Soe firms in corporate governance after going finance essay

Finance

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Do Private Firms Outperform SOE Firms in Corporate Governance after Going Public in China?

Abstract

This study examines the characteristics of board structure that affect Chinese public firm's financial performance. Using a sample of 871 firms with 699 observations of previously private firms and 1, 914 observations of previously state-owned enterprise (SOE) firms, we investigate the differences in corporate governance between publicly listed firms that used to be pure private firms before going public and listed firms that used to be SOEs before their initial public offerings (IPOs). Our main finding is that previously private firms outperform previously SOE firms in China after IPOs. In the wake of becoming listed firms, previously SOE firms might be faced with difficulties adjusting to professional business practices to build and extend competitive advantages. In addition, favorable policies and assistance from the government to the SOE firms might have triggered complacency, especially in early years after getting listed. On the other hand, professional savvy and acumen, combined with efficiency and favorable business climate created by the government have probably led the previously private firms to improve their values stronger and faster. We also find differences between previously private firms and previously SOE firms, not only in their corporate governance but also in the relation between firm performance and board

characteristics, after they go public. Keywords: corporate governance, firm performance, Chinese listed firms, private firms, state-owned enterprises, initial public offerings. JEL classifications: G30, G34, G38.

1. Introduction

The Chinese economy has been experiencing rapid growth in the past three decades. Despite this growth, the corporate governance systems for Chinese firms are still at the early stage. Establishing an efficient corporate governance system for Chinese firms has become a pressing issue. The major challenge for corporate governance reform is that China started its governance reform efforts in an environment where most of the elements of a well-functioning financial market were not in place. The Chinese government currently encourages continuous improvements in this area, with particular attention to improving shareholder rights and efficiency of governance. Lu, Zhong, and Kong (2009) find that Chinese companies have been making governance progress, and improvements in SOEs have resulted in some initial signs of success. Previous studies have also shown that corporate governance improvements enhance firm value in China (Bai, Liu, Lu, Song, and Zhang, 2004). Xu (2000) finds that the reform of SOEs in China has significantly strengthened incentives, and that productivity has increased. Discussing governance in China requires some historical perspectives. Listed companies on the Chinese stock markets stem from two original forms. The first is private firms, which are essentially the same as private firms elsewhere. The other form is SOE firms, which are fully owned by the Chinese government and usually managed by government-appointed officials either before or after they are listed on stock exchanges. SOE firms

were the only business form in China until the early 1980s. Due to government supports, SOE firms are usually larger and have more resources than do private firms. Originally, Chinese private firms have been allowed to operate in China only after 1980s, and they were usually small and constrained by a variety of regulations. Although both types of firms are now public, their differences remain substantial, ranging from firm size, market share, lines of business, competitiveness, and most importantly corporate governance efficiency. The structure of an SOE firm has resulted in complex governance issues with respect to board structure and board independence. China has adopted a quasi two-tier board structure comprised of a board of directors as well as a supervisory board. However, supervisory directors are not involved in the selection of the directors and managers, and lack the authority to supervise them effectively. In addition, the state and majority shareholders (which are usually government agencies, holding more than half of the total outstanding shares of the listed firms) still play a dominant role in the appointment of independent directors, chairperson, CFO, and senior executives. Suggestions to improve the structure of the board include increasing the number of independent directors and establishing a fully independent audit committee. We argue that more attention should be paid to independent directors who have professional and managerial experiences and possess certain levels of financial skills, such as lawyers, financial analysts, and accountants. Our study confirms that directors with accounting background are positively related to firm performance, especially for previously public firms. In China, minority shareholders are a highly fragmented group of individuals. Institutional investors are small players on

the Chinese stock markets. Retail investors in China, as in other markets around the world, often lack investment knowledge and awareness of shareholder rights. In China, it is difficult for individual investors to enforce any legal rights against a listed company for negligence or fraud. In this situation, if independent directors can fulfill their duties for the interest of shareholders, especially minority shareholders, the efficiency of corporate governance will be enhanced substantially. It has been suggested that the provision of efficient managerial incentives may be a crucial ingredient in the transformation of SOEs into more profitable modern firms. The Chinese government is promoting equity-based pay as one of the components of compensation because it is considered a way to motivate growth in the capital markets. In light of the specific characteristics of corporate governance of Chinese listed firms, there are good reasons to conjecture that the effectiveness of corporate governance might differ between the practices in developed markets and those in China. These corporate governance characteristics enumerated above are often thought to be associated with poor corporate governance, which have been ascertained in previous studies (Gibson, 2003, La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998). Based on discussion above, we address two issues in this paper. First, what are the board characteristics that impact the financial performance of listed firms in China? Second, due to historical differences between SOE firms and private firms before they went public, what are the differences in corporate governance between these two types of firms after going public? In summary, our study finds that previously private firms outperform previously SOE firms in China after IPOs. In the wake of IPOs,

previously SOE firms might be having difficulties adjusting to professional business practices (e. g., hiring high-caliber executives and directors, revising company vision or policy, changing business models toward customer satisfaction, etc.) to establish and leverage competitive advantages. Moreover, favorable policies and enormous assistance from the government to the SOE firms might have created complacency, especially in early years after becoming listed firms. On the other hand, business savvy and acumen, combined with efficiency and conducive business climate provided by the government, have probably led the previously private firms to improve their values stronger and faster. We find evidence that adding more directors on the board benefits the previously SOE firms. More educated directors are linked to improving firm performance of previously SOE firms after going public, and the positive relation of firm performance to education has a stronger magnitude for previously private firms. Subsequently, higher board independence benefits both types of firms. For a previously private firm, a higher proportion of independent directors on the board is linked to an increased Tobin's Q with a higher magnitude than the equivalent increase for a previously SOE firm. Higher shareholding by top three executives or directors would lead to increasing firm value, but this relation is only significant for previously SOE firms. Next, having more board meetings are valuable to both previously SOE and previously private firms, with the benefit being enhanced in the case of previously private firms. Higher executive compensation is more likely to be accompanied by higher firm performance for previously SOE firms, but not significantly found for previously private firms. Our study also finds that the proportion of directors

