

## Does Promoter Ownership Affect Dividend Policy? An Agency Problem Perspective

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### ABSTRACT

In this paper, we show a nonlinear relation between promoter ownership and dividends in the Indian context, that is, promoters pay more dividends at lower level of their ownership while they pay lesser dividends when their ownership increases beyond a threshold. In particular, we find that the adverse impact of promoter ownership on dividends is greater only at higher level of ownership, where promoters become entrenched with their effective control, and outsiders face the greatest risk of expropriation. We contend that agency and information asymmetry problems are the factors driving our results. We establish this by showing that the nonlinear relation between promoter ownership and dividend payment is more pronounced for standalone firms than group affiliated firms, for firms with more free cash flows and for firms with smaller board and less number of independent directors in the board. Our results are robust to endogeneity concerns and testing the dividend payment decision (to pay or not to pay) using the binary choice logit model.

### KEYWORDS

Promoter Ownership, Dividend, Agency Problem, Information Asymmetry, India

### INTRODUCTION

The classical owner-manager (principal-agent) conflict will be less severe in emerging markets firms characterized with concentrated ownership since in such firms, the controlling shareholders would control the managerial freedom to distribute available resources (Claessens et al., 2002; Anderson and Reeb, 2003; Attig et al., 2016; Kumar, 2017). However, in such firms, the divergence of interests between large and minority shareholder (principal-principal) might begin to appear instead since the large shareholders may represent their own interests, which may not be in the interests of the minority shareholders (Shleifer and Vishny, 1997; La Porta et al., 2000; Young et al., 2008; Bozec and Laurin, 2008; Andres et al., 2013). Therefore, the agency and information asymmetry problem between the controlling shareholders and the outsiders will be higher when the former's ownership is high.

One of the categories of the controlling shareholders is the promoters of the firm who hold sufficient control over the firm by virtue of their shareholding and management rights, such that they become entrenched by their effective control (Gupta and Bedi, 2020). In emerging countries like India, characterized by weak legal and governance framework, promoters' decisions to extract private benefits may expropriate the rights of outsiders (Bertrand et al., 2002; Claessens et al., 2002; Florackis et al., 2015; Singla, 2017). Promoters can expropriate the outsiders using various means like diverting profits for personal use, transfer price, theft, tunneling, higher pays and incentives to family

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executives, investments in other family firms, and self-dealings (La Porta et al., 2000; Yoshikawa and Rasheed, 2010). Promoters' control over the firm would provide greatest benefits to them only when the level of information asymmetry between them and outsiders is high, which is possible only at greater levels of promoter ownership (Jensen et al., 1992). We argue that as a consequence of a high ownership, promoters will solely decide how the profits will be distributed among shareholders (Claessens et al., 2000). This problem is further exacerbated in developing countries, like India, where equity ownership is highly concentrated with a few promoters' family and/or controlling shareholders that facilitate them to have more control with executive representations (Jameson et al., 2014).

We examine the relationship between promoter ownership and dividend payout policy in Indian firms, where concentrated promoter ownership is the norm, rather than an exception. Chauhan and Kumar (2017) show that promoters, on an average, own 51% of the total ownership in Indian firms, which highlight their ability to control the corporate policies, including the dividend policy. The increasing evidence reveals that ownership structure is heavily concentrated in developing economies which motivates us to explore the payout policies across such firms (Huang et al., 2012; Attig et al., 2016). In such firms, promoters may not opt for distributing dividends in an attempt to retain the control over free cash flows (Gupta and Bedi, 2020). Therefore, firms with higher promoter ownership are believed to exhibit more agency and information asymmetry problems for outsiders, and we argue for a nonlinear relationship between promoter ownership and dividend payouts.

The rationale for the nonlinear relation in general, and *inverted U-shaped* relation in particular, between promoter ownership and dividend payments is that at lower level of their ownership, promoters are exposed to the risk of losing their control position in the firm, and thus they are not capable of exploiting the outsiders (Claessens et al., 2002). Therefore, incremental ownership leads to the favorable incentive alignment effect, that is, promoters are likely to pay more dividends. However, beyond a cut-off level, incremental ownership reveals adverse effects of divergence of interests between promoters and outside shareholder (entrenchment effect) such that they do not pay enough dividends. It means promoters pay lesser dividends only when their ownership is so high that outsiders face greater risk of expropriation. Therefore, we argue that alignment effect at lower level of ownership and entrenchment effect at high level of ownership leads to a nonlinear relation between promoter ownership and dividend payments.

Earlier studies examining the relation between ownership structure and dividend have shown non-uniform results (Pindado et al., 2012; Huang et al., 2012; Mulyani et al., 2016). For instance, several studies show that family firms pay lesser dividends compared to non-family firms in Germany (Gugler and Yurtoglu, 2003), Hong-Kong (Chen et al. 2005), East Asian countries (Attig et al., 2016). However, Isakov and Weisskopf (2015) document a positive relation between family ownership and dividend payments in Switzerland. Pindado et al. (2012) argue that the family-owned firms pay more dividends than non-family firms in Eurozone countries. In contrast, Pindado et al. (2008) show that family ownership does not matter for dividend policy in Spain. The inconclusive evidence on the role of controlling shareholders' ownership in determining the dividend policy, particularly in emerging markets, raises more concerns about the agency and information asymmetry problems between inside and outside shareholders. Our argument of a nonlinear relation captures both the positive (at lower ownership) and negative (at higher ownership) direction simultaneously and helps reconcile the mixed findings between ownership structure and dividend payments.

Making use of more than 10,000 firm-year observations from 1574 Indian firms from 2010 to 2019, we examine the role of promoters in determining the dividend policy in the context of agency and information asymmetry problems. Our results show that promoters pay more dividends at lower levels of their ownership, while they pay less dividends at higher level of ownership where they exercise an effective control over the firm. In particular, contrary to previous studies, we document an *inverse U-shaped* relation between promoter ownership and dividend policy in Indian firms, characterized by

concentrated ownership. We interpret this evidence as suggesting that firms with higher promoter ownership are more prone to agency and information asymmetry problems, and pay lesser dividends.

To test this conjecture, we employ free cash flows as a direct proxy for agency problems (Attig et al., 2016; Kumar and Singh, 2022), and show that in firms with high free cash flows, promoters have ample resources to indulge in expropriation activities, and therefore, pay lesser dividends. Similarly, we show that at higher levels of promoter ownership, clubbed with higher information asymmetry problems (proxied by equity holdings by non-promoter and non-institutions; (Manos et al., 2012, Lin et al., 2007), the likelihood of the promoters expropriating the outsiders increases, leading to lesser dividend payments. These results lend further support to our results that in the presence of higher agency and information asymmetry problems, promoters pay lesser dividends, when their ownership is high. We support these results by using a binary choice logit model and show that at high levels of promoter ownership, the probability of paying dividends is low, owing to higher levels of agency and information asymmetry problems.

We next show that the relationship between promoter ownership and dividend payment is less pronounced for those firms which are affiliated to business groups compared to those which are not. Business groups in India are a set of publicly traded legally independent firms across different industries, having significant cross-ownership, and generally controlled by families (Khanna and Palepu, 2000). Business groups have evolved to mitigate the information asymmetry and other market imperfections (Manos et al., 2003; Manos et al., 2012). They argue that business group monitors the member firms well, and aids information sharing among the group firms, hence reduces the information asymmetry problems and also show that group-affiliated firms pay more dividends than independent firms in India. Since, business group firms are less prone to capital market imperfections and information asymmetry, we argue that at higher levels of promoter ownership, business group firms pay more dividends compared to standalone firms.

Our article contributes by enriching the literature on the relationship between promoter ownership and dividend policy. First, a number of studies have used multiple and ambiguous definitions of the controlling shareholders. For example, Isakov and Weisskopf (2015) define a company as closely held if a shareholder owns more than 20% of the voting rights while Kuo (2017) defines each firm having a controlling shareholder if its largest ultimate shareholder owns at least 10% of the voting rights. Huang et al. (2012) consider family control as a measure of controlling shareholder based on the number of seats the family members have in the board. Attig et al. (2016) consider a dummy variable for family if the ultimate owner is a family and has more than 10% of the equity ownership. We argue that these arbitrary and mixed measures may be biased proxies for the controlling shareholders especially in countries like India where the ownership is concentrated. To mitigate such biases, we directly consider the proportion of shares owned by promoters to the total shares in a firm as a measure of the controlling shareholders who control the firms. As per Section 2 (69) of the Companies Act, 2013, a promoter is defined as a person: (a) who has control over the affairs of the company, directly or indirectly whether as a shareholder, director or otherwise; or (b) in accordance with whose advice, directions or instructions the board of directors of the company is accustomed to act. Therefore, the richer dataset on the actual ownership of the promoters help us better understand their impact on dividend policy.

