of corporate earnings declared as dividend was taxed only in the hands of investors. This system of single taxation on dividend was abolished in 1959-60 on the pretext of administrative inconvenience (*see endnote 7*) and dividends were taxed for the second time in the hands on shareholders. Investors and captains of industry periodically complain to the government regarding the burden of double taxation. As a result the government of India responded by providing partial relief to low-income shareholders from the burden of double taxation. Under a section of Income Tax Act, 1961 (Section 80 L), non-corporate individual shareholders enjoy a relief on dividend and certain other income like interest received from government securities, bank deposits, etc., subject to a ceiling. The limit was periodically increased and stood at Rs. 12,000 as of 1997. Thus small investors were not required to pay any tax on their investment income if the total income from all such eligible savings is below this limit of Rs. 12000. Dividend income in excess of this limit was taxed under the normal rate applicable to individual investors. The marginal rate of tax ranged from 15% to 40% depending on the total income from all sources (*see endnote 8*).

The tax system imposed the tax on dividend income only twice and contained provisions to eliminate triple taxation. This principle is especially relevant in determining the taxation of dividend income received by the corporate sector. If a company received dividend income from another company and also declared dividend to its shareholders, the positive difference between dividend inflow and dividend outflow alone was recognized as income for the company. In other words, if the amount of dividends paid by a company exceeded its dividend income, the dividend income was exempted from tax. This exemption was restricted to 60% of dividend income for banks and public financial institutions while the remaining 40% of dividend income was included as income for tax purposes. The corporate sector including banks and public financial institutions were taxed at a flat rate of 40% on their taxable income.

Mutual funds were exempted from taxation on dividend income but their investors (unit holders) were taxed on income received from mutual funds (*see endnote 9*) and such income were either treated as dividend or capital gains depending on the structure of the scheme. Tax on dividend income of foreign institutional investors and other foreign shareholders depend on the country in which the investor belongs to. The Indian government entered into tax treaties with several countries to avoid double taxation. Under these cases, the tax on dividend income was collected at the rate specified in the treaty. Foreign investors, who were paying tax as per the treaty to the Indian government, could claim tax credit from their home country tax authorities. The tax rate for such investors was normally fixed at the lower rate of tax prevailing in the two countries. Tax was levied at the normal rate applicable to all investors from other foreign investors, if their home country had not entered into any tax treaty with India (*see endnote 10*).

Investors and corporate sector were expecting the abolition of double taxation on dividend income ever since the Government of India had initiated financial and tax reforms in 1992. One of the important provisions of the budget presented by the Government of India in 1997 was the abolition of tax on dividend income received by shareholders. However, the government proposed a new tax at the rate of 10 percent payable by the companies when they distribute dividend. While proposing this new "distribution tax", the government had stated that the objective of this tax is to discourage companies from significantly increasing the dividend outflow resulting in a reduction in capital formation. While the new tax system exempted investors from the direct payment of any tax on dividend, it required an indirect payment of tax on dividend at a uniform rate of 10 percent. It is not possible to say with any degree of certainty whether the tax authorities collected a larger amount from dividend distribution tax compared to the earlier regime. We have no reliable data on the amount raised by the government through tax on dividend income under the earlier system when it was paid by the receiving shareholders. But considering the exemption limits for tax payers in the lower brackets and poor personal tax administration, the government would not have realized any significant revenue from the earlier system of taxation. Since the new tax system shifted the responsibility of paying tax to the companies, administration of the tax on dividend has now become more efficient. In 1997-98 and 1998-99, the government of India had collected Rs.8.88 billion and Rs.10.68 billion respectively towards tax on distribution of dividend from 2456 listed companies

for which data is available. This is roughly equal to about 5.20% and 4.98% of the total amount collected in personal income tax during these two years.

## 2. Impact of Rule Change on Dividend-distributing Firms

The dividend tax could potentially impact both investors and the companies distributing the dividends. In this section, we examine the impact on the companies. Although, companies are now responsible for an additional payment on account of the dividend-distribution tax, we will show that there are some benefits that companies enjoy under the new scenario. An important criticism of double taxation on dividend is that it unduly increases the cost of equity financing and thereby reduces investment and capital formation (Poterba and Summers (1985)). Double taxation increases cost of equity since investors will factor in the personal tax on dividend and capital gains while computing their expected return. If 'K' is the expected rate of return net of personal tax on equity investments for an investor whose personal tax rate is equal to  $\tau_p$ , then the pre-tax expected return is equal to  $K/(1-\tau_p)$ . This is the minimum rate the firm is expected to earn on its equity in order to satisfy the expectation of its investors. Therefore, any changes in taxes levied on dividend should affect the cost of equity. The new tax on dividend distribution is not an abolition of tax on dividend but simply a change in the tax policy relating to dividend.

In the earlier system of taxation, dividend income was taxed at different rates depending on the income of the equity holder whereas long-term capital gains were taxed at a flat rate. In other words, the ' $\tau_p$ ' used to vary across investors. The new tax policy on dividend introduced a flat rate of 10 percent without any exemption or tax credit. Instead of collecting the tax on dividend income from individuals, the tax is collected from the firms when the dividend is distributed. In order to assess whether a firm's cost of equity declines under the new regime we need to compare  $1.1K$  with  $K/(1-\tau_p)$ . The crossover point occurs at a tax-bracket of 9.09%. The cost of equity under both regimes is exactly equal if all shareholders are taxed at 9.09% on their personal income. For tax rates below 9.09%, the old regime is better in the sense that cost of equity is lower from the firm's point of view. For all tax rates higher than 9.09%, the new regime results in lower cost of equity for the firm. Since the investment in equity shares by the tax-exempt small investors in the capital market is relatively low in any economy (see endnote 11), the new tax regime has most probably brought down the cost of equity in the Indian corporate sector. The

reduction in the cost of equity is solely achieved by bringing down the tax rate and making it uniform to all shareholders. What is the implication of this change in cost of equity on the value of the firm? First, if firms set the dividends such that shareholders receive the same amount after tax as they did before, they realize extra cash flows under the new regime. This extra amount can potentially be used to fund new positive NPV projects. This should result in an increase in the firm's value. The second possibility is that the firms continue to distribute the same amount of dividends as before. The investors now receive a higher amount on an after-tax basis. Other things remaining same, the result is an increase in firm value and market price of the equity shares. The changes in the market price would depend on the type of shareholders holding a significant portion of the firm and their personal tax rates.