who used to work as government officials has no relation with firm performance of previously SOE firms, implying that after IPOs the external market plays a more pivotal role, which leads to more professional business practices in those firms. On the other hand, this relation is significantly positive for previously private firms. Accordingly, previously private firms in China may enjoy the benefits of hiring directors with a government official or bureaucrat background, such as getting an access to government projects, business acquaintances, etc. For previously SOE firms, the advantages of employing this type of directors is less pronounced as these firms basically had been controlled by the government, and had enjoyed all government projects, facilities, and information. The remainder of this paper is organized as follows. Section 2 reviews the literature on corporate governance of Chinese listed firms. Data collection, research design, and variable descriptions are expounded in Section 3. Section 4 discusses empirical methods and results. Eventually, Section 5 concludes.

2. Literature Review on Corporate Governance of Chinese Firms

Research on corporate governance have intensified in the wake of infamous financial fraud scandals of Enron, WorldCom, and Parmalat, which were blamed on poor corporate governance (Johnson, Boone, Breach, and Friedman, 2000). The study on corporate governance in emerging markets is important as institutional investors have identified it as a key factor affecting their willingness to invest in those markets. In this setting, to adopt corporate governance systems of Western market economies, the Chinese government has promulgated a series of laws and regulations of corporate

governance. These reforms have just been in place relatively recently, and it is still an evolving process. The evolving governance circumstances provide a unique opportunity to examine current governance practices in China, and to identify effective mechanisms. The largest firms in China are SOE firms, which were established and run by appointed officials from the government. Among the SOE firms, some of them have gone public. Nevertheless, even after going public, their governance is still similar to that of non-public SOE firms. For instance, after going public, the SOE firms still enjoy supports from the government or government agencies in a variety of ways (Liu, 2005). This unique feature gives the SOE firms an edge in competing with private firms. However, the management of SOE firms is still appointed by the government, although their boards of directors are normally elected by shareholders. On the contrary, private firms in China fit the typical image of a private firm elsewhere, and more importantly, their governance is largely independent from the government. For example, Liu (2005) describes how the Chinese stock markets were organized by the government as a vehicle for its SOEs to raise capital and improve operating performance. Since the initial primary objective of the equity markets in China was to help SOEs overcome external financing constraints, governance regulations that have been introduced tend to favor SOEs. Shleifer and Vishny (1998) propose the " grabbing hand" argument that bureaucrats/politicians extract resources from the listed SOEs under their control to fulfill objectives that are not consistent with firm value maximization. Liu (2005) documents that current corporate governance practices in Chinese firms can be best described under a control-based model, which strikingly contrasts with the market-oriented model

commonly found in the U. S. and U. K. Sun and Tong (2003) find that share issue privatization is associated with improved corporate performance. Bai, Liu, Lu, Song and Zhang (2004) show evidence that the CEO being the Chairperson or Vice Chairperson of the board, and the largest shareholder being the government, have negative effects on firm value. After SOE firms go public, government regulations could serve as an effective governance mechanism, especially when the law and law enforcement are weak (Johnson, Glaeser, and Shleifer, 2001). In China, since the legal infrastructure is particularly weak, Pistor and Xu (2005) argue that the so-called " administrative governance" has played an active and positive role in the development of Chinese stock markets. However, more recent evidence indicates that government regulations are also the source of many problems. For instance, Fan, Wong, and Zhang (2007) find that firms with politically connected CEOs are more likely to have boards populated by current or former government bureaucrats. The accounting and stock return performances of the firms run by politically connected CEOs are poor relative to their politically unconnected counterparts. Moreover, in a related study, Chan, Fan, and Wong (2004) find that politicians and state-controlling owners in China occupy most board seats, and almost 50% of the directors are appointed by the state-controlling owners while another 30% are affiliated with various layers of government agencies. There are a relatively limited number of professionals (lawyers, accountants, or finance experts) on Chinese boards. With regard to studies on corporate governance in private firms after going public, Ren and Peng (2008) provide evidence that private firms have improved their efficiency in corporate governance although the

improvement in financial performance has not been ascertained. Wang and Shao (2007) argue that stock ownership concentrated in the hands of blockholders affects the efficiency of corporate governance, and private firms are lacking in the efficient restriction systems on blockholders. Huang, Xu, and Yue (2006) find that the proportion of independent directors on private firms' boards is relatively higher than that on SOE firms. Meanwhile, Li (2008) documents that inside owners do not necessarily bring benefit to firm value, and even worse, inside owners could undermine the firm value by taking advantage of individual shareholders. The traditional view on corporate governance is that there are two potential board approaches that might achieve the required systems of corporate governance in a transitional economy: (1) privatization approach and (2) government-controlled approach. Empirical evidence indicates that privatization has benefited Chinese public firms. For example, Zhang and Zhang's (2003) findings show that private firms outperform SOEs in operational efficiency, profitability, capital structure, and market evaluation; however, due to a wide range of firm qualities of these private firms, the potential risk of investing in these private firms is high as well. On the other hand, the government-controlled approach has been advocated by Qian (1995). He argues that the circumstances probably do not allow for the achievement of pure privatization in present China. The SOEs owned by local governments in China could report outstanding financial performances, although the financial reports of those SOEs have been possibly somewhat cooked before they are disclosed to the public. Obviously, this is not the optimal system. Considering the complexity of current corporate governance systems in China, it is