Second, we argue that the relation between promoter ownership and dividend payment is nonlinear by showing that the impact of promoter ownership on dividends is adverse only at higher level of ownership, where outsiders face the greatest risk of expropriation due to agency and information asymmetry problems. Although previous studies have examined the role of controlling shareholders, mainly family firms and dividend payout, however, they consider only the linear relation. For instance, Attig et al. (2016) and Mulyani et al. (2016) show a negative relation between family control and dividend payout ratio. As far as the nonlinear relation between controlling shareholders

and dividend payouts is concerned, Huang et al. (2012) use the thresholds of family ownership arbitrarily. They randomly choose 10% and 20% level of family ownership in Taiwan between which the entrenchment effect dominates. Similarly, Benjamin et al. (2016) examine the effect of family ownership on dividend payout in Malaysia and show that the slope of the relation changes at 5% and 33%. On the contrary, we contribute by statistically calculating the point after which the relation of promoter ownership with dividend payments changes, from positive to negative and show that the threshold level is approximately 51.5% for Indian firms for the studied sample. We further contribute by showing that the negative relation between promoter ownership and dividend payment holds only for those firms in which the promoter ownership is above the threshold level.

Third, this article is the first to empirically examine the relationship between promoter ownership and dividend policy across standalone and business group firms. To the best of our knowledge, we provide the first such study to investigate the nonlinear impact of promoter ownership on dividend payments in firms segregated on the basis of affiliation to any group. Finally, we enrich our analysis by showing the effect of promoter ownership not only on the dividend payment level but also on the decision of whether to pay or not.

The rest of the article is structured as follows: Section 2 describes the Indian institutional framework. Section 3 reviews the literature and builds up hypotheses. Section 4 explains the data and variables used in detail. Section 5 presents the main empirical results. Section 6 provides robustness tests, and finally, Section 7 concludes.

## **INSTITUTIONAL FRAMEWORK**

After its independence, India adopted a legal system based upon the English common law, which is characterized by high investor protection (Chauhan et al, 2016). Even La Porta et al. (1998) assign India a score of 5 (out of 6) for the shareholders' rights index and 4 (out of 4) for creditors' rights, which represents the best scores among a sample of 42 countries. Further, the financial markets in India are more advanced compared to many other emerging nations. For instance, the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) are among the top stock exchanges in the world with more than 6000 listed firms. On the basis of the number of trades, the NSE ranks among the top three stock exchanges in the world, along with NASDAQ and the New York Stock Exchange (Chakrabarti et al., 2008).

Despite these positive attributes, the legal enforcement of the shareholders and creditors rights has been questionable (Dharmapala and Khanna, 2013; Jameson et al., 2014). Col and Sen (2019) and Gupta and Bedi (2020) argue that even though India ranks high in terms of investor protection rights, it ranks low in terms of the legal enforcement of their rights. The judicial system is inefficient, characterized by long delays, and lacks timely enforcement in practice. Moreover, the bankruptcy resolution is not effective since Indian bankruptcies feature among the longest time required for resolution and the lowest recovery rate (Kang and Nayar, 2004; Gopalan et al., 2007, Jindal and Seth, 2019). In such an environment lacking strong investor protection enforcement, promoters have ability and incentives to extract private benefits of control.

Though Indian firms have considerable promoter ownership and a dominance of family control (Faccio et al., 2001), even if their ownership is not high, they control many decisions in the firm by virtue of their role in the firms. Chakrabarti et al. (2008) highlight that on an average, 53 percent of ownership rests with promoters. As Anderson and Reeb (2003) suggest that when one category of shareholders like family has a significant stake in firm's equity, they are in a position to solely take key firm level decisions including the declaration and payment of dividends.

Another striking feature in India is the presence of the largest number of business group affiliated firms for a single country (Khanna and Yafeh, 2007). In business groups, several publicly listed group

firms are controlled by family members or promoters (Chauhan and Kumar, 2017). Despite being legally independent, these firms are in fact connected by inter-corporate transactions (Khanna and Palepu, 2000). It is well established that business groups majorly have come into being to avoid certain market imperfections and information asymmetry (Manos et al., 2012). More often than not, promoters have a control in these firms usually higher than their actual investment in equity through complex pyramidal and cross-holding ownership. These features make India a suitable candidate to study the relation between promoter ownership and dividend payments within the context of agency and information asymmetry problems.

## THEORY AND HYPOTHESIS DEVELOPMENT

Since promoters, being the controlling shareholders in Indian firms, have both power and incentives to monitor managers, the classical principal-agent problem may not be significant in such firms. However, additional conflicts may begin to appear amid the inside and outside shareholders resulting in principal-principal agency problem. This is because promoters will be inclined to employ such decisions and projects which provide them private benefits without considering the interests of outsiders such that the level of information asymmetry is high. Agency theory is an important framework which highlights the conflicts of interest between the controlling and minority shareholders. According to agency theory, the promoter may have incentives to expropriate the outside shareholders, by tunneling or self-dealings, share issues to the promoters and their relatives, excessive salaries, etc. (La Porta et al., 2000; Johnson et al., 2000a; Yoshikawa and Rasheed, 2010). Johnson et al. (2000b) refer to tunneling to illustrate the transfer of assets and profits out of firms for the benefit of the controlling shareholders. Compared to other assets classes, the transfer of cash and cash-equivalent assets for personal use is easier and less costly (Myers and Rajan, 1998).

Claessens et al. (2000) argue that when the controlling ownership is high, the value of the firm declines due to higher expropriation by controlling owners. Isakov and Weisskopf (2015) argue that controlling shareholders have the ability to promote ideas and projects not aimed at maximizing the firm value, instead, suit their own personal interest which lead to the misuse of company funds, harm the minority shareholders due to reduced dividends. Attig et al. (2016) document a negative relation family control and dividend payments by showing that controlling families are involved in expropriation of outside shareholders. Liu et al. (2015) show that family firms with higher excess control rights hold more cash which is mainly tunneled by controlling shareholders rather than investing. This problem is more pronounced for Indian firms where investor protection is poor since corporate boards work in the best interests of promoters (Chauhan and Kumar, 2017). Therefore, we argue that in firms with higher promoter ownership, the likelihood of promoters expropriating the outsiders is very high.

As a competing argument, at higher levels of ownership, the promoter has the economic incentives to adopt an efficient dividend policy. Certain positive characteristics like long-term outlook of management, substitution to poor corporate governance, and good political connections, among others, could increase the effectiveness of closely controlled firms (Bertrand and Schoar, 2006). Therefore, such firms with greater promoter ownership suggest a positive relation between promoter ownership and dividend payments.

Though these competing arguments suggest different relations between promoter ownership and dividend payments, we go ahead with the agency theory view of promoter ownership since our sample firms are based in a poor investor protection country. Chauhan and Kumar (2017) argue that Indian firms with higher promoter ownership are more prone to agency problems such as expropriation risk and information asymmetry problems due to weaker corporate governance. We further emphasize that a substantial promoter ownership is required for effective control. The private

benefits of control increase with additional ownership such that promoters become entrenched only when their ownership crosses a threshold. That is, when the promoter ownership is low, the agency problem will be low such that an additional increase in ownership aligns the interests of owners and managers and promoters pay more dividends. However, at higher levels of promoter ownership, the entrenchment effect would dominate such that the level of agency and information asymmetry problems between promoters and outsiders become significant, implying that the promoters extract more private benefits of control and pay lesser dividends.

Many studies have explained the concerns of expropriation of outside investors at a higher level of controller ownership. For instance, Faccio et al. (2001), De Miguel et al. (2004), and Huang et al. (2012), provide evidence for a nonlinear relation between family control and agency costs. Morck et al. (1988) and De Miguel et al. (2004) show an inverted U-shaped relation between managerial ownership and firm valuation for US and Spanish firms, respectively. They report that the firms' value increases with an increase in the managerial ownership, however, beyond a point; managers become entrenched to extract private benefit at the cost of outside investors. Therefore, based on the agency theory, we argue for a nonlinear (an *inverted U-shaped*) relation between promoter ownership and dividend payout such that promoters pay lesser dividends only when promoter ownership is so high that outsiders face greater risk of expropriation. We, therefore, formulate the following hypothesis:

**H1:** *There is a nonlinear (an inverted U-shaped) relation between promoter ownership and dividend payout.*

Khanna and Palepu (2000) show that firms associated to business group are usually suspected to suffer from lack of transparency compared to standalone firms. Such a lack of transparency easily facilitates promoters to shift funds and resources from one firm to another within a group, without proper disclosures (Cheung et al., 2006). Tunneling or transfer of funds from one firm to another for the benefit of those who control them is a serious concern in firms affiliated to business groups. Bertrand et al. (2002) document significant evidence of insiders' expropriations for business groups in India. Kali and Sarkar (2011) argue that firms associated with business groups are more opaque with respect to within-group fund flows, widening the gap between cash flow rights and control. Similarly, for Japan, Dewenter et al. (2001) show that business group structures are less transparent in their information disclosure, due to which their IPOs are more underpriced than standalone firms. Cheung et al. (2009), and Marisetty and Subrahmanyam (2010) report similar evidence for Chinese and Indian firms, respectively.

