

# Ownership Structure and Initial Public Offerings

*Reena Aggarwal*

*Leora Klapper*



## Abstract

Aggarwal and Klapper study the relationship between ownership structure, corporate governance, and the initial public offering (IPO) process. They examine equity ownership by different institutions, such as foreign and domestic financial institutions, banks with and without lending relationships, venture capitalists, and corporations prior to an IPO. The authors also analyze the relationship between ownership structure and corporate governance. They use a unique dataset of 152 Indian IPOs during the period 1999–2001 to analyze ownership of shares by main groups of shareholders. The authors find a relationship between

ownership structure and firm-specific factors such as sales, leverage, and profitability, and IPO characteristics such as percentage of equity locked up, gross proceeds, and exchange of listing. There is also a strong relationship between ownership by different types of institutions. Ownership is also tied to bank lending relationships. Finally, the authors find strong relationships between ownership types and corporate governance. For example, firms with foreign investors are more likely to have an outside chief executive officer and offer an employee stock option plan.

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Reena Aggarwal  
McDonough School of Business  
Georgetown University  
Washington D.C. 20057  
(202) 687-3784  
aggarwal@georgetown.edu  
[www.msb.edu/faculty/aggarwal/](http://www.msb.edu/faculty/aggarwal/)

Leora Klapper  
The World Bank  
1818 H Street, NW  
Washington D.C. 20433  
(202) 473-8738  
lklapper@worldbank.org

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## **Ownership Structure and Initial Public Offerings**

### **I. Introduction**

A recent survey paper on initial public offerings (IPOs) states, “the topic of share allocations and subsequent ownership ranks among the most interesting issues in IPO research today” (Ritter and Welch, 2002). Researchers have correctly started paying attention to these institutional issues. We believe that in order to examine allocation of IPO shares and subsequent ownership, it is first important to understand the ownership structure of the firm just prior to going public. Firms deliberately attempt to change their ownership and corporate governance structure in preparation for going public. The structure created prior to the offering can influence the whole IPO process, the allocation process, and subsequent ownership. This paper attempts to partly fill this gap in the current literature.

We analyze the ownership structure of firms just prior to going public. The different groups of owners examined include domestic and foreign institutions, banks with and without lending relationships with the firm, venture capitalists (VCs) and corporations. Ownership structure is also related to the corporate governance structure of the firm. Proxies used for corporate governance include ownership by insiders, the role of the founder in management of the firm, ownership by VCs, and the existence of employee stock option plans (ESOPs). Empirical research examining ownership structure of IPOs is quite limited partly due to the lack of data. A unique dataset of Indian IPOs during the period 1999-2001 allows us to examine the ownership and corporate governance structure of firms going public. The detailed data on the number of shares held by the 10 largest shareholders allows us to study the role of large shareholders. The analysis is also able to shed light on the role of financial institutions in corporate governance. India provides an interesting emerging market to analyze with its hybrid

structure similar to market-based economies like the U.S. and U.K. and bank-based systems of Germany and Japan. We are also able to examine the role played by foreign investors in governance and performance. For example, we find that firms with foreign shareholders have better corporate governance, are more likely to have foreign lenders, and have greater access to financing.<sup>1</sup>

We also examine the characteristics of firms that have venture capital participation prior to an IPO. In the United States, venture capitalists (VCs) are found to take equity stakes in young firms that have large potential agency costs. The literature also finds that VCs provide financing and in addition are also likely to provide help in hiring management, serve on the board of directors, actively monitor the firm, and provide advisory services and reputation capital (Gompers, 1995 and Lerner, 1995). They therefore provide both financial and non-financial services. Previous literature also discusses that VCs are more sensitive to the corporate governance of the firm than the entrepreneur because of their need for repeated access to capital markets, which makes them concerned about their reputation (Baker and Gompers, 1999). It has also been suggested that venture capitalists play an important role in the professionalization of a firm in addition to their traditional role of a financial intermediary (for example, see Hellman and Puri, 2001). In the process of professionalization of the firm VCs may replace the original founder with an outside professional CEO. The role of the venture capitalist becomes even more important as a firm prepares for an IPO. The combination of the financial and non-financial contributions increases the credibility of the firm issuing new equity in the market and among investors. VCs will monitor the firm to ensure that benefits are not diverted to the managers of

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<sup>1</sup> The unique ownership and governance of Indian firms is an example of the “new firm” that Zingales (2000) recommends further study.

the firm. These issues become even more relevant in the Indian environment with weak legal enforcement of shareholder protection laws.

We also study the affect of industry and founder on ownership structure, similar to Faccio and Lang (2002) who find that in Western Europe large firms and financial firms tend to be more widely held but small firms and non-financial firms are more closely held. If the firm is family-controlled then it is more likely to have top managers from the controlling family. They find that the largest controlling shareholder, on average, owns 38.48 percent of voting rights. Holderness and Sheehan (1988) study the role of large-block shareholders and define majority shareholders as those who own 50 percent or more of the outstanding shares. In their sample, at least one non-officer owned more than 10 percent of the stock and an officer owned more than 10 percent of the stock in 15 percent of the sample firms. They conclude that majority shareholders are more involved in direct management and are present in both small and large firms. Additionally, they find that the motivation of individual majority shareholders is different from that of institutions. These studies, however, do not specifically examine IPOs.

Demsetz and Lehn (1985) report that ownership structure varies systematically in ways consistent with value maximization. The variation is based in factors such as firm size, instability of profit rate, and whether the industry is regulated or not. Brickley, Lease, and Smith (1988) argue that institutions such as mutual funds and pension funds are more likely to oppose management than banks and insurance companies that derive business interests from the firm.

There is considerable literature that discusses the role of prestigious underwriters and ex ante uncertainty and the effect of auditor quality (for example, Carter and Manaster, 1990, Megginson and Weiss, 1991, and Willenborg, 1999). Entrepreneurs also signal the value of the firm by retaining a large proportion of ownership and not selling their shares at the time of going

public. Brennan and Franks (1997) suggest that underpricing is needed to ensure that the offering is oversubscribed. Oversubscription gives managers the flexibility to discriminate in the allocation of shares thereby reducing the possibility of creating substantial outside blockholders. This becomes particularly important if the entrepreneur owns only a small proportion of the stock. Lock-up periods are seen as yet another mechanism by which the uncertainty is reduced (Field and Hanka, 2001, and Brav and Gompers, 2001). Different categories of equity holders perform different monitoring and control functions that can serve as signaling mechanisms. These may have a direct impact on the price performance of an IPO, including underpricing (Michaely and Shaw, 1994). However, prior to public listing is the time when it is crucial to signal firm value, and ownership structure can resolve some of the information asymmetry surrounding the IPO.

