Impact of blockholder promoters on debt financing of Indian firms

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Abstract: We examine the effect of blockholder promoters on financing decisions of Indian firms. A fixed effect panel analysis of 13,131 observations during the period 2001–2017, confirm that, greater the promoter ownership, less the preference for leverage. However, the impact of promoter ownership on financing decisions varies with the type of blockholders. We find that the moderating effect of state-owned and private-foreign blockholders with promoter ownership is negatively associated with leverage, while family-owned blockholders with promoter ownership is positively associated with leverage. The study finds that the significance of agency cost II varies with the identity of blockholder promoters.

Keywords: promoter ownership; leverage; blockholder; state-owned; private-Indian; family-owned; private-foreign; agency cost.

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1 Introduction

In this study, given the distinctive concentrated ownership structure of India, we examine the nexus between promoter ownership (founding concentrated ownership) and firms financing decisions and explore if it leads to expropriation of minority shareholders. Furthermore, we explore if this link between promoter ownership and leverage varies with the type of blockholder. Prior research in the area of corporate governance indicates that firms in emerging markets with weak investors protection may expropriate the rights of minority shareholders (La Porta et al. 2000, 2002; Shleifer and Wolfenzon, 2002; De Cesari, 2012). High concentrated shareholders in firms may divert funds for their personal benefits and lead to expropriation of minority shareholders (Johnson et al., 2000; Roe, 2005). In India, since promoter ownership is more prevalent and average promoter shareholding is as high as 48.01% (Sarkar, 2010), the classic agency theory which increases agency cost I and triggers conflicts between managers and shareholders, is not relevant here. However, agency cost II which occurs due to misalignment of interests between majority and minority shareholders (Dharwadkar et al., 2000; Isakov and Weisskopf, 2014) may be an issue of concern.

Sarkar and Sarkar (2012) documented that 43% of Indian firms have at least one shareholder who has a shareholding of more than 20% in each firm. The presence of such type of blockholder promoters may compound the agency cost II. A survey of 1,236 firms shows that on an average, the controlling shareholding of promoter ownership across all the firms is 53% (during the period 2001–2017), which is held by family members or individuals who exercise control over the company more than external shareholders. Hence, inside ownership concentration is high in Indian firms i.e., inside ownership rules over the firms control execution when compared to external shareholders and proper legal protection is not given to external shareholders (La Porta et al., 1999).

Furthermore, in India, the type of blockholder promoters may be state-owned, family-owned, private-Indian or private-foreign firms. Each type of blockholder behaves differently, for example, Shikha and Mishra (2019) find that the dominance of family promoters leads to strong control on firm's board and makes the board less independent. Thus, the presence of blockholder promoters and the type of blockholder may have significant governance impact on firms decisions.

We find that debt can act as a monitoring mechanism and help in reducing the firms agency cost (Ang et al., 2000; Fleming et al., 2005). In most of the firms, the decision on capital structure plays an important role in firm's growth and profitability as it affects the risk and return of the firm. Along with various firm related factors that influence firms financing decisions, ownership structure is one of the important determinants which has a significant impact on the decision of the firm (Friend and Lang, 1988).

While a considerate amount of research examines the effect of ownership structure on firms performance, limited studies have focused on the association between ownership structure and leverage when promoter ownership is highly dominant. Few studies show that the agency problem may lead a significant positive relationship between the debt-equity ratio and ownership (Short et al., 2002; Kim and Sorensen, 1986; Mehran, 1992), while some reported a negative association between the two (Friend and Lang, 1988; Jensen et al., 1992). There seems to be a mixed evidence on the relationship between leverage and ownership structure in the context of agency cost I. However, the impact of blockholder promoters on financing decisions in the context of agency cost II is yet to be explored. Hence, it is pertinent to examine if blockholder promoters have a

significant impact on debt financing decisions and does it vary with the type of blockholder promoters.

This study is based on 1,236 firms listed in National Stock Exchange (NSE) in India and examines the impact of blockholder promoters on firms financing decision across several industries during the period 2001–2017. The main contributions of the study are: first, in India, majority of firms are highly concentrated and our study will contribute to the existing literature of emerging economies with high concentrated ownership and examine whether agency problem II exists. Second, our study examines if the blockholder promoters preference towards debt varies with the type of blockholder.

The structure of the paper is as follows. Section 2 focuses on development of hypothesis, and Section 3 explains the data and methodology. Section 4 discusses the results of analysis. Section 5 concludes and brings out the implications of the study.

2 Development of hypothesis

2.1 Insider ownership and agency conflict

A large gamut of studies exists on insider ownership and their impact on firm-related decisions. A survey on corporate governance (Shleifer and Vishny, 1997) explains the agency conflict occurs between insider ownership and other stakeholders. Moreover, the relationship between managerial ownership and firm value shows a significant non-monotonic association (Morck et al., 1988). It is observed that as the managerial ownership increases, the market value of the firm also increases, which tends to reduce the agency cost I (conflict between shareholders and managers), since the managers are entitled to pay a larger share of this cost (Jensen and Meckling, 1976). However, the presence of large insider shareholding will result in insiders generating huge incentives and potential benefits (Berle and Means, 1932), which will overshadow the benefits of controlling managers. Thus, in the process of reducing agency cost I, there is an increase in agency cost II which could be resulting to an expropriation of minority shareholders by the controlling shareholders (Dharwadkar et al., 2000; Young et al., 2008). The magnitude of these potential private benefits is huge and has been quantified by many past studies (Grossman and Hart, 1980). It is also reported that on an average around 14% of equity is earned as a part of private benefits for being an insider controlling shareholder (Dyck and Zingales, 2004). These high earned private benefits intensify the problem of minority shareholders expropriation. Each country has different investors' protection laws. Especially, countries which have weak legal laws are more prone to minority shareholders expropriation. Therefore, the type of protection investors receive by the respective country's law counts as one of the factors impacting their firm's decisions (Porta et al., 1998). They further show a negative relationship between the concentration of shares and investor protection. Consequently, concentrated ownership with weak investors' protection law increases minority shareholders expropriation (Claessens et al., 2000; Faccio et al., 2001; Johnson et al., 2000; Mitton, 2002). Moreover, emerging economies exhibit the weak corporate governance (Dharwadkar et al., 2000; Mitton, 2002). India is one of the fastest emerging economies in the world and has a huge concentration of ownership but still struggles with investor protection rights which may lead to expropriation of minority shareholders. Hence, this study

focuses on the role of large controlling shareholders (blockholder promoters) in firms financing decisions.