compelling to examine the functions and roles of independent directors in Chinese listed firms. Traditionally, an independent director is defined as a director who has no affiliation with the firm except his or her directorship (Clifford and Evans, 1997), and so the independent directors are defined in the same way in this paper. Gao and Kling (2008) find that outsiders on the board of directors can prevent operational tunneling. In another place, Abidin, Kamal, and Jusoff (2009) show that for Malaysian firms, the ratio of independent non-executive directors on the board has a positive impact on firm performance. Having independent non-executive directors on the board would help monitor and control the opportunistic behavior of management (Jensen and Meckling, 1976). Furthermore, Brickley and James (1987) argue that outside directors also contribute to reducing management consumption of perquisites. Empirically, studies on the association between independent directors and firm performance have shown mixed findings although most results are still in favor of having more independent directors on the board. For instance, Dahya and McConnell (2003) present evidence that investors appear to view the appointments of outside CEOs as good news in the U. K., and this is reflected in the announcement period stock returns. Furthermore, Lee et al. (1999) find that the appointment of a financial outside director to the board of a public corporation is associated with positive abnormal returns among medium-sized firms. In contrast, there are also studies that find a negative association between independent non-executive directors and firm performance. Several other studies show that independent non-executive directors do not necessarily have a positive impact on firm performance (Agrawal and Knoeber, 1996; Bhagat and Black, 1999), implying that in some

cases the independent non-executive directors do not play their roles effectively. In addition, Firth, Fung, and Rui (2008) find that boards with a majority of outside directors are not associated with lower agency costs. Nevertheless, the finding of our study substantiates the independent directors system. It is generally believed that a market-oriented governance model should be eventually put in place in China. During this process, Chinese firms' governance systems will gradually turn out to be similar to the systems in developed nations, such as the U. S. Private firms are naturally closer to this ultimate goal considering their inherent governance characteristics. Our study purports to examine the characteristics of board structure that affect public firm's financial performance. We investigate the differences in corporate governance between publicly listed firms that used to be pure private firms before going public and public firms that used to be pure SOEs before their IPOs. Therefore, whether private firms outperform SOE firms, or vice versa, in the realm of corporate governance is an empirical question. Hence, our study's hypothesis is: H1: Private firms outperform SOE firms with respect to corporate governance efficiency after they both go public. As illustrated above, there have been numerous studies that examined the efficiency of corporate governance of public Chinese firms. However, to the best of our knowledge, none of them has compared the governance of Chinese firms based on their backgrounds, whether they were private firms or SOEs in origin. As discussed, these two types of firms are quite different. Hence, we categorize our sample firms into two groups based on this criterion. We then compare their corporate governance effectiveness and efficiency. The relation between firm performance and

various board characteristics in these two types of firms is investigated, and indeed this study confirms the differences between their board characteristics.

3　Data and variables

We collected sample firms and accounting data from Wind, which is a premier financial database on Chinese firms. We selected our sample over the years of 2005-2008. In accordance with our research objective, we categorize our sample into two groups: (1) previously private firms and (2) previously SOE firms. Our final sample consists of 871 firms with 699 observations of previously private firms and 1, 914 observations of previously SOE firms. Data on all board characteristics were collected from several board research databases, including Wind and GTA databases.

3. 1 Dependent variable

Our measure of firm performance is Tobin's Q, computed as the sum of market value of equity and book value of debt, divided by book value of assets. Our measure of Q is similar to that used in Wei, Xie, and Zhang (2005). Tobin's Q is probably the most often used valuation measure in empirical research on corporate finance. Yermack (1996) and Fan, Wong, and Zhang (2007) utilized Q to proxy for firm performance, and find it to be an ideal measure for firm performance. Hence, we employ Q as the proxy for firm performance in this study. We also use return on equity (ROE) as an alternative proxy for firm performance, and replicate the whole analysis process. We find that the results essentially remain the same.

3. 2 Independent variables

We have selected corporate governance variables found by previous studies to be relevant to corporate governance of Chinese listed firms. These variables include firm size, board size, firm market value, return on assets (ROA), board meeting frequency, the proportion of independent directors on the board, CEO/Chairman duality, managerial ownership, the proportion of independent directors who have accounting background, the proportion of independent directors from academia, the educational backgrounds of board members, and executive compensation. The definitions of these variables are reported in Appendix and discussed below. Large boards have been associated with less effective monitoring (Core et al, 1997; Jensen, 1993; Yermack, 1996). Sun and Zhang (2000) find that board size is negatively related to Tobin's Q for Chinese firms. If increased board size leads to less effective monitoring, we would expect firm performance to be the negatively associated with board size. Firm size often affects the efficiency of corporate governance. In China, large firms usually have resources to hire more competent CEOs and Chairpersons, and could provide attractive compensation packages to attract high-caliber executives. In addition, working for a large firm could improve an executive's reputation capital. In China, large firms often have a substantial advantage in operations over small firms. Cichello (2005) ascertains that firm size is a key factor in determining the relation between pay and performance sensitivity. Heaney (2009) recently finds that large firms indeed tend to have larger board size based on a sample of large listed firms in Hong Kong, Malaysia, and Singapore. We expect that large firms on average have better performance

