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Corporate Dividend Policy in India: *Do Regulated and Unregulated Firms Behave Differently?*

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Abstract

The cross-sectional trends in dividends are investigated at an aggregate level of ownership (*i.e.* closely/largely held and regulated firms), and at disaggregate level across 20 industries to examine how Indian Private Corporate Sector appropriated its profits over 1961-2007 periods. Alternatively it is examined whether internal funds are a significant source of finance and the dynamics of relation between dividends relative to earnings across type of companies and industries. It is found that Indian corporate sector pays relatively more equity dividends than preference dividends. Other things being equal, the probability of paying cash dividends decreases with share holder concentration and the regulated companies pay relatively larger dividends. Dividend payouts for all type of firms have declined, and such tendency is more pronounced after liberalization periods indicating a greater choice of internal financing through retained earnings. The analysis of inter-corporate and inter-industry variations reveals that dividends interplays differently with exogenous factors.

Keywords: Dividend Policy, India, Private Corporate Sector, Public and Private Limited Companies, Regulated Industry, Ownership Effect, Industry Cross-section.

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Introduction

The prior researches on relationship between industry and dividend policies are mostly focused on dividend behavior of public limited and non-financial corporations with reference to developed capital markets alone. Academic work analyzing variation of dividends across industry groups and over time in the emerging market context is rare while the issues relating dividend behavior among regulated industries lie grossly under-researched. The study by Dhrymes and Kurz (1964) on dividends of electric utilities is one of the foremost in this regard while other studies exclude regulated firms (Finance, Investment and Utility firms) from their analysis with the common explanation that, the regulators directly or indirectly dictate how much dividends the firm can pay {see Saxena (1993, 1999)} while Moyer *et. al.*, (1992) find that the dividend policies of the regulated firms respond to changes in policies adopted by regulatory commission.

Present study is an attempt to fill the gap and investigates empirically, cross-sectional trends and specific shifts in corporate dividend patterns in India over the last four decades. The evidence and plausible explanations of changing dividend behavior and their earnings at an aggregate ownership; *i.e.* closely / largely held and regulated firms, are presented. Specifically it is looked at the extent to which a firm's observed dividend policy is similar to others across ownership types (Public Limited, Private Limited and Finance / Investment Companies in India, hereafter referred to as PLCs, PVLCs and FINCs respectively).

The focus is on providing extensive cross-sectional description on how Indian corporate sector firms in general have appropriated their profits over the period 1960-61 through 2006-2007 periods. Alternatively it is examined whether internal funds are a significant source of finance. Also a look is taken at the relationship between dividend payments to equity and preference share holders relative to earnings across firms. A cross-sectional time-trend analysis is conducted to specifically answer the following questions; Does the trend in cash dividend payments differ across Public, Private and Investment companies? What are the variations over period of time and specifically after the post-reform

periods? and whether they retain their relative position over time and does the analysis of the dividend payment support the pecking order and the dividend smoothening hypothesis?

2. Data and Methods

2.1 Date Source

For purpose of analysis the data from Reserve Bank of India (RBI) emerging from two different dataset compilations is extensively used. Firstly the published data compendium by on the 'Private Corporate Business Sector in India - Selected Financial Statistics from 1950-51 to 1997-98 (All Industries)', and secondly the published compendium on 'Selected Financial Statistics on Public Limited Companies 1974-75 to 1999-2007 (Selected Industries)' consisting of industry level data. In order to determine the differences in cash dividend and earnings behavior of the (PLCs), private limited (PVLCs) and finance companies (FINCs), we use the former source consisting data from 1950-51 to 1997-98 and various issues of the RBI bulletins to cover data for the balance periods on above three sub-sectors, at an all industry level. The average number of firms in sample, along with study year from which they are drawn is appended in table 1 (in Appendix).

2.2 Data Definitions

The variable size of earnings (SZEAR) is defined as total net profit after taxes after accounting for preference dividends is used as the earnings measure for equity dividends whereas profits after taxes (PAT) is the earnings measure for preference dividends. Both the earnings measures represent the profits available for appropriation to the share holders and preference holders respectively. Equity dividend payout ratio (EDPOR) and preference dividend payout ratio (PDPOR) is therefore given by total equity dividend (EQDIV) and preference dividend (PRFDIV) at the end of the year divided by SZEAR and PAT respectively. The equity return (EQRET) and preference return (PRFRET) are a function of respective dividends by the book value of the respective share capital, where the book value of shares includes bonus shares and shares issued for consideration other than cash.