The discussion thus far assumed that the shareholders of the firm are homogeneous and are in the same tax bracket. In reality, firms are owned by different classes of shareholders that differ in several ways. Principal among them is the marginal tax rate and the ability to monitor the management of the firm.

We discuss the implications of this heterogeneity of shareholders on firm value in the context of the dividend rule change in the next section.

## Effect of Rule Change on Different Classes of Investors

The effect of the rule change – that is imposing dividend distribution tax payable by companies and exempting the investors from tax on dividend income received has different implications for different classes of investors. There are two important factors that account for the differential impact. First, the marginal tax rate faced by the investor determines whether the rule change is beneficial. Table 1 indicates the impact of the dividend tax rule change on investors of a typical company. In computing this table, we assume a 30% payout ratio. Our assumption is based on the observation that the mean payout ratio of 75 largest companies listed in Indian stock markets, with equity capital in excess of Rs. 500 million, is about 30% payout. The table also assumes that companies pay tax at the marginal tax rate of 35% on their income. The table shows the actual after-tax dividend income enjoyed by shareholders when companies have a before-tax income of 100 and distribute 30% of the amount remaining after paying the corporate tax of 35%. Prior to the rule change, this amount was fully available for the payment of dividends. After the rule change, the amount that can be distributed is reduced by the dividend tax amount.

So investors now receive a lower amount (17.73 versus 19.50 in the case of tax-exempt investors) compared to the earlier situation. But the entire amount received now is tax-free from the point of view of investors. Earlier, they had to pay taxes based on their marginal income tax rates. It is seen that all shareholders except those who are tax-exempt are better off in the new situation. Depending on their tax status, their "gain" ranges from 1.01% to 39.86%. This gain represents the percentage increase in the after-tax dividend income received by investors. These calculations are based on the assumption that companies retain the same amount of earnings even after the rule change.

The second factor that accounts for the differential impact of the rule change is the ability of the investors to monitor the incumbent management of the firm. If investors are able to influence the management better, then they can induce the managers of the firm to follow a dividend payment policy that is optimal to them. Thus ownership structure plays a key role in determining the impact of the rule change on expected dividend policy of the firm and consequently affects the firm value. In the next section, we provide empirical evidence on how ownership structure affects firm value. In section 6, we outline the theory regarding ownership structure and its effect on dividend payout policy and empirically examine changes in dividend policy after the rule change. For the purposes of this paper, ownership structure is classified into six groups: Financial Institutions (FI), Mutual Funds (MF), Foreign (F), Corporate (C), and Directors and other insiders (I) and Public (P). We now explain the nature of ownership of each of these groups in greater detail and outline their tax-status.

The Financial Institutions (FI) category includes development financial institutions (DFI) and banks. In several cases, these institutions have also lent money to the firm. DFIs make long-term loans to the firms on concessional basis and sometimes acquire the rights to convert their debt into equity. The FIs are taxed at the flat rate of 35% (40% prior to 1997). FIs and Banks were subject to section 80M of the Indian Income Tax Act, which provided partial relief from double taxation of dividends. If the FI (or Bank) had dividend outflow exceeding the inflow, then 60% of the dividends received were exempt from taxes. It is seen from Table 2, that banks and financial institutions received a larger amount in dividends than what they paid. The partial exemption allowed by section 80M was essentially unutilized. FIs therefore benefited from the rule change since they were no longer required to pay taxes on dividends received.

The Foreign (F) ownership group includes

holdings of parent MNCs and foreign financial institutional holdings. The taxes paid by foreign ownership group are affected by the existence of tax treaties between countries. If the MNC (or financial institution) is based in a country with which India has signed a tax treaty, then the taxes paid on the dividend income received from the firm is used to offset the tax liability in the home country of the MNC. These firms are therefore unaffected by tax rates in India. But the rule change still hurts them because the firm now has to pay the 10% distribution tax.

Corporate (C) ownership of firms is based on two predominant incentives. First, companies invest their excess funds in the stock market if they do not have better alternative uses in the short-term. A second motivation for corporate ownership stems from control purposes. In India, it is a widely prevalent practice to hold shares of firms belonging to the same business group (*see endnote 12*).

The taxation of inter-corporate dividends comes under the purview of Section 80M of the Indian Income Tax Act. Prior to the rule change, inter-corporate dividends were fully exempt from taxation, if the dividend outflow was more than the inflow for a given company. It is seen from Panel A of table 2 that Indian manufacturing companies paid at least thrice as much as they received in dividends. So, companies, which made investments in other firms' stocks purely for treasury, faced no taxation on dividends prior to the rule change, as dividend outflow in such cases would be larger than inflow. On the other hand, firms, which held stocks of other companies mainly for control purposes, were generally closely held and paid less dividend compared to the dividends received. Thus, these firms were subject to taxes on dividend at the highest tax bracket prior to the rule change. Even if these closely held companies pay more dividend than what they receive by way of dividend inflow, the dividend is subject to a high rate of tax because the eventual recipients (business tycoons) pay tax at the highest rate. We make the reasonable assumption that closely held controlling firms are outnumbered by widely held firms. Thus the rule change is expected to be harmful to firms dominated by corporate ownership in general. Whereas the corporate owners faced no tax liability on dividends received prior to rule change, they are now hurt by the 10% distribution tax.

In the Mutual Funds (MF) group, we include only domestic mutual funds. Holdings by foreign mutual funds are included in the foreign group. Mutual funds were not required to pay any taxes on dividends received even prior to the rule change. However, the ultimate owners would be liable to pay taxes on dividends distributed by mutual funds.

