Corporate Governance and Dividends Payout in India

ABSTRACT

This paper investigates the association between the corporate governance and the dividends payout for a panel of Indian firms over the period 1994-2000. We explain the differences in the dividend payout behavior of the firms with the help of firm's financial structure, investments opportunities, dividend history, earnings trend and the ownership structure. We find a positive association of dividends with earnings trend and investments opportunities. Debt equity ratio is found to be negatively associated, whereas past investment opportunities exert a positive impact on dividends. Ownership by the corporate and directors is positively related with dividends payout in level, and corporate ownership is negatively related in square. Institutional ownership has inverse effect on dividends in comparison to corporate ownership in levels as well as in its squares. We find no evidence in favor of association between foreign ownership and divided payout growth.

Dividend payout has been an issue of interest in the financial literature. Jensen and Meckling (1976) argue that information asymmetry between an 'insider' and 'outsider' may lead to agency cost. One of the mechanisms, they suggest to reduce 'outsiders' expropriation is to reduce free cash flows available to managers through high payouts by the firm. Dividends are referred as reward for providing finances to a firm in the literature, as without any dividend payout, shares would not have any value. Dividend payout policy has been the primary puzzle in the economics of corporate finance since the work of Black (1976). The dividend literature has primarily relied on two lines of hypothesis: signaling and agency cost.

The cash flow hypothesis asserts that insiders have more information about firms' future cash flow than do outsiders, and they have incentive to signal that information to outsiders. Dividends can be an ideal device for limiting rent extraction of minority shareholders. Large shareholders, by granting dividends, may signal their unwillingness to exploit them. Dividend payout, however guarantee, equal payout for both insider and outsider equity holders.

Corporate governance in India differs dramatically from the dominant form of corporate governance in US, UK or other developed economies. Even within India, corporate governance is not homogenous: some firms operate within industrial groups while others are independent. Group firms differ in depth and breadths of inter firm relationship than stand alone ones. Ownership structure in India differs from most of Anglo-Saxon countries like the US and UK. In India, large shareholders (especially directors and corporate) have ample incentives and ability to control.

Empirical research on corporate governance and dividend payout policy has mostly concentrated using data from United States. In USA, regulated and dispersed shareholding leave salient agency problem between managers and shareholders. In emerging markets, widely held corporations are in the minority and mostly held in few hands (block shareholders). In this paper, we examine whether differences in ownership structure and owners identity across firms can explain their dividend payout differences in India. Using a large sample of Indian corporate firms over 1994-2000, our aim is to answer the following:

Does shareholders identity matter? If it does, then, whether directors' ownership is more effective than foreign ownership, corporate ownership or institutional ownership in determining the firm's dividend payout policy? Does dividend signal any conflict between the insider

shareholders and outside shareholders? Does dividend change provide any new information about this conflict? Are dividends a method of aligning directors' interests with those of outside investors? Do group-affiliated corporations in India pay higher dividends than stand-alone firms, dampening insider expropriation? Does taxation policy influence payout decisions?

Our paper makes three major contributions to the literature. First, we provide an evidence of the relationship between ownership structure and dividends payout for an emerging economy. Second, we provide a more robust model to explain the dividends payout behavior using detailed historical information of the ownership structure, capital structure, investments opportunity, and past dividends payout. Thirdly, this a very first example to use principles of corporate governance in the context of the dividends payout, by providing evidence of the different behavior by the different class of owners.

We document that ownership is one of the important variables that influence the dividend payout policies. Though the relationship is different for different class of owners and at different levels, which suggests that the ownership structure does not influence dividend payout policy uniformly. The impact changes with the change in the holding size as well as with their identity. We expect that firms, for which the interest alignment between different classes of owners is more likely to be severe, pay out less of their earnings as dividends. We test this proposition by estimating the partial adjustment model.

Our paper now proceeds as follows: Section I briefly reviews the existing literature and provide a brief introduction to economic and legal framework within which Indian corporate firms operate and its implication for dividend payout policy. Institutional details are presented in Section II. Section III presents tha data and variable constructions. The methodology used and the obtained results are presented in Section IV. Finally, some concluding remarks are presented in Section V.

I. Literature Review

Substantial literature in the field of corporate finance (Linter (1956), Lintner (1962), Bhattacharya (1979), Miller and Rock (1985)), suggests that corporate dividend policy is designed

to reveal earnings prospects of a firm to their investors. Recent empirical evidence in favor of this model are mixed. Fama and Babiak (1968) argues that the firms, a priori, set their target dividend level and try to stick to it. In addition to the signaling approach, there may be interrelation between dividend payout policy and agency cost (Jensen and Meckling (1976), Easterbrook (1984)). Dividend payout policy is an outcome the conflict between the insiders and the outsiders (issues related with corporate governance and ownership structure). [1] Jensen and Meckling (1976), Rozeff (1982), and Easterbrook (1984) presents agency cost explanations for changes in dividend payout, while analyzing whether dividends can act as a method to align manager's interests with those of investors. They argue that firm pays dividend in order to reduce agency costs as payment of dividends reduce the discretionary funds available to managers. Jensen (1986) documents that in presence of free cash flows, the firms pay dividends or retire their debts to reduce the agency cost of free cash flow. Kalay (1982) investigate a large sample of bond indentures focusing on conflict between shareholders and bond holders on the dividend decision. The paper finds that the stockholders do not pay themselves as much dividends as they are allowed to. Jensen, Solberg, and Zorn (1992) examine the determinant of cross-sectional differences in insider ownership, debt, and dividend policy. The authors' find that firms with higher insider ownership chooses lower level of debt and dividends. Han, Lee, and Suk (1999) test the agency cost based hypothesis, which predicts, dividend payout to be inversely related to the degree of institutional ownership and the tax based hypothesis, predicting the dividends to be positively related with the institutional ownership. They provide support for the tax-based hypothesis, suggesting a "dividend clientele" for institution's preference for higher dividends. Porta, Lopez-De-Silanes, Shleifer, and Vishny (2000) argue that the dividends play a basic role in limiting insider expropriation because they remove the corporate wealth from insider control. They find that corporations in countries with strong legal protection of minority shareholders pay higher dividends. Faccio, Lang, and Young (2001) relate dividends rates to the discrepancy that exists between the shareholder's ownership rights (O) and its control rights (C) as Claessens, Simeon, Fan, and Larry (1999) used. The O/C ratio is used as a measure of the corporation's vulnerability to insider expropriation within a group of corporations. The authors find that significantly the corporations that are tightly affiliated pay higher dividends to a business group. By contrast, for corporations not tightly affiliated

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[1] The other line of investigation in the literature tries to analyze the post effect of dividend payout on the share prices and other variables of interest, which is beyond the scope of the paper.

to a group is associated with significantly lower dividend rates. They provide evidence on the expropriation that takes place within business groups and on the differences in expropriation between Europe and Asia.