2.3 Data Classification

The cash dividend behavior relating PLCs, PVLCs, and the FINCs for all firms in dataset and the time period under consideration is forty-three years, 1961 through 2007 whereas the industry effects relating PLCs are analyzed for all the firms in the dataset for twenty-five years, 1976 through 2007. We divide the entire time-period into pre-reform

period: 1961-1992 and 1976-1992 and the post- reform period 1993-2007 and 1993-2007 respectively, to capture the effect of policy break on the dividend decisions of firms. For the purpose of analysis of trends we consider only cash dividends (total dividends). The descriptive statistical tools are primarily used for analyzing the cross-sectional data. Annual sub-period averages across every five year period are computed to depict their changing behavior of dividends in the pre/post-reform and the full period.

2.4 Data Distribution

In order to compare the sub-group means across the cross section and over time we use non-parametric techniques for they do not assume equal variances. The Shapiro-Wilk *(S-W)* and Levene's Robust tests are calculated to detect normality and homogeneity of variance respectively. *S-W* test hypothesizes that the data are normally distributed, and a low significance value indicate that the distribution of the data differs significantly from a normal. The Levene statistic tests hypothesis of equality of variance of the dependent variable for groups defined by categorical factor variables and is an alternative to the Bartlett test that is less sensitive to departures from normality. This tests the null hypothesis of equality of variance of the dependent variable for groups defined by categorical factor variables. The Kruskal Wallis-H (*KW-H)* test for several independent samples is used to detect the differences in distribution location, is an extension of Mann-Whitney *U* test and a nonparametric alternative to one-way *ANOVA*. In the *KW-H* test, the scores are ranked without regard to group membership. If the groups do not differ, the mean ranks will be similar to each other.

2.4 Model Specifications

The instantaneous growth rate, compounded annual growth rate (CAGR) and the linear trend are computed using semi-log (*log-lin)* and Linear trend model respectively for the full time period, pre and post-liberalization period are computed. The instantaneous (constant) growth and the CAGR's are given as follows.

$$\ln Y_t = \beta_1 + \beta_2 t + u_t \quad \ldots(1)$$

From equation 1 where the *X* variable is time, we compute the constant percentage over the full period, (100. β_2) *rate of growth* (if $\beta_2 > 0$) or *rate of decay* (if $\beta_2 < 0$) in the variable *Y* and the CAGR, over time is computed as

$= (\ln \beta_2 - 1)$. 1 ……...……...……...…(2)

To test for structural stability of regression model break due liberalization, we use simplest form of dummies to distinguish the pre-reform (pre-1992) and the post-reform (post 1993) period. This equation using the dummy variable approach unlike the Chow test pinpoints the source(s) of difference the intercept or the slope, or both in the two periods as under.

$\ln Y_i = \alpha_1 + \alpha_2 D_i + \beta_1 X_i + \beta_2 (D_i X_i) + u_i$ ……...……...…(3)

Where X_i and Y_i records time and the independent variable under study respectively. D_1 equals one for observations in the pre-reform period and zero for observations in the post reform period. α_2 is the differential intercept and β_2 is the differential slope coefficient indicating how much the slope coefficient of the first period differs from the slope coefficient of the second period. The introduction of the dummy variable *D* in the multiplicative form *(D* multiplied by *X)* enables to differentiate between slope coefficients of two periods.

Assuming that $E(u_i) = 0$, we obtain

$E(Y_i | D_i=1, X_i)=(\alpha_1 + \alpha_2) + (\beta_1 + \beta_2) X_i$ ……...……...…...(4)

$E(Y_i | D_i=0, X_i)=\alpha_1 + \beta_1 X_i$ ……..(5)

which are, respectively, the mean functions for pre-reform and post-reform periods and can be used to test the following hypothesis: If the differential intercept coefficient α_2 is significant, but differential slope coefficient β_2 is statistically insignificant we may at least not reject the hypothesis that the two regressions have the same slope (the two regressions differ only in the intercepts) that is, two regressions are parallel. If both, the differential intercept α_2 and the differential slope coefficient β_2 is statistically significant, indicates that the two regressions are completely different, dissimilar. If differential intercept α_2 and differential slope coefficient β_2 are insignificant, then both regressions are coincident and if the differential intercept coefficient α_2 is statistically insignificant and β_2 is statistically significant, we may accept the hypothesis that the two regressions have the same intercept that is the two regressions are concurrent.

The time trend for the full period and for the pre-reform and the post–reform period using dummies are computed using the following linear trend models respectively.

$Y_t = \beta_1 + \beta_2 t + u_t$ ……...(6)

$$Y_i = \alpha_1 + \alpha_2 D_{2i} + \beta_2 t + u_i \quad \text{.....(7)}$$

Where *t* is variable *X* representing the time period and *Y is* the variable under study. D_i equals 1 to represent the pre-liberalization period whereas equals 0 to represent the post-liberalization period.

Assuming that $E(u_i) = 0,$ we obtain the following mean functions for the two periods as under

$$E(Y_i|X_i, D_i=1) = (\alpha_1 + \alpha_2) + \beta_1 X_i \quad \text{……..…....…(8)}$$

$$E(Y_i|X_i, D_i=0) = \alpha_1 + \beta_1 X_i \quad \text{……...…..……...…(9)}$$

3. Results and Interpretations

The results are presented to document the Ownership and Regulated Industry effects.