**Table 1.** Effect of Dividend Tax on Shareholders

	Tax Status of Shareholders <sup>1</sup>				
	Exempted	10%	20%	30%	35%
Without Dividend Tax					
Profit Before Tax	100.00	100.00	100.00	100.00	100.00
Corporate Tax	35.00	35.00	35.00	35.00	35.00
Profit After Tax	65.00	65.00	65.00	65.00	65.00
Dividend Received	19.50	19.50	19.50	19.50	19.50
Dividend Tax paid by Investor	0.00	1.95	3.90	5.85	6.83
After Tax Div. Income (A)	19.50	17.55	15.60	13.65	12.68
With Dividend Tax					
Profit Before Tax	100.00	100.00	100.00	100.00	100.00
Corporate Tax	35.00	35.00	35.00	35.00	35.00
Profit After Tax	65.00	65.00	65.00	65.00	65.00
Dividend Received (B)	17.73	17.73	17.73	17.73	17.73
Dividend Tax Paid by Firm	1.77	1.77	1.77	1.77	1.77
Cash Outflow on Dividend and Dividend Tax	19.50	19.50	19.50	19.50	19.50
Net Gain to Shareholders (B-A)	-1.77	0.18	2.13	4.08	5.05
(in %)	-9.09%	1.01%	13.64%	29.87%	39.86%

Note: 1. The table reflects the income tax rates in 1997. The brackets of 10%, 20% and 30% are applicable for individuals while companies are taxed at a flat 35%.

**Table 2.** Dividend Receipts and payments

**Panel A:** Manufacturing companies included in the Manufacturing index of CMIE.

	Dividends Received Million Rupees	Dividends Paid. Million Rupees
1995	11,355.5	39,915.4
1996	13,913.2	49,055.4
1997	9,153.6	53,254.7
1998	8,389.9	56,868.2
1999	8,267.6	63,504.2

**Panel B:** Banks and Financial Institutions.

	Dividends Received Million Rupees	Dividends Paid. Million Rupees
1995	160,259.2	7,549.3
1996	192,415.4	10,924.6
1997	228,273.2	15,062.2
1998	280,666.4	19,034.9
1999	339,851.9	19,583.3

Source: Reports of center for monitoring Indian Economy (CMIE) various issues.

Thus the issue of whether the rule change is beneficial or not impinges on the marginal tax rate faced by the typical investor in mutual funds. The twin benefits of diversification and low capital requirement is likely to

attract many low to medium income investors to mutual fund schemes. However, corporates with surplus cash could also be attracted to mutual fund investments. Although corporates face high marginal

tax rates, we argue that they were tax-exempt with respect to dividend income prior to rule change for reasons cited in the previous paragraph. On average, we feel that the average investor in mutual schemes belongs to the low tax bracket category.

The holdings by Directors (I) and top 50 individuals are combined for our analysis. Ostensibly, this group contains insiders and in many cases their relatives. They are expected to align their interests with that of the management. The marginal tax rates on dividends received (earlier regime) faced by is expected to be high.

Public (P) shareholders constitute the last group and contain domestic individual shareholders. The tax bracket for dividends received by this group of investors, prior to the rule change, was governed by Section 80L of the Indian Income Tax Act. This section contains a provision, which exempts individuals from paying taxes on dividend income received up to the limit of Rs. 12,000. Thus investors with low aggregate stock ownership were subject to low tax rates on dividends prior to the rule change. On the other hand, wealthy investors would have found the exemption limit to be a binding constraint and were subject to taxation at the highest bracket on dividend income prior to the rule change. According to Patel (1990), the total number of individual investors in India was estimated to be about 10 to 12 million. Even if we assume that this number grew to about 20 million by 1997, it indicates that less than 2% of the population owns shares. It is reasonable to assume that the marginal tax rate of the typical individual investor is high, since stocks are perceived to high-risk investments and therefore out of purview of most low income or tax-exempt investors. Thus the rule change is presumably beneficial to stocks, which are held mostly by individual investors.

The rule change regarding dividend distribution tax is also expected to have negligible impact on low dividend-payout firms. For these firms, investors mainly received their returns in the form of capital gains. As a result of rule change, these firms are not expected to change their dividend payout policies. Firms and investors may be self-selecting to be in this group. For instance, firms that have a lot of positive NPV projects may deliberately choose a low payout policy. Based on our discussion above, we provide a summary in Table 3 that classifies the tax status of the different ownership classes. We expect the market reaction to the announcement of the change in taxation of dividends to depend on the personal tax rates of the shareholders, and the existing dividend payout ratio of the firm. We discuss the inter-relationship of these factors and provide empirical results of market reaction in the next section. The

market reaction of a given firm, measured by the stock price, to the rule change is expected to depend upon its ownership structure. Another factor would be the current dividend payment practice. Firms with low dividend payout would be less significantly affected by the dividend tax compared to those with a higher payout. Furthermore, at the time of announcement, perhaps the initial reaction is based on investors expecting the current dividend policy to continue. Based on these considerations, we expect the following market reaction for each of the ownership groups as shown below in Table 3. For low payout firms, the impact is expected to be rather small since the quantum of extra taxes to be paid by the firms will be rather small. In this table, we consider tax status as the sole driver of market price reaction. Indisputably, we are leaving out other possible effects such as impact of expected change in dividend policy and the possibility of increase in agency costs as an unintended consequence of the rule change. We discuss these issues in section 6.

**Table 3.** Tax Status and Expected Impact of Rule Change Categorized by Ownership Group

Investor Group	Tax Status on Dividend prior to Rule Change	Expected Impact of Rule Change
Foreign (F)	Low	Negative
Financial Institution (FI)	High	Positive
Mutual Fund (MF)	Low	Negative
Corporate (C)	Low	Negative
Insiders (I)	High	Positive
Public (P)	High	Positive

### 3. Market Reaction to the Rule Change

We describe below the sample used in the empirical study. We start with all listed companies, which are available on an electronic database. There were a total of 4797 companies. We then used the following screens to arrive at the final sample. Companies with negative earnings and those that paid zero dividends in 1996 were eliminated. These firms should not react to the announcement of dividend distribution tax since investors do not expect them to pay any dividends during the forthcoming year. Stocks, which did not trade on the announcement day and the previous trading day, were also removed. Companies for which shareholding information could not be obtained were also taken out. The final sample is composed of 723 firms, which is used for further analysis.