Fenn and Liang (2001) analyze how corporate payout policy is affected by managerial stock incentives. They find that managerial stock incentives mitigate the agency costs for firms with excess cash flow problems. They also find a strong negative relationship between dividends and management stock options. Gugler and Yurtoglu (2003) and Gugler (2003) investigates the relationship between dividends, ownership structures and control rights for German and Austrian firms, respectively. Gugler and Yurtoglu (2003) find large shareholding of the largest owner reduces the dividends payout ratio, while shareholding by the second larger owner increases it. Gugler (2003) documents the evidence that state controlled firms engage in dividend smoothing, while family controlled firms do not. The behavior of the bank and foreign controlled firm lies in between state controlled and family controlled firms, consistent with the expected "ranking" of information asymmetries and managerial agency cost hypothesis.

The literature on signaling hypothesis builds upon the pioneering work of the Bhattacharya (1979), who derived the existence conditions for a non-dissipative signaling model and show that dividends are signals for future cash flows, under the assumption that outside investors have imperfect information about the firm's profitability and the cash dividends are taxed at a higher rate than capital gains. Miller and Rock (1985) extend the standard finance model of the firms dividend by allowing the firms manager 'insider' to know more about the firm's financial health than 'outside' investors. They show that a consistent signaling equilibrium exists under asymmetric information. Healy and Palepu (1988) examine whether dividend policy changes convey information about the future earnings substantiated by cash. They find that investors interpret announcements of dividend initiations and omissions as manager's forecast of future earning changes. Brennan and Thakor (1990) develop a theory of choice for distribution of cash from firm to shareholders. They show that a majority of a firm's shareholders may support a dividend payment for small distribution, despite the preferential tax treatment of capital gains for individual investors. For larger distributions as open market

stock re-purchase, and for the largest distributions tender offer re-purchases is likely to be preferred by a majority of shareholders.

In case of India, Kevin (1992) shows that dividend stability is a primary determinant of payout while profitability is only of secondary importance. Mahapatra and Sahu (1993) does not find evidence in support of the Linter's model, whereas Mishra and Narender (1996) find support for the Linter's model in case of state-owned enterprises (SOEs). Bhat and Pandey (1994) find that payment of dividends depend on current and expected earnings as well as the pattern of past dividends. Dividends are used in signaling the future prospects, and dividends are paid even if there is profitable investment opportunity. Mohanty (1999) attempts to examine the behavior of payout after the bonus issue. He finds that bonus-issuing firms yielded greater returns to their shareholders than those that did not make any bonus issue but maintained a steadily increasing dividend rate. Reddy (2002) examines the dividend behavior and attempts to explain the observed behavior with the help of a trade-off theory and signaling hypothesis. The paper supports earlier finding that dividend omissions have information content about future earnings, but do not find any evidence in support of the tax-preference theory. Roy and Mahajan (2003), provide regulatory oversight on dividends payout and suggests that regulation of dividend payout should address the inherent conflict of interest between shareholders and lenders to address the issue of information asymmetry between the insiders and the outsiders.

The empirical evidence concerning the possible association of owners and payout policy is extremely limited, nearly none in case of emerging economies. Most of the studies have tried to explain these phenomena of dividends and institutional shareholders in developed countries. In a recent study Short, Keasey, and Duxbury (2002) examine the link between dividend policy and institutional ownership for UK firms. They find a positive association between dividends and institutional shareholders and negative association with managerial ownership. In emerging markets like India, Korea, Taiwan, China etc., the institutional setup is quite different than those of the developed countries. Aivazian, Booth, and Cleary (2003) finds that emerging market firms exhibit dividend behavior similar to those of US. However, the authors do not consider the corporate governance issues. Manos (2003), using data from India, estimates the cost minimization model of dividends and finds that government ownership, insider

ownership, risk, debt, and growth opportunities, have a negative impact on the payout ratio, whereas institutional ownership, foreign ownership and dispersed ownership have a positive impact on the payout ratio. However, his analysis is based on cross-sectional data.

II. Institutional Details

Large shareholders, like other emerging markets, characterize Indian corporate firms ownership structure. Majority control gives the largest shareholder incentive and control over key decisions, like dividend payout. The dominance of large shareholders may affect the dividend payout in several ways. There have been changes in the taxation policy for dividend during the sample period, which gives us an opportunity to test the tax-preference theory and its implications for the dividend payout in case of an emerging economy, India.

India operates a classical company tax system in which companies are taxed separately from the investors receiving the profits in form of dividends. Firms pay differential rate of corporate tax on their profits and shareholders pay income tax on the dividend income received. This leads to twice taxation of profit earned by firm, one in the hands of company through corporate tax and other in hands of investors, in form of income tax. In such a case an investor should prefer to get less dividends paid and earnings to be retained by firm, as they can always get the amount by selling the shares in equity market, in form of 'home made dividend' (Black (1976)).

Taxation policy is a key determinant of payout in developed countries (see Short, Keasey, and Duxbury (2002)). In case of India taxation policy is different than those of developed countries. In India, dividends have been taxed at a flat rate of 10% for quite some time, which has been removed recently. Dividend payout may be beneficial, if used to offset tax liability against the capital loss, as after dividend payments, the prices of stocks fall.

The signaling perspectives suggest that insiders use dividends as a signal of firm's future earnings. Most of the signaling and agency cost models assumes that there is separation of ownership and control and finance is raised externally through capital markets. However, the characteristic of financing in India is different than those of the developed nations. In India,

most of the financing comes from financial institutions, and these lenders also have equity holding (in general) in the firm concerned. Hence, they have access to insider information as well. This reduces the importance of dividends as a signal of firms' financial health.

We focus our attention on Indian corporate sector as an experimental setting as the Indian corporate sector offers the following advantages over other emerging market economies. The Indian Corporate Sector has large number of corporate firms, lending it to large sample statistical properties. It is large by emerging market standards and the contribution of the industrial and manufacturing sectors (value added) is close to that of in several advanced economies. Unlike several other emerging markets, firms in India, typically maintain their shareholding pattern (dominant group) over the period of study, making it possible to identify the ownership affiliation of each sample firm with clarity. It is by and large a hybrid of the *"outsider systems"* and the *"insider systems"* of corporate governance. The legal framework for all corporate activities including governance and administration of companies, disclosures, share-holders rights, dividend announcements has been in place since the enactment of the Companies Act in 1956 and has been fairly stable. The listing agreements of stock exchanges have also been prescribing on-going conditions and continuous obligations for companies.

India has a well-established regulatory framework for more than four decades, which forms the foundation of the corporate governance system in India. Numerous initiatives have been taken by Stock Exchange Board of India (SEBI) to enhance corporate governance practice, in fulfillment of the twin objectives: investor protection and market development, for example: streamlining of the disclosure, investor protection guidelines, book building, entry norms, listing agreement, preferential allotment disclosures and lot more. Although the Indian Corporate Sector is a mix of government and private firms (which are again a mix of firms owned by business group families, and multi nationals and stand alone firms), it has not suffered from the cronyism that has dominated some of the developing economies. Accounting system in India is well established and accounting standards are similar to those followed in most of the advanced economies (Khanna and Palepu (2000)). This increases our confidence in the reliability of using Indian data.