3.1 Dividend Returns

The descriptive statistics across the PLCs, the PVLCs and FINCs relating the dividend returns over time are presented in table 2 above. For all periods the average equity dividend return with a range of 7-14 % earned by equity holders is twice that of preference holders, across all type of companies. However the variability in case of preference return is lower in all quinquenniums indicating relatively higher stability compared to equity return. Share holders of PLCs gained higher returns in post-reform periods compared to the former. Across all type of companies, the equity and the preference dividend returns in the post-reform period has declined compared to pre-reform periods. For post-reform period the equity return for PLCs increase significantly by 7%. The equity and preference return of PLCs followed by that of PVLCs and the highly regulated, FINCs are largest across both sub-periods and also in the full period under study.

Table 2 Descriptive Statistics Relating Return and Payout Percentages by Indian Joint Stock Companies, Year Ending 1976-2007

Statistics	Equity Dividend Return			Preference Dividend Return		
	PLCs	PVLCs	FINCs	PLCs	PVLCs	FINCs
Pre-Reform period (1961-1992)						
Mean	12.00	7.38	7.40	7.35	3.74	4.66
Median	11.52	6.79	7.12	7.09	3.44	4.84
St. Dev	2.48	2.52	2.21	1.10	1.43	0.90
Post-Reform period (1993-2007)						

Mean	18.71	7.02	8.88	4.95	2.33	3.60
Med.	17.72	6.82	6.20	4.46	1.26	3.32
StDev.	2.39	1.70	4.62	1.72	2.39	1.72
Full period (1961-2007)						
Mean	13.72	7.29	7.78	6.73	3.38	4.36
Med.	12.60	6.82	7.02	6.93	3.18	4.79
StDev.	3.83	2.33	3.02	1.65	1.81	1.27

Source and Notes: Same as in Table 1.

3.1 Dividend Payout Ratios

The descriptive statistics across the PLCs, the PVLCs and FINCs relating the dividend payout ratio over time are presented in table 3 and reveal interesting facts.

Table 3 Descriptive Statistics Relating Payout Percentages by Indian Joint Stock Companies, Year Ending 1976-2007

Statistics	**Equity Dividend Payout Ratio**			**Preference Dividend Payout Ratio**		
	PLCs	**PVLCs**	**FINCs**	**PLCs**	**PVLCs**	**FINCs**
Pre-Reform period (1961-1992)						
Mean	53.03	50.41	54.87	3.22	1.66	3.32
Med.	55.50	46.50	47.49	3.00	1.50	2.79
StDev.	13.20	42.45	21.89	2.11	1.66	2.26
Post-Reform period (1993-2007)						
Mean	42.36	28.00	134.97	0.82	0.45	11.41
Med.	43.00	23.00	49.78	1.00	0.00	3.97
StDev.	12.43	13.01	222.49	0.75	0.52	18.61
Full period (1961-2007)						
Mean	50.30	44.67	75.36	2.60	1.35	5.66
Med.	51.00	35.00	49.22	2.00	1.00	3.01
StDev.	13.70	38.32	115.72	2.13	1.54	10.54

Source: Same as in Table 1.

Over other two types of companies, FINCs pay relatively a larger proportion of their respective earnings (75 and 6% of SZEAR and PAT respectively) to their equity and preference holders in the entire period. This tendency remains unchanged through the pre-reform and post-reform period as well. A positive effect aftermath the structural break period is noted in FINCs payout decisions, as they significantly increase their equity payout percentage by 145 %, from 55 to 135 % in the preceding sub-period. Broadly in sub-period 1993-2007, conservative dividend payout policy is followed by the Indian joint stock

companies. The PLCs and the PVLCs following a conservative payout policy indicate a greater choice of internal financing through retained earnings, thereby significantly reducing their equity and preference dividend payouts after reform periods. Such conservatism is more pronounced in the PVLCs in relation to PLCs as their equity payout percentages decrease by 44 % compared to 20 %. Thus though Indian joint stock companies (across closely-held as well as the widely-held firms) demonstrate the tendency of decreasing dividends and such pattern is distinct in case of closely-held firms than their widely-held counterparts. Specifically, the results suggest retention ratios of public and the private limited companies have significantly improved aftermath reforms. Thus it may be safely said that the private corporate sector has become adequately self reliant in respect of financing its own need after reform periods, suggesting the tenets of the pecking order. Contrary, the regulated firms (finance companies) demonstrate a relatively poor corporate savings performance in India.