An equally competing argument could well be that business group firms exist to avoid capital market imperfections by creating their own internal capital markets as a substitute of weaker institutions (Khanna and Palepu, 2000), and reduce the information asymmetry between the firm and the markets because of their visibility (Dewenter et al., 2001). Further, it is argued that business groups overcome the market failures through spreading across a number of industries or by securing the availability of external finance through reputation or through its access to bureaucrats, thereby circumventing capital market imperfections (Manos et al., 2012).

Furthermore, we believe that the dividend policy is sensitive to agency problem and information asymmetry, especially in an emerging market like India where the legal enforcement of investor protection is very poor. The extant literature provides sufficient empirical evidence to show that group-affiliated firms hold significantly lower levels of cash and other liquid assets, and pay more dividends compared to their standalone firms (Gupta and Bedi 2020; Lin et al., 2007; Manos et al., 2012). Compared to their standalone counterparts, business group firms' dividend policy may be understood to be less sensitive to agency problems and information asymmetry problems since business group monitors the member firms well and aids information sharing among the group firms, hence reducing

the information asymmetry (Manos et al, 2012). Therefore, we expect that firms affiliated to business groups are more likely to pay higher dividends compared to standalone firms, and argue that at higher levels of promoter ownership, the negative relation between promoter ownership and dividend payments is relatively weaker. Therefore, our second hypothesis is postulated as below:

**H2:** *The nonlinear relation between promoter ownership and dividend payout is less pronounced in business group firms than standalone firms.*

The extant literature provides evidence that firms having more agency and information asymmetry problems might pay more dividends to signal better private information about the firm's future prospects (Miller and Rock, 1985) or to bond themselves that they are acting in best interests of the shareholders (Rozeff, 1982), the signaling and bonding perspective respectively. As per this alternative view, the positive aspect of higher promoter ownership implies that the promoters do not require the signaling or bonding benefits from a liberal dividend policy and they pay lesser dividends compared to firms having lower promoter ownership. Whereas, the negative aspect of high promoter ownership implies that firms with higher promoter ownership might pay more dividends than firms with lower promoter ownership to signal that their interests align with the outsiders.

To differentiate between our agency problem explanations from its alternative (signaling and bonding) argument, we examine the relation between dividends and promoter ownership based on the extent of agency problems, proxied by the level of free cash flows. We argue that if the negative relation dividends and higher promoter ownership is due to agency problems, it is reasonable to assume that firms characterized by higher incidence of agency problems should exhibit more negative relation between dividends and promoter ownership, especially at higher levels of ownership. In other words, firms having high free cash flows would enable promoters to have ample resources to expropriate minority shareholders, and thus lower payment of dividends (Benjamin et al., 2016, Chang et al., 2016). We, therefore, frame our third hypothesis:

**H3:** *The nonlinear relation between promoter ownership and dividend payout is more pronounced for firms having higher agency problems.*

## DATA AND VARIABLES

### DATA

We examine the annual data from 2010 to 2019 for firms publicly traded on NSE. All the data have been obtained from *ProwessIQ*; a database compiled by the Centre for Monitoring Indian Economy (CMIE). We have excluded financial firms, utility firms and government firms. Those firms having negative book value of equity have also been dropped. Our final dataset consists of 10582 firm-year observations from 1574 unique firms. Table 1 explains all variables used in the analysis.

### VARIABLE DEFINITION

Our main analysis is to examine the relationship between dividend payouts and promoter ownership. Consistent with the literature, our main dependent variable, dividend payout, is defined as the ratio of annual equity dividends divided by total assets (*DPTA*) (Wang et al., 2011; Firth et al., 2016). Our main independent variable of interest is promoter ownership (*PO*), measured by the percentage of promoter equity ownership. We make use of a dummy variable to differentiate the business group and

standalone firms. The dummy is assigned a value of '1' for business group firms (*GROUP*) and '0' for standalone firms.

**Table 1.** Variables Definition

Variable	Definition
<b>Dependent Variables</b>	
<b>Dividend Payout</b>	
<b>DPTA</b>	Ratio of annual dividends for stock <i>i</i> at year <i>t</i> divided by total assets in year <i>t</i>
<b>DPNI</b>	Ratio of annual dividends for stock <i>i</i> at year <i>t</i> divided by net income in year <i>t</i>
<b>Independent Variables</b>	
<b>Promoter Ownership (PO)</b>	Ratio of the number of shares held by promoters to total outstanding shares.
<b>Control Variables</b>	
<b>Firm Size (SIZE)</b>	Natural logarithm of net sales.
<b>Profitability (ROA)</b>	Return on assets is calculated by dividing the profit after tax by total assets at the end of year <i>t</i> .
<b>Growth (GROWTH)</b>	Current growth of the firm is measured as change in net sales in the year <i>t</i> compared to the year <i>t</i> -1.
<b>Firm Uncertainty (SD)</b>	Measured by computing the standard deviation of monthly stock returns of firm <i>i</i> in year <i>t</i> .
<b>Leverage (LEV)</b>	Total book value of borrowings divided by book value of total assets at the end of the financial period <i>t</i> .
<b>Age (AGE)</b>	Age is measured as the age of the firm in number of years since its inception.
<b>Cash Ratio (CR)</b>	Cash and cash equivalents divided by total assets.
<b>Information asymmetry (NPNI)</b>	Percentage of shares owned by non-promoters and non-institutions

**Note:** The table presents the variables used in this study and their illustration.

For controlling the firm-specific characteristics which could potentially affect the dividend payout policy, we incorporate firm size, age, leverage, cash ratio, profitability, current growth, uncertainty, as control variables. We measure the firm size by computing the log of net sales (*SIZE*). We consider age (*AGE*) as a proxy for lifecycle as in DeAngelo and DeAngelo, (2006) and Manos et al. (2012) which is measured as the number of years since the inception of the firm. Profitability of the firm is measured by return on assets (*ROA*), calculated as profits after tax divided by total assets. Current growth (*GROWTH*) of the firm is measured as change in net sales in the year *t* compared to the year *t*-1. Firm uncertainty is measured by the standard deviation of the stock returns on a monthly basis (*SD*). Leverage is calculated as the total borrowings divided by total assets (*LEV*). We also include cash ratio (*CR*), computed as the ratio of total cash and cash equivalents to total assets.



## DESCRIPTIVE STATISTICS

Table 2 illustrates the summary statistics for our variables considered in the study from 2010 to 2019. The table indicates that in Indian firms, on an average, the dividends paid are 1.3 percent of the total assets. On an average, promoters own approximately 54.33 percent of the total ownership in an Indian firm, highlighting the ability of promoters to control the corporate financial decisions. The average size (Size) of Indian firms is around INR 5372.5 million ( $e^{8.589}$ ). The average age of an average Indian firm is 34.3 years. The table further suggests that firms are relatively financially stronger with an average leverage of approximately 0.286.

**Table 2.** Descriptive Statistics

Variables	Mean	Median	Max	Min	SD	N
AGE	34.29	28.00	156.0	3.000	21.17	10582
CR	0.033	0.012	0.771	-0.426	0.066	10582
DPTA	0.013	0.004	1.095	0.000	0.035	10582
PO	54.33	55.32	94.09	0.000	15.89	10582
LEV	0.286	0.249	13.21	0.000	0.322	10582
SIZE	8.589	8.700	15.17	-2.303	1.789	10582
NPNI	33.89	32.08	99.95	0.000	16.82	10582
ROA	0.030	0.034	2.014	-4.312	0.152	10582
SD	0.147	0.129	2.944	0.007	0.097	10582

**Note:** This table presents descriptive statistics of variables used in the study for a sample of 1574 firms and 10582 firm-year observations from 2010 to 2019. The definition of variables is reported in Table 1.