III. Data and Variable Construction

This section is sub-divided in two parts: in sub-section 1, we introduce our data. Sub-section 2 briefly focuses on some key variables.

A. Data

The firm level panel data for our study is primarily obtained from the corporate database (PROWESS) maintained by Center for Monitoring the Indian Economy (CMIE) . The data used in the analysis consists of all manufacturing firms listed on the Bombay Stock Exchange (BSE), for which we could get their historical share holding pattern along with the dividend payout ratio and other explanatory variables used in the study. We confine our analysis to BSE listed firms only because all the listed firms are required to follow the norms set by SEBI for announcing the financial accounts. The BSE also has the second largest number of domestic quoted companies on any stock exchange in the world after NYSE, and more quoted companies than either the London or the Tokyo stock exchange. We analyze data from 1994 to 2000, as this is the period for which we have the most coverage in the database. [2]

To construct the data sample, we start with all companies listed in Prowess database. We exclude Public Sector firms as their dividend payments are highly influenced by a large number of social obligations, which may be difficult to account for. We also exclude financial firms and utilities because their dividend polices are highly constrained by external forces. We restrict our analysis to firms that have no missing data (on share holding pattern and dividends) for at least 2 consecutive years. We finally end up with 2575 firms resulting in an unbalanced panel of 5,224 observations. For this unbalanced panel of 5,224 observations, we collect the following additional data for each firm observation: Earnings, Gross Sales, Total Assets, and Debt to Equity ratio. Despite the problem of attrition and missing data, our sample provides several distinct advantages over the samples used in earlier studies.

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[2]Though the data after year 2000 is available, we restrict our analysis for the above period only, because of the definitional changes in the reporting of the ownership structure. Details of the change in ownership variables definition is available on request from author.

As noted earlier, distinct form of corporate governance exist in India. A distinguishing feature of Indian corporate sector is the existence of industrial groups, predominantly family firms. For this study, we distinguish those firms that are member of groups from those that are independent. Membership in a corporate group is not easily defined. Similar to the prior studies like Khanna and Palepu (2000), we adopt the classification of CMIE, which classifies firms as group members if they exhibit strong group ties over the period of their existence. We look at the dividend cuts and increases, as well as the dividend omissions. Cuts and increases are defined as negative or positive growth in annual dividends respectively; in India most of the firms pay annual dividends unlike US, where dividends are paid quarterly. Dividend omissions are identified, if the firm's annual dividend is zero. We perform our analysis after restricting the dependent variable to lie between 1st and 99th percentile to tackle the problem of outliers.

B. Key Variables

The key variables of the interest are dividend payout ratio in percentage of their shares' face value (Div), managerial shareholding (director) (A number of studies, for example, Mork, Shleifer, and Vishny (1988) have used board of directors' equity holdings as a proxy for managerial ownership.), institutional investors shareholding (institutional), foreign investors shareholding (foreign), and corporate shareholding (corporate). We also include their squares, namely, $director^2$, $institutional^2$, $foreign^2$ and $corporate^2$ to examine the presence of ownership effect after a certain threshold. We also use growth in earnings, debt-equity ratio and growth in sales intensity as controls. Year dummies are also included to control for contemporaneous macroeconomic shocks. A dummy variable (measuring the change in tax regime) is also included to control for potential tax clientele effects. [3] In order to examine the dividend models, dividends are calculated as the total amount of ordinary dividends relating to the accounting year. Earning is calculated as net profit derived after depreciation, interest and taxes, available for distribution to shareholders. In Table I, we provide a detailed description of the variables used in our analysis.

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[3]This dummy takes the value of one before 1997 and zero otherwise.

IV. Empirical Analysis

This section is divided in two sub-sections: sub-section 1 presents the empirical model. The descriptive statistics and regression results are presented in sub-section 2.

A. Empirical Model

For testing the hypothesized link between ownership and dividend policy, we use following models: the Full Adjustment Model (FAM), the Partial Adjustment Model (PAM) (Linter (1956)), the Waud Model (WM) (Waud (1966)), the Earning Trend Model (Fama and Babiak (1968)) and the modified model of firm level characteristics proposed by Aivazian, Booth, and Cleary (2003). We further modify these models to account for the potential association between the ownership variables and dividend policy in lines with Short, Keasey, and Duxbury (2002).

A.1. The Full Adjustment Model (FAM)

The association between change in earnings (Ear) and change in dividends (ΔDiv), for firm i at time t, is given by:

$$\Delta Div_{it} = Div_{it} - Div_{i(t-1)} = \alpha + \beta(Ear_{it} - Ear_{i(t-1)}) + \mu_{it} \tag{1}$$

We assume that the firms with significant block-holding may have a different β, then the model becomes:

$$Div_{it} - Div_{i(t-1)} = \alpha + \beta(Ear_{it} - Ear_{i(t-1)}) + \beta_f(Ear_{it} - Ear_{i(t-1)}) * Foreign \tag{2}$$
$$+ \beta_i(Ear_{it} - Ear_{i(t-1)}) * Institutional + \beta_d(Ear_{it} - Ear_{i(t-1)}) * Director$$
$$+ \beta_c(Ear_{it} - Ear_{i(t-1)}) * Corporate + \mu_{it}$$

The coefficients β_f, β_i, β_d and β_c denote the respective impacts of foreign ownership, institutional ownership, managerial (director) ownership and corporate ownership in association to the dividend payout ratio of the firm to the change in the earnings.

A.2. The Partial Adjustment Model (PAM)

According to this model, dividends paid are the result of a partial adjustment towards a target payout ratio. The change in dividends is determined by the difference between last year's dividend and this year's target payout level, which is assumed to be a fixed proportion of the earnings. In any given year firm adjusts partially to the target dividend level. Hence, the model becomes:

$$Div_{it} - Div_{i(t-1)} = a + c \ (Div_{it}^* - Div_{i(t-1)}) \tag{3}$$

where, c is the rate of adjustment to target payout ratio. Inclusion of ownership variables alters the above in the following way:

$$Div_{it} - Div_{i(t-1)} = \alpha + c \ \beta(Ear_{it} - Ear_{i(t-1)}) + c \ \beta_f(Ear_{it} - Ear_{i(t-1)}) * Foreign \tag{4}$$
$$+ c \ \beta_i(Ear_{it} - Ear_{i(t-1)}) * Institutional + c \ \beta_d(Ear_{it} - Ear_{i(t-1)}) * Director$$
$$+ c \ \beta_c(Ear_{it} - Ear_{i(t-1)}) * Corporate - c \ Div_{i(t-1)} + \mu_{it}$$

A.3. The Waud Model (WM)