Our study is the first to examine the role of institutional investors when firms go public. There have been a few studies that have examined related corporate governance issues in India. Sarkar and Sarkar (2000) find that blockholdings by firm directors increases firm value after a certain threshold of ownership and that institutional investors, such as mutual funds, are not active in governance. They do find, however, that banks monitor companies effectively if they have a large equity stake and this monitoring is reinforced by debt holdings. Foreign equity ownership is also found to have a positive impact on firm value. Chhibber and Mazumdar (1999) specifically examine the relationship between foreign ownership and accounting measures of performance. Khanna and Palepu (1999) study the role of institutions in governing group-affiliated companies.



The rest of the paper is organized as follows. Section II describes our unique dataset and some cross-sectional characteristics of our sample. Section III reports the results of the empirical analysis. Section IV provides a summary and conclusions.

## **II. Data**

Our primary data is collected from Indian IPO filings between January 1999 and April 2001.<sup>2</sup> The sample includes all 152 IPOs issued during the period. IPOs from all major sectors including financial, media, telecom, high-tech, and industrial are represented. These filings include information on firm characteristics, IPO characteristics, and ownership information. IPO characteristics include float percentage, number of days between opening and closing of the IPO, gross proceeds, initial return, exchange listing, and whether the lead underwriter was foreign or domestic. Firm characteristics include balance sheet and income statement items, such as sales, leverage, earnings before income and taxes (EBIT) and gross margin. Information is also included on the age of the firm, the existence of a banking relationship with a foreign bank, and the industry of the issuer. Since we have the names of all shareholders and lenders, we can also identify firms with equity and lending relationships with domestic and foreign banks.

The main focus of our paper is to analyze ownership characteristics that include ownership by foreign and domestic institutions and also ownership by insiders of the firm. The institutions studied include corporations, financial institutions, and venture capitalists. The corporate governance proxies used in the analysis are the existence of an employee stock ownership plan and whether the founder continued as the CEO of the firm. We also have information on whether the firm is closely held and by whom. IndiaCapital, a private Indian financial information vendor, provided information on the nationality and “type” of all equity

investors – whether the shareholder is classified as an individual, financial institution, venture capitalist, or corporation.<sup>3</sup> In addition, IndiaCapital identified whether the CEO was an original founder or an outsider at the time of the IPO and the nationality of lenders and IPO lead managers.

### **III. Empirical Results**

#### ***A. IPO and Firm Characteristics***

Table 1 reports characteristics of the IPO, the issuing firm, and the ownership structure for the full sample. The sample includes 152 Indian IPOs between January 1999 and April 2001.<sup>4</sup> The proportion of shares floated in an IPO on average is 30 percent. Insider shares are not allowed to trade during the mandatory lock-up period of 36 months. Both the float percentage and the lock-up period is much higher than that observed in the U.S. The Securities and Exchange Board of India (SEBI) lays out detailed guidelines on lock-up provisions that require the lock-up period to be three years. The lock-up period starts from the date of allotment in the public issue or from the date of commencement of commercial production, whichever is later. SEBI's guidelines also require that the minimum float be at least 25 percentage of the issue size – which we find to be the median float percentage – although SEBI gradually relaxed the min float requirement to 10% on July 21, 2001.<sup>5</sup> In the U.S. regulators do not set the minimum float or lock-up requirements. The minimum float is decided by the issuer and investment banker, based on funding requirements, demand for shares, and to allow for sufficient

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<sup>2</sup> Prior to 1999, IPOs were not filed electronically and did not have as extensive disclosure requirements.

<sup>3</sup> In general, "corporations" are investment vehicles for non-financial firms.

<sup>4</sup> Our sample excludes five firms that issued IPO prospectuses but did not list because they were unable to receive the mandatory 90% subscription.

<sup>5</sup> We exclude float from the preceding summary tables comparing averages across samples because of the little variation across firms. In all cases, float is insignificant.

aftermarket liquidity. The lock-up period in the U.S. is typically 180 days and is determined by the investment bank and not the regulators.

The median number of days between opening and closing of the IPO is five days and is the time period during which allotment takes place. The average IPO offering size in our sample is 291 million rupees and the median size is 49 million rupees. The size variation is quite large, ranging from over 8 billion rupees to about 8 million rupees. Firms in our sample listed either on a national exchange, the National Stock Exchange (NSE) or the Bombay Stock Exchange (BSE), or on only one of the 21 regional exchanges (for example, the Calcutta, Bangalore, or Hyderabad Exchange.) Indian law requires firms to list on at least one regional exchange in addition to a national exchange and therefore Indian firms frequently list simultaneously on more than one exchange. About half the firms in our sample listed on a national exchange, which account for almost 90 percent of the total proceeds raised.

We measure IPO market performance by the 1-day return (percentage change) from the offering price to the closing price on the first day of trading.<sup>6</sup> The average initial return of firms (not shown) is 99 percent and the median return is 38 percent. Returns range from -60 percent to over 900 percent, with 70 percent of first day returns being positive. This is consistent with Shah (1995) who finds a first day return of 105.6% for firms that commenced trading between January 1991 and April 1995. In addition, we report market-adjusted returns using the Indian Nifty index in Table 1. The mean and median market-adjusted returns are 74 percent and 35 percent, respectively. We also find that 13 percent of firms have a foreign lead IPO manager, which may suggest a greater ability to attract foreign investors and greater returns.

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<sup>6</sup> We exclude one firm with 1-day return equal to 3200.

The age of the firms varies from less than a year to over 70 years, with a median age of seven years.<sup>7</sup> The mean and median sales are 326 million rupees and 33 million rupees, respectively. The mean and median gross margin is 0.23 and 0.19, respectively. This low profitability may reflect the young age of firms and concentration in the technology sector, which often have high start-up costs and initial losses.