3.3 Variations in Nominal Rupee Values

Table 4 (in appendix) reports that the SZEAR and PAT increase substantially in all quinquenniumsa as the results based on table 2 and 3 may hide substantial information, for inter-period variations within 1993-2007 periods are not accounted for. The absolute average rupee value of earnings available to equity and preference holder using five year data each commencing 1961 are therefore analyzed. It is also evident that the average rupee values of equity dividend paid by the Indian joint stock companies' increase consistently in each successive quinquenniums, while preference dividends widely vary during the 1961-2007 period. Across all the three types of companies, the PLCs and the PVLCs are found to make relatively large and (low) aggregate nominal rupee equity dividend payments in full period whereas on the preference front larger absolute values of rupee dividends are paid by the FINCs, both in the post-1991 and the full period. The impressive average earning by PVLCs by 277% in last three year period compared to preceding quinquenniums is responsible for the aggregate averages for all type of companies to exceed preceding quinquenniums averages of total aggregate earnings of Indian joint stock companies. But the absolute increase in the total average earnings of all types of companies put together don't translate in form of higher dividend payouts because of decrease in equity dividend payout percentage by FINCs by 33% to 133%, from 200% in the last sub-period compared to the preceding. Thus the aggregate equity payout percentage for all three types of companies in the last sub-period fall by 12% compared to the preceding quinquennium. This decrease in equity payout percent is contrary

to the fact that the individual average payout ratios of PLCs and PVLCs rise from 39 to 54% and 24 to 44% in the sub-period 2001-2007 compared to that of 1996-2007 respectively. Thus it seems that there are signs that tendency of decreasing dividends is reversing in case of PLCs and PVLCs in recent periods, specifically in post-2007 periods.

3.4 Variations in Relative Growth Rates

The instantaneous (constant) growth, the compound growth and the linear trend through the pre-reform, post-reform, and the full period (1961-2007) are presented in table 5 (in appendix). The instantaneous growth rate measures the growth in a given variable at a point in time, CAGR over a period of time, whereas the linear trend model measures the sustained absolute upward or downward movement in the behavior of a given variable. The annual growth rates of the dividend return on shares (equity and preference) register a downward trend across all types of companies in the post-reform period. Over the full period, the CAGR of rupee value of equity dividend paid by FINCs larger (16%) than that of PLCs and PVLCs (12 and 6%), and thus ranks highest in relative ranking in table 6. The CAGR of the rupee value of equity dividends paid PVLCs significantly increase from 0.70 percentage points to 35% in the post-reform period.

Adopting the technique of dummy variable using a single regression model over the Chow test we test whether the mean parameter of the dividend function has changed in the two periods. We find that the differential intercept and the differential slope coefficient are both statistically significant and may accept the hypothesis that the regressions for both the periods are completely different (Dissimilar). Similarly, preference dividend payment of the PVLCs also record a highest annual growth rate of 43% in the post-reform period compared to the lowest growth rate it had in the pre-reform period. The growth rates of the annual equity and preference dividend payout percentage growth rates appended in table 4 measured in constant and compounded terms are negative (indicating a rate of decay) in the full period across all types of companies owing to the larger negative and statistical significant growth coefficients in the pre-reform period. The same dividend payout coefficients improve significantly in the post-reform period. FINCs for example, register the largest relative CAGR in case of equity and preference dividend payout percentages compared to other two types of companies, by recording an impressive 22 and 62% growth after the structural break period from the rate of decay with 4 and 10% before the break, respectively.

3.4 Variations in Relative Ranks

The relatively changing ranks across type of companies having highest (lowest) dividend payments and dividend return in the same period are comparatively analyzed in table 6.

Table 6 Relative Ranks based on Absolute and CAGR of Equity and Preference Dividend Measures by Indian Joint Stock Companies, 1976-2007

Period	1961-1992			1993-2007			1961-2007		
Type	PLC's	PVLC's	FINC's	PLC's	PVLC's	FINC's	PLC's	PVLC's	FINC's
Absolute Aggregate based Ranks									
EQDIV	1	2	3	1	3	2	1	2	3
PRFDIV	1	2	3	2	3	1	1	3	2
EQRET	1	2	3	1	3	2	1	2	3
PRFRET	1	3	2	1	3	2	1	3	2
SZEAR	1	2	3	1	3	2	1	2	3
PAT	1	2	3	1	3	2	1	2	3
EDPOR	2	3	1	2	3	1	2	3	1
PDPOR	2	3	1	2	3	1	2	3	1
CAGR based Ranks									
EQDIV	1	3	2	2	1	3	2	3	1
PRFDIV	2	3	1	2	1	3	2	3	1
EQRET	1	3	2	2	1	3	1	3	2
PRFRET	1	3	2	2	3	1	1	3	2
SZEAR	2	3	1	2	1	3	2	3	1
PAT	2	3	1	2	1	3	2	3	1
EDPOR	1	2	3	3	2	1	2	3	1
PDPOR	2	1	3	2	3	1	3	2	1

Note: 1=Highest, **3**=Lowest Rank **Source:** Same as in Table 4.