According to the Waud model, dividends paid are the result of 'the partial adjustment' and 'the adaptive expectations'. Waud proposes a second order rational distributed lag order model. (see Waud (1966) for detailed derivation of the model). With ownership variables, the Waud model can be represented as:

$$Div_{it} - Div_{i(t-1)} = \alpha + \beta(Ear_{it} - Ear_{i(t-1)}) + \beta_f(Ear_{it} - Ear_{i(t-1)}) * Foreign \tag{5}$$
$$+ \beta_i(Ear_{it} - Ear_{i(t-1)}) * Institutional + \beta_d(Ear_{it} - Ear_{i(t-1)}) * Director$$
$$+ \beta_c(Ear_{it} - Ear_{i(t-1)}) * Corporate - c_1 \ Div_{i(t-1)} - c_2 \ Div_{i(t-2)} + \mu_{it}$$

A.4. The Earnings Trend Model (ETM)

Fama and Babiak (1968) proposes a modified 'partial adjustment model' for dividend analysis. In our case, the model takes the following form:

$$Div_{it} - Div_{i(t-1)} = \alpha + \beta(Ear_{it} - Ear_{i(t-1)}) + \beta_f Ear_{i(t-1)}) * Foreign \qquad (6)$$

$$+ \beta_i Ear_{i(t-1)}) * Institutional + \beta_d Ear_{i(t-1)}) * Director$$

$$+ \beta_c Ear_{i(t-1)}) * Corporate - c\, Div_{i(t-1)} + \mu_{it}$$

A.5. The Proposed Model (PM)

In view of Porta, Lopez-De-Silanes, Shleifer, and Vishny (2000), dividends play a basic role in limiting insider expropriation by removing corporate wealth from insiders' control. Under the assumption that the managers are not perfect agents of owners, Easterbrook (1984) propose two forms of agency cost, the cost of monitoring and cost of risk aversion on parts of managers. In Indian context, Bhat and Pandey (1994), on the basis of a survey of managers' perspective about dividend payment and retention, claim that dividend depends on current and expected earnings as well as the pattern of past dividends. They also document that dividend helps in signaling the future prospects of the firm, and dividends are paid even if the firm has profitable investment opportunity. In order to measure the investment opportunity across firms over time, we use past growth in sales intensity (defined as the ratio of gross sales to total assets). This measure was also used in (Porta, Lopez-De-Silanes, Shleifer, and Vishny (2000)).[4] Barclay, Smith, and Watts (1995) argues that tax penalty associated with dividend payments depends on the tax rate of the firm's investors, but all firms have access to same pool of investors and hence face the same potential tax penalty. Therefore, we would expect differences in dividend policy to be driven by factors other than taxes. However, use of tax dummy (for change in tax regime) in some of the regressions suggests that taxation policy has no impact on dividends paid.

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[4]We, however, note that this has the disadvantage of relying on the past to measure for the future investment opportunities.

Aivazian, Booth, and Cleary (2003) examine the influence of firm-level characteristics on the dividend decision. We however, propose a modified version of the model suggested by Linter (1956), Waud (1966), Fama and Babiak (1968), Short, Keasey, and Duxbury (2002) and Aivazian, Booth, and Cleary (2003). We propose that the dividend policy is influenced by the dividends payment of previous years as managers of a firm are reluctant to change the current dividend from past years dividend payment, unless they are unable to maintain it. We also note that dividend payments are not only determined by the past dividends, but also by current and past earnings, investment opportunities, firm's capital structure (measured as Debt-Equity ratio) and the ownership structure of the firm. In our set-up, hence we propose the following model:

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\begin{aligned}
Div\ Int_{it} = {} & \alpha_i + \beta_0\ (Ear\ Int)_{it} + \beta_1\ (Ear\ Int)_{i(t-1)} + \beta_2\ (Div\ Int)_{i(t-1)} \qquad (7) \\
& + \beta_3\ (Debt\ Equity)_{it} + \beta_4\ (Growth\ Sales\ Int)_{it} + \beta_{i1}\ (Institutional) \\
& + \beta_{i2}\ (Institutional)^2 + \beta_{f1}\ (Foreign) + \beta_{f2}\ (Foreign)^2 + \beta_{c1}\ Corporate \\
& + \beta_{c2}\ (Corporate)^2 + \beta_{d1}\ (Director) + \beta_{d2}\ (Director)^2 + \varepsilon_{it}
\end{aligned}
$$

where $Div\ Int_{it}$ (dividend intensity) is defined as the ratio of dividends to total assets. We also control for unobserved firm-effects (α_i) and ε_{it} denotes the error term. We use different specification of this model to capture the impact of ownership structure and observed firm-level characteristics. Gugler and Yurtoglu (2003) argue that although ownership and performance measures like return to total assets may be endogenous, it is unlikely that ownership and dividends are endogenous. We, therefore, believe that our results are robust to the endogeneity problem.

B. Descriptive Statistics and Regression Results

Table II reports industry wise distribution of observation in each year. Most of our data comes form 2 major industries (Mining and Quarrying and Automobile). Summary statistics relating to the dependent variable and explanatory variables are presented in Table III for the year 1994, 1997, 2000 and the full sample. We observe that the mean level of dividend payments

have significantly increased over the period, from 2.96% in 1994 to 3.41% in 2000. During the sample period the PBDIT (Profit before Depreciation, Interest and Tax) have remained almost stable from Rs. 27 Crores in 1994 to Rs. 33 Crores in 2000. We also find that even when the earning growth rate has been negative (-0.002%), the dividend payments have been growing at the rate of 0.47% for full sample. This trend is consistent for all the periods in the sample. This may in turn, imply that the change in dividend payments are not solely determined by the change in earnings. The mean level of foreign ownership have been decreasing from 11.73% in 1994 to 10.84% in 1997 to finally at 10.20% in 2000. Institutional investors' holding have remained more or less stable during the period form 1.91% in 1994 to 1.55% in 1997 to 1.59% in 2000, while that of directors' and corporate' have been significantly increasing. Mean level of retained profit by firms have also been reducing from 7.19 in 1994 to 5.29 in 1997 to 4.76 in 2000.

We use dividend growth as a dependent variable in this analysis inless otherwise stated. The results of the modified Linter model are shown in Table IV. Column 1 reports the result for dividend growth with time and industry dummies at 2-digit level. The coefficients of the lagged dividends are significant: first lag have negative impact while that of the second is positive. Current earnings (Ear) have positive and significant effect. In column 2, we restrict our analysis to a sample of firms without zero dividend growth. Result remains same as before while magnitude of the effect increases marginally. In column 3 and 4, we repeat the same analysis with fixed-effects panel regressions. We infer that after controlling for unobserved firm heterogeneity, lagged dividends have no explanatory power in explaining current dividends. However, if we restrict our analysis to firms without zero dividends growth, results remains unaltered. Our results provide support for the Linter Models in presence of change in dividends payout. This result is in contrast to the results of Mahapatra and Sahu (1993) but corroborates the result of Mishra and Narender (1996).