2.2 Debt, insider ownership and corporate governance

In the past two decades, corporate governance has become a core mechanism of the system that plays an important role in the long-term growth and sustainability of the firms. The presence of corporate governance entice a significant effect on the firm-related decisions which include decision on firm's performance (Kumar and Singh, 2013; Selarka, 2005), decision on mergers and acquisitions (Martynova and Renneboog, 2008), decision on R&D strategy (Baysinger et al., 1991), decision on dividends (Prasanna, 2014) and corporate innovation strategies (Hoskisson et al., 2002). Therefore, corporate governance forms one of the important components in deciding the firms' financing sources (Jensen and Meckling, 1976; Friend and Lang, 1988; Moh'd et al., 1998; La Porta et al., 1999). Jensen and Meckling (1976) observed that an increase in the level of managerial ownership will lead to less agency cost (decreases conflict) and thus increases firm performance. Hence, an increase in insiders ownership control enjoys more power and impacts firm performance when compared to external ownership control (Stulz, 1988).

Previous studies elucidate that the managerial self-interest does affect the capital structure decisions and also report a negative relationship between the level of management investment and debt (Friend and Lang, 1988; Moh'd et al., 1998). Therefore, the presence of majority holdings of non-managerial shareholders will lead to an increase in the level of debt and maintains camaraderie between the interest of public shareholders and managers (Friend and Lang, 1988). Furthermore, an investigation of 28 wealth economies shows that emerging economies with weak shareholder's legal protection have high level of controlling shareholders and minority shareholders interest suffered the ignorance. However, in countries where minority shareholders are provided with strong legal protection, they have broader and valuable equity markets (La Porta et al., 1997). Some studies reported a mixture of positive and negative relationship between ownership and debt. Brailsford et al. (2002) reported a non-linear i.e., inverted U shape relationship between the managerial share ownership and leverage, while external blockholders are positively related to leverage. When non-affiliated firms are compared with group affiliated firms to examine the significance of debt in corporate governance in an emerging economy, it is reported that ownership and control structure makes the debt sensitive, whereas debt governance gets affected by different country-level institutional factors (Sarkar and Sarkar, 2008) in India. In this scenario, when there is a high level of ownership concentration and weak system of corporate governance, state-level controlling shareholder firms promote a higher level of leverage compared to domestic private controlling shareholders, since firms with strong political support have more inclination towards a higher level of debt (Pöyry and Maury, 2010). However, a different perspective is provided on the relationship between ownership structure and capital structure i.e., capital structure is partly affected by controlling ownership and partly by the managerial incentives and when the manager entrenchment is present, the external shareholders support the increase in leverage (Pindado and de La Torre, 2011). Ganguli (2013) proved that leverage and ownership structure do not share an endogenous relationship, as there is a unidirectional relationship flowing from ownership structure to capital structure. A positive relationship between leverage and concentrated shareholding

was reported, while leverage and diffused shareholding share a negative relationship. Some studies have also shown the relationship of ownership with firm value (Selarka, 2005) and firm size (Kumar and Singh, 2013).

Extensive research has been done on the determinants of capital structure or optimal capital structure decision and also substantial amount of research has been done on corporate governance, but studies linking both are limited. Some studies examine the relationship between ownership structure and capital structure. Mehran (1992), Kim and Sorensen (1986), and Short et al. (2002) argued that the insiders shares and the firms leverage has a positive relationship while Friend and Lang (1988) and Jensen et al. (1992) reported an inverse relationship between insider ownership and firm's debt ratio. Brailsford et al. (2002) and Lugo (2019) also found a nonlinear relationship between inside ownership and leverage. The inconsistent empirical findings of the previous studies result in a mixed effect on the relationship between ownership structure and leverage. Hence, in this study, we propose the following hypothesis:

H_{1a} There is a significant effect of blockholder promoters on leverage.

2.3 Type of blockholder promoters and debt

Since blockholder promoters are the founding controlling large shareholders of the firm, their impact on the firm decisions will be significant and may also vary with their type. Chen et al. (2014) state that the financing choices of family firms, when compared with non- family firms, differ. As there is a higher possibility of minority shareholder expropriation in the family firms, the leverage ratios are higher and debt maturity is low. With reference to firm performance, the presence of family blockholders do not have a uniform effect, the impact of family blockholders on firms performance may vary due to several other factors which mostly include the level of family ownership (Isakov and Weisskopf, 2014). The reputation of family firms is one of the important factors which concentrates on the blockholders effect, their long-term performance and protect them against being self-centred (Ward, 2004; Miller and Le Breton-Miller, 2005). Hence, this may lead to the inference that family firms go for less expropriation (Corbetta and Salvato, 2004). While considering government blockholder, it is found that government ownership has a positive impact on the cost of debt (Borisova et al., 2015). In fact, a study based on China, align with Borisova et al. (2015), and found a positive association between state-ownership and leverage and their access to long-term debt. But, a negative relationship is found between foreign ownership and leverage (Li et al., 2009). Additionally, when they compare state-owned with non-state-owned counterparts, the results show that state-owned firms prefer more debt.

Prior studies argue that promoter ownership always had more influence (predominant shareholding) over the other ownership structure (Stulz, 1988; Chakrabarti et al., 2008; Balasubramanian and Anand, 2013). The variation in behaviour of promoters depends on the type of blockholders and the relationship between leverage and ownership structure may vary with the country settings. In India, blockholders may be categorised into state-owned, private (Indian), family-owned and private (foreign) firm. According to literature review discussed above, we infer that different ownership has a different impact on financing decisions, which has given us further motivation to analyse if the impact also varies with the change in blockholder promoters. Hence, we investigate the

relationship between the type of blockholder promoters and leverage in Indian firms and propose the following hypothesis:

H_{1b} The effect of promoter ownership on leverage varies with the type of blockholders.