The relative ranking show that PLCs continue to retain its position as highest dividend payer and also yield the highest dividend return on equity and preference share across both sub-periods (pre and post-reform period) and the entire period under consideration, but when relatively ranked from highest to lowest across type of companies in terms of CAGR of equity dividend payments, lose its rank to PVLCs and FINCs in the post-reform and the full period respectively. The same table also reports relative ranks based on earnings available to equity and preference holders and their dividend payout ratios across types of companies. It is observed that the PLCs are relatively more profitable than the PVLCs and FINCs, but FINCs continue to have larger average dividend payout percentages (equity and preference) in pre,

post-reform and the entire period with 78 and 6%, compared to 50 and 3% and 45 and 1.3% each for PLCs and PVLCs respectively.

3.4 Non –Parametric Analysis of Variations

The results of Kruskal-Wallis (*K-W*) statistic in table 7 indicate that mostly dividend related measures of Indian joint stock companies significantly differ (decrease) in the post-reform periods compared to its preceding periods as indicated by the above mentioned findings.

Table 7 Results of *K-W* Test to detect Differences in Dividend Related Measures due to the Impact of Economic Reforms across Indian Joint Stock Companies

***K-W* Stats.**	**EQDIV**	**PRFDIV**	**EQRET**	**PRFRET**	**SZEAR**	**PAT**	**EDPR**	**PDPR**
Public Limited Companies								
Chi-Square	24.00	5.47	20.34	12.30	23.73	23.73	5.34	12.89
Asymp. Sig.	0.00***	0.02**	0.00***	0.00***	0.00***	0.00***	0.02**	0.00***
Private Limited Companies								
Chi-Square	24.00	0.34	0.01	7.90	23.73	23.73	6.14	15.84
Asymp. Sig.	0.00***	0.56	0.93	0.01***	0.00***	0.00***	0.01***	0.00***
Finance Companies								
Chi-Square	24.00	22.27	0.00	5.00	13.91	14.97	0.75	0.14
Asymp. Sig.	0.00***	0.00***	0.86	0.03**	0.00***	0.00***	0.39	0.71

Note and Source: Same as in Table 4.

All the results support general understanding that interest alignment between different classes of owners influences corporate dividend policy in India. The evidence that emerges from above observation is in tandem with the argument that asymmetric information and agency considerations are likely to be more severe in public rather than private firms. For a privately held firm it would be easier to transmit information through other vehicles, and easier to monitor managers, to prevent them from excessive spending. Hence the consequences of reducing dividends may be more severe for public firms and no difference is expected in case of financial firms. Public firms consequently are reluctant to reduce dividends. Similarly dividend payments are higher where there are dispersed outsiders with little leverage over the insiders as long as the firm is in continuous need of equity capital and thus forces to them to return to the capital markets. In general, firms with sizeable “outside” financing such as common equity are subject to agency costs of managerial discretion and with no dominating share holders, managers have incentives to use cash dividends to convey information about the firms’ future performance.

4. Empirical Support for our Findings

The incentive to pay cash dividends declines as the shareholder concentration declines and supports Agency Cost hypothesis which begun with the work of Donaldson (1961, 1963) and Easterbrook (1984), suggesting dividends can help reduce the agency costs associated with the separation of ownership and control which occurs in companies. In such a framework outsiders may prefer a high dividend policy with a view**,** better a dividend today than a highly uncertain capital gain from questionable future investment. This "bird in the hand" argument associated with Gordon (1962) rests not only on the riskiness of the future dividend stream but on the moral hazard problem faced by outside investors, that the investment policies pursued by the firm change as a result of the firm's dividend policy. In the absence of a strong contractual and legal framework to pay significant dividends and then not to cut them may be the only way that insiders can raise equity capital. Liberal dividend policy forces the managers to go increasingly to the capital market and submits managers' behavior to a greater evaluation by the market. In extreme cases a highest dividend payout forces the firm to bid back the equity capital lost as a result of the dividend on the open market. When the ownership of the company is highly diversified, individual investors have few incentives to control the actions of managers and if they do so, results in high cost for the company. In such a framework outsiders may prefer a high dividend policy with a view**,** better a dividend today than a highly uncertain capital gain from questionable future investment.