than do small firms. Board meeting frequency has been identified as an important dimension of board mechanisms. However, whether high board meeting frequency is favorable to firm performance remains undetermined due to mixed evidence. Lipton and Lorsch (1992) suggest that the most widely shared problem faced by directors is the lack of time to carry out their duties. Similarly, Conger et al. (1998) suggest that board meeting is an important resource to improve the effectiveness of the board. An implication of those findings is that directors that meet more frequently are more likely to perform their duties in line with shareholders' interests. However, based on a sample of Fortune 500 firms, Vafeas (1999) documents that the annual number of board meetings is inversely related to firm value, although he further finds that operating performance improves following the years of abnormal board activity. Listed firms in China are still at the transitional stage; thus, for those directors without accumulated experiences in running or supervising a listed firm, we expect the benefits of more meetings to outweigh the costs. Therefore, we conjecture that board meeting frequency is positively related to firm performance. The traditional perspective on independent directors opines that more independent directors on the board monitor the firm more effectively. According to the selecting procedures for independent directors in China, the independent directors are actually " outside directors." Huang, Xu, and Yue (2006) do not confirm the significant relation between board independence and firm performance. Fama and Jensen (1983) argue that outside directors have an incentive to act as monitors of management since they want to protect their reputation as effective independent decision makers. Weisbach (1988) finds that boards

dominated by outsiders are more likely to replace CEOs than do insider-dominated boards. The presence of outside directors who fulfill their monitoring duties could make the degree of exposure to the market for corporate control less important. Empirical evidence also shows that firm performance is linked to board composition (Brickley and James, 1987; Byrd and Hickman, 1992; and Rosenstein and Wyatt, 1990). Those studies consistently confirm that firm performance is superior when outside directors hold a significant percentage of board seats. Therefore, we conjecture that more independent directors on the board serve the firm better. It has been shown by a vast array of empirical evidence that for Chinese listed firms, duality is negatively related to firm performance (Wu, 2002; Pu and Liu, 2004). Wu, Bai, and Xi's (1998) paper substantiates the notion that there is a positive relationship between duality and firm size. Bai, Liu, Lu, Song and Zhang (2004) find that the CEO being the Chairperson or Vice Chairperson of the board has a negative effect on firm value. Subsequently, Huang, Xu, and Yue (2006) find that duality is more likely to prevail in private firms than in SOE firms. One of the reasons is due to the history of private firms whose founders usually continue dominating the firm even after they have gone public. Therefore, holding both Chairperson and CEO position is not unusual in private firms. However, although a founder can hold dual positions, he is not necessarily competent in managing the firm. Therefore, we expect the duality to be negatively related to firm performance. Managerial ownership is another factor often considered in research on corporate governance. Studies in the literature include those that examined the cross-sectional relation between ownership and board characteristics and measures of firm

performance (Morck et al., 1988; Yermack, 1996), and those that investigated the influence of ownership and board characteristics on specific decisions (Weisbach, 1988). Denis and Sarin (1999) find that ownership is weakly related to the changes in firm-specific determinants of ownership and board structure. Meanwhile, Core and Larcker (2002) argue that a mandatory increase in suboptimal equity ownership for executives is associated with the increase in subsequent firm performance. Research on this area for Chinese firms in general find mixed evidence of the significant relation between ownership structure and firm performance. As stock options and other similar equity-based compensation measures are increasingly implemented in China, we expect that there is a positive relationship between managerial ownership and firm performance. How to select independent directors has become a critical issue for Chinese firms. Accordingly, it is of importance to investigate the backgrounds of incumbent directors in order to find the most suitable candidates for the independent director positions. Our study takes into account whether independent directors have accounting expertise or are hired from academia, and investigates the relation between those characteristics and firm performance. Accounting skills will furnish independent directors with the expertise to analyze financial statements and monitor financial decision-making in the firm. Hiring independent directors from academia has become a routine practice in China. Academic directors may have skills that would greatly benefit the firm they serve. The academic fields of those independent directors are usually related to the lines of business of the hiring firm. Therefore, those independent directors should comprehend the business to a sufficient extent. Kroszner and Strahan (2001)

find that board members with a banking background are effective monitors since bankers have the expertise in strategic and financial management. We, therefore, believe that directors with academic, accounting, and banking backgrounds would be effective monitors. Although not examined much in previous literature, director age might be an important factor in governance. It is apparent that older directors are usually more experienced, having accumulated great amount of knowledge and skills in business management. Therefore, we expect that the older the average age of the board members, the better the firm performance will be. Similarly, we conjecture that the differences in educational backgrounds of directors are a key factor since well-educated directors could fulfill their duties better than those directors who do not possess sufficient educational trainings. In this study, we define a well-educated director as one who holds a bachelor's degree (or above). We expect that the higher the educational levels of the firm's directors, the better is the firm performance. The last key factor that we test is executive compensation. Some research (e. g., Coughlan and Schmidt, 1985; Jensen and Murphy, 1990) on executive compensation has dealt with the issue of the relation between executive compensation and firm performance, and those studies show that firm performance is largely and positively related to pay-for-performance sensitivity after controlling for risk. For Chinese firms, the relation between executive compensation and firm performance remains unexplored. We expect that higher compensation motivates the management to deliver better firm performance.