3 Data and methodology

The source of data is Prowess Database compiled by Centre for Monitoring Indian Economy (CMIE). Initially, 1,923 NSE listed Indian companies for the period 2001–2017 were considered. After dropping a few firms due to missing values, not considering finance and utility firms, considering only those firms whose leverage is between 0 to 1.5, we are left with 1,236 firms representing 13,131 firm-year observations. Data on blockholding is classified on the basis of CMIE-Prowess ownership classification. This classification is further defined by the percentage of major blockholder, which should be greater than 20% (La Porta et al., 1999). We classified and subdivided each blockholding class, according to the classification given in Prowess database. Ownership has four major classifications which are state-owned, private-Indian, family-owned and private foreign. All the classes other than the government is sub-divided into group and non-group. This leads to total seven sub-classifications i.e., state-owned, private-Indian (group), private-Indian (non-group), family-owned (group), family-owned (non-group), private-foreign (group), private-foreign (non-group). All the above variables are introduced as dummy variables.

Data on promoter ownership is further extracted from CMIE Prowess database. According to CMIE Prowess, equity is divided into two holdings; they are promoters holding and non-promoters holding. Promoters holding is further bifurcated into Indian promoters and foreign promoters. Non-promoters are divided into non-promoters institutional and non-promoters non-institutional. In our study, we have considered promoters holding (Indian promoters and foreign promoters) as promoter ownership.

In our study, the firm-specific control variables which are used to determine leverage are operating cash flow (a proxy for profitability), market-to-book ratio, net working capital, size of the firm and dividend similar to Titman and Wessels (1988), Frank and Goyal (2009), Alkhatib (2012). The other corporate governance independent variables are promoter ownership and blockholders. Measurement of the dependent and independent variables are given in Table 1.

In this study, since the data comprises both cross-sectional and time series, we used fixed effect panel regression model based on the Hausman specification test. In our study, the base model is reported in equation (1). We have controlled for year (α_t) and industry (α_i) fixed effects.

$$LEV_{i,t} = \alpha + \beta_1 C\_FLOW_{i,t} + \beta_2 L\_MKTB_{i,t} + \beta_3 NWC_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 DIV_{i,t} + \beta_6 INSTI\_OWN_{i,t} + \alpha_i + \alpha_t + \varepsilon_{i,t} \quad (1)$$

Large blockholders play an important role in influencing the firms decisions. By extending equation (1), we examine the impact of the type of blockholders on leverage [equation (2)].

$$LEV_{i,t} = \alpha + \beta_1 Control\ Variables_{i,t} + \beta_2 Promoter\ ownership_{i,t} + \beta_3 Type\ of\ Blockholder_{i,t}(Dummy) + \alpha_i + \alpha_t + \varepsilon_{i,t} \quad (2)$$

Table 1 Measurement of variables

Variables	*Measurement*
LEV	Leverage = Total Borrowings / Total Assets
C_FLOW	Cash flow =Profit after tax / Total Assets
L_MKTB	Market to Book = Natural log (1+ (Total Assets - Book Value of Equity + Market Valueof Equity) / Total Assets))
NWC	Networking Capital = (Current Assets-Current Liabilities)/ Total Assets
SIZE	Size = Natural logarithm of Total Assets.
DIV	Dividend payout = Dividends to total assets
IO	Institutional ownership = Percentage of equity held by non-promoter institutional investors
PROM	Promoter ownership = Percentage of equity held by foreign and Indian promoters
PROM_SQ	Square of promoter ownership
SO	Is equal to 1 if it is a state-owned (government) blockholder, else 0
PVT	Is equal to 1 if it is a private-Indian blockholder, else 0
PVT_G	Is equal to 1 if it is a private-Indian (group) blockholder, else 0
PVT_NG	Is equal to 1 if it is a private-Indian (non-group) blockholder, else 0
FLY	Is equal to 1 if it is a family blockholder, else 0
FLY_G	Is equal to 1 if it is a family (group) blockholder, else 0
FLY_NG	Is equal to 1 if it Is a family (non-group) blockholder, else 0
FOR	Is equal to 1 if it is a foreign blockholder, else 0
FOR_G	Is equal to 1 if it is a foreign (group) blockholder, else 0
FOR_NG	Is equal to 1 if it is a foreign (non-group) blockholder, else 0

Our literature review also documented that promoter ownership has a significant impact on leverage. Therefore, to examine if the impact of blockholder promoters on the firms financing decision differs with their type, we have moderated the promoter ownership with the type of blockholders where α_i and α_t are industry-specific effects and time effects respectively [equation (3)].

$$LEV_{i,t} = \alpha + \beta_1 Control\ Variables_{i,t} + \beta_2 Promoter\ ownership_{i,t} + \beta_3\ Type\ of\ Blockholder_{i,t}(Dummy) + \beta_4\ Type\ of\ Blockholder_{i,t}\ (Dummy) * Promoter\ ownership_{i,t} + \alpha_i + \alpha_t + \varepsilon_{i,t} \quad (3)$$

In further analysis, we also group the firms into three: firms which have less than or equal to 25 percentile promoter ownership, firms which have more than 25 but less than 75 percentile of promoter ownership and firms which have more than 75 percentile promoter ownership to see if the impact of promoter ownership varies with the variation in level of promoter ownership on leverage.

2SLS regression model is used to test for endogeniety issues and Tobit analysis is used for testing the robustness of the result.

4 Results

The descriptive statistics in Table 2 shows the average (median) leverage is 33.5% (31.3%). The mean (median) value of promoter ownership is 53% (53.9 per cent) which indicates the high level of promoter ownership in India. This highly concentrated ownership gives rise to the speculation of the presence of agency cost II.