La Porta *et. al.,* (2000) show that a closely held firm does not need to increase its dividend or take on more debt to signal to insiders the higher quality of its earnings. In a similar study Yurtoglu (2000) describes the main characteristics of ownership structure of the Turkish companies listed on the Istanbul stock exchange and show that concentrated ownership and pyramidal structures have a negative effect on performance. Bertrand *et. al.,* (2002) suggest that firms having dispersed outside equity ownership consistently pay higher dividends. For China, Lee and Xiao (2003) find share holding concentration is positively associated with cash dividend paying decision, firms with high and intermediate share holding concentration have about equal tendency of paying cash dividends, but firms with low share holding concentration have much lower tendency of paying cash dividends while Trojanowski (2003) finds that the payout policy is significantly related to ownership of the companies for UK. Gugler (2003) stresses that the controlled firms engage in dividend smoothing while non-controlled firms don't, however are least reluctant to cut dividends and their significantly

lower target payout ratios are consistent with an agency cost explanation. More recently, the results of Gopalan *et. al.,* (2006 and 2007) indicate that group firms consistently pay more dividends than stand alone firms.

The results for regulated industry in India are also in tandem with literature. We find that the dividend policies followed by the regulated industry are significantly larger than the un-regulated private and public firms. It is argued that the regulated firms give managers the incentive to pay higher dividends to force them to raise funds more frequently in the capital market. This is probably since regulated firms are more matured than the unregulated firms; managers have no much freedom to make them grow as significant difference in percentage of common stock held by insiders. Study like that of Smith (1986) hypothesizes that the regulated firms have a restricted growth prospects, restricted geography, product market, earnings *etc.* and the regulators act as delegated monitors of firm behavior, reducing considerably the wasteful investments engagements by managers or private consumption of the available FCF leading to more dividend distribution. Saxena (1999) finds that the mean DPRs for the regulated firms are larger than that of unregulated firms as these firms are less risky, have lower growth rates, much few insiders' holdings in its common stock and fewer investment opportunities. Regulation in case of such firms effectively reduces the possibility for corporate under-investment simply by transferring much of management's discretion over investment's decision to regulatory authorities. Similarly, Barclay *et. al,.* (1995) notes that the regulated industries have higher leverage ratios and pay higher dividends than unregulated corporations whereas, Collins *et. al.,* (1996) also find that the payout ratios for the financial firms and utilities are significantly larger than that for unregulated sample firms.

5. Summary and Conclusions

The Indian corporate sector pays relatively more equity dividends than preference dividends, and the average equity dividend return earned by equity holders is twice that of preference holders. Other things being equal, the probability of paying cash dividends decreases with the share holder concentration in India. Across type of ownership, the widely-held firms pay the largest and the closely-held firms relatively lower aggregate nominal rupee equity dividend payments in the pre/post- reform and the full period. Private companies (closely held) are characterized by higher shareholding concentration compared to public limited companies, and other things being equal the probability of paying cash dividends, dividend returns and payout ratio decreases with shareholder concentration.

Most studies exclude regulated companies intentionally with a notion that their regulatory status may affect their dividend policies. The study like that by Smith (1986) hypothesize that the regulated firms have a restricted growth prospects, restricted geography, product market, earnings *etc.* and the regulators act as delegated monitors of firm behavior, reducing considerably the wasteful investments engagements by managers or private consumption of the available FCF leading to more dividend distribution. We include financial companies as a proxy to study regulated industry effect and find that they pay relatively a larger proportion of their respective earnings to their equity and preference holders in the entire period. Further, the dividend payments are higher where there are dispersed outsiders and the incentive to pay cash dividends therefore declines as the shareholder concentration declines. Dividend policies of Indian firms respond to informational asymmetries, agency costs, and the institutional and contracting environment it is in.

This tendency remains unchanged through the pre-reform and the post-reform period, as well and is consistent with the limited evidence we review. The absolute average rupee earnings available to equity holders and to preference-holders increase commencing 1961-2007 and earnings drastically increase in the post 1991 sub-period and this growth and clearly translate in higher growth of absolute dividends by private limited companies and finance companies in the post-reform and the full period respectively. The dividend policies follow wider patterns over time. The average dividend payout ratios for all type of companies decline in case of closely held as well as the widely held firms as well but fall is more pronounced in case of closely held firms, after the liberalization period indicating a greater choice of internal financing through retained earnings.

More specifically, on analysis of inter-corporate variations in dividend policy for India it is found that dividends interplay differently with exogenous factors. One important observation through the analysis on systematic cross-sectional pattern over a longer period of time is worth re-mentioning. The average dividend payout ratios for all type of companies (closely-held, widely-held firms, and across industry cross-section) decline and such a tendency is more pronounced after the liberalization periods. Though this finding is based on aggregate level data the results are captivating and are in tandem with the recent evidence documenting dividend payments are disappearing, the world-over.