In Table 3, we present the coefficients of correlation among the variables considered. It shows that payout and promoter ownership are positively correlated. The correlation between payout and size is significantly positive, showing that larger firms pay more dividends. The dividend payments are positively correlated to the firm's age implying that older firms tend to pay more dividends. The promoter ownership is positively related to profitability and cash ratio, while negatively to leverage and returns volatility. Many of the other correlation coefficients are statistically significant which highlights the importance of including these variables as control variables in our further empirical analysis.

## MAIN EMPIRICAL RESULTS

### PROMOTER OWNERSHIP AND DIVIDEND PAYMENTS

We first present a preliminary univariate analysis to examine our main hypothesis,  $H_1$ , by estimating dividend payouts across various sub-samples of promoter ownership. To do so, each year, we classify all firms by promoter ownership and categorize firm-year observations into three subsamples. We next calculate the mean value of dividend payout for each subsample.

The *LOW* category shows the mean value of dividend payout for the bottom one-third firms sorted on the basis of promoter ownership, whereas the *HIGH* category shows the mean for the top one-third firms in the sample. Table 4 reports the results. In line with our arguments, the results show that *LOW* category has the highest dividend payments, with the mean payout of 26.50% whereas the *HIGH* category shows the lowest dividend payments, with the mean value of 13.91%. The difference in mean

value of 12.59% is also statistically significant at 1% level. Overall, the results in Table 4 indicate that the dividend payout declines with increase in promoter ownership.

**Table 3.** Correlation Matrix

	AGE	CR	PO	LEV	SIZE	NPNI	ROA	SD	DPTA
AGE	1								
CR	0.024 **	1							
PO	-0.019 *	0.029 ***	1						
LEV	-0.075 ***	-0.181 ***	-0.119 ***	1					
SIZE	0.229 ***	0.050 ***	0.077 ***	-0.081 ***	1				
NPNI	-0.099 ***	-0.089 ***	-0.667 ***	0.212 ***	-0.459 ***	1			
ROA	0.071 ***	0.144 ***	0.134 ***	-0.362 ***	0.228 ***	-0.226 ***	1		
SD	-0.110 ***	-0.045 ***	-0.103 ***	0.194 ***	-0.205 ***	0.213 ***	-0.109 ***	1	
DPTA	0.085 ***	0.192 ***	0.079 ***	-0.210 ***	0.151 ***	-0.200 ***	0.285 ***	-0.124 ***	1

**Note:** This table presents correlation matrix of all variables used in the study. All correlations are significant at 5% level. All the correlation among variables are significant. The definition of variables is reported in Table 1.

**Table 4.** Univariate Tests – Comparison Based on Promoter Ownership

PO Category	Mean Payout (%)
LOW	26.50
HIGH	13.91
Difference (LOW-HIGH)	12.59***
t-statistic	-2.41

**Note:** The table presents the univariate results for the relationship between promoter ownership and dividend payout. To do so, each year, we classify all firms by promoter ownership and categorize firm-year observations into three subsamples. We next calculate the mean value of dividend payout for each subsample. The LOW category shows the mean value of dividend payout for the bottom one-third firms sorted on the basis of promoter ownership, whereas the HIGH category shows the mean for the top one-third firms in the sample.

Next, we investigate our main proposed hypothesis,  $H_1$ , in the following multivariate regression framework:

$$DPTA_{it} = \beta_0 + \beta_1 PO_{it} + \beta_2 PO_{it}^2 + controlvariables + \varepsilon_{it} \quad (1)$$

where  $DPTA_{it}$  is the ratio of annual equity dividends to total assets for firm  $i$  in year  $t$ . For firm-years where  $DPTA$  was negative, the value 'zero' has been allotted as in Benjamin et al. (2016) and Attig et al. (2016). Removing negative value in this way substantiates the use of random-effect Tobit model.

However, as we show in the later part of the paper, we also use  $DPTA_{it}$  as a dummy variable that will be equal to '1' if the firm pays a dividend and '0' otherwise, to capture the promoters' decision to pay or not to pay. This would require the use of a binary choice logit model.  $PO$  is the ratio of shares owned by promoters as a proportion to the total outstanding shares. We use the squared promoter ownership ( $PO^2$ ) to capture the nonlinear relation between promoter ownership and dividend payout. For the relation between promoter ownership to be an *inverted U-shaped*, the coefficient  $\beta_1$  must be positive and coefficient  $\beta_2$  must be negative.

Table 5 reports the findings for relationship between dividend payouts and promoter ownership. Column (1) shows that dividends are positively related with promoter ownership. In Column (2), we examine a nonlinear effect of promoter ownership on dividend payments by including a squared value of promoter ownership ( $PO^2$ ) in equation (1). The positive coefficient  $\beta_1$  and negative coefficient  $\beta_2$  confirm the nonlinear relation between promoter ownership and dividend payments. Such a nonlinear relation between dividend payments and promoter ownership suggests that Indian firms pay more dividends as promoter ownership reaches to 51.5%<sup>1</sup>, a clear evidence of incentive alignment, while beyond this threshold, promoters pay lesser dividends, a clear evidence of entrenchment, that is, promoters expropriating the minority shareholders.

Column (3) presents the results for the relation between level promoter ownership and dividend payments in the presence of control variables while Column (4) shows the results for nonlinear relation by including  $PO^2$  in the presence of control variables. These results are similar to our results reported in the first two columns. Overall, the results presented in Table 5 support our hypothesis H1, which argues for an *inverted U-shaped* relation between promoter ownership and dividend payout. In other words, a positive relation between dividends and promoter ownership when the promoter ownership is below 51.5% indicates that the agency and information asymmetry problem between promoters and outsiders is lower. However, when the promoter ownership is more than 51.5%, the relationship between dividends and promoter ownership turns negative, implying that the agency and information asymmetry problem between promoters and outsiders becomes greater where promoters become entrenched by their effective control. As further evidence, Figure 1, also displays an *inverted U-shaped* relation and confirms our earlier finding that the relation between promoter ownership and dividend payout turns negative as promoter ownership reaches around 51.5% (shown with a dotted line).

Next, we show that information asymmetry and agency problems impact the dividend payout. To test for this, we use the percentage of shareholding by non-promoters and non-institutions (NPNI) as a proxy of information asymmetry (Lin et al., 2007)<sup>2</sup>. Manos et al. (2012) show that individual shareholders are not as effective as institutional shareholders as far as monitoring the activities of the controlling shareholders are concerned. Therefore, we argue that higher the level of percentage of the firm's shares held by individuals, the higher would be the level of information asymmetry. Column (5) presents the results. As expected, the coefficient of the level of information asymmetry (NPNI) is negative; therefore, we conclude that there is a negative relation between dividend payments and the level of information asymmetry.

We next focus on the control variables used in the study. As expected, the coefficients of the control variables confirm the earlier findings in the literature. For instance, there is positive and significant relation between dividend payouts and firm size, implying that larger the firm size, more

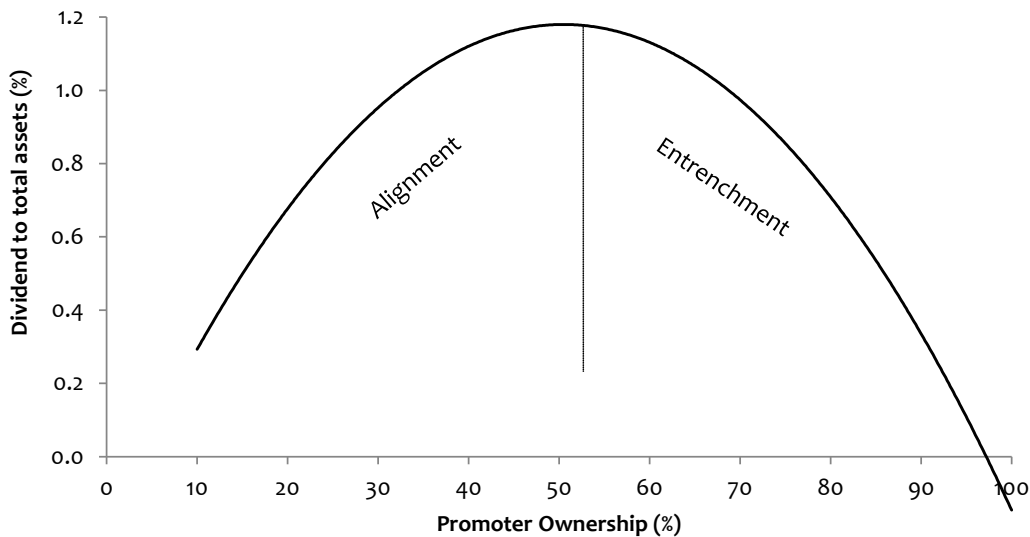
<sup>1</sup> We calculate this threshold by using the OLS regression. We find the coefficient  $\beta_1$  and  $\beta_2$  are 0.0346 and -0.0336, respectively. The inflection point (the maximum point of the function) can be obtained by differentiating regressions of the model 1 with respect to  $PO$ , setting the results equal to zero and solving for  $PO$ . As a result the point, at which the shape of the function changes (turning point), in this case from positive to negative, is found.