The mean debt-to-equity (D/E) ratio is 1.53 and the median is 0.14. The low median usage of debt reflects the large number of technology firms, which generally have few fixed assets and little debt.<sup>8</sup> We identify 20 percent of firms in our sample to have a loan outstanding from a foreign bank, which reflects the strong presence of foreign banks in India. In addition, we find that 24% of firms in our sample have both lending and equity relationships with a bank. Our empirical analysis examines whether the ability to borrow from a foreign lender is related to a firm's shareholders. Finally, our sample of firms can be identified as 5% financial, 75% technology, and 20% other (Pharmaceuticals, Media, etc.)

### ***B. Ownership Structure***

We find that 67 percent of firms have an insider blockholder. Initially, we define blockholders as any shareholder that owns 5 percent or more of the stock. For robustness, we also use other ownership percentage cutoffs (10 and 15 percent) in defining blockholders. The large percentage of firms with inside block ownership is not surprising, because we would expect company founders to retain equity ownership at least until the time of the IPO. In addition, 38 percent of the firms have at least one VC blockholder – defined as a venture capitalist or a corporate investment vehicle – 34 percent of firms have at least one domestic blockholder and 9

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<sup>7</sup> Our sample includes 16 firms that had not yet started commercial operation at the time of the IPO.

<sup>8</sup> On average, listed Indian firms in Worldscope have median debt to equity ratio in the range of 0.75-1.00.

percent of firms have a foreign blockholder.<sup>9</sup> Indian law permits banks to own equity in non-financial firms. This allows us to examine more closely the effect of both bank loans and equity investment, and the interaction between these two types of investment. We find that 12 percent of the firms have bank shareholders – 7 percent of firms have at least one Indian bank shareholder and 6 percent have at least one foreign bank shareholder. This data presents the opportunity to study the relationship between financial institutions' lending relationship with the firm and equity ownership. These results clearly suggest that both individual insiders and institutions, such as banks and VCs, have significant equity stakes in firms going public.

In addition, we find that foreign institutions – VCs and banks – own equity in 13 percent of our sample firms. As was previously discussed, foreign banks have a lending relationship with 20 percent of the firms going public. In 13 percent of our firms a foreign investment bank also takes the firm public. These initial results suggest that foreign institutions are actively involved in lending money, owning equity, and in serving as investment banks to firms going public. We also find that 22 percent of firms have at least one insider controlling more than 20 percent of total equity.<sup>10</sup> These firms, where inside managers are also controlling shareholders, may identify an environment of poor corporate governance. In addition, we find that 13 percent of firms have a VC as a controlling shareholder that owns more than 20 percent of total equity. This ownership information allows us to examine the relationship between ownership structure and corporate governance.

We also include information on ownership structure that may relate to the corporate governance of firms at the time of their IPO. About 30 percent of firms offer an ESOP, which may provide incentives to managers to act more on behalf of shareholders. Less than 5 percent

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<sup>9</sup> Of the 39% of non-bank institutional owners, 12% or 9 firms have investors explicitly identified as venture capitalists.

of firms have replaced their CEO with an outsider, the remaining firms have a founder as their CEO.

### *C. Ownership Types*

Table 2, Column 1 classifies issuers based on whether a Bank, VC or Insider is a blockholder, defined as a shareholder that owns more than 5 percent of equity. In 18 firms banks hold equity positions at the time of going public. Firms in which banks hold equity are much more likely to be older and larger. They also have higher leverage ratios, which may suggest that an equity relationship improves access to financing. 33 percent of bank-owned issuers use a foreign lead underwriter as compared to 10 percent for the non-banked owned group; 44 percent have a lending relationship with a foreign bank as compared to 17 percent for the non-bank group; and 56 percent of them have foreign ownership as compared to 8 percent for the non-bank owned group. All of these differences in means are statistically significant. Therefore, we can conclude that bank ownership and foreign participation go together. We also find that bank ownership results in higher underpricing. The mean initial return spreads are 116.99 percent for the bank-owned group and 67.95 percent for non-bank owned group with the difference in means being statistically significant. If banks have ownership then the firm is more likely to have an ESOP. In addition, firms with a bank blockholder are significantly more likely to have a VC investor that controls more than 20 percent of equity. This supports our prior assertion that banks and VCs invest jointly and by taking significant equity positions.

Table 2, Column 2 reports the results based on VC ownership. VCs own an equity stake in 57 firms with foreign VCs owning equity in 14 firms. VC ownership is associated with a greater likelihood of ESOPs. 40 percent of firms with VC ownership have ESOPs but only 23 percent of firms with no VC ownership have ESOPs. Our finding that firms with institutional

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<sup>10</sup> Claessens, et al. (2000) identify controlling shareholders as those with greater than 20% equity stake.

investors – banks or VCs – are more likely to have ESOPs suggests that institutional investors help to professionalize the firm and improve governance. VC ownership also results in higher foreign participation. In 32 percent of VC owned firms, a foreign bank or a foreign VC holds an equity stake, versus 2 percent in firms without VC equity stakes, a significant difference. In 32 percent of firms there is a lending relationship with a foreign bank, which is significantly larger than the 14 percent of firms without VC blockholders. We also find that firms with VC blockholders are significantly older, have larger IPO proceeds, and are more likely to list on a major Indian exchange. This may suggest that ex-ante VCs invest in firms with greater listing potential.

In Table 2, Column 3 we examine firms with insider blockholders. These firms tend to be smaller, as measured by total sales and total IPO proceeds. In addition we find these firms to be significantly less profitable (as measured by gross margin) and have less investment (as measured as investment to sales). Interestingly, we find that these firms are less likely to have a VC with ownership greater than 20 percent, suggesting that VCs may discourage large individual shareholdings.

#### ***D. Corporate Governance***

Next, in Table 3 we examine the characteristics of issuers based on their governance structure. Three proxies are used for corporate governance: whether the firm has an ESOP or not; whether the firm is closely held by VCs or not; and whether the firm is closely held by insiders or not. Closely held firms are defined as those in which insider managers own more than 20 percent of the total common equity. It would have been useful to have other proxies for corporate governance, such as composition of the board and audit committee, but this information was not available.

In Table 3, Column 1 the dummy variable for ESOP takes on a value equal to one if the issuer has an ESOP and zero otherwise. Firms that have ESOPs, on average, are more likely to have a lending relationship with a foreign bank and both foreign banks and foreign corporations are more likely to have an equity stake in the firm. The difference in means between the ESOP group of firms and non-ESOP group of firms is statistically significant for the variables foreign lender, foreign bank equity, and foreign VC equity (not shown). These results suggest that firms with ESOPs also have stronger relationships with foreign institutions, both lenders and equity holders.