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Appendix

Table 1 Financial Year, Study Year and Number of Indian Joint-Stock Companies by Type of Companies, 1961 through 2007

Financial Year (Yr. ending)	PLCs		PVLCs		FINCs	
	Study Year	Number	Study Year	Number	Study Year	Number
1960-61	1965-66	1333	1965-66	501	1960-61	113
1961-62		1333		501	1962-63	176
1962-63		1333		501		176
1963-64		1333		501	1964-65	194
1964-65		1333		501		194
1965-66		1333		501	1966-67	195
1966-67	1969-70	1501	1970-71	701		195
1967-68		1501		701	1968-69	219
1968-69		1501		701		219
1969-70		1501		701	1970-71	220
1970-71	1975-76	1650		701		220
1971-72		1650	1975-76	1001	1972-73	244
1972-73		1650		1001		244
1973-74		1650		1001	1974-75	261

1974-75		1650		1001		261
1975-76		1650		1001	1977-78	297
1976-77	1980-81	1720	1980-81	1011		297
1977-78		1720		1011		297
1978-79		1720		1011	1978-79	299
1979-80		1720		1011	1980-81	305
1980-81		1720		1011		305
1981-82	1982-83	1651	1982-83	1004	1982-83	307
1982-83		1651		1004		307
1983-84	1984-85	1838	1984-85	1027	1984-85	325
1984-85		1838		1027		325
1985-86	1986-87	1942	1986-87	1096	1986-87	400
1986-87		1942		1096		400
1987-88	1988-89	1885	1988-89	1019	1988-89	506
1988-89		1885		1019		506
1989-90	1990-91	2131	1990-91	1096	1990-91	411
1990-91		2131		1096		411
1991-92	1992-93	1802	1992-93	1005	1992-93	510
1992-93		1802		1005		510
1993-94	1994-95	1720	1994-95	839	1994-95	472
1994-95		1720		839		472
1995-96	1996-97	1930	1996-97	853	1996-97	705
1996-97		1930		853		705
1997-98	1998-99	1848	1998-99	890	1998-99	725
1998-99		1848		890		725
1999-00	2000-01	1927	2000-01	1126	2000-01	1024
2000-01		1927		1126		1024
2001-02	2002-07	2031	2002-07	1338	2002-07	957
2002-07		2031		1338		957
Annual Sub-period Averages						
1961-1992		**1662**		**877**		**241**
1992-2007		**1883**		**1009**		**937**
1961-2007		**1719**		**911**		**434**

Note: PLCs, PVLCs and FINCs refer to Indian Public Limited, Private Limited and Finance/Investment companies. **Sources: a.** Published compendium titled'Private Corporate Business Sector in India - Selected Financial Statistics from 1950-51 to 1997-98 (All Industries)', 2001 and RBI Bulletins (Various Issues), Reserve Bank of India, Mumbai.

Table 4 Annual Sub-period Averages of Nominal Rupee Dividend, Dividend Return, Earnings and Payout Ratios of Indian Joint-Stock Companies by Type of Companies (Public Limited , Private Limited and Finance Companies), 1961 through 2007

Year	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1996-00	2001-07
Public Limited Companies									
EQDIV	76.77	100.42	143.50	221.49	368.35	787.47	2058.08	4301.20	5748.33
PRFDIV	7.75	9.36	11.94	13.46	13.57	12.62	9.38	103.80	131.67
EQRET	11.42	9.66	9.86	11.22	12.63	14.67	19.13	18.67	17.83
PRFRET	6.66	6.53	6.95	7.47	7.48	8.61	6.74	5.36	3.50
SZEAR	127.65	162.67	356.99	453.69	820.28	1422.47	6090.72	11496.60	11101.33
PAT	135.40	171.50	368.93	467.15	833.85	1435.09	6100.10	11600.40	11233.00
EDPR	60.20	62.60	42.20	52.40	46.00	61.00	36.20	39.40	54.33
PDPR	5.80	5.80	3.40	3.00	1.60	1.00	0.00	1.20	1.00
Private Limited Companies									
EQDIV	109.18	82.94	94.46	118.46	107.04	106.86	243.02	476.84	3690.90
PRFDIV	2.68	2.60	3.30	3.86	4.62	4.26	2.36	10.88	62.60
EQRET	12.34	7.49	6.47	7.39	5.87	5.15	7.35	6.49	6.91
PRFRET	5.71	5.06	3.60	3.41	3.28	2.34	1.99	2.91	1.23
SZEAR	168.02	153.98	242.00	261.16	396.46	402.22	1337.62	2052.10	7733.23
PAT	170.70	156.58	245.30	265.02	401.08	406.48	1339.98	2062.98	7795.83
EDPR	64.80	54.20	44.60	53.80	28.40	70.80	17.60	23.80	43.67
PDPR	1.80	1.60	1.40	1.80	1.20	2.80	0.00	0.40	1.00
Finance Companies									
EQDIV	26.32	34.32	35.58	46.18	71.86	217.06	1362.74	2743.94	3426.30
PRFDIV	-	3.30	2.98	3.26	4.10	4.54	20.18	244.12	294.00
EQRET	7.52	7.28	6.53	5.33	6.36	8.71	14.53	8.00	4.38
PRFRET	-	5.09	4.82	4.97	4.66	3.42	3.82	4.91	2.34
SZEAR	30.38	47.40	57.06	104.92	209.14	659.38	4844.84	4845.58	3794.03
PAT	30.38	50.70	60.04	108.18	213.24	663.92	4865.02	5089.70	4088.03
EDPR	88.54	72.61	62.34	44.77	37.84	33.62	28.73	199.80	133.06
PDPR	-	6.58	4.97	3.21	2.15	0.79	0.43	14.13	17.91