<sup>2</sup> Similar to Lin et al. (2007), we also utilized the ownership by institutions, non-promoter ownership (NPI) to be more precise as a proxy for information asymmetry. While in our analysis, information asymmetry is an increasing function of NPNI, in the unreported results, information asymmetry is a decreasing function of NPI. Our results do not change qualitatively by using either of the measures of information asymmetry.

**Table 5.** Promoter Ownership and Dividend Payments

	1	2	3	4	5
<b>C</b>	-2.294*** (-7.369)	-4.195*** (-8.220)	-5.932*** (-7.616)	-7.021*** (-6.906)	-5.035*** (-4.769)
<b>PO</b>	0.035*** (8.870)	0.119*** (7.625)	0.018*** (4.125)	0.064*** (2.953)	0.056*** (2.643)
<b>PO<sup>2</sup></b>		-0.082*** (-5.939)		-0.045** (-2.397)	-0.050*** (-2.650)
<b>LEV</b>			-4.141*** (-6.092)	-4.184*** (-6.111)	-3.923*** (-5.888)
<b>AGE</b>			0.015*** (5.051)	0.015*** (5.001)	0.015*** (5.022)
<b>SD</b>			-3.958*** (-3.773)	-3.107*** (-3.784)	-2.899*** (-3.616)
<b>CR</b>			3.958*** (3.598)	4.063*** (3.641)	4.055*** (3.647)
<b>ROA</b>			27.60*** (7.292)	27.59*** (7.332)	27.47*** (7.348)
<b>SIZE</b>			0.504*** (8.280)	0.505*** (8.292)	0.413*** (6.874)
<b>GROWTH</b>			-0.000** (-2.296)	-0.000** (-2.217)	-0.000** (-2.237)
<b>NPNI</b>					-0.021*** (-4.929)
<b>N</b>	12659	12659	10582	10582	10582

**Note:** This table presents the relationship between promoter ownership and dividend payout for a sample of 1574 firms from 2010 to 2019. The definition of variables is reported in Table 1. The z-statistics are in parentheses and are calculated with QML (Huber/White) standard errors. \*\* and \*\*\* indicate significance level at 5% and 1% respectively.



**Figure 1.** Nonlinear (inverted U-shaped) Relation Between Promoter Ownership and Dividend Payout

dividends it pays (Fama and French, 2001; Yoshikawa and Rasheed 2010; Huang et al., 2012; Mulyani et al., 2016). The relation between profitability (ROA) and dividends is also statistically significant and positive, consistent with Fama and French (2001), DeAngelo et al. (1992), Chang et al. (2016), Firth et al. (2016), Gonzalez et al. (2017), to mention a few. Levered firms and firms with high uncertainty pay fewer dividends (Mulyani et al., 2016). The relation between dividends and firm age is positive, which affirms the view that young firms pay fewer dividends since they have more growth opportunities (Huang et al., 2012; Manos et al., 2012).

To further elaborate on the information asymmetry argument, we segregate the firms into dividend payers and non-payers, and examine the level of the ownership of individuals and institutions. The institutions are further classified as foreign institutional investors (FII), mutual funds (MF), and banks and financial institutions (BFI). In Table 6, we show that the ownership of the individuals (NPNI) is more in non-payers compared to firms which pay dividends. These results confirm the findings in Table 5 of the negative relation between dividend payments and information asymmetry, proxied by the ownerships of NPNI. Further, compared to individual shareholders, institutional investors are believed to be more informed and better monitors such that they would prefer firms with higher dividends. The results confirm our argument as we show that FII and MF have higher equity ownership in firms paying dividends compared to those which do not pay. As far as banks and other financial institutions (BFI) are concerned, we report no evidence of the difference in their ownership between dividend paying and non-paying firms. These results are in line with Firth et al. (2016) who show that foreign investors and mutual funds influence firms to pay higher dividends as predicted by exit theory. However, since banks and insurance companies have lower exit threat, they do not impact the firm's dividend policy.

**Table 6.** Univariate Tests – Comparison Based on Dividend Payers and Non-Payers

Ownership	NPNI	FII	MF	BFI
<b>Dividend payers</b>	30.51	8.09	4.49	2.33
<b>Non-payers</b>	40.82	4.36	1.52	2.34
<b>Difference (Dividend payers – non-payers)</b>	-10.31***	3.73***	2.97***	-0.01
<b>t-statistic</b>	-33.47	22.33	32.37	-0.08

**Note:** The table presents the univariate results for the difference in the ownership of individual and institutional investors in dividend paying and non-paying firm. NPNI, FII, MF and BFI stand for non-promoter non-institution, foreign institutional investors, mutual funds, and banks and financial institutions, respectively. We classify all firm-years as dividend payers if they paid dividends and non-payers if they paid no dividends. We next calculate the mean ownership of individuals and different institutions for each subsample.

### PROMOTER OWNERSHIP AND DIVIDEND PAYMENTS – BUSINESS GROUP VS. STANDALONE FIRMS

In this subsection, we investigate our hypothesis H2 which states that the nonlinear relation between promoter ownership and dividend payout is less prominent in business group firms than standalone firms because business group firms' dividend policy is less sensitive to agency problems and information asymmetry problems. To do so, we make use of a dummy variable to differentiate the business group and standalone firms. The dummy is assigned a value of '1' for business group firms and '0' for standalone firms. The results in Panel A, Column 2 of Table 7 show that the group dummy is positive implying that business group firms pay more dividends than standalone firms in line with Manos et al. (2012).

Further, we add an interaction term between *PO* and *Group*, and  $PO^2$  and *Group* variables in Equation (1) to observe the joint effect of promoter ownership and business group on dividend payments. As expected, we report a significantly negative coefficient for  $PO \times Group$ , and significantly

positive coefficient for  $PO^2 \times Group$ . The results in Column (2) show that when the promoter ownership is high, the relation between dividends and promoter ownership is less negative for firms affiliated to business groups compared to their standalone counterparts. It could possibly be driven by the logic that the level of information asymmetry faced by outsiders is low in firms associated with business groups compared to standalone firms.

**Table 7.** Promoter Ownership and Dividend Payments – Standalone vs. Group Firms

Variables	Panel A			Panel B	
	1	2	3	Group	Standalone
C	-6.051*** (-7.078)	-8.315*** (-6.267)	-4.924*** (-3.772)	-1.945** (-2.241)	-8.092*** (-4.003)
PO	0.021*** (3.131)	0.120*** (3.216)	0.101*** (2.780)	0.012 (0.850)	0.118*** (3.201)
PO <sup>2</sup>		-0.098*** (-2.920)	-0.107*** (-3.180)	0.016 (1.179)	-0.122*** (3.632)
GROUP	0.538 (1.567)	3.008*** (3.260)	0.627 (0.670)		
PO×GROUP	-0.006 (-0.946)	-0.114*** (-3.159)	-0.099*** (-2.803)		
PO <sup>2</sup> ×GROUP		0.106*** (3.108)	0.116*** (3.358)		
LEV	-4.122*** (-6.047)	-4.161*** (-6.108)	-3.918*** (-5.939)	-3.421*** (-4.978)	-4.362*** (-4.157)
AGE	0.014*** (4.778)	0.015*** (4.794)	0.015*** (4.828)	0.009*** (3.981)	0.025*** (3.262)
SD	-3.088*** (-3.764)	-3.078*** (-3.764)	-2.814*** (-3.554)	-3.444*** (-3.012)	-2.128** (-1.979)
CR	4.072*** (3.746)	4.209*** (3.806)	4.135*** (3.776)	1.983** (2.173)	5.806*** (3.216)
ROA	27.70*** (7.300)	27.77*** (7.427)	27.61*** (7.477)	27.71*** (6.054)	27.84*** (4.967)
SIZE	0.485*** (7.744)	0.488*** (7.743)	0.404*** (6.511)	0.269*** (4.668)	0.635*** (4.985)
GROWTH	-0.000** (-2.284)	-0.000** (-2.253)	-0.000** (-2.233)	-0.000 (-1.531)	-0.000** (-2.359)
NPNI			-0.042*** (-5.534)	-0.010** (-2.257)	-0.038*** (-4.636)
GROUP×NPNI			0.037*** (4.407)		
N	10582	10582	10582	5682	4900

**Note:** This table presents the relationship between promoter ownership and dividend pay-out for a sample of 1574 firms from 2010 to 2019 based on business group affiliated and standalone firms. We use a dummy variable to differentiate the firms affiliated to a business group and standalone firms. The dummy takes a value of 1 for business group firms and 0 for standalone firms. The definition of variables is reported in Table 1. The z-statistics are in parentheses and are calculated with QML (Huber/White) standard errors. \*\* and \*\*\* indicate significance level at 5% and 1% respectively.