Table 2 Descriptive statistics

Variables	*MEAN*	*SD*	*P25*	*MEDIAN*	*P75*	*N*
LEV	0.335	0.244	0.158	0.313	0.464	13131
SIZE	8.319	1.701	7.241	8.302	9.396	13131
L_MKTB	0.894	0.682	0.419	0.767	1.276	13131
NWC	0.138	0.230	0.010	0.138	0.283	13131
C_FLOW	0.039	0.094	0.008	0.038	0.082	13131
DIV	0.011	0.022	0.000	0.004	0.014	13131
IO	0.114	0.121	0.013	0.075	0.177	13131
PROM	0.530	0.168	0.423	0.539	0.658	13131

Table 3 Correlation matrix

Variables	*LEV*	*SIZE*	*L_MKTB*	*NWC*	*C_FLOW*	*DIV*	*IO*	*PROMO*
LEV	1							
SIZE	–0.0087	1						
L_MKTB	–0.3614*	0.2154*	1					
NWC	–0.2898*	–0.1938*	0.1508*	1				
C_FLOW	–0.5077*	0.0575*	0.4829*	0.3791*	1			
DIV	–0.3458*	0.1083*	0.4658*	0.1504*	0.5107*	1		
IO	–0.1357*	0.5173*	0.3063*	–0.0075	0.1724*	0.1978*	1	
PROM	–0.1217*	0.0327*	0.1897*	0.0653*	0.1601*	0.1147*	–0.3036*	1

Note: *Coefficient is significant at 5% level of significance.

The correlation matrix shows that the majority of variables are correlated with each other at 5% level of significance (Table 3). It reports that all the variables, primarily promoter ownership is negatively correlated with leverage.

In Table 4, we examine the effect of promoter ownership on leverage and we find that as the promoter ownership increases, preference to debt decreases (model 2). This association between promoters and leverage differs with the type of blockholders. Moreover, we examine the impact of the type of blockholders (state-owned, family, private-Indian and private-foreign) and their moderation with promoter ownership on the leverage (Table 4 and Table 5).

Table 4 Effect of blockholders (state-owned and family-owned firms) on leverage

Variables	*LEV Model 1*	*LEV Model 2*	*LEV Model 3*	*LEV Model 4*	*LEV Model 5*	*LEV Model 6*
SIZE	0.0137***	0.0161***	0.0163***	0.0170***	0.0175***	0.0176***
	(8.74)	(10.19)	(10.27)	(10.71)	(11.05)	(11.11)
L_MKTB	–0.0321***	–0.0242***	–0.0243***	–0.0239***	–0.0243***	–0.0243***
	(–10.39)	(–7.71)	(–7.74)	(–7.62)	(–7.75)	(–7.76)
NWC	–0.2371***	–0.2345***	–0.2339***	–0.2322***	–0.2372***	–0.2358***
	(–26.05)	(–25.90)	(–25.81)	(–25.65)	(–26.24)	(–26.09)
C_FLOW	–1.0043***	–0.9778***	–0.9797***	–0.9854***	–0.9724***	–0.9700***
	(–43.73)	(–42.47)	(–42.48)	(–42.75)	(–42.31)	(–42.23)
DIV	–0.8607***	–0.8352***	–0.8332***	–0.8283***	–0.8362***	–0.8323***
	(–8.29)	(–8.02)	(–8.00)	(–7.97)	(–8.05)	(–8.02)
IO	–0.1053***	–0.1864***	–0.1862***	–0.1911***	–0.1828***	–0.1798***
	(–6.52)	(–10.40)	(–10.39)	(–10.67)	(–10.22)	(–10.05)
PROM		–0.1219***	–0.1208***	–0.1074***	–0.1200***	–0.1502***
		(–10.65)	(–10.53)	(–9.22)	(–10.51)	(–11.57)
SO			–0.0134	0.1497***		
			(–1.40)	(5.44)		
PROM * SO				–0.2844***		
				(–6.32)		
FLY					–0.0284***	–0.0858***
					(–7.77)	(–6.97)
PROM * FLY						0.1089***
						(4.88)
CONSTANT	0.3665***	0.4146***	0.4131***	0.4007***	0.4120***	0.4273***
	(26.26)	(28.38)	(28.19)	(27.15)	(28.26)	(28.68)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs.	13131	13131	13131	13131	13131	13131
R-square	0.52	0.52	0.52	0.52	0.52	0.53

Notes: ***indicates coefficients significant at 1% level, ** indicates coefficients significant at 5% level.

The table examines effect of large blockholders on leverage (dependent variable) by controlling firm specific variables for the period 2001–2017 for NSE listed Indian firms. T-statistics are mentioned in parenthesis. The variables are measured as: LEV is total borrowings divided by total assets. C_FLOW is the ratio of profit after tax to total assets. L_MKTB is natural log ((total assets – book value of equity + market valueof equity) / total assets). NWC is measured as (current assets-current liabilities)/ total assets. SIZE is natural log of total assets. DIV is ratio of dividends to total assets. IO is measured as percentage of equity held by non-promoters institutional shareholder. PROM is measured as percentage of equity held by foreign and Indian promoters. SO is equal to 1 if it is a state-owned (government), else 0. FLY is equal to 1 if it is a family, else 0.

Table 5 Effect of blockholders (private-Indian and private-foreign firms) on leverage

Variables	*LEV Model 1*	*LEV Model 2*	*LEV Model 3*	*LEV Model 4*
SIZE	0.0178***	0.0178***	0.0159***	0.0159***
	(11.23)	(11.23)	(10.1)	(10.1)
L_MKTB	–0.0239***	–0.0238***	–0.0239***	–0.0235***
	(–7.62)	(–7.61)	(–7.59)	(–7.48)
NWC	–0.2359***	–0.2359***	–0.2344***	–0.2326***
	(–26.13)	(–26.12)	(–25.89)	(–25.67)
C_FLOW	–0.9799***	–0.9803***	–0.9796***	–0.9833***
	(–42.68)	(–42.61)	(–42.52)	(–42.67)
DIV	–0.8012***	–0.8006***	–0.8189***	–0.8057***
	(–7.71)	(–7.71)	(–7.85)	(–7.72)
IO	–0.1822***	–0.1825***	–0.1864***	–0.1885***
	(–10.19)	(–10.19)	(–10.40)	(–10.52)
PROM_OWN	–0.1148***	–0.1182***	–0.1206***	–0.1130***
	(–10.03)	(–6.87)	(–10.53)	(–9.73)
PVT	0.0308***	0.0278**		
	(8.86)	(2.43)		
PROM * PVT		0.0055		
		(0.27)		
FOR			–0.0163**	0.0893***
			(–2.12)	(3.25)
PROM * FOR				–0.1828***
				(–4.00)
CONSTANT	0.3799***	0.3817***	0.4159***	0.4116***
	(25.19)	(23.13)	(28.45)	(28.1)
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
No. of obs.	13131	13131	13131	13131
R-square	0.53	0.53	0.52	0.52