At this stage, the sample is divided into two roughly equal samples (362 and 361 firms) based on the dividend payout ratio. The high payout group includes firms whose payout exceeded the median payout ratio. Similarly, the low payout group includes all firms, which had payout ratios below the median. For each of the low and high payout groups, we then form six groups each (12 in all) based on ownership structure. The first group entitled the "Foreign (F) group" is formed by selecting the top 10% after ranking all firms based on the proportion of foreign ownership. Thus this group will have a very high degree of foreign ownership and relatively lower proportions of other types of shareholders. The average ownership structure of the foreign group for both low and high payout groups are shown in Panel A of Table 4. In a similar manner, the other groups are also constructed and the resulting shareholding structure is shown in panels B through F of Table 4. The announcement of the distribution tax on dividends occurred on 28<sup>th</sup> February 1997, when the Indian Finance minister presented his government's budget for the forthcoming fiscal year (April 1997-March 1998). The market adjusted announcement returns are shown in Table 5. Ostensibly, other announcements besides the imposition of the dividend distribution tax could have impacted the stock price reaction. Ideally we would like to have a control group to control for the effect of contemporaneous announcements unrelated to the dividend tax. This group should preferably be composed of profitable firms with a zero dividend policy. Very few firms in India fulfill this criterion. For comparison purposes, we also show the results of a group of profitable firms with similar ownership structure but with a low payout ratio. Since we expect minimal impact of the distribution tax announcement on firms with low dividend payout ratio, the difference in the market-adjusted abnormal returns between high payout and low payout firms is an approximate measure of the impact of rule change (see endnote 13). We show results for each group (based on ownership class) for firms in the high payout and low payout groups. Thus on a comparative basis, we are able to gauge the impact of the announcement.

As expected the reactions are smaller for low payout firms in each ownership group and the t-values show that the market adjusted mean returns are not significantly different from zero. Lang and Shackelford (2000) who examine the impact of a reduction in capital gains tax rate find that the stock price reaction depends on the dividend yield (see endnote 15). In an analogous manner we find that the stock price reaction depends on the dividend payout. For the high-payout group, the t-values are significant

at 1% level in four out of six cases. In the remaining two cases, namely, the insider and public groups, abnormal returns are significantly different from zero at the 10% level. The observed empirical evidence is consistent with the argument that impact of the rule change is negligible for low dividend payout firms.

The foreign (F) and Mutual Fund (MF) groups show negative reaction as we anticipated. This is on account of their tax-exempt status as far as dividends are concerned. For the insider group, we see a positive reaction to the announcement, which is line with our expectations but the level of significance is low. Further, in the low payout group, the hypothesis that market-adjusted mean return of insider-dominated stocks is not different from zero was also rejected only at 10% level. This group experienced negative reaction at the announcement while we predict a positive response. A possible explanation for this phenomenon can be made using the agency cost framework. Perhaps, the managers of low payout firms preferred to retain a larger proportion of free cash flows to use, as they like. The dividend distribution tax has now adversely affected this pool of cash flows. Also, they may perceive a higher pressure from minority shareholders to pay more dividends since dividend income is now exempt from taxes. For the public group also, we find a positive reaction at announcement but the t-values are significant only at 10%. We predicted a positive reaction for the public group. This is because high tax bracket investors would find the announcement beneficial. Although, low tax bracket investors would find it detrimental, we argue that the tax bracket of the average investor should be high.

For firms dominated by corporate ownership, we expect the announcement of rule change to elicit a negative response. Since dividends were exempted from taxes in the earlier regime, if the firms receiving the dividends also paid dividends and if the amount paid exceeded the amount received, the rule change is deemed to be harmful to stocks belonging to this group. We actually find a negative reaction, which is consistent with our expectation. In the case of the financial institutions (FI) group, we predict a positive reaction to the announcement, but instead find a negative reaction. To explore this issue further, we examine Panel B of Table 5 that describes the average shareholding pattern of each of the six groups of investors for the FI group. We notice that FIs do not dominate in the same manner that the F, C, I, and P groups do. The Public and Corporate shareholdings are almost as dominant as FIs in the FI group. Thus the observed results may be tainted by the influence of these equally dominant groups.



**Table 4.** Ownership Structure of the Different Groups

Investor Group	Low Payout Ratio	High Payout Ratio
Panel A: Foreign Group (F)		
Foreign (F)	51.40%	59.51%
Financial Institution (FI)	6.42%	6.22%
Mutual Fund (MF)	3.62%	4.80%
Corporate (C)	11.87%	7.51%
Insiders (I)	7.34%	4.15%
Public (P)	19.35%	17.81%
Panel B: Financial Institution Group (FI)		
Foreign (F)	9.82%	12.37%
Financial Institution (FI)	27.20%	27.48%
Mutual Fund (MF)	6.43%	7.72%
Corporate (C)	22.54%	19.83%
Insiders (I)	11.26%	6.43%
Public (P)	22.75%	26.17%
Panel C: Mutual Fund Group (MF)		
Foreign (F)	19.55%	16.88%
Financial Institution (FI)	11.90%	11.02%
Mutual Fund (MF)	15.45%	17.29%
Corporate (C)	25.48%	22.13%
Insiders (I)	10.26%	7.75%
Public (P)	17.36%	24.93%
Panel D: Corporate Group (C)		
Foreign (F)	3.89%	3.06%
Financial Institution (FI)	3.45%	4.75%
Mutual Fund (MF)	3.41%	3.95%
Corporate (C)	62.46%	61.33%
Insiders (I)	9.69%	6.68%
Public (P)	17.10%	20.23%
Panel E: Insider Group (I)		
Foreign (F)	3.92%	4.48%
Financial Institution (FI)	2.03%	2.64%
Mutual Fund (MF)	0.87%	0.90%
Corporate (C)	12.75%	8.14%
Insiders (I)	62.67%	64.90%
Public (P)	17.76%	18.94%
Panel F: Public Group (P)		
Foreign (F)	7.11%	4.84%
Financial Institution (FI)	4.56%	5.56%
Mutual Fund (MF)	1.58%	4.05%
Corporate (C)	14.78%	15.25%
Insiders (I)	18.91%	8.52%
Public (P)	53.05%	61.78%

**Table 5.** Observed Market Reaction to Dividend Tax and Ownership Structure

Investor Group	Low Payout Ratio		High Payout Ratio	
	Mean Return	Median Return	Mean Return	Median Return
Foreign (F)	-0.0099 (-1.2329)	-0.0120	-0.0223 (-3.1725)*	-0.0218
Financial Institution (FI)	-0.0112 (-1.2720)	-0.0184	-0.0207 (-2.5957)*	-0.0247
Mutual Fund (MF)	-0.0135 (-1.4312)	-0.0224	-0.0262 (-3.3976)*	-0.0262
Corporate (C)	-0.0001 (-0.0094)	0.0160	-0.0534 (-3.6203)*	-0.0288
Insiders (I)	-0.0187 (-1.5283)**	-0.0274	0.0244 (1.4321)**	0.0201
Public (P)	0.0215 (0.9286)	0.0137	0.0223 (1.3692)**	0.0264

Numbers in parentheses are t-values. \* Significant at the 1% level. \*\* Significant at the 10% level

The ownership structure of the MF group described in Panel C also shows that shareholding is not dominated by mutual funds alone. The Corporate and Public shareholders have higher stakes in this group of stocks. Thus it is possible that our results for the MF group are attributable to the dominant presence of the other stakeholders.