To prove this aspect, we interact our information asymmetry variable (NPNI) with the group dummy. The results presented in Column (3), Panel A shows that the coefficient of the interaction term of group dummy with NPNI is positive, which is opposite to what we have shown in case of the NPNI variable. This evidence provides further support to our second hypothesis that the dividend payment decision of business group firms is less sensitive to information asymmetry.

To deeply examine the economic significance, we re-analyze the results shown in Panel A of Table 7, separately for standalone and business group firms and report them in Panel B. The results indicate that there is no impact of promoter ownership, both level and squared, on dividends in business group firms, while the relation is significantly positive at lower level and significantly negative at higher level of ownership for standalone firms, suggesting a nonlinear relation. To further show that business group firms are less sensitive to information asymmetry problems, the coefficient of NPNI is less significant for business group firms than standalone firms. These results suggest that the dividend policy of business group firms is less sensitive to information asymmetry problems compared to standalone firms.

### **PROMOTER OWNERSHIP AND DIVIDEND PAYMENTS – AN INFORMATION ASYMMETRY EXPLANATION**

In the last two sections, we argue that agency problem and information asymmetry problems are the key explanations driving our results. In this subsection, we undertake separate analysis of whether information asymmetry problem is the actual reason behind our results. The literature on the corporate finance and dividend policy suggests that firms with high information asymmetry problems may expropriate the outside shareholder more (Manos et al., 2012; Attig et al., 2016). This problem is more severe in emerging countries like India where the investor protection is poor (Chauhan and Kumar, 2017). In firms with higher information asymmetry problem, promoters will indulge more in expropriation activities such that we expect a more negative relation between promoter ownership and dividend payments, especially at higher levels of ownership. Promoters in such firms have access to more cash flows and resources, and thus, choose to pay lower dividends.

Therefore, we revisit our main hypothesis by splitting all firms into two categories each year – high information problems (*HIP*) and low information problems (*LIP*) based on the median value of NPNI. As per our information asymmetry argument, firms with NPNI value between 0 and median are put into *LIP*, whereas firms having NPNI values more than the median are categorized as the *HIP*. Subsequently, a dummy variable for *HIP* category is created which is assigned a '1' for the *HIP* category and '0' for the *LIP* category. To examine the joint effect of high information asymmetry problems and promoter ownership, we produce an interaction term between *PO* and *HIP*, and squared *PO* and *HIP*. We expect the negative impact of squared promoter ownership on dividend payments to be stronger in *HIP* firms since in such firms, promoters may expropriate the outside shareholders more and pay lesser dividends.

Table 8 reports the findings for the effect of information asymmetry problem. The results in the column 2 of Table 8 show that the *HIP* dummy interacted with *PO* is positive, while the interaction with  $PO^2$  is negative implying that firms with more information problems exhibit stronger nonlinear relation between dividends and promoter ownership. These results add to our arguments that at higher levels of their ownership, clubbed with higher information asymmetry problems, the likelihood of the promoters expropriating the outsiders increases.

As a further robustness check, we re-run the analysis reported in column (1) and (2) in Table 8 for *HIP* and *LIP* categories separately. The results, as expected, confirm a significant relation between promoter ownership and dividends only for firms facing high information asymmetry problems. For low information asymmetry problems firms, the coefficients are not significant which are in line with

**Table 8.** Promoter Ownership and Dividend Payments – Effect of Information Asymmetry

Variables	Panel A		Panel B	
	1	2	HIP	LIP
C	-5.140*** (-6.195)	-5.089*** (-4.512)	-4.828** (-7.640)	-3.400*** (-2.803)
PO	0.009* (1.761)	0.009 (0.309)	0.085*** (4.469)	-0.016 (-0.594)
PO <sup>2</sup>		0.033 (0.014)	-0.085*** (-4.191)	0.012 (0.531)
PO×HIP	0.013* (1.839)	0.137*** (3.031)		
PO <sup>2</sup> ×HIP		-0.148*** (-3.239)		
LEV	-4.089*** (-5.973)	-4.085*** (-6.060)	-4.368*** (-10.427)	-0.483*** (-0.868)
AGE	0.015*** (-4.974)	0.015*** (4.884)	0.009*** (5.032)	0.021*** (4.660)
SD	-3.049*** (-3.720)	-3.075*** (-3.762)	-1.951*** (-2.669)	-3.142*** (-2.681)
CR	3.955*** (3.588)	3.938*** (3.544)	3.613** (3.984)	2.604* (1.871)
ROA	27.58*** (7.313)	27.64*** (7.410)	11.658** (5.049)	46.03*** (12.03)
SIZE	0.478*** (7.716)	0.475*** (7.773)	0.414*** (9.607)	0.199*** (3.691)
GROWTH	-0.000** (-2.294)	-0.000** (-2.188)	-0.000 (-0.216)	-0.000** (-2.498)
N	10582	10582	5164	5286

**Note:** This table presents the relationship between promoter ownership and dividend payout for a sample of 1574 firms from 2010 to 2019 based on their classification into high information asymmetry problem (HIP) and low information asymmetry problem (LIP) firms. Firms having NPMI greater than the median are classified into HIP category while those having a NPMI of lesser than the median are put into LIP category. The definition of variables is reported in Table 1. The z-statistics are in parentheses and are calculated with QML (Huber/White) standard errors. \*, \*\* and \*\*\* indicate significance level at 10%, 5% and 1% respectively.

the extant literature. In general, the findings presented in Tables (5), (7) and (8) establish that the nonlinear relation between promoter ownership and dividends is more pronounced for standalone firms and firms facing more information asymmetry problems since these firms are more prone to agency problems.

#### PROMOTER OWNERSHIP AND DIVIDEND PAYMENTS – AGENCY VS. SIGNALING EXPLANATIONS

In the previous subsections, we have shown that at higher levels of their ownership, promoters become entrenched with effective control, and have both the ability and incentives to expropriate the outside shareholders. We further argue that these results are driven by agency and information asymmetry problems, since at higher levels of promoter ownership, the conflict of interest between



the promoters and outside shareholders become higher. However, in this subsection, we argue that the nonlinear relation between promoter ownership and dividend payments may not necessarily be driven by an agency problem-based argument as per the negative view of the promoter-controlled firms. It may well be due to the lesser need of the promoters to pay dividends in an attempt to commit to lesser bonding/signaling objectives, a positive view of the promoter-controlled firms.

In this subsection, we examine which of these two competing arguments drives our results. To do so, we examine the relation between promoter ownership and dividend payments by classifying the firms in two subsamples – firms with more agency problems, that is, high free cash flows, and firms with lower agency problems, that is, lower free cash flows, (Chen et al., 2011; and Attig et al., 2016). If our argument of the promoters expropriating the outside shareholders at higher level of promoter ownership is valid, then the nonlinear relation between promoter ownership and dividend payments should be pronounced for firms with higher free cash flows, in line with H3.

Similar to Lins et al. (2013), Attig et al. (2016), and Kumar and Singh (2022), we compute the firm's free cash flow (FCF) as the operating earnings before depreciation less capital expenditure, scaled by total assets. We need to be cautious that if promoter-controlled firms exhibit high agency problems, their free cash flows might be endogenous. To eliminate this endogeneity problem, we follow Chen et al. (2011) to use the firm's residual free cash flows, computed as the residual from the regression of free cash flows on  $PO$  and  $PO^2$ . Such a measure of free cash flow will be orthogonal to promoter ownership and free from the endogeneity bias.