4. Empirical results

We employ both univariate and multivariate analyses in our tests. For the univariate analysis, we divide the sample into previously private firms (henceforth " private firms") and previously public firms (henceforth " public firms"). The sample comprises 871 firms with 699 observations of private firms and 1, 914 observations of public firms. We compare the variables for public and private firms using the independent sample t-tests. Table 1 below summarizes the univariate analysis findings.-------------insert Table 1 about here-----------

4. 1 Univariate Analysis

Univariate analysis in Table 1 shows that public firms indeed differ from private firms in many characteristics. Board size is on average smaller for private firms than for public firms, and the difference is significant at 1% level. Directors of private firms are, on average, younger than those of public firms. Meanwhile, the proportion of directors holding college degrees and/or graduate education is significantly higher for public firms than for private firms. Subsequently, private firms are more likely to use the duality system (CEO and Chairman being the same person) than public firms. However, the proportion of independent directors on the board is significantly larger for private firms than that for public firms. With respect to insider ownership, shareholding by top three executives/board members is significantly higher for private firms. Likewise, executive/board meetings within a year are significantly more frequent for private firms. Interestingly, average compensation of top three most highly paid executives is significantly and much larger for public firms. This is perhaps supported by the fact that public

firms are significantly bigger than private firms in terms of market value as well as assets. Nevertheless, Tobin's Q of private firms is significantly higher than that of public firms, suggesting that private firms have more growth opportunities although we do not find a significant difference in sales growth between the two types of companies. As suspected, public firms employ a higher percentage of government officials as directors, and this is highly significant at 1% level. Interestingly, we find that SOE firms actually hire more independent directors from academia than do private firms. This might be explained by the fact that the SOE firms in China usually could offer more publicity and fame on media to the independent directors than could private firms. Besides, the academics may be enticed to run government projects pertaining to the firm in which they are involved, which pay much more than their salaries as professors or researchers. Likewise, a significantly higher proportion of directors with engineering background is found in public firms. Eventually, the number of independent directors is higher for public firms than that for private firms, which is significant at 5% level. We try to reconcile the univariate results that private firms have a smaller board, higher proportion of independent directors, but lower number of independent directors on the board. This basically indicates that due to the smaller size of private firms' boards, the smaller number of independent directors still constitutes a higher percentage of independent directors relative to the case of public firms. Next, we show the unrestricted correlations among variables in Table 2.------insert Table 2 about here------The correlation matrix shows that there are several highly correlated independent variables. Board size and the number of independent directors are found to have a high positive

relation. Compensation for top three executives is also positively and highly correlated with compensation for top three directors. Subsequently, the proportion of directors with accounting professor background is highly and positively correlated with the proportion of directors who used to be (or are still) academia and the proportion of directors who have accounting background. On the other hand, the proportion of directors who used to be (or are still) academia is negatively and highly correlated with the proportion of directors who used to be (or are still) entrepreneurs. Due to several high correlations among independent variables, symptoms of multicollinearity might appear, and this is formally examined in the next stage of analysis. To check for the possible multicollinearity problem, we run a preliminary regression of Tobin's Q on all other variables as independent variables. If the variance inflation ratio (VIF) of a particular variable is found to be higher than a predetermined level, then the variable is deemed suffering from the multicollinearity problem. The predetermined level is calculated as follows: (1)where R^2 is the coefficient of determination of the regression. The regression model for multicollinearity problem checking is constructed as follows:(2)where: Q = Tobin's Q, Ln_board_size = log of the number of directors in the board, Ln_av_age = log of the average age of directors, Av_edu = the proportion of directors who have college education or above, Duality = a dummy variable taking the value of 1 if CEO and Chairman is the sameperson, and 0 otherwise, Indep_ratio = the percentage of independent directors in the board, Private = a dummy variable taking the value of 1 if the firm is previously a privatefirm before IPO, and 0 if the firm is previously a public firm, Ln_top_value = log of the shareholding by top three

executives/board members, Ln_meeting = log of the times of board meetings within the year, Ln_t3b_comp = log of the compensation for top three directors, Ln_t3m_comp = log of the compensation for top three executives, MV = market value of the firm, ROA = return on assets, Sales_growth = the growth rate of the firm's sales, Ln_asset = log of the firm's assets, Acc_academic = the percentage of directors who have accounting professorbackground, Large_firm = a dummy variable taking the value of 1 if it is a large firm, and 0otherwise, Gov = the percentage of directors who used to work as government officials, Academic = the percentage of directors who came from (or are still) academia, Engineer = the percentage of directors who have engineering background, Enterprise = the percentage of directors who used to be (or are still) entrepreneurs, Legal = the percentage of directors who used to be (or are still) lawyers, Accountant = the percentage of directors who have accounting background, Indep_number = the number of independent directors, i = firm i, t = year t. Results of multicollinearity test are presented in Table 3. The regression yields a coefficient of determination of 0. 447. Accordingly, the predetermined level (calculated by equation 1) is 1. 807, and this is then compared with each variable's VIF.------ insert Table 3 about here -----VIF-to-predetermined-level comparison provides evidence that ln_board_size, ln_t3b_comp, ln_t3m_comp, ln_asset, acc_academic, academic, accountant, and indep_num might be involved in the multicollinearity problem. This substantiates the conjectures offered by the correlation matrix in Table 2. In particular, board size seems to be collinear with the number of independent directors, compensation for top three executives tend to be collinear with

compensation for top three directors, and the proportion of directors with accounting professor background is inclined to have multicollinearity with the proportion of directors who used to be (or still are) academia and with the proportion of directors having accounting background. In an unreported test, we also utilize another estimate, which is the Eigenvalue analysis, and the results conclude similarly. To remedy the multicollinearity problem, techniques employed are as follows. For the potential multicollinearity between log board size and the number of independent directors, we conduct the following regression:(3)From the regression in equation 3, we retain ln_board_size and εit (instead of indep_num) to be used in subsequent analysis. Similarly, for the possible multicollinearity between compensation for top three executives and compensation for top three directors, we run the following regression:(4)From equation 4, ln_t3m_comp and εit are retained for further analysis. Subsequently, the potential multicollinearity between log assets and large firm dummy is handled using the following regression:(5)where ln_asset and εit from equation 5 are retained. Finally, we handle the possible multicollinearity among the proportion of directors who have accounting professor background, the proportion of directors from academia, and the proportion of directors with accounting background using the following regressions:(6)(7)where we retain Academic variable and the error terms from equations 6 and 7 to be utilized in subsequent analysis. Meanwhile, to control for possible heteroskedastic nature of panel data, we apply Davidson and MacKinnon's heteroskedastic-corrected robust standard errors to get parameter estimates in all regressions in our study.