The results for the full adjustment model (FAM) are shown in Table V. Column 1 reports result with time and industry dummy at the 2-digit level. The coefficient of the earnings growth and interaction term of earnings growth with director's shareholding is positive, while the interaction term of institutional shareholding with earnings growth is negative and significant. Interaction of tax dummy with the earnings variable yields a negative and significant

coefficient. In column 2, we control for unobserved firm-effects. Here we also use an indicator dummy taking the value of one for that owner who has the maximum share-holding among the ownership groups, and zero otherwise. Our finding remains same as before in terms of institutional ownership. However, interaction of tax dummy with the earnings variable looses its significance. We also perform similar exercises with other indicator variables constructed at different levels of ownership (for example 5%, 10% and 25%). We present the result for the 25% threshold in column 3. We document that the interaction term of earnings with institutional ownership has a negative impact on dividend payout. Our result is in sharp contrast to the findings of Short, Keasey, and Duxbury (2002).

Table VI presents our findings using the partial adjustment model (PAM). Results for dividend growth with time and industry dummy at the 2-digit level is reported in column 1. The coefficient for earnings is positive and significant, while the interaction variables (earnings with different ownership shareholding), in case of institutional and corporate, are negative and significant. We also document that the coefficient of the interaction term of earnings with group firm yields a negative significant coefficient. In column 2 of Table 8, we report the results of the fixed-effect regression. Results remain the same as in case of column 1 except the fact that the coefficient associated with 'corporate' and 'group', looses their significance, while that of the 'director' enters with a negative significant coefficient. In column 3, we use an indicator dummy taking the value of one for that owner who has the maximum shareholding among the ownership groups, and zero otherwise. We obtain similar results with interaction between indicator dummies (maximum) and earnings, as in case of column 2, except 'director' looses its significance. In columns 4, 5 and 6, we use some other indicators at 5, 10, and 25% level of shareholding. In case of 5 and 10% only lagged dividend turn out to be significant with negative coefficient. In column 6, with 25% as the level for designing our indicator variable, we find similar results as in case of indicator at the maximum level (column 3). We also note that except in the first case (column 1), lagged dividends always enters with a negative significant coefficient.

The results of the modified earnings trend model (ETM) are presented in Table VII. Column 1 reports the results for dividend growth with time and industry dummy at the 2-digit level, while the results controlling for unobserved firm-effects are presented in other columns.

In column 1, the coefficient for the current earning (Ear) is positive and significant and the interaction term of 'corporate' with past earning is negative and significant. In column 2, we report the results where interaction terms are constructed using actual values of share holding and earnings. In this case the coefficient of the interaction between 'director' and 'corporate' shareholding with earning is negative and significant. As before, we also construct an indicator dummy taking the value of one for that owner who has the maximum shareholding among the ownership groups, and zero otherwise. Results (Column 3) indicate that none of the interaction terms (interaction between lagged earnings and shareholding of different owners) is significant. The results in terms of this interaction variable remains the same if we use the ownership threshold at 5%, 10% or at 25% level. Our results also indicate that past dividends has negative and significant impact on dividends growth while current earning has positive and significant impact.

The results of the Waud Model (WM) are presented in Table VIII. The results for dividend growth with time and industry dummy at the 2-digit level are reported in column 1 and that with fixed-effects in Column 2. In column 1, earning exerts a positive and significant impact, while the coefficients of the interaction terms of earnings with 'institutional', 'foreign' and 'corporate' are negative and significant. The coefficient of the second lag of the dividend variable is positive and significant. Introduction of firm-effects (Column 2) changes our result. Other than current earning and the interaction of current earning with 'institutional' shareholding, all other variable looses their significance.

In Table IX, we present the results for our proposed model. Instead of using dividends growth, here we use dividend intensity (defined as the ratio of dividends and total asset) as the dependent variable. The results with time and industry dummy at 2-digit level is reported in column 1 while that with firm specific fixed-effects is represented in other columns. The coefficient of lagged dividend intensity, earnings intensity and growth in sales intensity is positive and significant in column 1, whereas that of debt equity ratio is negative and significant. We document that none of the ownership variables are significant. Controlling for unobserved firm-effects (column 2) does not alter our results in case of earnings intensity, growth in sales intensity and debt-equity ratio. However, the impact of shareholding by the 'director' turns out to be significant and positive. The result corroborates the findings of Short, Keasey, and

Duxbury (2002). In column 3, we also try to capture the non-linear effect of ownership variables. In order to do so, we use squares of ownership variables. From column 3, we can infer that earning intensity, first lag of earning intensity, and growth in sales intensity are all positive and significant. Impact of debt-equity ratio is negative and significant. Our results in terms of ownership variable gives an interesting picture: the coefficient of 'institutional' ownership has non-linear impact on dividend intensity: negative in level and positive in squares, whereas that of 'director' and 'corporate' exert positive effect in levels and negative effect in squares. However, the square of the shareholding of the 'director' is not significant. [5] In columns 4, 5, 6 and 7 we report the regression results with indicator dummies for ownership variables. Regression results reported in Column 4 uses an indicator dummy that takes the value of one for that owner who has the maximum shareholding among the ownership groups, and zero otherwise. Our results indicate that if the shareholding by the foreign or institution is maximum then the ownership variable exerts a significant positive impact on dividend intensity. Use of indicator dummy for the ownership at other thresholds (at 5%, 10% and 25%), yields the following: in case of indicator at 5% threshold, the shareholding by the 'corporate' has positive and significant impact on dividend intensity, while in case of indicator at 25% threshold, 'institutional' shareholding has positive and significant impact.

The results from Table IX establish that the effect of ownership varies across different class of owners. In order to investigate our findings further, we use the spline specification. The results with the spline specification for the ownership variable are presented in Table X. For this analysis, we create spline at 5, 10, 25% and above and re-estimate the well-established models of dividends, namely FAM, PAM, WM and ETM. In column 1, we report the results for FAM, we find that 'foreign' has negative and significant impact, if the holding is between 10-25% and has positive and significant impact if the holding crosses the threshold limit of 25%. Negative and significant effect is obtained for the 'institutional' shareholding, if the holding lies between 10-25%, whereas in case of 'corporate' shareholding, the impact is positive and significant in case the holding is between 5-10%. In column 2, we report the results with the Partial Adjustment Model (PAM). The coefficient of the interaction term between earning and 'foreign' has positive and significant effect, if the foreign shareholding lies between 5-10%. The effect is negative and significant if their shareholding is between 10-25%

[5]The threshold for the 'institution' occurs at 17.3% while that of 'corporate' at 30.5%.

and becomes positive and significant if their holding increases beyond 25%. The shareholding of 'institutional' investor has negative impact if the holding lies between 10-25%. In case of 'corporate' shareholding, we find that they exert negative significant impact till their holding is below 5%, positive significant effect if it is between 5-10% and again negative effect if holding crosses 25%. Results with the shareholding pattern of foreign remains the same in case of Waud Model (WM, column 3). However, none of the other ownership variables are significant in case of Waud Model. The regression results for the Earning Trend Model (ETM, column 3) documents that that interaction term between first lagged value of earning and 'corporate' has negative impact if the holding is above 25%.