In Column 2 the sample is classified based on whether a VC has a controlling shareholding, defined as more than 20 percent of equity. We find that these firms have larger IPO proceeds and are more profitable, as measured by gross margin. We cannot imply the direction of causality between VC ownership and profitability, since it may be the case that VCs invest in more profitable firms. We also find a link with foreign lenders and foreign ownership. Firms with controlling VC ownership may be more likely to access foreign lenders because they are more profitable, or because the VC uses its bank relationships to help the firm access financing. Again, we find a strongly significant relationship between VC and bank investments – we find firms with more than 20 percent VC equity holdings significantly more likely to have more than 20 percent bank equity stakes and significantly less likely to have insider blockholders. This suggests that VC investors are unlikely to take a large equity stake in a firm that is controlled by insiders. These firms are also more likely to issue ESOPs. Column 3 is classified by insider ownership, the insider dummy equals one if any Indian individual owns 20 percent or more of equity and zero otherwise. We find no significant differences between the



samples, with the exception that as discussed above, firms with insider control are less likely to also have large VC ownership.

To summarize the relationship between proxies for governance and ownership structure, we find that firms with foreign bank and/or VC investment are more likely to offer ESOPs. Furthermore, we find that firms with large VC and bank equity stakes are less likely to have insider blockholders. These results suggest an added benefit of increased foreign investment abroad is potential improvements in local corporate governance.

#### *E. Foreign Financial Firms*

In Table 4 we examine the differences in the corporate governance and ownership structure of firms that do and do not have a foreign lender, foreign lead banks, and foreign owner. This analysis and the results as reported in Table 4 overlap with our earlier analysis. The conclusion is again that foreign lenders, foreign lead underwriters, and foreign equity investors (both banks and VCs) all participate in IPO deals together. Not only do they tend to bring each other to the table but it is likely that foreign equity investors extend their own banking relationships to the firms in which they invest. We find almost identical results for summary statistics by firms with and without foreign lenders and firms with and without foreign owners (Columns 1 and 2). Firms with foreign lenders or foreign owners are on average older, larger, and more leveraged. Their IPO are larger in size and are more likely to list on a major exchange. In addition, firms with foreign lenders and owners are more likely to offer ESOPs.

Column 3 classifies firms based on whether the lead manager for the offering was a foreign bank or not. Foreign banks are more likely to be the lead manager for larger offerings on a major exchange, of firms significantly characterized as older, larger, and having higher leverage. There is more likelihood of bank blockholder and controlling ownership. It is

interesting to note that the mean initial return spread of 55.79 percent is significantly lower for foreign lead underwriters than 77.07 percent for Indian lead manager offerings. We know larger offerings have lower underpricing and these results might be driven by the size of the offering. It is also possible that foreign lead managers are better at pricing the offering.

#### ***F. Corporate Governance and Ownership in a Multivariate Framework***

Table 5 shows logit tests of the relationship between ownership types. Four different models are estimated with the type of ownership as the dependant variable. The dependent variables are equal to 1 in the case of ownership type (Bank, VC, VC\_20, and Insiders). The independent variables are dummies equal to 1 if a foreign bank owns equity and 0 otherwise; a dummy equal to 1 if a domestic bank owns equity and 0 otherwise; dummy equal to 1 if a foreign VC owns equity and 0 otherwise; a dummy equal to 1 if a domestic VC owns equity and 0 otherwise; dummies for technology and financial sector IPOs; and the natural log of age.<sup>11</sup> For example, Columns 1 and 2 shows a significant positive relationship between VC investments and bank investment. This symbiotic relationship between bank and VC ownership may suggest a method to approach information opaqueness in emerging markets – foreign non-financial investors may depend on the information gathering and relationship between local banks and firms in making investment decisions. Although we do not have information on the sequence of investors, we hypothesize that foreign VCs depend on the signal of local bank shareholders in making investment decisions. We also find that firms with institutional investors are significantly older.

Column 3 looks at the relationship between insider blockholders and other institutions. We do not find any significant relationship with institutional investors, but find a significantly

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<sup>11</sup> We estimated models including other firm-specific and IPO-specific variables but they were generally not statistically significant and are not reported here.

negative relationship with the financial sector dummy. This is consistent with expectations that whereas industries such as technology and services may be conceived with less start-up capital, financial firms require large capital infusions – and risk management and MIS expertise – that institutional investors (such as banks and other financial institutions) can offer. Column 4 supports our previous univariate result that firms with large VC investments are less likely to have insider blockholders. This may be explained by VCs reluctance to invest in firms controlled by local shareholders.

Table 6 uses logit regressions to test the relationship between ownership and foreign participation and between governance and foreign participation. Column 1 shows that firms with access to foreign debt are more likely to have foreign shareholders. This confirms our hypothesis that a symbiotic relationship exists between foreign lenders and investors. Column 2 shows that firms with a foreign lead underwriter are more likely to have a bank blockholder, who may also lend to the firm. This may offer evidence of the benefit of universal banking to Indian firms. Column 3 shows no significant relationship between ESOPs and ownership types, although it is significantly and positively related to foreign blockholders. Column 4 shows that CEOs are more likely to be founders in firms with inside shareholders and less likely in firms with foreign blockholders. This supports our previous assertion that large insider ownership may delay improvements in governance and that foreign investors may introduce “best practices” of international corporate governance.

Table 7 uses OLS regressions to test the relationship between ownership and performance. We use two measures of ownership – at the 5 percent and 20 percent level – since non-controlling ownership stakes may not give blockholders enough power to make management and/or strategy decisions. Column 1 finds no relationship between ROA and ownership types at

5 percent. This may suggest that our previous findings of relationships between ownership and firm characteristics is not driven by ex-ante differences in firm performance that endogenously determine investor types (i.e. VCs are more likely to invest in more profitable firms). However, in Column 2 we find a positive relationship between VC ownership at 20 percent and ROA. Column 3 and 4 show that firms with insider blockholders have significantly lower gross margin and again offers evidence that large VC shareholding is related to higher performance. These findings may reflect the ex-ante decision of VCs to invest in better performing firms. Alternatively, we have shown that large VC ownership is associated with better corporate governance (such as the issuance of ESOPs and the replacement of the inside CEO) and these findings may also be interpreted as additional support for previous findings of a positive relationship between better corporate governance and performance (Klapper and Love, 2002, Black, 2001, Gompers, Ishi, and Metrick, 2001). Finally, Columns 5 and 6 test the relationship between access to financing and ownership. We find that firms with large VC investments have lower debt ratios, but this may reflect their relatively greater access to equity.