To test our hypothesis H3 empirically, for every year, we split all firms into two categories – high agency problem, proxied by high residual free cash flow, (*HFCF*) and low agency problem, proxied by low residual free cash flow (*LFCF*) based on the median value of residual FCF. As per our agency problem argument, firms with residual FCF value less than the median are put into *LFCF*, whereas firms having residual FCF values more than the median are categorized into the *HFCF*. Subsequently, we create a dummy variable for *HFCF* category as '1' and '0' for the *LFCF* category. To examine the joint effect of high agency problems and promoter ownership, we produce an interaction term between  $PO$  and *HFCF*, and squared  $PO$  and *HFCF*. We expect the negative impact of squared promoter ownership on dividend payments to be more pronounced in *HFCF* firms since in such firms, promoters have more cash flows to misuse, for their personal benefits.

The results, presented in Panel A of Table 9, show that the interaction  $PO \times HFCF$  is positive, implying that when their ownership is low, promoters pay more dividends in firms with higher free cash flows. It may be possible that the promoters do not have enough control over the firm to utilize the free cash flows for their private benefit when they have lower ownership. However, when their ownership increases, they possess effective control in firm such that their tendency to utilize the free cash flows for their private benefits increases. This argument is supported in Column (2) of Panel A, where the interaction term  $PO^2 \times HFCF$  is significantly negative; the promoters pay lesser dividends at higher levels of their ownership clubbed with higher agency problems.

In an attempt to test the economic significance of our results, we examine the relation between promoter ownership and dividend payments separately for high agency problem and low agency problem firms in Panel B. The results suggest that the coefficient of  $PO$  and  $PO^2$  is more significant for firms facing high agency problems, that is, firms possessing more free cash flows. These results provide support to our proposed hypothesis H3, and we conclude that the negative relation between higher promoter ownership and dividend payments is driven by agency problem explanation.

**Table 9.** Promoter Ownership and Dividend Payments – Agency vs. Signalling Explanation

Variables	Panel A		Panel B	
	1	2	HFCF	LFCF
C	-3.024*** (-3.505)	-4.546*** (-4.710)	-7.468** (-4.652)	-3.163*** (-3.601)
PO	0.012** (2.400)	0.051*** (3.354)	0.122*** (5.116)	0.044*** (2.720)
PO <sup>2</sup>		-0.056*** (-3.990)	-0.102*** (-4.657)	-0.039*** (-2.656)
PO×HFCF	0.033*** (14.792)	0.051*** (6.950)		
PO <sup>2</sup> × HFCF		-0.030** (-2.470)		
LEV	-7.546*** (-16.453)	-7.556*** (-16.329)	-10.552*** (-12.725)	-6.508*** (-14.380)
AGE	0.013*** (-4.369)	0.013*** (4.315)	0.017*** (3.136)	0.008*** (4.041)
SD	-3.387*** (-3.737)	-3.358*** (-3.730)	-3.205*** (-2.747)	-3.927*** (-2.572)
CR	6.902*** (5.752)	7.038*** (5.816)	9.383** (4.891)	5.209*** (4.218)
SIZE	0.598*** (10.509)	0.588*** (10.294)	0.819*** (8.224)	0.541*** (9.327)
GROWTH	-0.000 (-1.392)	-0.000 (-1.269)	-0.000** (-2.104)	-0.000 (-0.529)
NPNI	-0.028*** (-6.103)	-0.030*** (-6.432)	-0.026*** (-3.215)	-0.026*** (-6.092)
N	10582	10582	5296	5286

**Note:** This table presents the relationship between promoter ownership and dividend payout for a sample of 1574 firms from 2010 to 2019 based on their classification into high agency problem (*HFCF*) and low agency problem (*LFCF*) firms. Firms having residual free cash flows greater than the median are classified into *HFCF* category while those having residual free cash flows less than the median are put into *LFCF* category. The definition of variables is reported in Table 1. The z-statistics are in parentheses and are calculated with QML (Huber/White) standard errors. \*, \*\* and \*\*\* indicate significance level at 10%, 5% and 1% respectively.

### PROMOTER OWNERSHIP AND DIVIDEND PAYMENTS – DECISION WHETHER TO PAY OR NOT TO PAY

In this section, we enrich our analysis by considering the effect of promoter ownership on their decision to pay or not to pay dividends. To do so, our dependent dividend variable becomes binary in nature, that is, a dummy variable which is equal to ‘1’ if the firm pays dividends and ‘0’ if the firm pays no dividends. Therefore, our dependent variable in this setting represents the probability of the firm to distribute dividends, conditional upon the information set specified in the explanatory and other control variables. Therefore, logit (a binary choice) model is best suited to capture such relation between promoter ownership and their decision to pay or not to pay. Here, we reproduce all the relations between promoter ownership and dividend payments as captured in Tables 5, 7, 8 and 9.

As shown in Table 10, our results confirm the earlier findings. For instance, in the first column, the negative coefficient on squared promoter ownership shows that at high levels of promoter ownership, the probability of paying dividend is low, owing to higher levels of agency and information asymmetry problems. Similarly, in column (2), the positive coefficient on the interaction of squared promoter ownership and group suggests that the business group firms are more likely to pay dividends than standalone firms, when the promoter ownership is high. In column (3), we have a weaker evidence to show that at higher ownership, promoters have a lower propensity to pay dividends in firms facing higher information asymmetry problems, though the signs are as expected. Finally, in Column (4), the negative and significant  $PO^2 \times HFCF$  coefficient confirm that in firms with high agency problems, promoters are less likely to pay dividends such that the nonlinear relationship between promoter ownership and dividend payout more pronounced for firms with high agency problems.

Overall, the results presented in Table 10 provide another aspect of the dividend policy of whether to pay or not, and not only the decision of how much to pay. The results are qualitatively similar to the findings presented in Tables 5, 7, 8 and 9 in that the nonlinear relation between promoter ownership and dividends is more pronounced for standalone firms and firms having higher agency and information asymmetry problems.

## ROBUSTNESS RESULTS

Our hypotheses suggest that dividends payout is significantly lower for firms having large promoters' ownership. Conversely, it is highly unlikely that promoters' ownership might arise from decline in dividend payment ruling out the possibility of endogeneity issue in our analysis. However, we still use a direct way to deal with the possible endogeneity issue. Similar to Huang et al. (2012), we have used dividend payout variable  $DPTA$  of previous year as an independent variable, and promoter ownership as dependent variable. Our results indicate that the dividend payout variables have no significant impact on promoter ownership and we conclude that our analysis is free from the endogeneity issue.

Second, we re-examine our results using the two-stage least squares (2SLS) with cluster standard errors. These techniques help mitigate the possible endogeneity bias (Wintoki et al., 2012). We use the lagged values of other control variables in their first difference as instrument variables. The 2SLS results, in Column (1) with dependent variable as  $DPTA$  and in Column (2) with binary dependent variable, assuming value of 1 for dividend paying firms and 0 for non-payers, in Table 11 confirm the nonlinear relation between promoter ownership and dividend payment such that promoters pay lesser dividends only at higher levels of their ownership. Overall, our results using 2SLS remain qualitatively similar to those presented earlier.

Another issue could be using different proxies of dividend payout. We replace dividends as a percentage of total assets ( $DPTA$ ) by dividends as a percentage of the net income ( $DPNI$ ) of the firm. While not reported, we obtain the similar results as shown above. Finally, similar to Attig et al. (2016), we do not include firm-fixed effects in our analysis since cross section variation in promoter ownership should account for the heterogeneity in the dividend policy across firms. Including firm-fixed effects would lead to the removal of such cross-sectional variation. However, we have controlled for the time-fixed effects and our results do not change significantly.

Finally, we examine the role played by corporate governance measures to affect a firm's dividend policy. Jiraporn et al. (2011) argue that corporate governance mitigates the agency problems and thus impacts the dividend policy of a firm. They further show that firms with better corporate governance quality pay higher dividends. We, therefore, re-examine the impact of promoter ownership on dividend payout in the presence of key firm level governance proxies such as board size ( $BS$ ), measured as the number of directors on the board; and board independence ( $INDBD$ ), measured as the proportion of independent directors to the total number of directors on the board).