V. Conclusion

Our paper offers an empirical examination of the relationship between the ownership structure, corporate governance and dividend payout using a large panel of Indian corporate firms over 1994-2000. To the best of our knowledge, it is the first attempt to use the well-established dividend payout models to examine the impact of ownership structures on dividend payout policies in context of an emerging market.

We find that ownership is one of the important variables that influence the dividend payout policy. However, the relationship is different for different class of owners and at different levels. This suggests that the ownership structure does not influence dividend pay out policy of the firm uniformly. The results support the hypothesis that the interest alignment between different classes of owners influences the dividend payout policy.

Further research may extend the present use of dividend payout models to examine the influence of ownership identity in case of other emerging economies. Examining the influence of board structure on dividend payout policy would be an interesting exercise, however, this is left for future research.

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Table I: List of Variables

Abbreviation	Description
Dividends Payout (Div)	Dividend is the total amount of dividend paid per share in the accounting year. Since in India, mostly dividends are paid annually (not quarterly), we construct our variable on basis of yearly dividend payments per share.
Dividend Intensity (Div Int)	Defined as the ratio of the dividends payments to total assets.
Foreign	Foreigners' Share Holding is equity held by foreigners as percentage of total equity shares. These include foreign collaborators, foreign financial institutions, foreign nationals and non-resident Indians.
Institutional	Governments' and Financial Institutions' Share Holding is shares held by government companies as percentage of total equity shares. These includes insurance companies, mutual funds, financial institutions, banks, central and state government firms, state financial Corporations and other government bodies.
Corporate	Corporates' Share Holding is equity held by Corporate bodies as a percentage of total equity shares. These include corporate bodies excluding those already covered.
Director	Directors' Share Holding is equity held by Directors of the firm as defined in section 6 of the Companies Act, 1956., which includes the shares held by the family members (or the persons acting in concern) of the director.
Earnings (Ear)	We use net profit of the firm as the earning for the year. This is the revenue available to a firm for the distribution of the shareholders.
Earnings Growth (EG)	Earnings growth is calculated as the percentage increase in the current earnings from the past earnings.
Earnings Intensity (Ear Int)	Defined as the ratio of the net profit to total assets of the firm.
Group Dummy	This dummy takes the value of 1 if the firm belongs to a business group, 0 otherwise.
Tax Dummy	This dummy takes the value of 1 for the period before 1997, and 0 otherwise to indicate the change in the pattern of tax on dividends. Prior to the year 1997, dividends were taxed in the hands of the investor (receiver), whereas, from 1997 onwards dividend tax is deducted by the firm at the source.
Debt-Equity Ratio	Defined as the ratio of total debt to the equity capital of the firm, to measure the leverage.
Sales Intensity (Sale Int)	Defined as the ratio of the gross sales to total assets of the firm.
Growth in Sales Intensity	Calculated as the percentage increase in the current year from the past year.

Table II

Data structure for SIC-1 digit Industry code

SIC-1 Digit	1994	1995	1996	1997	1998	1999	2000	Total
1-Mining and Quarrying	42	107	202	194	290	143	297	1275
2-Automobile	114	203	407	458	635	336	607	2760
3-Machinery	29	49	111	130	179	90	177	765
4-Electricity, Gas and Construction	14	14	14	4	11	8	9	74
5-Wholesale and Retail Trade	10	10	10	10	10	10	10	70
6-Transport, Storage and Communications	0	0	2	0	0	0	0	2
7-Computer and Related Activities	0	9	18	15	31	29	51	153
9-Diversified	7	10	19	23	33	12	21	125
Total	196	382	764	825	1179	612	1160	5224

Table III: Summary statistics for year 1994, 1997, 2000 and Full Sample

Variable	Mean	Std.Dev.	Median	Mean	Std.Dev.	Median	Mean	Std.Dev.	Median	Mean	Std.Dev.	Median
Year		1994			1997			2000			Full	
Observations		197			843			1195			5224	
Dividends	2.959	9.717	0.000	2.809	13.953	0.000	3.407	19.35	0.000	3.127	19.71	0.000
Dividend Growth				0.466	4.441	0.000	.723	4.1	0.000	0.466	6.77	0.000
Earnings Growth				−3.092	18.235	−0.234	−0.267	30.766	0.01	−0.001	22.089	0.019
Net Profit	10.480	29.842	1.92	8.342	54.317	0.709	8.349	87.743	0.41	8.823	66.091	0.839
Foreign	11.725	16.383	4.54	10.842	15.978	3.95	10.201	17.525	1.679	10.866	16.657	3.495
Institutional	1.913	5.907	0.000	1.55	4.673	0.000	1.594	4.882	0.000	1.705	5.224	0.000
Director	12.235	15.552	4.86	17.483	18.665	11.57	17.633	20.207	10.36	17.25	19.162	10.575
Corporate	24.163	18.777	21.2	25.517	19.679	22.440	29.827	24.401	25.73	26.132	20.936	22.384
Debt-Equity Ratio	.832	5.519	0.975	1.009	8.154	0.86	1.11	54.556	0.72	3e+12	2e+14	0.82
Retained Profit	7.185	22.055	1.28	5.297	41.833	0.460	4.758	71.151	0.23	5.463	50.665	.5199
Equity Capital	14.714	26.068	5.63	14.642	33.254	6.05	19.587	62.379	6.30	16.725	48.038	6.139
Total Borrowings	81.592	228.223	14.95	86.027	365.096	14.22	109.733	484.86	15.04	95.11	393.955	15.245
Total Assets	209.712	498.332	49.189	212.886	862.240	39.380	280.485	1200.649	48.549	237.901	939.263	45.175
Sales	176.253	417.541	42.599	162.664	494.212	36.029	207.746	793.708	43.599	179.661	613.328	40.75
PBDIT	27.402	64.004	6.92	27.381	101.007	4.469	32.961	172.237	4.04	28.902	123.62	4.76

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Table IV

Linter Model with Time, Industry and Firm Dummies

ΔDiv_{it}	(1)	(2)	(3)	(4)
Ear	0.022	0.102	0.024	0.161
	(0.000)**	(0.000)**	(0.112)	(0.001)**
Dividend Lag1	-0.119	-0.579	-0.097	-1.007
	(0.030)*	(0.005)**	(0.380)	(0.000)**
Dividend Lag2	0.087	0.287	-0.090	0.330
	(0.039)*	(0.106)	(0.289)	(0.050)+
Group	0.178	0.170		
	(0.044)*	(0.843)		
Tax Dummy		0.028		
		(0.989)		
Observations	1170	367	1170	367
R-squared	0.236	0.479	0.661	0.840
Prob > F : Industry Effect	0.45	0.00		

Numbers in parentheses are p-values of t-statistics. Standard Errors are robust to heteroscedasticity.
Intercept term is used in the regression but not reported here. + significant at 10%; * significant at 5%; ** significant at 1%.