#### **IV. Summary and Conclusions**

This paper examines the ownership and corporate governance structure of firms prior to going public using a sample of Indian IPOs. We believe it is the first time that ownership structure has been analyzed just before a firm goes public. Firms doing IPOs are particularly motivated to have the “appropriate” ownership structure so that it can serve as a signaling device to the market. This is also the point in time of a firm’s history when information asymmetry can be high. Firms make major realignments to their ownership and corporate governance structure in preparation for going public. The ownership structure just prior to the IPO can affect the IPO

process including the marketing of the offering, allocation of the IPO, and subsequent ownership of the firm. Our paper relates to the literature that has examined the reputation of underwriters, auditors, insider holdings, and lock-up provisions in reducing ex ante uncertainty as well as ownership structure as a way to mitigate some of the information asymmetry. We also associate ownership with proxies for corporate governance in the Indian IPO market.

The paper has specifically attempted to answer three questions: 1) Who owns equity in firms just prior to going public and what is the role of domestic and foreign institutions, such as banks, VCs, and lenders? 2) What are the determinants of ownership? 3) Does institutional ownership have any affect on the corporate governance practices of the firm? First, we find that both foreign and domestic banks and VCs hold equity stakes in a large proportion of our sample. Institutions tend to invest as a group, therefore, if a VC holds an equity stake then a bank is also likely to hold an equity stake. Second, there is a strong positive relation between a foreign equity stake and a foreign bank lending relationship. Third, equity holding by institutions in general and foreign institutions in particular is positively related to the corporate governance practices of the firm, as measured by the existence of ESOPs and role of the founder in the firm.

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**Table 1: IPO, Firm, and Ownership Characteristics**

The table reports the mean, median, standard deviation, minimum, and maximum of several variables measuring IPO characteristics, firm characteristics, and ownership characteristics of 159 IPOs in India during the period January 1999 to April 2001. IPO characteristics include: *Float* is the percentage of shares offered in the offering; *Proceeds* is the amount raised (in Rs million); *Days* is the number of days from the opening to the close of the IPO; *Initial Return Spread* is the percentage return on the IPO from the offer price to the IPO's closing price on the first day of trade adjusted for market movements; *Listing* is a dummy equal to 1 if the firm lists on a national exchange (NSE or BSE); *Foreign Lead* is a dummy equal to 1 if the firm had a foreign lead banker for its IPO. Firm characteristics for year prior to listing include: *Age* of the firm; *Sales* of the firm; *Gross margin* is the ratio of EBIT to sales; *Debt/equity* is the ratio of total debt to the book value of equity; *Investment to Sales* is the ratio of total investment to total sales; *Foreign Lender* is a dummy equal to 1 if the firm has a foreign banking relationship; *Lender/Owner* equals 1 if the firm has at least one lender that is also an owner. *Financial* and *Technology* are sector dummies. Ownership characteristics include: *ESOP* is a dummy equal to 1 if the firm offers an employee stock option plan; *CEO Founder* equals 1 if the CEO is the company founder; *Inside Owner* equals 1 if insiders own more than 5% of total shares; *Bank Owner\_For* and *Bank Owner\_Dom* equals 1 if a domestic or foreign bank owns more than 5% of total shares, respectively; *VC Owner\_Dom* and *VC Owner\_For* equals 1 if a domestic or foreign VC owns more than 5% of total shares, respectively; *Foreign Owner* equals 1 if any foreign owner owns more than 5% of total shares; *Insider20* equals 1 if an inside owner owns more than 20% of total shares; *VC20* equals 1 if a VC owns more than 20% of total shares.

	N	Mean	Median	Std. Dev	Min.	Max.
<b>IPO Characteristics</b>						
<i>Proceeds (IPO Size)</i>	152	290.77	49.00	977.76	7.50	8236.00
<i>Float</i>	152	29.27	25.00	14.38	5.48	79.18
<i>Days</i>	151	7.81	5.00	20.02	2.00	183.00
<i>Initial Return Spread</i>	129	74.08	35.88	146.82	-59.01	917.96
<i>Listing</i>	152	0.49	0.00	0.5	0.00	1.00
<i>Foreign Lead</i>	152	0.13	0.00	0.33	0.00	1.00
<b>Firm Characteristics</b>						
<i>Age</i>	152	7.31	6.53	5.04	0.00	70.00
<i>Sales</i>	124	326.58	33.05	1808.83	0.17	19819.80
<i>Gross Margin</i>	117	0.23	0.19	0.17	0.01	0.95
<i>Debt/Equity</i>	136	1.53	0.14	8.17	0.00	94.07
<i>Book to Mkt</i>	121	2.06	1.04	2.03	0.26	9.85
<i>Investment to Sales</i>	110	2.04	0.00	15.02	0.00	153.98
<i>Foreign Lender</i>	152	0.2	0.00	0.4	0.00	1.00
<i>Lender/Owner</i>	152	0.24	0.00	0.43	0.00	1.00
<i>Financial</i>	152	0.05	0.00	0.21	0.00	1.00
<i>Technology</i>	152	0.74	1.00	0.44	0.00	1.00
<b>Ownership and Governance Characteristics</b>						
<i>Inside Owner</i>	152	0.67	1.00	0.47	0.00	1.00
<i>Bank Owner_Domestic</i>	152	0.07	0.00	0.26	0.00	1.00
<i>Bank Owner_Foreign</i>	152	0.06	0.00	0.24	0.00	1.00
<i>VC Owner_Domestic</i>	152	0.34	0.00	0.47	0.00	1.00
<i>VC Owner_Foreign</i>	152	0.09	0.00	0.28	0.00	1.00
<i>Foreign Owner</i>	152	0.13	0.00	0.34	0.00	1.00
<i>Insider_20</i>	152	0.22	0.00	0.41	0.00	1.00
<i>VC_20</i>	152	0.13	0.00	0.34	0.00	1.00
<i>Bank_20</i>	152	0.03	0.00	0.16	0.00	1.00
<i>ESOP</i>	152	0.3	0.00	0.46	0.00	1.00
<i>CEO</i>	152	0.95	1.00	0.22	0.00	1.00