Our findings show the shareholders have recognized the tax effect of the rule change and incorporated it in the prices. This result is consistent with the finding of Wu and Hsu (1996), who examined the impact of the 1986 TRA on trading volume and stock price behavior around the ex-dividend day and found that ordinary and incorporated investors seem to recognize that taxes affect their investment returns. Bolster and Janjigian (1991) also find that stocks with high dividend yields increased in value relative to low yielding stocks and stocks not paying any dividends after the TRA of 1986. We next conduct OLS regressions of our market reaction variable on ownership structure variables. The results, which are reported in table 8, show multivariate evidence regarding the impact of rule change. Firms with higher foreign ownership reactively negatively to the rule change announcement, but the coefficient is not statistically significant. Firms with dominant Financial Institution ownership showed negative reaction at a 10% level of significance. Firms with high Mutual Fund ownership showed negative reaction as per expectation, but the coefficient is not statistically significant. Firms with high corporate ownership report the strongest reaction. A negative and highly significant reaction is observed. Insider dominated firms show positive reaction to rule change. However, the coefficient is not statistically significant at conventional levels. Firms with dominant public ownership show positive reaction to the rule change and the coefficient is weakly significant. The payout variable is not significant at conventional levels. Overall the regression results reinforce our findings from the univariate tables.

In order to check the robustness of our results, we introduce two variations. One, we redefine domination by an ownership group if the combined proportion of shares owned is the largest of the six classes that we considered. Second, we also segregate results based on liquidity of shares. Stocks are classified on the Bombay stock exchange into three major groups: Group A, Group B1, and Group B2. This classification is mostly based on liquidity. Shares classified as Group A are the most visible and tend to be held by a large number of institutions and individual investors. Also, the financial press and analysts scrutinize these firms more than stocks listed

under Group B. Group B is further classified into B1 and B2 based on relative liquidity. In table 7, we describe the relative liquidity of stocks belonging to the three groups. It is seen that 82% of the stocks in Group A trade on more than 90% (91%-100%) of trading days. In comparison, only 48% of Group B1 stocks trade on more than 90% of the trading days. Only 17% of B2 stocks trade on more than 90% of the trading days. We believe that public perceptions regarding how the firm would respond to tax rule change would depend on the visibility and liquidity of stocks. A liquid market and aggressive coverage by the financial press would serve to discipline the management of Group A firms. In contrast, firms in Groups B1 and B2, face less stringent disclosure in the press and may pursue actions detrimental to minority shareholders. Our empirical results using the redefined domination are shown in table 8. The market reaction of high payout firms under Group A are consistent with results of table 5. But the market-adjusted returns are not statistically significant probably due to the small sample size in each group. Only 16 firms show domination by financial institutions (FI). The reaction of these 16 firms is strongly negative and inconsistent with our prediction. We consider the results for the FI group to be unreliable due to the small sample size. None of the firms are dominated by mutual fund ownership. Therefore, we exclude this category from further analysis. Group B1 and B2 firms in both high payout and low payout categories show strong negative reaction to the announcement of rule change. This is true even for categories for which we find positive reaction in Group A stocks. Perhaps, minority shareholders of stocks in these groups feared that management would use the distribution tax as a ruse to cut down the amount distributed as dividends. The multivariate regression results shown in Table 9 confirm our prior findings and add some fresh insights. We continue to find a negative impact of foreign and corporate ownership on observed market reaction at the announcement of rule change. Financial institutional ownership has negative impact. Public ownership and payout ratios impart a positive impact on the observed reaction in the larger sample. An interest additional insight from this table is that the reaction is different between Groups A and B1 and B2. Public ownership imparts a negative effect for Group B2 firms. Minority shareholders are perhaps apprehensive of opportunistic behavior by managers and perceive that managers may cut dividends using the rule change as an excuse. Since atomistic investors don't possess sufficient clout to enforce their dividend preferences they may be reacting negatively to the rule change announcement.

**Table 6.** OLS Regressions of Market Reaction (adjusted returns) to Ownership Structure and Payout

	Model 1	Model 2
Foreign	-0.00035 (-1.35)	-0.00032 (-1.22)
Financial Institution	-0.00107 (-1.94)**	
Mutual Funds		-0.00099 (-1.18)
Corporate	-0.00099 (-4.27)*	-0.00099 (-4.23)*
Insiders	0.00027 (0.98)	0.00029 (1.03)
Public	0.00066 (2.13)**	0.00057 (1.88)**
Payout	0.00765 (0.33)	0.00492 (0.21)
Observations	182	182
Adjusted R <sup>2</sup>	0.1244	0.1128

Numbers in parentheses are t-values. \* Significant at the 1% level \*\* Significant at the 10% level

**Table 7.** Trading activity of Indian Stocks by group

Relative Trading Frequency	Percentage of stocks		
	Group A	Group B1	Group B2
91% - 100%	82%	48%	17%
76% - 90%	9%	24%	18%
51% - 75%	5%	18%	28%
26% - 50%	1%	5%	17%
0% - 25%	3%	5%	20%

Ownership of insiders imparts an even bigger negative response at the time of announcement. This negative response is evident for all three groups. Once again, we evoke agency cost as the main explanation for the adverse reaction of minority shareholders.

#### 4. Effect of Rule Change on Dividend Policy

The impact of the rule change on dividend policy will depend upon the dominant investor group of the firm. In general, investors will prefer a higher dividend payout to a lower payout. This is because the rule change has now made dividends preferable to capital gains purely based on taxation. After the imposition of the distribution tax, investors do not pay any tax on dividends received, but pay a 20% tax on realized capital gains (see endnote 15). Earlier studies, which examine dividend payout after the TRA of 1986, find

mixed evidence on the corporate behavior. While Gordon and Mackie-Mason (1990) and Papaioannou and Savarese (1994) document a substantial increase in payout from 1984 to 1988, Bolster and Janjigian (1991) find no meaningful trend from one year to the next from 1984 through 1989. Abrutyn and Turner's (1990) survey based on 163 CEOs of companies in the U.S. find that 85% of the respondents expect no change in their dividend payout ratio due to the TRA of 1986.