Table V

Regression Results for Full Adjustment Model (FAM)

ΔDiv_{it}	(1)	(2)	(3)
EG	0.082	0.064	0.034
	(0.000)**	(0.008)**	(0.145)
EG*Institutional	-0.040	-0.053	-0.033
	(0.001)**	(0.000)**	(0.050)*
EG*Director	0.036	-0.005	0.004
	(0.105)	(0.762)	(0.784)
EG*Foreign	0.016	-0.019	0.019
	(0.378)	(0.316)	(0.410)
EG*Corporate	-0.013	-0.027	-0.003
	(0.389)	(0.182)	(0.885)
EG*Group	-0.015	-0.010	-0.003
	(0.347)	(0.637)	(0.870)
EG*Tax	-0.037	-0.004	0.001
	(0.008)**	(0.785)	(0.928)
Observations	2013	2013	2013
R-squared	0.208	0.633	0.633
Prob > F : Time Effect	0.13	0.34	0.20

Numbers in parentheses are p-values of t-statistics. Standard Errors are robust to heteroscedasticity.
Intercept term is used in the regression but not reported here. + significant at 10%; * significant at 5%; ** significant at 1%.

Table VI

Regression Results of Partial Adjustment Model (PAM)

ΔDiv_{it}	(1)	(2)	(3)	(4)	(5)	(6)
Ear	0.062	0.093	0.071	0.044	0.045	0.056
	(0.000)**	(0.001)**	(0.002)**	(0.085)+	(0.082)+	(0.016)*
Ear*Institutional	-0.028	-0.001	-0.053	-0.002	0.002	-0.041
	(0.000)**	(0.004)**	(0.000)**	(0.890)	(0.926)	(0.000)**
Ear*Director	-0.005	-0.001	-0.028	-0.018	-0.007	-0.017
	(0.616)	(0.063)+	(0.154)	(0.254)	(0.690)	(0.335)
Ear*Foreign	-0.009	-0.001	-0.020	0.022	0.012	-0.006
	(0.119)	(0.303)	(0.206)	(0.143)	(0.307)	(0.519)
Ear*Corporate	-0.025	-0.001	-0.015	0.003	0.008	0.009
	(0.000)**	(0.120)	(0.301)	(0.848)	(0.593)	(0.381)
Ear*Group	-0.021	-0.023	-0.024	-0.029	-0.028	-0.027
	(0.039)*	(0.310)	(0.270)	(0.172)	(0.176)	(0.229)
Ear*Tax	-0.015	0.007	0.007	0.005	0.005	0.013
	(0.066)+	(0.389)	(0.356)	(0.509)	(0.505)	(0.290)
Dividend Lag1	0.011	-0.269	-0.268	-0.274	-0.269	-0.291
	(0.603)	(0.001)**	(0.001)**	(0.001)**	(0.001)**	(0.001)**
Observations	2013	2013	2013	2013	2013	2013
R-squared	0.304	0.677	0.676	0.672	0.668	0.675
Prob > F : Time Effect	0.08	0.67	0.57	0.70	0.63	0.53

Numbers in parentheses are p-values of t-statistics. Standard Errors are robust to heteroscedasticity.
Intercept term is used in the regression but not reported here. + significant at 10%; * significant at 5%; ** significant at 1%.

Table VII

Regression Results of Earnings Trend Model (ETM)

ΔDiv_{it}	(1)	(2)	(3)	(4)	(5)	(6)
Ear	0.026	0.045	0.043	0.038	0.040	0.045
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Ear Lag1	0.017	0.020	-0.016	-0.037	-0.030	-0.025
	(0.243)	(0.523)	(0.513)	(0.250)	(0.301)	(0.313)
Ear Lag1*Institutional	-0.005	0.000	0.028	0.002	0.024	0.040
	(0.633)	(0.659)	(0.334)	(0.908)	(0.217)	(0.135)
Ear Lag1*Director	-0.008	-0.001	-0.033	-0.025	-0.029	-0.021
	(0.525)	(0.009)**	(0.133)	(0.156)	(0.132)	(0.241)
Ear Lag1*Foreign	-0.009	-0.001	-0.015	0.012	0.005	-0.013
	(0.203)	(0.129)	(0.421)	(0.478)	(0.729)	(0.263)
Ear Lag1*Corporate	-0.026	-0.001	-0.011	0.019	0.016	0.004
	(0.001)**	(0.055)+	(0.524)	(0.303)	(0.393)	(0.730)
Ear Lag1*Group	-0.010	-0.001	0.007	0.003	-0.001	0.003
	(0.349)	(0.978)	(0.748)	(0.894)	(0.967)	(0.895)
Ear Lag1*Tax	-0.012	0.012	0.012	0.007	0.008	0.018
	(0.156)	(0.175)	(0.202)	(0.543)	(0.490)	(0.157)
Dividend Lag1	0.036	-0.234	-0.245	-0.255	-0.245	-0.257
	(0.118)	(0.004)**	(0.003)**	(0.004)**	(0.005)**	(0.003)**
Observations	2013	2013	2013	2013	2013	2013
R-squared	0.304	0.676	0.670	0.668	0.671	0.674
Prob > F : Time Effect	0.08	0.79	0.73	0.80	0.76	0.67

Numbers in parentheses are p-values of t-statistics. Standard Errors are robust to heteroscedasticity.
Intercept term is used in the regression but not reported here. + significant at 10%; * significant at 5%; ** significant at 1%.

Table VIII

Regression Results of Waud Model (WM)

ΔDiv_{it}	(1)	(2)
Ear	0.046	0.094
	(0.001)**	(0.023)*
Ear*Institutional	-0.037	-0.058
	(0.000)**	(0.060)+
Ear*Director	-0.006	-0.042
	(0.408)	(0.197)
Ear*Foreign	-0.014	-0.050
	(0.042)*	(0.143)
Ear*Corporate	-0.031	-0.018
	(0.000)**	(0.585)
Ear*Group	-0.008	-0.045
	(0.413)	(0.221)
Ear*Tax	-0.004	0.006
	(0.669)	(0.426)
Dividend Lag1	-0.037	-0.166
	(0.183)	(0.095)+
Dividend Lag2	0.040	-0.068
	(0.040)*	(0.479)
Observations	1170	1170
R-squared	0.346	0.690
Prob > F : Time Effect	0.16	0.51

Numbers in parentheses are p-values of t-statistics. Standard Errors are robust to heteroscedasticity.
Intercept term is used in the regression but not reported here. + significant at 10%; * significant at 5%; ** significant at 1%.