4. 2 Multivariate Analysis

The second approach to analyzing the relation between firm performance and firm governance for private and public firms is through multivariate regressions. We firstly conduct separate regressions for both types of firms using the following equation:(8)where: Q = Tobin's Q, Ln_board_size = log of the number of directors in the board, r_indep_number = the number of independent directors, which is the residual ofregression (3), Ln_av_age = log of the average age of directors, Av_edu = the proportion of directors who have college education or above, Duality = a dummy variable taking the value of 1 if CEO and Chairman is the sameperson, and 0 otherwise, Indep_ratio = the percentage of independent directors in the board, Ln_top_value = log of the shareholding by top three executives/board members, Ln_meeting = log of the times of board meetings within the year, Ln_t3m_comp = log of the compensation for top three executives, r_ln_t3b_comp = log of the compensation for top three directors, which is the residualof regression (4), MV = market value of the firm, ROA = return on assets, Sales_growth = the growth rate of the firm's sales, Ln_asset = log of the firm's assets, r_large_firm = a dummy variable taking the value of 1 if it is a large firm, and 0otherwise, which is the residual of regression (5), Gov = the percentage of directors who used to work as government officials, Academic = the percentage of directors who came from (or are still) academia, r_acc_academic = the percentage of directors who have accounting professorbackground, which is the residual of regression (6), r_accountant = the percentage of directors who have accounting background, which isthe residual of regression (7), Engineer = the

percentage of directors who have engineering background, Enterprise = the percentage of directors who used to be (or are still) entrepreneurs, Legal = the percentage of directors who used to be (or are still) lawyers, i = firm i, andt = year t.------ insert Table 4 about here -----Model 1 of Table 4 shows the results for public firms. In the case of SOE firms, the evidence indicates that Tobin's Q is positively and significantly related to board size, the proportion of directors with college degrees or higher, the proportion of independent directors on the board, shareholding by top-three executives/directors, the annual frequency of board meetings, compensation for top-three executives, market value, and return on assets. Surprisingly, Q is positively related to duality, meaning that CEO and Chairman being the same person actually brings value to the public firms. This is perhaps contributed by business or management culture in the SOE firms where the unity of command could hasten the decision-making process, particularly when dealing with top government officers. Meanwhile, Tobin's Q is negatively associated with firm size. With respect to director characteristics, we find that directors with accounting background is positively linked to firm value, but only marginally significant at 10% level. Investors may perceive that public firms are still lacking in professional directors, especially those who understand and are skillful in finance or accounting. Results for private firms are reported in Model 2 of Table 4. For private firms, Tobin's Q is positively and significantly related to the frequency of annual meetings, compensation for top-three executives, market value, and return on assets. On the other hand, there is a negative relationship between Tobin's Q and firm size as well as sales growth. Therefore, larger private firms with faster sales growth tend to have

lower Tobin's Qs. However, we do not find any significant relation between Tobin's Q and director characteristics for the case of private firms. Subsequently, this study examines both types of firms simultaneously. Since we have numerous independent variables (23 independent variables excluding interaction variables), a stepwise technique is preliminarily run to exclude independent variables that do not meet a minimum F-statistics p-value (α) of 0. 15. The stepwise regression model employed is as follows: (9)where: Q = Tobin's Q, Ln_board_size = log of the number of directors in the board, r_indep_number = the number of independent directors, which is the residual ofregression (3), Ln_av_age = log of the average age of directors, Av_edu = the proportion of directors who have college education or above, Duality = a dummy variable taking the value of 1 if CEO and Chairman is the sameperson, and 0 otherwise, Indep_ratio = the percentage of independent directors in the board, Private = a dummy variable taking the value of 1 if the firm is previously a private firmbefore IPO, and 0 if the firm is previously a public firm, Ln_top_value = log of the shareholding by top three executives/board members, Ln_meeting = log of the times of board meetings within the year, Ln_t3m_comp = log of the compensation for top three executives, r_ln_t3b_comp = log of the compensation for top three directors, which is the residualof regression (4), MV = market value of the firm, ROA = return on assets, Sales_growth = the growth rate of the firm's sales, Ln_asset = log of the firm's assets, r_large_firm = a dummy variable taking the value of 1 if it is a large firm, and 0otherwise, which is the residual of regression (5), Gov = the percentage of directors who used to work as government officials, Academic = the percentage of directors who came