What should be the impact of the imposition of distribution tax on corporate dividend policy in Indian Companies? This is a complex issue as it is greatly influenced by the interaction between the various groups of shareholders owning the firm and the firm's managers who have the ultimate say in the dividend decision. We believe that the final outcome will depend upon three factors; first, whether the existing dividend policy is considered optimal by the dominant shareholders; second, whether the tax

situation has altered investors' preferences for dividends versus capital gains; and finally whether the dominant shareholders possess sufficient clout to enforce the optimal decision on the management.

**Table 8.** Observed Market Reaction to Role change by ownership structure

Dominating ownership	Low payout Firms				High payout Firms			
	Group A	Group B1	Group B2	All Firms	Group A	Group B1	Group B2	All Firms
Foreign (F) N=136	0.0000 (0.0039)	-0.0355 (-2.95)*	-0.0512 (-4.92)*	-0.0269 (-3.94)*	-0.0071 (-0.79)	-0.0320 (-3.16)*	-0.0657 (-5.64)*	-0.0299 (-4.98)*
Financial Institution (FI) N=16	-	-	-	-0.0384 (1.53)*	-	-	-	-0.0501 (-3.57)*
Corporate (C) N=258	-0.0181 (-1.37)**	-0.0228 (-2.58)*	-0.0760 (-5.66)*	-0.0330 (-2.12)*	-0.0074 (-0.64)	-0.0325 (-4.13)*	-0.0787 (-3.31)*	-0.0513 (-2.79)*
Insiders (I) N=89	-0.0045 (-0.15)	-0.0494 (-3.23)*	-0.0521 (-2.97)*	-0.0487 (-4.66)*	0.0018 (0.04)	-0.0117 (-0.55)	-0.0291 (-1.09)	-0.0172 (-1.05)
Public (P) N=224	-0.0103 (-0.82)	-0.0140 (-1.26)	-0.0463 (-3.58)*	-0.0228 (-2.86)*	0.0167 (0.96)	-0.0369 (-3.86)*	-0.0344 (-2.38)*	-0.0357 (-4.41)*

Numbers in parentheses are t-values. \* Significant at the 1% level \*\* Significant at the 10% level

**Table 9.** OLS Regression of Market Adjusted Return on ownership and payout variables

	All Firms	Group A	Group B1	Group B2
Foreign (F)	-2.14x10 <sup>-4</sup> (-1.595)	-1.47x10 <sup>-4</sup> (-0.682)	-3.73x10 <sup>-4</sup> (-2.227)**	-3.92x10 <sup>-4</sup> (-1.032)
Financial Institution (FI)	-4.672x10 <sup>-4</sup> (-1.577)	-6.56x10 <sup>-4</sup> (-1.329)	-5.36x10 <sup>-4</sup> (-1.510)	-1.089x10 <sup>-3</sup> (-1.644)
Corporate (C)	-7.102x10 <sup>-4</sup> (-6.423)*	-5.55x10 <sup>-4</sup> (-2.602)**	-3.66x10 <sup>-4</sup> (-2.573)**	-1.163x10 <sup>-3</sup> (-5.464)*
Insiders (I)	-7.37x10 <sup>-4</sup> (-4.917)*	-5.260x10 <sup>-4</sup> (-1.403)	-6.63x10 <sup>-4</sup> (-3.158)*	-5.96x10 <sup>-4</sup> (-2.402)**
Public (P)	2.598x10 <sup>-5</sup> (0.201)	7.213x10 <sup>-4</sup> (2.828)*	1.77x10 <sup>-4</sup> (0.971)	-1.78x10 <sup>-4</sup> (0.807)
Payout	3.231x10 <sup>-3</sup> (0.509)	4.24x10 <sup>-4</sup> (0.015)	-1.89x10 <sup>-2</sup> (-1.38)	-1.28x10 <sup>-2</sup> (1.49)
Observation	723	111	350	262
Adjusted R <sup>2</sup>	0.180	0.068	0.158	0.270

Numbers in parentheses are t-values. \* Significant at the 1% level \*\* Significant at the 10% level

Let's first consider the case when dominant shareholders consider the existing dividend policy as optimal. Prior to the rule change, investors in the top tax bracket were paying tax on dividend at the rate of 30% while the tax on capital gains was 20%. For them (high taxpayers), the rule change has brought down the tax on dividend to 10%. If investors and the managers of the firm are both rational, a lower amount would now be distributed as dividends (on a per share basis). This is because of the reduction in leakage – from 30% of dividends paid to the current 10%. Under this scenario clout does not matter. The dominant shareholders will willingly opt for a lower payout since the absence of taxes (paid by investors)

will compensate for this loss. So, optimally the managers will set the dividends in such a way as to lower the amount paid out but ensure that the dominant shareholders now receive a greater amount than what they used to receive on an after-tax basis (before the rule change). The reduction in the payout will be larger when the tax bracket of the dominant shareholder is high.

The situation is likely to be different if the dividend distribution tax has altered the optimality with respect to the dividend payout. Consider the dominant shareholders of a firm that are in the high tax bracket. In the earlier regime, they would have preferred capital gains to dividends since dividends

were taxed at the top rate of 30%. Under the current scenario, they have incentives to receive more dividends and less capital gains since under the new scenario they pay taxes on realized capital gains but no taxes on dividends. In reality, the situation is rendered more complex due to differences in the clout of each ownership group and other factors, which influence the dominant shareholders' preference for cash dividends versus capital gains. We describe below in detail some of the factors affecting the preference for higher dividends for each type of firm.

For firms whose ownership is dominated by Financial Institutions (FI), the rule change has made dividends tax-free. Since FIs have to pay taxes on realized capital gains, dividends are now preferred to capital gains purely from the standpoint of taxes. They possess sufficient clout to ensure that their preferences receive due consideration. We therefore expect firms with dominant FI ownership to increase the dividend payout in the post-rule change period.