**Table 2: Differences in Ownership Based on Role of Ownership Types (Means)**

The table examines the differences in ownership types of issuing firms prior to an IPO. *Bank*, *VC*, and *Insider* indicate equity shareholdings greater than 5 percent. *Proceeds* is the amount raised (in Rs million); *Initial Return Spread* is the percentage return on the IPO from the offer price to the IPO's closing price on the first day of trade; *Listing* is a dummy equal to 1 if the firm lists on a national exchange (NSE or BSE); *Foreign Lead* is a dummy equal to 1 if the firm had a foreign lead banker for its IPO. Firm characteristics for year prior to listing include: *Age* of the firm; *Sales* of the firm; *Gross margin* is the ratio of EBIT to sales; *Debt/equity* is the ratio of total debt to the book value of equity; *Investment to Sales* is the ratio of total investment to total sales; *Foreign Lender* is a dummy equal to 1 if the firm has a foreign banking relationship; *Financial* and *Technology* are sector dummies. Ownership characteristics include: *ESOP* is a dummy equal to 1 if the firm offers an employee stock option plan; *CEO Founder* equals 1 if the CEO is the company founder; *Inside Owner* equals 1 if insiders own more than 5% of total shares; *Bank Owner* equals 1 if a bank owns more than 5% of total shares; *VC Owner* equals 1 if a VC owns more than 5% of total shares; *Foreign Owner* equals 1 if any foreign owner owns more than 5% of total shares; *Insider20* equals 1 if an inside owner owns more than 20% of total shares; *VC20* equals 1 if a VC owns more than 20% of total shares. Asterisks (\*\*\*, \*\*, \*) denote statistical significance between the two mean differences at the 1%, 5%, and 10% level (respectively).

	(1) Bank (18 firms =1)		(2) VC (57 firms =1)		(3) Insider (102 firms =1)	
	=0	=1	=0	=1	=0	=1
<b>Firm and IPO Characteristics</b>						
<i>Age</i>	6.92	10.23***	6.67	8.39**	6.42	7.75*
<i>Sales</i>	150.65	1433.92***	387.43	230.25	733.98*	159.92
<i>Initial Return Spread</i>	67.95	116.98**	64.67	89.77	81.81	70.57
<i>Listing</i>	0.49	0.56	0.43	0.6**	0.54	0.47
<i>Proceeds (IPO Size)</i>	265.56	478.5	180.76	474.13**	500.51**	187.96
<i>Gross Margin</i>	0.22	0.24	0.21	0.25	0.3***	0.2
<i>Debt/Equity</i>	0.69	7.38***	1.75	1.17	2.83	0.93
<i>Investment to Sales</i>	2.3	0.5	0.94	3.82	7.1**	0.14
<i>Book to Mkt</i>	1.89	3.76***	1.65	2.78***	1.33	2.39***
<i>Foreign Lender</i>	0.17	0.44***	0.14	0.32***	0.18	0.22
<i>Foreign Lead</i>	0.1	0.33***	0.12	0.14	0.1	0.14
<i>Financial</i>	0.03	0.17***	0.05	0.04	0.1**	0.02
<i>Technology</i>	0.78***	0.44	0.74	0.74	0.74	0.74
<b>Ownership and Governance Characteristics</b>						
<i>Bank Owner</i>	0	1	0.07	0.19**	0.1	0.13
<i>VC Owner</i>	0.34	0.61**	0	1	0.36	0.38
<i>Inside Owner</i>	0.66	0.72	0.66	0.68	0	1
<i>Foreign Owner</i>	0.07	0.56***	0.02	0.32***	0.16	0.12
<i>ESOP</i>	0.28	0.44*	0.23	0.4**	0.16	0.36
<i>CEO Founder</i>	0.96	0.89	0.96	0.93	0.88	0.98***
<i>Bank_20</i>	0	0.22***	0.02	0.04	0.04	0.02
<i>VC_20</i>	0.11	0.28**	0	0.35***	0.2**	0.1
<i>Insider_20</i>	0.22	0.17	0.22	0.21	0	0.32***

**Table 3: Differences Based on Governance Characteristics**

The table examines the differences in corporate governance of issuing firms prior to an IPO. *ESOP* indicates whether the firm has an ESOP; *VC\_20* indicates whether a VC that owns more than 20% of total equity; and *Insider\_20* indicates whether an insider owns more than 20% of total equity. *Proceeds* is the amount raised (in Rs million); *Initial Return Spread* is the percentage return on the IPO from the offer price to the IPO's closing price on the first day of trade adjusted for market movements; *Listing* is a dummy equal to 1 if the firm lists on a national exchange (NSE or BSE); *Foreign Lead* is a dummy equal to 1 if the firm had a foreign lead banker for its IPO. Firm characteristics for year prior to listing include: *Age* of the firm; *Sales* of the firm; *Gross margin* is the ratio of EBIT to sales; *Debt/equity* is the ratio of total debt to the book value of equity; *Investment to Sales* is the ratio of total investment to total sales; *Foreign Lender* is a dummy equal to 1 if the firm has a foreign banking relationship; *Financial* and *Technology* are sector dummies. Ownership characteristics include: *ESOP* is a dummy equal to 1 if the firm offers an employee stock option plan; *CEO Founder* equals 1 if the CEO is the company founder; *Inside Owner* equals 1 if insiders own more than 5% of total shares; *Bank Owner* equals 1 if a bank owns more than 5% of total shares; *VC Owner* equals 1 if a VC owns more than 5% of total shares; *Foreign Owner* equals 1 if any foreign owner owns more than 5% of total shares; *Insider20* equals 1 if an inside owner owns more than 20% of total shares; *VC20* equals 1 if a VC owns more than 20% of total shares. Asterisks (\*\*\*, \*\*, \*) denote statistical significance between the two mean differences at the 1%, 5%, and 10% level (respectively).