from (or are still) academia, r_acc_academic = the percentage of directors who have accounting professorbackground, which is the residual of regression (6), r_accountant = the percentage of directors who have accounting background, which isthe residual of regression (7), Engineer = the percentage of directors who have engineering background, Enterprise = the percentage of directors who used to be (or are still) entrepreneurs, Legal = the percentage of directors who used to be (or are still) lawyers, i = firm i, andt = year t.------insert Table 5 about here------Findings of the regression above are documented in Table 5. Results from the stepwise regression provide information that 12 independent variables fulfill the minimum criterion of F-statistic p-value of 0. 15. These variables are r_large_firm, ln_asset, mv, ROA, ln_meeting, ln_t3m_comp, indep_ratio, av_edu, ln_top_value, gov, ln_board_size, and private. The 12 variables are subsequently utilized in the main regressions. Interestingly, the coefficients on the proportions of directors who have accounting, academic, accounting professorship, entrepreneurial, engineering, and law backgrounds are weakly related to Tobin's Q. To analyze our panel data, we employ all panel regression techniques: (1) pooled, (2) random effects, and (3) fixed effects regressions. Pooled regression model assumes that panel data would produce a uniform intercept whereas firm fixed effects regression model enables each firm to have a unique intercept. Meanwhile, random effects model is predicated upon the hypothesis that random effects (μ_i) are not significantly related to any independent variable. As reported in Table 6, we find that Breusch-Pagan's Lagrange Multiplier (LM) test statistic is not significant while Hausman specification test statistic is highly significant at

1% level, suggesting that the use of fixed effects models are the most efficient of all. Nonetheless, we present results from all models for comparison. The regression equation used is:(10)where:■ = firm fixed effect, Q = Tobin's Q, Ln_board_size = log of the number of directors in the board, Av_edu = the proportion of directors who have college education or above, Indep_ratio = the percentage of independent directors in the board, Private = a dummy variable taking the value of 1 if the firm is previously a private firmbefore IPO, and 0 if the firm is previously a public firm, Ln_top_value = log of the shareholding by top three executives/board members, Ln_meeting = log of the times of board meetings within the year, Ln_t3m_comp = log of the compensation for top three executives, MV = market value of the firm, ROA = return on assets, Ln_asset = log of the firm's assets, r_large_firm = a dummy variable taking the value of 1 if it is a large firm, and 0otherwise, which is the residual of regression (5), Gov = the percentage of directors who used to work as government officials, i = firm i, t = year t.------insert Table 6 about here------Regression results are presented in Table 6. Models 1, 3, and 5 are produced by regressions without interaction variables. Fixed effects model (Model 5) yields a positive and significant coefficient on private dummy, suggesting that after IPOs, previously private firms outperform previously public firms in China. In the wake of IPOs, the previously public firms might be faced with difficulties adjusting to professional business practices (e. g., hiring high-caliber executives and directors, revising company vision or policy, changing business models toward customer satisfaction, etc.) in order to establish and leverage competitive advantages. Since the Chinese government has

emphasized the goal of extending the dominance of SOE firms in the most underpinning industries even after they go public, favorable policies and enormous assistance from the government to the SOE firms might create complacency, especially in early years after becoming publicly listed firms. On the other hand, business savvy and acumen, combined with efficiency and general economic freedom provided by the government have probably led the previously private firms to improve their values stronger and faster relative to their previously SOE firms counterparts. With regard to results differentiating previously SOE firms from previously private firms, findings are documented in Models 2, 4, and 6, which contain interaction variables involving private dummy and governance variables. We find evidence that board size is significantly and positively related to firm values of previously SOE firms, but this relation is not significant for previously private firms as shown by the insignificant coefficient on the interaction between private and board size variables. Adding more directors on the board clearly benefits the previously SOE firms as those directors would bring more expertise and experiences. The proportion of directors with college education is positively related to Tobin's Q for previously SOE firms, but only significant in pooled and random effects models. Accordingly, more educated directors might improve firm performance of previously SOE firms after going public. The interaction between private dummy and av_edu variables has a significantly positive relationship with firm performance in fixed effects model, implying that the positive link of firm performance to college education has a stronger magnitude for private firms. Subsequently, the proportion of independent directors on the board has a significantly positive relation with firm

performance for previously SOE firms. Independent directors indeed benefit those firms by contributing expertise as well as independent opinions. The coefficient on interaction variable involving private dummy and the proportion of independent directors variables is also significantly positive. Thus, for a previously private firm, a higher proportion of independent directors on the board might be linked to an increased Tobin's Q with a higher magnitude than the equivalent increase for a previously SOE firm. Inside ownership by top three executives or board members is positively and significantly associated with Tobin's Q for previously SOE firms. Higher shareholding by the top three executives or board members would lead to stronger sense of ownership, which in turn would increase firm value. However, the relation between firm performance and shareholding by top three executives or directors is not significant for previously private firms. Next, the relation between firm performance and the number of board meetings is also positive and highly significant for previously SOE firms. Likewise, this relation is significantly positive, with stronger intensity, in pooled and random effects models for previously private firms. Therefore, more board meetings are obviously valuable to both previously SOE and previously private firms, with the benefit being enhanced in the case of previously private firms. The coefficients on average compensation for top three executives are positive and highly significant for previously SOE firms. This suggests that higher compensation might enhance executives' morale to manage previously SOE firms more eagerly so as to maximize shareholder wealth. Meanwhile, the interaction of average compensation to private dummy is not significant. We also find that the proportion of directors who

used to work as government officials has no impact on firm values of previously SOE firms. This implies that after IPOs, the external market plays a more pivotal role, and this eventually leads to more professional business processes and competition in the previously SOE firms. Meanwhile, when this variable is interacted with private dummy, the coefficient on the interaction turns out to be significantly positive. Accordingly, previously private firms in China may enjoy the advantages of hiring directors with a government official or bureaucrat background, such as getting an access to government projects, business channels, and other benefits. On the other hand, the role of this type of directors is less pronounced in the previously public firms since these firms basically had been controlled by the government, and had enjoyed all state projects, facilities, and information. With respect to accounting performance, ROA is positively related to Q, and as expected the relation is strongly significant in all regressions. Subsequently, the relation between firm size and firm performance is significantly positive. Fixed effects models find a positive relation between Tobin's Q and firm size, through both log assets and large-firm dummy variables.