The Foreign group was essentially indifferent to taxes on dividends in the prior regime, since most of them could claim tax credit from their home country government. Under the current scenario, they may not prefer higher dividends, since the distribution tax entails a leakage of cash flows from the firm to the government. An additional factor that reinforces their preference for lower dividends stems from the fact that they would no longer be able to claim tax credit, which they did under the earlier system. In fact, we expect to see a modest drop in the payout ratio after the rule change. Since their clout is high, they would be able to enforce their preference.

For firms with dominant corporate ownership, the rule change does not endow a tax advantage to payments of dividends, if these corporate shareholders invested in shares primarily for treasury purposes. This is because dividends were exempted from taxation even in the earlier situation (if the firm paid out more in dividends to its shareholders compared to its dividend receipts). They are likely to prefer lower dividends now on account of the additional tax outflow called for in the new regime. Their lack of clout does not put them in a disadvantageous position, because companies would like to pay lower dividends in order to have greater control over its cash flows. For the group of firms whose ownership is dominated by directors and other insiders (I), the current situation bestows them with tax-free dividends as opposed to capital gains, which are taxed. But the same insiders also control the firm and have control over the same cash flows, which are used for paying the dividends. From the viewpoint of the insiders, payment of dividends entails two types of leakages: distribution tax and dividends paid to

minority shareholders. It is not clear whether firms dominated by insiders would prefer dividends to retention of control over all cash flows. In our view the agency costs faced by the minority shareholders of this group is likely to be very high. While in general, the managers of this group of firms will prefer a low payout policy after the rule change, it is possible that during certain periods they are likely to prefer a high payout policy (*see endnote 16*). This is because some owner managers will find it advantageous to receive more in dividends that are tax-free and less in salaries that are taxed. Thus we do not have an unambiguous prediction for this group of firms. For firms dominated by Public ownership, the rule change represents an opportunity for investors in the high tax bracket to enjoy tax-free dividends. Thus the shareholders are likely to prefer a high payout policy after the rule change. However, this group does not have the power to influence managers' decisions with regard to the dividend policy. The lack of clout which is a consequence of the diffused ownership of the shareholders of this group allows managers to enforce their own preference for a low payout policy after the rule change.

In table 10, we summarize the predicted change in dividend policy based on our discussion above. We show empirical evidence regarding changes in dividend after rule change in Table 11. In this table we include our entire sample of 723 firms. We consider the change in dividends one year after the rule change. We find that a majority of the firms increased their dividends during this period. The table shows the pattern in dividend changes categorized by dominating ownership. Clearly even for cases where we expect a low payout preference, firms responded to the rule change by increasing the dividends. The market reaction at the announcement of rule change is also shown separately for firms that increased and those that decreased their dividends subsequently. We do not find a positive (negative) reaction if the dividend change is consistent (inconsistent) with the payout preference of the dominating ownership group. However, we document the interesting finding.

Announcement period stock price reactions were less negative for those firms which subsequently followed the payout preference of the dominating ownership group. The public group is a notable exception.

We jointly examine the impact of ownership structure and changes in earnings in the year following rule change in table 12. The results are shown for the full sample and for sub samples of firms categorized on the basis of changes in earnings in 1997 compared to 1996.

**Table 10.** Expected Impact of Rule Change on Payout for the Different Classes of Shareholders

Investor Group	Clout	Preference for Dividend Payout	Predicted Change in Payout Policy
Foreign (F)	High	Low	Decrease
Financial Institution (FI)	High	High	Increase
Corporate (C)	Does not matter	Low	Decrease
Insiders (I)	High	Mixed	Mixed
Public (P)	Low	High	Decrease

**Table 11.** Dividend Changes by ownership and Market Adjusted Return

Dominating Ownership	Payout Preference	Firms Increasing Dividend	Firms Decreasing Dividend
Foreign (F)	Low	-0.0289 (-5.78)* 113	-0.0258 (-2.37)** 13
Financial Institution (FI)	High	-0.0277 (-1.64) 11	-0.0806 (-4.65)* 5
Corporate (C)	Low	-0.0449 (-7.79)* 178	-0.0360 (-3.94)* 80
Public (P)	High	-0.0387 (-6.33)* 144	-0.0121 (-1.070) 80
Insiders (I)	Mixed	-0.0280 (-2.16)** 59	-0.0432 (-3.04)* 30
All	-	-0.0372 (-11.29)* 505	0.0037 (0.6324) 218

Numbers in parentheses are t-values. \* Significant at the 1% level \*\* Significant at the 10% level  
Note:

1. The market adjusted return is measured at the time of announcement of rule change.
2. The change in dividend is measured one year after the rule change.
3. The third line in columns 3 and 4 contain the number of firms in each category.

**Table 12.** OLS Regression of Dividend changes on ownership

Model:  $D97/D96 = a_0 + b_1 \ln(\text{Mcap}) + b_2 \text{Foreign} + b_3 \text{FI} + b_4 \text{Corporate Body} + b_5 \text{Insider} + b_6 \text{Public} + b_7 \text{E97/E96} + b_8 \text{payout}$

Independent variables	Full Sample	Earnings Increase	Earnings Unchanged	Earnings Decrease
Intercept	0.5355 (1.24)	0.7155 (1.00)	-0.9857 (-0.52)	0.1739 (0.31)
Market Capitalization	0.0634 (4.34)*	0.0474 (1.97)	0.0932 (3.19)*	0.0319 (1.76)
Foreign (F)	0.0034 (0.77)	0.0032 (0.44)	0.0058 (0.72)	0.0051 (0.90)
FI & Bank (FI)	-0.0008 (-0.14)	0.0028 (0.29)	0.0007 (0.07)	0.0035 (0.51)
Corporates (C)	0.0036 (0.83)	0.0026 (0.37)	0.0055 (0.71)	0.0073 (1.30)
Insiders (I)	0.0061 (1.39)	0.0052 (0.73)	0.0177 (1.48)	0.0075 (1.36)
Public (P)	0.0055 (1.25)	0.0070 (0.97)	0.0122 (1.50)	0.0039 (0.70)
E97/E96	-0.0023 (-1.68)	-0.0033 (-2.04)**	0.9788 (0.58)	0.4577 (4.59)*
Payout 96	0.0478 (1.01)	0.0466 (0.78)	0.1660 (0.53)	-0.3137 (-3.10)*
Adjusted R <sup>2</sup>	0.0242	0.0067	0.1034	0.1158
Sample Size	723	342	83	298

Numbers in parentheses are t-values \* - Significant at 1% \*\* - Significant at 5%

We consider the ratio of earnings in 1997 to that of 1996 (E97/E96) to determine the earnings change category. The earnings unchanged category contains firms with values of E97/E96 ranging from 0.95 to 1.05. Accordingly firms with values exceeding 1.05 were classified as Earnings increase firms, and those below 0.95 as Earnings decrease firms. The empirical results indicate that ownership does not explain the changes in dividends after the rule change.