	(1) ESOP (45 firms =1)		(2) VC_20 (20 firms =1)		(3) Insider_20 (33 firms =1)	
	=0	=1	=0	=1	=0	=1
<b>Firm and IPO Characteristics</b>						
<i>Age</i>	6.79	8.57**	7.18	8.22	7.26	7.51
<i>Sales</i>	366.23	229.66	323.77	345.55	394.47	93.82
<i>Initial Return Spread</i>	62.54	101.43	69.91	99	70.26	86.6
<i>Listing</i>	0.45	0.6**	0.45	0.75***	0.49	0.52
<i>Proceeds (IPO Size)</i>	246.7	395.57	231.86	679.62**	326.01	163.69
<i>Gross Margin</i>	0.24	0.2	0.21	0.32***	0.22	0.23
<i>Debt/Equity</i>	1.72	1.07	1.58	1.24	1.73	0.87
<i>Investment to Sales</i>	2.81	0.08	2.35	0.24	2.62	0.18
<i>Book to Mkt</i>	1.64	3.1***	1.92	3.07**	1.82	2.83***
<i>Foreign Lender</i>	0.11	0.42***	0.17	0.45***	0.19	0.24
<i>Foreign Lead</i>	0.1	0.18	0.13	0.1	0.12	0.15
<i>Financial</i>	0.07**	0	0.05	0.05	0.06*	0
<i>Technology</i>	0.72	0.78	0.75	0.65	0.76*	0.64
<b>Ownership and Governance Characteristics</b>						
<i>Bank Owner</i>	0.09	0.18*	0.1	0.25**	0.13	0.09
<i>VC Owner</i>	0.32	0.51**	0.28	1***	0.38	0.36
<i>Inside Owner</i>	0.61	0.82***	0.7**	0.5	0.58	1***
<i>Foreign Owner</i>	0.08	0.24***	0.06	0.6***	0.13	0.15
<i>ESOP</i>	0	1	0.27	0.5**	0.29	0.33
<i>CEO Founder</i>	0.95	0.93	0.95	0.9	0.94	0.97
<i>Bank_20</i>	0.03	0.02	0.02	0.1**	0.03	0
<i>VC_20</i>	0.09	0.22**	0	1	0.15*	0.06
<i>Insider_20</i>	0.21	0.24	0.23*	0.1	0	1

**Table 4: Differences in Ownership based on the Role of Foreign Financial Firms (Means)**

The table examines the differences in the role of foreigners in issuing firms prior to an IPO. *Foreign Lender* indicates whether the firm has a loan from a foreign bank; *Foreign Owner* indicates if a foreign shareholder owns more than 5% of equity; *Foreign Lead* indicates if the firm had a foreign IPO underwriter. *Proceeds* is the amount raised (in Rs million); *Initial Return Spread* is the percentage return on the IPO from the offer price to the IPO's closing price on the first day of trade adjusted for market movements; *Listing* is a dummy equal to 1 if the firm lists on a national exchange (NSE or BSE); *Foreign Lead* is a dummy equal to 1 if the firm had a foreign lead banker for its IPO. Firm characteristics for year prior to listing include: *Age* of the firm; *Sales* of the firm; *Gross margin* is the ratio of EBIT to sales; *Debt/equity* is the ratio of total debt to the book value of equity; *Investment to Sales* is the ratio of total investment to total sales; *Foreign Lender* is a dummy equal to 1 if the firm has a foreign banking relationship; *Financial* and *Technology* are sector dummies. Ownership characteristics include: *ESOP* is a dummy equal to 1 if the firm offers an employee stock option plan; *CEO Founder* equals 1 if the CEO is the company founder; *Inside Owner* equals 1 if insiders own more than 5% of total shares; *Bank Owner* equals 1 if a bank owns more than 5% of total shares; *VC Owner* equals 1 if a VC owns more than 5% of total shares; *Foreign Owner* equals 1 if any foreign owner owns more than 5% of total shares; *Insider20* equals 1 if an inside owner owns more than 20% of total shares; *VC20* equals 1 if a VC owns more than 20% of total shares. Asterisks (\*\*\*, \*\*, \*) denote statistical significance between the two mean differences at the 1%, 5%, and 10% level (respectively).

	(1) Foreign Lender (31 firms =1)		(2) Foreign Owner (20 firms =1)		(3) Foreign Lead (19 firms =1)	
	=0	=1	=0	=1	=0	=1
<b>Firm Characteristics</b>						
<i>Age</i>	6.64	9.96***	6.96	9.64**	6.81	10.82***
<i>Sales</i>	64.68	1184.55***	142.31	1344.94***	105.17	1720.19***
<i>Initial Return Spread</i>	65.34	103.91	65.99	117.77	77.07**	55.79
<i>Listing</i>	0.43	0.74***	0.45	0.75***	0.45	0.79***
<i>Proceeds (IPO Size)</i>	93.41	1061.14***	200.72	885.12***	169.27	1141.33***
<i>Gross Margin</i>	0.23	0.21	0.22	0.26	0.22	0.23
<i>Debt/Equity</i>	0.53	4.93***	0.66	6.91***	0.68	7.09***
<i>Investment to Sales</i>	2.68	0.26	2.35	0.46	2.35	0.32
<i>Book to Mkt</i>	1.59	4.09***	1.88	3.74***	1.73	5.12***
<i>Foreign Lender</i>	0	1	0.15	0.55***	0.15	0.58***
<i>Foreign Lead</i>	0.07	0.35***	0.11	0.2	0	1
<i>Financial</i>	0.05	0.03	0.04	0.1	0.04	0.11*
<i>Technology</i>	0.77**	0.61	0.77**	0.55	0.78***	0.42
<b>Ownership and Governance Characteristics</b>						
<i>Bank Owner</i>	0.08	0.26***	0.06	0.5***	0.09	0.32***
<i>VC Owner</i>	0.32	0.58***	0.3	0.9***	0.37	0.42
<i>Inside Owner</i>	0.66	0.71	0.68	0.6	0.66	0.74
<i>Foreign Owner</i>	0.07	0.35***	0	1	0.12	0.21
<i>ESOP</i>	0.21	0.61***	0.26	0.55***	0.28	0.42
<i>CEO Founder</i>	0.97**	0.87	0.97***	0.8	0.95	0.89
<i>Bank_20</i>	0.03	0	0.02	0.1**	0.02	0.11**
<i>VC_20</i>	0.09	0.29***	0.06	0.6***	0.14	0.11
<i>Insider_20</i>	0.21	0.26	0.21	0.25	0.21	0.26

**Table 5: Logit Tests of Ownership**

The dependent variables include whether the firm has a Bank, VC, or Insider blockholder with 5% of more of equity holdings or whether the firm has a VC with 20% of more of shares. Independent variables include: *Bank Owner* equal to 1 if a bank owns more than 5% of total shares; *VC Owner* equal to 1 if a VC owns more than 5% of total shares; *Insider Owner* equal to 1 if an individual firm insider owns more than 5% of total shares; *Technology* and *Financial* sector dummies; *Ln\_Age* equal to the logged age of the firm at the time of the IPO. Asterisks (\*\*\*, \*\*, \*) denote statistical significance at the 1%, 5%, and 10% level (respectively). The number of dependent observations equal to 1 is in brackets.