Notes: ***indicates coefficients significant at 1% level, ** indicates coefficients significant at 5% level.
The table examines effect of large blockholders on leverage (dependent variable) by controlling firm specific variables for the period 2001–2017 for NSE listed Indian firms. T-statistics are mentioned in parenthesis. The variables are measured as: LEV is total borrowings divided by total assets. C_FLOW is the ratio of profit after tax to total assets. L_MKTB is natural log ((total assets – book value of equity + market value of equity) / total assets). NWC is measured as (current assets-current liabilities)/ total assets. SIZE is natural log of total assets. DIV is ratio of dividends to total assets. IO is measured as percentage of equity held by non-promoters institutional shareholder. PROM is measured as percentage of equity held by foreign and Indian promoters. PVT is equal to 1 if it is a private-Indian. FOR is equal to 1 if it is a private-foreign, else 0.

Table 4 reports the results of state-owned and family-owned blockholders. We find that state-owned firms have an insignificant negative effect on leverage (model 3). When we moderate state-owned firms with promoter ownership, we find a significant negative relationship (model 4). On examining the effect of family-owned blockholders, we find that it has a negative effect on leverage (model 5), while the moderation effect of family-owned firms and promoter ownership is positively related to leverage (model 6).

Table 5 shows the results related to private-Indian and private-foreign blockholders. We analyse the impact of private-Indian blockholders on leverage and find a significant positive impact (model 1), while the moderation effect of private-Indian and promoter ownership shows an insignificant impact on leverage (model 2). Similarly, private-foreign firms also impact leverage negatively (model 3). Moreover, the moderation effect of private-foreign firms and promoter ownership reports a significant negative impact on leverage (model 4).

On comparing the effect of type of blockholders with the moderation effect of blockholders and promoter ownership on leverage, we find that the impact of each type of blockholder on leverage differs from the moderation effect between the promoter and the type of blockholder. Moreover, moderating the promoter ownership with state-owned and private-foreign blockholders, we find it has a significant negative effect on leverage. State-owned promoters prefer less leverage, it might be because high leverage is associated with bankruptcy risk. The other reason could be that they themselves are self-regulated and highly monitored, and leverage may not be the indicator required to show the level of corporate governance and transparency. Private-foreign promoters prefer less leverage, as taking more leverage may hinder them from risky investments such as investments in Research and Development activities and other projects. However, family-owned promoters prefer more leverage, as by raising equity, they do not want to shrink their majority shareholding. Family-owned promoters are long-term oriented and are more sensitive to their reputation and it is more important for them to signal that they follow corporate governance oriented decisions and are not intended to minority shareholders expropriation. Private-Indian promoters, unlike state-owned, private, foreign and family blockholders, have an insignificant impact on firms' financing choice.

We further divided our blockholders into sub-classes such as private-Indian is divided into private-Indian (group) and private-Indian (non-group), private-foreign is divided into private-foreign (group) and private-foreign (non-group) and family-owned are divided into family-owned (group) and family-owned (non-group). Table 6 documents the result of family-owned (group and non-group) blockholders and their moderation with promoters. We find that family-owned (group) has a significant negative impact on the leverage (model 1), but the moderating effect of family-owned (group) is positively significant (model 2). However, family-owned (non-group) and their moderating effect with promoters are insignificant (models 3 and 4).

Table 6 Effect of blockholders [family-owned firms (group and non-group)] on leverage

Variables	*LEV Model 1*	*LEV Model 2*	*LEV Model 3*	*LEV Model 4*
SIZE	0.0174***	0.0175***	0.0161***	0.0161***
	(10.99)	(11.07)	(10.17)	(10.17)
L_MKTB	–0.0241***	–0.0243***	–0.0242***	–0.0241***
	(–7.69)	(–7.76)	(–7.71)	(–7.68)
NWC	–0.2370***	–0.2353***	–0.2345***	–0.2346***
	(–26.22)	(–26.03)	(–25.89)	(–25.89)
C_FLOW	–0.9742***	–0.9717***	–0.9778***	–0.9777***
	(–42.41)	(–42.32)	(–42.45)	(–42.45)
DIV	–0.8237***	–0.8252***	–0.8348***	–0.8341***
	(–7.93)	(–7.95)	(–8.01)	(–8.01)
IO	–0.1837***	–0.1807***	–0.1864***	–0.1864***
	(–10.27)	(–10.10)	(–10.40)	(–10.39)
PROM	–0.1230***	–0.1501***	–0.1220***	–0.1227***
	(–10.77)	(–11.73)	(–10.62)	(–10.61)
FLY_G	–0.0298***	–0.0861***		
	(–7.98)	(–6.84)		
PROM * FLY_G		0.1075***		
		(4.68)		
FLY_NG			0.0009	–0.02
			(0.09)	(–0.46)
PROM * FLY_NG				0.0352
				(0.49)
CONSTANT	0.4137***	0.4273***	0.4147***	0.4150***
	(28.38)	(28.77)	(28.36)	(28.35)
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
No. of obs.	13131	13131	13131	13131
R-square	0.52	0.53	0.52	0.52

Notes: ***indicates coefficients significant at 1% level, ** indicates coefficients significant at 5% level.
The table examines effect of large blockholders on leverage (dependent variable) by controlling firm specific variables for the period 2001–2017 for NSE listed Indian firms. T-statistics are mentioned in parenthesis. The variables are measured as: LEV is total borrowings divided by total assets. C_FLOW is the ratio of profit after tax to total assets. L_MKTB is natural log ((total assets – book value of equity + market value of equity) / total assets). NWC is measured as (current assets-current liabilities)/ total assets. SIZE is natural log of total assets. DIV is ratio of dividends to total assets. IO is measured as percentage of equity held by non-promoters institutional shareholder. PROM is measured as percentage of equity held by foreign and Indian promoters. PVT is equal to 1 if it is a private-Indian. FOR is equal to 1 if it is a private-foreign, else 0.