Results for the full sample show that market capitalization is the only variable that affects the amount of dividends paid. In the earnings increase sub sample, only the earnings change variable E97/E96 is significant. This result indicates that firms experienced an increase in earnings respond with a marginal reduction in dividends. Dividends seem to be remarkably sticky and don't respond rapidly to earnings changes regardless of ownership. The results of the earnings decrease sub sample show that variables E97/E96 and Payout 96 are significant. These results indicate that firms drastically cut dividends only if they face a dramatic drop in current earnings but are remarkably sticky otherwise. The negative sign in the payout variable indicates mean reversion in dividend payout ratio.

Summing up, we do not find that ownership imparts any influence on the dividend policy of the firm. As a consequence of the rule change, we find a pervasive increase in the amount of dividends paid. The empirical evidence suggests that the dividend distribution tax has altered the optimality of the dividend payout decision.

## 5. Summary and Conclusions

We examine the role of personal taxes and ownership structure on the dividend policy of Indian firms. In 1997, the government of India exempted dividend income from personal taxation but required the firms to pay 10% tax on the amount of dividend distributed. In effect the rule change brought a uniform tax on dividend income at 10% irrespective of the tax status of the investors. Considering the existing personal tax structure, we found that the cost of equity declines in most cases. This in turn is expected to have a positive impact on valuation. However, firms in which the dominant shareholders are tax-exempt, investors were adversely affected by the new dividend tax paid by the firms. The market reaction of the stocks of the firms thus depends on the ownership structure. We find empirical support indicating that both personal taxation and ownership structure together influence the market reaction.

We also analyze the impact of ownership

structure and the ability of dominant shareholders to influence the firm on the payout policy of the firm. It appears that the rule change has altered the optimality of the dividend policy decision and that ownership structure does not significantly influence dividend policy. Further research on this issue is warranted and is likely to further our understanding of the determinants of dividend policy, especially in an emerging market setting.

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- dividend taxation. New views of dividend taxation disagree with the argument that double taxation on dividend at the individual level also results in double taxation on income attributable to investments financed with retained earnings. Under the new view of dividend taxation developed by King (1974), Auerbach (1984), and Bradford (1981), dividend taxation is irrelevant for decisions regarding investments financed with retained earnings, which constitutes significant part of equity financing. The impact of double taxation is restricted to new equity issues.
- <sup>5</sup> The government is another party affected by the rule change. While the reduction in the tax rate is expected to affect the revenue collection, the requirement that the entire dividend income is brought under the tax domain is expected to improve the tax collection especially when the tax administration is not efficient and tax evasion in capital market transactions is widespread. The new policy has also removed several concessions available on dividend income and thus expected to have a positive impact on revenue collection. However, this issue is not examined in this paper.
  - <sup>6</sup> In Germany, tax treatment of dividends differs across investor types.
  - <sup>7</sup> Section 67 & 68 of Part B of Union Budget 1959-60 of the Government of India
  - <sup>8</sup> Even if the dividend income along with other qualified income exceeds Rs. 12000, individual investors, whose income from all sources including dividend income is equal to or below Rs. 60,000, no tax is levied and these small investors thus escape from any tax on dividend income.
  - <sup>9</sup> The tax policy on mutual funds income has been revised in 2000. Now mutual funds are also treated like corporates. Mutual funds have to pay tax on dividend declared like any other firm, but investors are exempted from taxes on dividend income. While this new rule distorts tax on corporate source of income routed through mutual funds, it however does not affect this study since it covers the period from 1996 through 1999.
  - <sup>10</sup> Since tax rates in India used to be high, many foreign investors route their investments through a company established in a country with which India has a tax treaty.
  - <sup>11</sup> We don't have any data regarding the tax brackets of public (individual) shareholders of our sample. A survey conducted by Gupta (1991) shows that about 24% of the respondents belonging to the low income owned stocks, while almost 64% of the high-income respondents owned stocks.
  - <sup>12</sup> Indian business groups (for instance the Tatas) have several listed firms operating under the same controlling group. Interaffiliate holdings are sometimes used to maintain control.
  - <sup>13</sup> Our measurement of the impact of rule change is potentially downward biased. This is because low dividend firms would be marginally affected by the dividend tax. Ideally, we require profitable firms paying zero dividends to form the control group. Very few firms in India satisfy this criterion.
  - <sup>14</sup> Lang and Shackelford (2000) examine the stock price changes in response to a decline in capital gains tax rate and found an indirect relationship.
  - <sup>15</sup> A lower tax rate on dividend need not always mean lower impact on the wealth of investors. Since tax on dividend has to be paid immediately on receipt (under new rule, on payment by the firm), tax on capital gain has to be paid only when the shares are sold.
  - <sup>16</sup> They could engage in gaming. Since increases in dividends acts as signals of future prospects of the firm, they could raise dividends in some periods, especially if they plan to sell shares or make secondary offerings.

## Endnotes

- <sup>1</sup> Several researchers question the impact of taxes on payout policy. For instance, Miller and Modigliani (1961) argue that realignment in ownership structure based on preference for dividends versus capital gains is feasible. A survey by Blume, Crockett and Friend (1974) confirm the existence of the clientele effect. But shareholders in different tax brackets may hold shares of the same company, regardless of dividend policy since firms also differ in other characteristics (Feldstein and Green, 1983). Thus tax and ownership effects on dividend policy need to be resolved empirically.
- <sup>2</sup> Bolster and Janjigian (1991) however found no statistically significant difference between the pre- and post-TRA mean aggregate dividend payout ratios.
- <sup>3</sup> While TRA eliminated much of the preferential treatment on capital gains and balanced the tax treatment of capital gains and dividend, the tax rule change in India reduced the tax rate on dividends by introducing a flat rate.
- <sup>4</sup> Some of these criticisms together called 'traditional' views of dividend taxation are not supported by the 'new' views of