	(1)	(2)	(3)	(4)
	<b>Bank</b>	<b>VC</b>	<b>INSIDER</b>	<b>VC_20</b>
<i>Bank Owner</i>		1.079*	0.364	1.141
		0.591	(0.619)	0.719
<i>VC Owner</i>	1.151*		0.178	
	(0.593)		(0.404)	
<i>Inside Owner</i>	0.413	-0.191		-1.206**
	(0.621)	(0.411)		(0.568)
<i>Technology</i>	-1.026	0.329	-0.303	-0.329
	(0.633)	(0.459)	(0.501)	(0.666)
<i>Financial</i>	1.36	-1.001	-2.397***	-1.432
	(1.032)	(1.16)	(1.102)	(1.27)
<i>Ln_Age</i>	0.746*	0.595**	0.417*	0.426
	(0.4)	(0.246)	(0.233)	(0.382)
<i>Intercept</i>	-3.803***	-1.763**	0.413	-1.820*
	(1.048)	(0.7)	(0.633)	(1.009)
<i>No observations</i>	151	151	151	151
<i>% concordant</i>	80.3	66.9	69.2	71.6

**Table 6: Logit Tests of Foreign Lending and Underwriting**

The dependent variables include whether the firm borrows from a foreign bank; whether the firm had a foreign bank as its lead underwriter; whether the firm issues ESOPs, and whether the CEO is the company founder. Independent variables include: *Bank Owner* equal to 1 if a bank owns more than 5% of total shares; *VC Owner* equal to 1 if a VC owns more than 5% of total shares; *Insider* equal to 1 if an individual firm insider owns more than 5% of total shares; *Technology* and *Financial* sector dummies; *Ln\_Age* equal to the logged age of the firm at the time of the IPO. Asterisks (\*\*\*, \*\*, \*) denote statistical significance at the 1%, 5%, and 10% level (respectively). The number of dependent observations equal to 1 is in brackets.

	(1)	(2)	(3)	(4)
	<b>Foreign Bank</b>	<b>Foreign Lead</b>	<b>ESOP</b>	<b>CEO Founder</b>
<i>Bank Owner</i>	0.392 (0.656)	1.251* (0.765)	0.099 (0.658)	-0.454 (1.095)
<i>VC Owner</i>	0.364 (0.515)	0.050 (0.575)	0.336 (0.423)	0.848 (1.417)
<i>Inside Owner</i>	-0.027 (0.512)	0.184 (0.602)	1.158 (0.874)	1.937* (1.072)
<i>Foreign Owner</i>	1.387** (0.698)	-0.569 (0.977)	1.239* (0.682)	-2.836* (1.859)
<i>Technology</i>	-0.423 (0.534)	-1.248** (0.577)	0.722 (0.548)	-0.818 (0.801)
<i>Financial</i>	-1.672 (1.051)	-0.159 (0.880)		
<i>Ln_Age</i>	0.7643* (0.418)	-0.692 (0.515)	0.349 (0.310)	0.234 (0.61)
<i>Intercept</i>	-2.902*** (0.968)	-2.803** (1.202)	-3.207* (0.967)	2.756 (1.532)
<i>No observations</i>	151	151	151	151
<i>% concordant</i>	77.6	76.9	79.3	86.9

**Table 7: OLS Tests of Performance**

The dependent variables are two measures of firm performance: ROA and gross margin. Independent variables include: *Bank Owner\_5* equal to 1 if a bank owns more than 5% of total shares; *VC Owner\_5* equal to 1 if a VC owns more than 5% of total shares; *Insider\_5* equal to 1 if an individual firm insider owns more than 5% of total shares; *Bank Owner\_20* equal to 1 if a bank owns more than 20% of total shares; *VC Owner\_20* equal to 1 if a VC owns more than 20% of total shares; *Insider\_20* equal to 1 if an individual firm insider owns more than 20% of total shares; *Technology* and *Financial* sector dummies; *Ln\_Age* equal to the logged age of the firm at the time of the IPO. Asterisks (\*\*\*, \*\*, \*) denote statistical significance at the 1%, 5%, and 10% level (respectively). The number of dependent observations equal to 1 is in brackets.

	(1)	(2)	(3)	(4)	(5)	(6)
	ROA	ROA	Gross Margin	Gross Margin	Leverage	Leverage
<i>Bank Owner_5</i>	0.023 (0.029)		0.020 (0.045)		-0.001 (0.054)	
<i>VC Owner_5</i>	0.033 (0.023)		0.031 (0.034)		-0.015 (0.037)	
<i>Insider_5</i>	-0.005 (0.024)		-0.104** (0.044)		0.018 (0.033)	
<i>Bank Owner_20</i>		-0.019 (0.034)		0.015 (0.076)		0.014 (0.079)
<i>VC Owner_20</i>		0.089** (0.03)		0.133* (0.076)		-0.092* (0.054)
<i>Insider_20</i>		-0.008 (0.017)		0.038 (0.035)		-0.045 (0.032)
<i>Foreign Owner</i>	-0.038 (0.037)	-0.058 (0.041)	0.016 (0.056)	-0.028 (0.054)	0.069 (0.068)	0.105* (0.064)
<i>Technology</i>	0.044** (0.020)	0.042* (0.021)	0.048 (0.032)	0.054 (0.033)	-0.079** (0.041)	-0.089 (0.040)
<i>Financial</i>	-0.059 (0.025)	-0.054** (0.024)	0.021 (0.070)	0.088 (0.070)	-0.032 (0.103)	-0.066 (0.108)
<i>Ln_Age</i>	0.047*** (0.012)	0.049*** (0.010)	-0.006 (0.031)	-0.018 (0.033)	0.048*** (0.018)	0.049*** (0.016)
<i>Intercept</i>	-0.030 (0.026)	-0.029 (0.027)	0.261*** (0.082)	0.196** (0.082)	0.093 (0.049)*	0.126*** (0.050)
<i>No of Observations</i>	130	130	130		130	130
<i>R-Squared</i>	0.17	0.10	0.17		0.17	0.17

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