**Table 10.** Promoter Ownership and Dividend Payment – Decision Whether to Pay or Not to Pay

	1	2	3	4
C	-3.977*** (-10.582)	-4.648*** (-10.603)	-4.324*** (-10.475)	-3.741*** (-10.511)
PO	0.059*** (6.825)	0.086*** (6.698)	0.071*** (6.915)	0.054*** (6.708)
PO <sup>2</sup>	-0.061*** (-7.294)	-0.085*** (-6.884)	-0.070*** (-7.180)	-0.055*** (-6.709)
GROUP		1.575*** (3.463)		
PO×GROUP		-0.058*** (-3.232)		
PO <sup>2</sup> ×GROUP		0.054*** (3.139)		
PO×HIP			0.008 (1.036)	
PO <sup>2</sup> ×HIP			-0.018 (-1.473)	
PO×HFCF				0.036*** (7.973)
PO <sup>2</sup> ×HFCF				-0.033*** (-4.403)
LEV	-1.674*** (-9.185)	-1.667*** (-9.067)	-1.662*** (-9.144)	-3.308*** (26.217)
AGE	0.014*** (10.331)	0.013*** (9.885)	0.014*** (10.361)	0.012*** (9.153)
SD	-1.509*** (-2.764)	-1.524*** (-2.726)	-1.545*** (-2.774)	-1.856*** (-3.311)
CR	2.080*** (3.722)	2.182*** (3.881)	2.070*** (3.686)	3.264*** (5.890)
ROA	17.022*** (12.176)	17.201*** (12.202)	17.033*** (12.167)	
SIZE	0.391*** (18.153)	0.381*** (17.237)	0.388*** (18.091)	0.463*** (23.011)
GROWTH	0.000 (-0.162)	0.000 (-0.177)	0.000 (-0.094)	0.000** (2.322)
NPNI	-0.012*** (-4.481)	-0.011*** (-4.119)		-0.014*** (-5.706)
N	10582	10582	10582	10582

**Note:** This table presents the relationship between promoter ownership and dividend payout decision of whether to pay or not for a sample of 1574 firms from 2010 to 2019. We use a dummy variable for the dependent variable which takes a value of 1 for dividend paying firms and 0 otherwise. The definition of variables is reported in Table 1. The z-statistics are in parentheses and are calculated with QML (Huber/White) standard errors. \*\* and \*\*\* indicate significance level at 5% and 1% respectively.

**Table 11.** Addressing Endogeneity Concern – 2SLS Results

	1	2
C	3.5929*** (8.6781)	0.1287** (2.0454)
PO	0.0455*** (4.6630)	0.0759*** (6.1285)
PO <sup>2</sup>	-0.0314*** (-3.2896)	-0.0829*** (-6.8323)
LEV	-0.8228*** (-7.4711)	-0.2106*** (-15.059)
AGE	0.0066*** (4.2591)	0.0021*** (10.7753)
SD	-1.8089*** (-5.2545)	-0.2466*** (-5.6408)
CR	7.0470*** (14.320)	0.5299*** (8.4798)
ROA	4.7373*** (20.383)	0.6171*** (20.913)
SIZE	0.185*** (8.222)	0.0598*** (20.944)
GROWTH	0.0000 (0.4740)	0.0000 (-0.2403)
NPNI	-0.0316*** (-10.163)	-0.0035*** (-8.9763)
N	10582	10582

**Note:** The definition of variables is reported in Table 1. The z-statistics are in parentheses and are calculated with QML (Huber/White) standard errors. \*\* and \*\*\* show significance level at 5% and 1% respectively.

For both *BS* and *INDBD*, we create dummy variables (*BSDummy* and *INDBDDummy*) which is equal to '1' for values greater than the median and '0', otherwise. Further, we add interaction term between *PO*, *PO*<sup>2</sup> and these two dummy variables separately to observe their joint effect on dividend payments. We expect the negative impact of squared promoter ownership on dividend payments to be less pronounced in firms with larger board size and more independent directors in the board, since in such firms, better corporate governance would monitor the opportunistic behaviour of promoters to misuse the firm funds for their personal benefits such that they pay more dividends.

Consistent with Jiraporn et al. (2011), In Table 12, we show that board size and board independence positively influence the dividend payout. Further, as expected, we report a significantly negative coefficient for *PO*×*BSDummy* and *PO*×*INDBDDummy*, while significantly positive coefficient for *PO*<sup>2</sup>×*BSDummy* and *PO*<sup>2</sup>×*INDBDDummy*. These results show that when the promoter ownership is high, the relation between dividends and promoter ownership is less negative for firms having larger board size and more independent directors in the board. It is driven by the logic that the level of information asymmetry faced by outsiders is low in such firms because of their better corporate governance practices.

**Table 12.** Promoter Ownership and Dividend Payment – Corporate Governance Control

	1	2	3	4
C	-5.712*** (-8.804)	-4.943*** (-10.198)	-6.549*** (-12.943)	-5.134*** (-9.575)
PO	0.059*** (3.630)	0.193*** (4.493)	0.121*** (3.538)	0.102*** (5.320)
PO <sup>2</sup>	-0.056*** (-3.651)	-0.175*** (-5.275)	-0.107*** (-3.696)	-0.087*** (-3.759)
BSDummy	8.102*** (7.264)		3.169*** (9.205)	
PO×BSDummy	-0.035*** (3.383)		-0.053*** (9.205)	
PO <sup>2</sup> ×BSDummy	0.032*** (2.943)		0.048*** (9.205)	
INDBDDummy		5.808*** (5.743)		2.329*** (3.751)
PO×INDBDDummy		-0.065*** (-2.552)		-0.025*** (3.002)
PO <sup>2</sup> ×INDBDDummy		0.063*** (4.571)		0.023*** (3.152)
AGE	0.070*** (3.439)	0.069*** (3.191)	0.015*** (6.007)	0.017*** (5.201)
SD	2.876*** (4.670)	-2.095** (-2.424)	-2.056*** (-3.454)	-1.962*** (-3.161)
CR	1.495** (2.374)	1.404*** (2.604)	2.159*** (3.367)	2.005*** (2.798)
ROA	26.48*** (6.538)	27.66*** (6.999)	19.21*** (9.862)	16.54*** (8.102)
SIZE	0.242*** (9.828)	0.481** (5.853)	0.389*** (16.023)	0.372*** (8.665)
GROWTH	-0.001** (-2.534)	-0.001** (-2.373)	0.000*** (-4.316)	0.001*** (-6.532)
NPNI	-0.046*** (-3.526)	-0.044*** (-4.441)	-0.012*** (-3.705)	-0.009*** (-3.997)
N	10026	4652	10026	10026

**Note:** This table presents the relationship between promoter ownership and dividend payout for a sample of 1574 firms from 2010 to 2019 in the presence of corporate governance variables such as board size (BS) and board independence (INDBD). The definition of variables is reported in Table 1. The z-statistics are in parentheses and are calculated with QML (Huber/White) standard errors. \*, \*\* and \*\*\* indicate significance level at 10%, 5% and 1% respectively.

## CONCLUSION

Our article examines the nonlinear relationship between promoter ownership and dividend payout in India, an emerging nation where firms have concentrated ownership. We show that at higher levels of promoter ownership, the promoters become entrenched by their effective control over the firms,

consequently, the level of agency and information asymmetry problems between the promoters and outsiders becomes greater, and therefore, such firms pay lesser dividends.

Making use of 10582 firm-year observations for 1574 Indian firms from 2010 to 2019, we show that dividend payments are significantly affected by promoter ownership. We report a nonlinear, an *inverse U-shaped* relation in particular, between promoter ownership and dividend payments. That is, at lower level of ownership, promoters pay higher dividends supporting the alignment hypothesis. At higher level of ownership, promoters are entrenched by their effective control over the firm such that their actions expropriate the outsiders, and promoters are less likely to pay dividends and payout levels are also low, which supports the entrenchment hypothesis. Our results remain robust to using a binary choice logit model where we show that promoters are less likely to pay dividends at higher levels of ownership.

We show that the nonlinear relation between dividend payments and promoter ownership is driven by agency and information asymmetry problems. To prove this, we show that the relationship between promoter ownership and dividend payout is less pronounced for business group firms than standalone firms, and firms with larger board size and more number of independent directors in the board, since such firms have been found to be able to overcome the information asymmetry problems and have better corporate governance practices. Finally, we show that the nonlinear relation between promoter ownership and dividend payments is more pronounced for firms with higher agency problems.

Our paper is the first to investigate the nonlinear relationship between promoter ownership and dividend policy in the Indian context pertaining to both the decision: how much to pay, and to pay or not to pay. Overall, we show that firms with high promoter ownership are more prone to agency and information asymmetry problems due to which they pay lesser dividends. Our findings may also be applicable to other emerging markets, which are also largely characterized by the dominance of family-controlled firms.

Our findings have important managerial implications in shedding light at the idea of how promoters' incentive alignment should be proposed and followed to encourage a firm's dividend payment decisions. Given India is characterized by poor corporate governance and weak investor protection leading to expropriation, policymakers may consider encouraging more transparency, better investor protection, and largely good governance practices. As far as shareholders are concerned, the findings indicate that investments in firms with lower promoter ownership which pay higher dividends or firms with higher promoter ownership affiliated to business group or firms with larger and more independent board mitigate agency conflicts seems reasonable.

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