Table IX

Regression Results of Proposed Model (PM)

$Div\ Int_{it}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Div Int Lag1	0.457	-0.003	-0.012	-0.003	-0.006	0.001	-0.008
	(0.000)**	(0.952)	(0.819)	(0.952)	(0.917)	(0.985)	(0.882)
Ear Int	0.101	0.070	0.070	0.071	0.070	0.071	0.071
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Ear Int Lag1	-0.015	0.016	0.017	0.014	0.016	0.016	0.015
	(0.076)+	(0.139)	(0.086)+	(0.207)	(0.124)	(0.136)	(0.177)
Debt Equity	-0.001	-0.002	-0.003	-0.002	-0.003	-0.003	-0.003
	(0.000)**	(0.018)*	(0.002)**	(0.018)*	(0.008)**	(0.012)*	(0.012)*
Sales Int Growth	0.007	0.004	0.004	0.004	0.004	0.004	0.004
	(0.000)**	(0.008)**	(0.005)**	(0.013)*	(0.013)*	(0.010)*	(0.013)*
Foreign	-0.000	-0.000	0.000	0.002	-0.001	-0.001	0.002
	(0.884)	(0.976)	(0.709)	(0.067)+	(0.448)	(0.321)	(0.111)
Institutional	0.000	-0.000	-0.001	0.007	-0.002	-0.003	0.005
	(0.917)	(0.588)	(0.069)+	(0.004)**	(0.351)	(0.327)	(0.001)**
Director	0.000	0.000	0.000	0.003	0.003	0.002	0.003
	(0.999)	(0.075)+	(0.055)+	(0.147)	(0.123)	(0.368)	(0.117)
Corporate	0.000	0.000	0.000	0.001	0.003	0.001	0.001
	(0.369)	(0.304)	(0.052)+	(0.294)	(0.069)+	(0.443)	(0.145)
Foreign^2			-0.000				
			(0.575)				
Institutional^2			0.000				
			(0.032)*				
Director^2			-0.000				
			(0.166)				
Corporate^2			-0.000				
			(0.053)+				
Group Dummy	-0.002						
	(0.005)**						
Tax Dummy	-0.001						
	(0.602)						
Observations	753	753	753	753	753	753	753
R-squared	0.662	0.905	0.908	0.905	0.907	0.905	0.905
Prob > F : Time Effect	0.02	0.54	0.48	0.49	0.54	0.58	0.42

Numbers in parentheses are p-values of t-statistics. Standard Errors are robust to heteroscedasticity.
Intercept term is used in the regression but not reported here. + significant at 10%; * significant at 5%; ** significant at 1%.

Table X: Regression Results of the Spline Specification with Max Indicator

ΔDiv_{it}	(1)	(2)	(3)	(4)
EG	0.054			
	(0.449)			
EG*Foreign(..,5)	-0.003			
	(0.708)			
EG*Foreign(5,10)	0.008			
	(0.383)			
EG*Foreign(10,25)	-0.004			
	(0.004)**			
EG*Foreign(25,..)	0.003			
	(0.014)*			
EG*Director(..,5)	0.007			
	(0.325)			
EG*Director(5,10)	-0.008			
	(0.440)			
EG*Director(10,25)	0.002			
	(0.568)			
EG*Director(25,..)	-0.000			
	(0.920)			
EG*Institutional(..,5)	0.010			
	(0.206)			
EG*Institutional(5,10)	-0.004			
	(0.559)			
EG*Institutional(10,25)	-0.004			
	(0.065)+			
EG*Institutional(25,..)	-0.001			
	(0.651)			
EG*Corporate(..,5)	-0.013			
	(0.395)			
EG*Corporate(5,10)	0.009			
	(0.090)+			
EG*Corporate(10,25)	-0.001			
	(0.648)			
EG*Corporate(25,..)	-0.000			
	(0.828)			
Ear		0.097	0.084	0.040
		(0.010)**	(0.109)	(0.000)**
Ear*Foreign(..,5)		-0.002	-0.007	
		(0.632)	(0.330)	
Ear*Foreign(5,10)		0.013	0.016	
		(0.012)*	(0.027)*	

Ear*Foreign(10,25)	-0.005	-0.007	
	(0.003)**	(0.000)**	
Ear*Foreign(25,..)	0.002	0.003	
	(0.048)*	(0.000)**	
Ear*Director(..,5)	0.004	0.007	
	(0.550)	(0.449)	
Ear*Director(5,10)	-0.005	-0.002	
	(0.581)	(0.850)	
Ear*Director(10,25)	0.001	0.002	
	(0.659)	(0.582)	
Ear*Director(25,..)	-0.001	-0.001	
	(0.453)	(0.323)	
Ear*Institutional(..,5)	0.000	-0.005	
	(0.930)	(0.495)	
Ear*Institutional(5,10)	0.002	0.011	
	(0.698)	(0.327)	
Ear*Institutional(10,25)	-0.003	-0.005	
	(0.079)+	(0.178)	
Ear*Institutional(25,..)	-0.001	-0.000	
	(0.354)	(0.828)	
Ear*Corporate(..,5)	-0.017	-0.011	
	(0.018)*	(0.166)	
Ear*Corporate(5,10)	0.007	0.002	
	(0.074)+	(0.728)	
Ear*Corporate(10,25)	-0.001	0.001	
	(0.778)	(0.725)	
Ear*Corporate(25,..)	-0.001	-0.001	
	(0.077)+	(0.440)	
Dividend Lag1	-0.307	-0.227	-0.238
	(0.000)**	(0.006)**	(0.004)**
Dividend Lag2		-0.067	
		(0.341)	
Ear Lag1			0.008
			(0.856)
Ear Lag1*Foreign(..,5)			-0.003
			(0.620)
Ear Lag1*Foreign(5,10)			0.008
			(0.177)
Ear Lag1*Foreign(10,25)			-0.003
			(0.108
Ear Lag1*Foreign(25,..)			-0.000
			(0.966)
Ear Lag1*Director(..,5)			0.003

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				(0.593)
Ear Lag1*Director(5,10)				-0.011
				(0.221)
Ear Lag1*Director(10,25)				0.003
				(0.330)
Ear Lag1*Director(25,..)				-0.000
				(0.719)
Ear Lag1*Institutional(..,5)				-0.005
				(0.464)
Ear Lag1*Institutional(5,10)				0.006
				(0.555)
Ear Lag1*Institutional(10,25)				-0.001
				(0.769)
Ear Lag1*Institutional(25,..)				0.001
				(0.433)
Ear Lag1*Corporate(..,5)				-0.008
				(0.401)
Ear Lag1*Corporate(5,10)				0.006
				(0.137)
Ear Lag1*Corporate(10,25)				0.001
				(0.780)
Ear Lag1*Corporate(25,..)				-0.001
				(0.049)*
Observations	2013	2013	1170	2013

Numbers in parentheses are p-values of t-statistics.

Standard Errors are robust to heteroscedasticity.

Intercept term is used in the regression but not reported here.

+ significant at 10%; * significant at 5%; ** significant at 1%.