Table 7 Effect of blockholders [private-Indian firms (group and non-group) and private-foreign firms (group and non-group)] on leverage

Variables	*LEV Model 1*	*LEV Model 2*	*LEV Model 3*	*LEV Model 4*	*LEV Model 5*	*LEV Model 6*	*LEV Model 7*	*LEV Model 8*
SIZE	0.0159***	0.0157***	0.0179***	0.0177***	0.0161***	0.0161***	0.0160***	0.0160***
	(10.07)	(9.95)	(11.2)	(11.06)	(10.2)	(10.19)	(10.14)	(10.15)
L_MKTB	–0.0241***	–0.0241***	–0.0242***	–0.0245***	–0.0243***	–0.0243***	–0.0241***	–0.0236***
	(–7.67)	(–7.68)	(–7.73)	(–7.82)	(–7.74)	(–7.75)	(–7.65)	(–7.52)
NWC	–0.2343***	–0.2318***	–0.2361***	–0.2353***	–0.2340***	–0.2345***	–0.2345***	–0.2324***
	(–25.88)	(–25.59)	(–26.11)	(–26.03)	(–25.84)	(–25.89)	(–25.90)	(–25.67)
C_FLOW	–0.9774***	–0.9799***	–0.9803***	–0.9767***	–0.9776***	–0.9765***	–0.9784***	–0.9822***
	(–42.46)	(–42.60)	(–42.65)	(–42.46)	(–42.48)	(–42.42)	(–42.46)	(–42.65)
DIV	–0.8354***	–0.8210***	–0.8076***	–0.8082***	–0.8284***	–0.8276***	–0.8301***	–0.8104***
	(–8.03)	(–7.89)	(–7.77)	(–7.78)	(–7.96)	(–7.95)	(–7.95)	(–7.77)
IO	–0.1870***	–0.1819***	–0.1815***	–0.1758***	–0.1857***	–0.1851***	–0.1865***	–0.1886***
	(–10.43)	(–10.14)	(–10.14)	(–9.77)	(–10.37)	(–10.33)	(–10.40)	(–10.53)
PROM	–0.1223***	–0.1433***	–0.1154***	–0.0856***	–0.1218***	–0.1233***	–0.1215***	–0.1121***
	(–10.68)	(–11.82)	(–10.06)	(–5.78)	(–10.65)	(–10.75)	(–10.59)	(–9.68)
PVT_G	0.0100**	–0.0635***						
	(2.25)	(–4.30)						
PROM * PVT_G		0.1401***						
		(5.22)						
PVT_NG			0.0245***	0.0573***				
			(7.06)	(5.25)				

Notes: *** indicates coefficients significant at 1% level, ** indicates coefficients significant at 5% level.

The table examines effect of large blockholders on leverage (dependent variable) by controlling firm specific variables for the period 2001–2017 for NSE listed Indian firms. T-statistics are mentioned in parenthesis. The variables are measured as: LEV is total borrowings divided by total assets. C_FLOW is the ratio of profit after tax to total assets. L_MKTB is natural log ((total assets – book value of equity + market value of equity) / total assets). NWC is measured as (current assets-current liabilities)/ total assets. SIZE is natural log of total assets. DIV is ratio of dividends to total assets. IO is measured as percentage of equity held by non-promoters institutional shareholder. PROM is measured as percentage of equity held by foreign and Indian promoters. PVT is equal to 1 if it is a private-Indian. FOR is equal to 1 if it is a private-foreign, else 0.

Table 7 Effect of blockholders [private-Indian firms (group and non-group) and private-foreign firms (group and non-group)] on leverage

Variables	*LEV Model 1*	*LEV Model 2*	*LEV Model 3*	*LEV Model 4*	*LEV Model 5*	*LEV Model 6*	*LEV Model 7*	*LEV Model 8*
PROM * PVT_NG				–0.0625***				
				(–3.17)				
FOR_G					–0.0516***	–0.1652***		
					(–3.16)	(–2.64)		
PROM * FOR_G						0.2069*		
						(1.88)		
FOR_NG							–0.0059	0.1567***
							(–0.69)	(5.1)
PROM * FOR_NG								–0.2765***
								(–5.50)
CONSTANT	0.4144***	0.4255***	0.3876***	0.3728***	0.4150***	0.4159***	0.4150***	0.4097***
	(28.37)	(28.85)	(25.72)	(23.63)	(28.42)	(28.46)	(28.38)	(27.98)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs.	13131	13131	13131	13131	13131	13131	13131	13131
R-square	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52

Notes: *** indicates coefficients significant at 1% level, ** indicates coefficients significant at 5% level.

The table examines effect of large blockholders on leverage (dependent variable) by controlling firm specific variables for the period 2001–2017 for NSE listed Indian firms. T-statistics are mentioned in parenthesis. The variables are measured as: LEV is total borrowings divided by total assets. C_FLOW is the ratio of profit after tax to total assets. L_MKTB is natural log ((total assets – book value of equity + market value of equity) / total assets). NWC is measured as (current assets-current liabilities)/ total assets. SIZE is natural log of total assets. DIV is ratio of dividends to total assets. IO is measured as percentage of equity held by non-promoters institutional shareholder. PROM is measured as percentage of equity held by foreign and Indian promoters. PVT is equal to 1 if it is a private-Indian. FOR is equal to 1 if it is a private-foreign, else 0.