Notes: EQDIV, PRFDIV, EQRET, PRFRET, SZEAR, PAT, EDPR, EDPR, and PDPR refers to Total Rupee value of cash equity dividend, Preference dividend, Equity return (dividends by the book value of the respective share capital), Preference return, Size of Earnings (net profit after taxes after accounting for preference dividends) as the earnings measure for equity dividend payments, Net profit after taxes as the earnings measure for preference dividend payments, Equity dividend payout ratio (dividend by respective measure of earnings) and Preference dividend payout ratio respectively.
Source: Same as in Table 1.

Table 5 Annual Percentage Growth Rates of Annual Nominal Rupee Dividend Paid & Dividend Return on Shares Equity & Preference) of Indian Joint-Stock Companies by Type of Companies, 1961 through 2007

Variables	Instantaneous			Linear Trend			Annually Compounded			Type of Regression
	1961-92	1993-07	1961-07	1961-92	1993-07	1961-07	1961-92	1993-07	1961-07	
Public Limited Companies										
EQDIV	9.63	10.50	11.72	34.73	392.65	122.41	10.11	11.07	12.43	**Coincident**
PRFDIV	1.75	34.71	5.27	0.19	16.83	2.31	1.77	41.50	5.42	**Dissimilar**
EQRET	1.51	-1.62	1.81	0.20	-0.31	0.25	1.52	-1.61	1.82	**Dissimilar**
PRFRET	0.90	-5.95	-0.88	0.07	-0.30	-0.04	0.91	-5.77	-0.88	**Dissimilar**
SZEAR	10.46	4.95	12.58	79.49	345.88	291.14	11.02	5.07	13.40	**Parallel**
PAT	10.26	5.11	12.43	79.68	362.71	293.46	10.80	5.24	13.24	**Parallel**
EDPR	-0.82	5.55	-0.86	0.00	0.02	0.00	-0.82	5.70	-0.86	**Dissimilar**
PDPR	-8.50	29.60	-7.15	0.00	0.00	0.00	-8.15	34.45	-6.90	**Dissimilar**
Private Limited Companies										
EQDIV	0.70	30.39	5.57	0.80	436.23	39.49	0.70	35.51	5.73	**Dissimilar**
PRFDIV	0.79	43.27	2.98	0.04	7.64	0.66	0.79	54.14	3.02	**Dissimilar**
EQRET	-2.51	-1.50	-1.13	-0.20	-0.07	-0.10	-2.48	-1.49	-1.13	**Coincident**
PRFRET	-3.98	-6.15	-3.76	-0.13	-0.10	-0.09	-3.90	-5.97	-3.69	**Coincident**
SZEAR	4.16	20.55	8.08	16.90	810.74	104.36	4.25	22.81	8.42	**Dissimilar**
PAT	4.17	20.63	8.05	16.94	818.38	105.02	4.26	22.91	8.39	**Dissimilar**
EDPR	-3.46	9.84	-2.51	-0.01	0.03	-0.01	-3.40	10.34	-2.48	**Dissimilar**
PDPR	-3.38	22.64	-5.07	0.00	0.00	0.00	-3.32	25.41	-4.95	**Dissimilar**
Finance Companies										
EQDIV	8.76	8.01	13.62	11.86	199.60	76.47	9.16	8.34	14.59	**Coincident**
PRFDIV	3.19	31.02	13.27	0.20	33.01	7.16	3.24	36.38	14.19	**Dissimilar**
EQRET	0.85	-15.21	0.33	0.09	-1.28	0.05	0.85	-14.11	0.33	**Dissimilar**
PRFRET	-1.24	-2.04	-1.63	-0.04	-0.08	-0.05	-1.23	-2.02	-1.62	**Coincident**
SZEAR	12.86	-16.94	13.18	41.53	-207.85	138.46	13.72	-15.58	14.08	**Dissimilar**
PAT	12.77	-15.95	13.33	41.75	-174.84	144.26	13.62	-14.75	14.26	**Dissimilar**
EDPR	-4.10	20.07	-0.07	-0.02	0.00	0.00	-4.01	22.23	-0.07	**Dissimilar**
PDPR	-11.04	48.11	-0.62	0.00	0.00	0.00	-10.45	61.79	-0.62	**Dissimilar**

Notes and Source: Same as in Table 4.