Table 7 shows the results related to private-Indian (group and non-group) and private-foreign (group and non-group). We find that both private-Indian (group) and their moderation with promoter ownership has a positive impact on leverage (models 1 and 2). This may be because they do not want to dilute their equity ownership while moderating effect of private-Indian (non-group) with promoters is negative (model 4). With reference to private-foreign, foreign (group) has a negative impact on the leverage (model 5) while their moderating effect with promoters has a positive impact (model 6). Like, private-Indian (group) promoters, it also shows that foreign (group) promoters prefer more debt. It may be the same reason, as blockholder in a group do not want to dilute their ownership. However, the moderating effect of private-foreign (non-group) with promoter ownership prefer less debt (model 8). It may be because foreign (non-group) promoters do not want to be regulated and restricted by increasing their debt ratio.

Overall, from the results, we can infer that impact of blockholders and their moderating effect with promoter ownership differs with the type of blockholders. State-owned promoters and foreign promoters are negatively associated with leverage, while family promoters prefer higher leverage. Moreover, when further divided the blockholders into groups and non-groups, we find that blockholder promoters (groups) preference vary with their non-group counterparts. Promoters with family (group), private-Indian (group) and private-foreign (group) have a positive impact on the leverage, whereas, promoters with private-Indian (non-group) and foreign (non-group) have the negative impact on the leverage. We also report that there is a difference between blockholders and their moderating effect with promoter ownership.

Table 8 Tobit regression Model and 2SLS Panel data regression model

Variables	*LEV* *Model 1 (TOBIT)*	*LEV* *Model 2 (2SLS)*
SIZE	0.0181***	–0.0029
	(8.62)	(0.97)
L_MKTB	–0.0230***	–0.0225***
	(–8.97)	(–7.49)
NWC	–0.1718***	–0.2248***
	(–22.23)	(–25.04)
C_FLOW	–0.7270***	–0.7219***
	(–41.65)	(–36.51)

Notes: *** indicates coefficients significant at 1% level, ** indicates coefficients significant at 5% level.
The table examines effect of large blockholders on leverage (dependent variable) by controlling firm specific variables for the period 2001–2017 for NSE listed Indian firms. T-statistics are mentioned in parenthesis. The variables are measured as: LEV is total borrowings divided by total assets. C_FLOW is the ratio of profit after tax to total assets. L_MKTB is natural log ((total assets – book value of equity + market value of equity) / total assets). NWC is measured as (current assets-current liabilities)/ total assets. SIZE is natural log of total assets. DIV is ratio of dividends to total assets. IO is measured as percentage of equity held by non-promoters institutional shareholder. PROM is measured as percentage of equity held by foreign and Indian promoters. PVT is equal to 1 if it is a private-Indian. FOR is equal to 1 if it is a private-foreign, else 0.

Table 8 Tobit regression Model and 2SLS Panel data regression model (continued)

Variables	*LEV* *Model 1 (TOBIT)*	*LEV* *Model 2 (2SLS)*
DIV	–0.5887***	–0.2948***
	(–6.37)	(–2.68)
IO	–0.1182***	–0.0946***
	(–7.01)	(–4.51)
PROM	–0.0997***	–0.1867***
	(–7.17)	(–8.28)
CONSTANT	0.3618***	0.5546***
	(19.55)	(20.14)
Industry FE	Yes	Yes
Year FE	Yes	Yes
No. of obs.	13131	12528
R-square	-	0.343

Notes: *** indicates coefficients significant at 1% level, ** indicates coefficients significant at 5% level.
The table examines effect of large blockholders on leverage (dependent variable) by controlling firm specific variables for the period 2001–2017 for NSE listed Indian firms. T-statistics are mentioned in parenthesis. The variables are measured as: LEV is total borrowings divided by total assets. C_FLOW is the ratio of profit after tax to total assets. L_MKTB is natural log ((total assets – book value of equity + market value of equity) / total assets). NWC is measured as (current assets-current liabilities)/ total assets. SIZE is natural log of total assets. DIV is ratio of dividends to total assets. IO is measured as percentage of equity held by non-promoters institutional shareholder. PROM is measured as percentage of equity held by foreign and Indian promoters. PVT is equal to 1 if it is a private-Indian. FOR is equal to 1 if it is a private-foreign, else 0.

Robustness check

We have performed the Tobit test to check the robustness of our findings (Table 8, model 1). We find that our findings are consistent with the previous results, and confirms that promoter ownership has a negative relationship with leverage. We have also tested for endogeneity issues by using 2SLS regression model. We used the one-year lag of promoter ownership as an instrumental variable and find there are no endogeneity issues and our results are consistent with the baseline results (Table 8, model 2).

Test for variation in levels of promoter ownership and non-monotonic relationships

Table 9 describes the static panel data regression model which investigates variation in impact of promoter ownership on leverage where level of promoter ownership follows three categories, less than or equal to 25 percentile (model 1), more than 25 but less than 75 percentile (model 2) and more than 75 percentile (model 3). We find that promoter ownership has a negative impact on leverage at all levels of ownership, but it is significant only when it lies between 25 percentile and 75 percentile. We also examine if

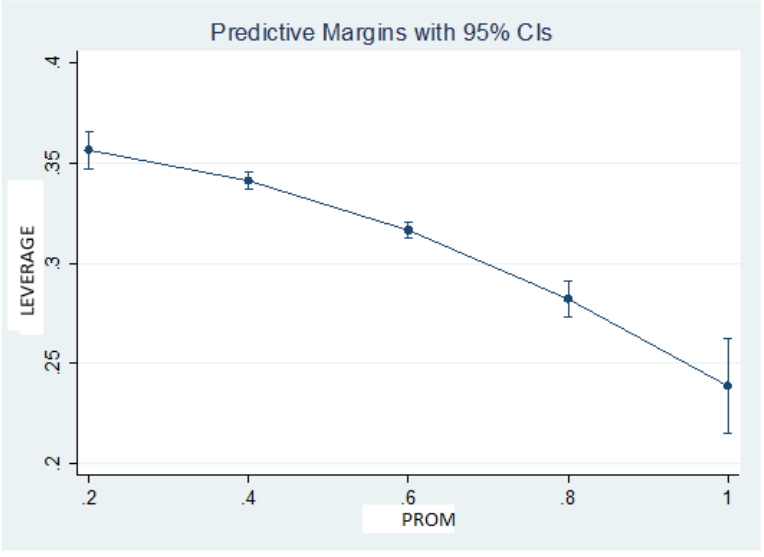
a non-monotonic relationship exists between promoter ownership and leverage (Table 9, model 4) and find there is no non-monotonic relationship between promoter ownership and leverage as the square of promoter ownership has the same negative impact as promoter ownership on the leverage (see Figure 1).

Table 9 Effect of variation in level of promoter ownership on leverage

Variables	*LEV Model 1 (< 25)*	*LEV Model 2 (>=25 and< 75)*	*LEV Model 3 (>= 75)*	*LEV Model 4 (PROM_SQ)*
SIZE	0.0125***	0.0295***	0.0057*	0.0165***
	(3.45)	(13.07)	(1.91)	(10.4)
L_MKTB	-0.0550***	-0.0120***	-0.0132**	-0.0238***
	(-7.32)	(-2.77)	(-2.44)	(-7.59)
NWC	-0.3191***	-0.1334***	-0.2269***	-0.2347***
	(-17.18)	(-10.71)	(-12.74)	(-25.92)
C_FLOW	-0.7841***	-1.0764***	-0.6501***	-0.9827***
	(-18.41)	(-32.67)	(-13.32)	(-42.54)
DIV	-1.4541***	-1.1584***	-0.4714***	-0.8291***
	(-4.80)	(-8.07)	(-2.83)	(-7.96)
IO	-0.0770**	-0.2829***	-0.3742***	-0.1918***
	(-2.52)	(-10.61)	(-6.34)	(-10.63)
PROM	-0.0062	-0.1569***	-0.0982	-0.0056
	(-0.15)	(-4.73)	(-1.48)	(-0.12)
PROM_SQ				-0.1180**
				(-2.53)
CONSTANT	0.4047***	0.3325***	0.4475***	0.3865***
	(12.2)	(12.94)	(9.09)	-21.07)
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
No. of obs.	3319	6684	3128	13131
R-square	0.63	0.55	0.55	0.52

Notes: *** coefficient is significant at 1% level, **Coefficient is significant at 5% level. The table examines effect of large blockholders on leverage (dependent variable) by controlling firm specific variables for the period 2001–2017 for NSE listed Indian firms. T-statistics are mentioned in parenthesis. The variables are measured as: LEV is total borrowings divided by total assets. C_FLOW is the ratio of profit after tax to total assets. L_MKTB is natural log ((total assets – book value of equity + market value of equity) / total assets). NWC is measured as (current assets-current liabilities)/ total assets. SIZE is natural log of total assets. DIV is ratio of dividends to total assets. IO is measured as percentage of equity held by non-promoters institutional shareholder. PROM is measured as percentage of equity held by foreign and Indian promoters. PVT is equal to 1 if it is a private-Indian. FOR is equal to 1 if it is a private-foreign, else 0.

Figure 1 Negative relationship between different levels of promoter ownership and leverage (see online version for colours)



Moreover, we infer that more the promoter ownership, less is the preference for leverage. It does not differ with different levels of promoter ownership. These findings show that agency cost II may be more prevalent when promoter ownership lies between 25 and 75 percentile, which further may lead to minority shareholders expropriation.

5 Conclusions and implications

This study provides an understanding on the impact of 'promoter ownership', 'blockholders' and 'blockholders promoters' (moderation between promoter and blockholders) on firms leverage. Similar to insider ownership (Friend and Lang, 1988; Jensen et al., 1992), our findings suggest that greater promoter ownership leads to lesser preference for leverage. However, we find that with the type of blockholders, the impact of promoter ownership on firms financing decision changes. We further find that blockholders preference for leverage varies with the type of blockholders. The moderation of state-owned firms and private-foreign firms with promoter ownership is negatively associated with leverage, whereas moderation of family-owned firms with promoter ownership is positively associated. From these results, we infer that family-owned promoters due to their reputation and long-term orientation prefer more leverage and hence decreases the agency cost II i.e., the chances of expropriation of minority shareholders benefits. State-owned firms and private-foreign firms prefer less leverage. Since state-owned promoters are more regulated, their choice of financing the firm will not have much effect on expropriation of minority shareholders benefits. However, but private-foreign promoters prefer less leverage, may be to avoid restrictions that comes with leverage. The moderating effect of private-Indian firms with promoter ownership is insignificant. On further classifying blockholders on the basis of groups, our study reports that private-Indian (group) firms, family-owned (group) firms and

private-foreign (group) firms when being moderated with promoter ownership shows a positive impact on leverage. However, private-Indian (non-group) firms and private-foreign (non-group) firms when being moderated with promoter ownership reported a negative impact. From these results, we infer that all the blockholder (group) promoters prefer more leverage compared to blockholder (non-group) promoters who prefer less leverage.

We also accounted for endogeneity issues and perform robustness checks which confirm our baseline results. We examine the impact of promoter ownership on the leverage across various levels of ownership and find that the impact of promoter ownership do not vary with the level of promoter ownership concentration and is negative at all the levels, but significant only when ownership lies between 25 and 75 percentile. On contrary to previous findings, we find that the non-monotonic relationship does not exist between promoter ownership and leverage. The overall finding of our study shows that promoter ownership has a negative impact on the leverage. However, promoters when moderated with blockholders, their impact on the leverage changes with each type of blockholders across the firm and hence agency cost II varies with the identity of blockholder promoters.

Our findings are useful to the minority investors since they can analyse which type of blockholder promoters prefer leverage and further provide help for external monitoring. We also aid policymakers of the firms in decision making for the optimum debt ratio, which further increases the firm value. Our study contributes to the existing literature by examining the motives of each category of blockholder promoters with context to minority shareholders expropriation and further preference for leverage. This study can be extended by studying the impact of different institutional shareholders on firm decisions and compare their impact with promoter shareholdings.

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