4. 3 Robustness Check

In this section, we investigate the possibility of endogeneity on private dummy variable. It is likely that whether a Chinese firm was an SOE firm or a private firm right before our analysis period was related with how well it had performed in years before. Thus, as a robustness check, we utilize the following regression equation:(11)where: Q = Tobin's Q, Ln_board_size = log of the number of directors in the board, Av_edu = the proportion of directors who have college education or above, Indep_ratio = the percentage of

independent directors in the board, Private = a dummy variable taking the value of 1 if the firm is previously a private firmbefore IPO, and 0 if the firm is previously a public firm, Ln_top_value = log of the shareholding by top three executives/board members, Ln_meeting = log of the times of board meetings within the year, Ln_t3m_comp = log of the compensation for top three executives, MV = market value of the firm, ROA = return on assets, Ln_asset = log of the firm's assets, r_large_firm = a dummy variable taking the value of 1 if it is a large firm, and 0otherwise, which is the residual of regression (5), Gov = the percentage of directors who used to work as government officials, i = firm i, t = year t. We conduct two regression models: (1) two-stage least squares (2SLS) and (2) limited information maximum likelihood (LIML) methods. Using regression equation (11), private dummy variable is instrumented by lagged values of Tobin's Q (first and second lags). If private dummy is indeed endogenous, thereby being related to previous periods' Tobin's Q, then the coefficient on β1 should be significant. This approach to checking for potential endogeneity has been recommended by Bateman and Strasser (1983) and used in prior research (Davidson, Rangan, and Rosenstein, 1997, among others).-------insert Table 7 about here------As reported in Table 7, there is no significant relation between firm performance and private dummy (instrumented by two lagged values of firm performance) in both 2SLS and LIML models. Therefore, panel data regression techniques, as employed in the previous section, are more appropriate to examine the association of firm performance to private dummy and all other explanatory variables. Moreover, the results of Table 7 imply that endogeneity should not be of concern in our study.

5. Conclusion

This study examines the corporate governance of Chinese listed firms. Using 871 firms comprised of 699 observations of previously private firms and 1, 914 observations of previously public firms, we find that there are differences between previously private firms and previously public firms, not only in their corporate governance but also in the relation between firm performance and board characteristics, after they go public. Theoretically, listed firms are conjectured to be homogenous with respect to their board characteristics and corporate governance, but interestingly our findings show significant differences in various aspects of governance and board characteristics. Our study contributes to the literature on corporate governance systems in China. Specifically, this paper sheds light on the differences in corporate governance between previously private firms and previously SOE firms after they both get listed on the Chinese stock markets. Our findings are summarized as follows. We find that board size is smaller for previously private firms than for previously public firms. Directors of previously private firms are on average younger. Meanwhile, the proportion of directors holding college education or higher is significantly lower for previously private firms. It is also evident that previously private firms are more likely to use the duality system (CEO and Chairman being the same person) than do previously public firms. However, the proportion of independent directors on the board is significantly higher for previously private firms. Regarding insider ownership, shareholding by top three executives or directors is significantly higher for previously private firms. Market value of equity of previously public firms is much larger than that of

previously private firms. However, Tobin's Q of previously private firms is significantly higher, indicating that previously private firms perform better than do previously SOE firms in creating value for shareholders. Sales growth is significantly higher for previously private firms, implying that they have the potential and therefore grow faster. Meanwhile, previously SOE firms employ a higher percentage of government officials as directors, and this is consistent with the common practice in China. Interestingly, we find that previously SOE firms actually hire more independent directors from academia than do private firms. Likewise, a significantly higher proportion of directors with engineering background is found in previously SOE firms. Finally, the number of independent directors is marginally higher for previously SOE firms than that for previously private firms. Due to the smaller board size of previously private firms, the smaller number of independent directors still constitutes a higher percentage of independent directors relative to the case of previously SOE firms. We investigate the relation between board characteristics and firm performance measured as Tobin's Q for sample firms. We find evidence that previously private firms outperform previously SOE firms in China after IPOs. In the wake of IPOs, previously SOE firms might be having difficulties adjusting to professional business practices (e. g., hiring high-caliber executives and directors, revising company vision or policy, changing business models toward customer satisfaction, etc.) to build and extend competitive advantages. In addition, favorable policies and assistance from the government to the SOE firms might have engendered complacency, especially in early years after becoming listed firms. On the other hand, professional savvy and acumen,

combined with efficiency and favorable business climate created by the government have probably led the previously private firms to improve their values stronger and faster. Our findings show that board size is positively related to firm values of previously SOE firms, but this relation is not significant for previously private firms. The proportion of directors with college education is positively related to Tobin's Q for previously SOE firms, and this positive link is even stronger in magnitude for previously private firms. Furthermore, board independence has a positive relation with firm performance for previously SOE firms. For a previously private firm, a higher percentage of independent directors on the board is linked to an increased Tobin's Q with a higher magnitude than the equivalent increase for a previously SOE firm. Shareholding by top three executives or directors is positively associated with Tobin's Q for previously SOE firms. However, the relation between firm performance and inside ownership by top three executives or board members is not significant for previously private firms. There is a positive relation between firm performance and the number of board meetings for both types of firms, with stronger intensity for previously private firms. We also find a positive association between firm performance and average compensation for top three executives for previously SOE firms, but not for previously private firms. Eventually, the proportion of directors who used to work as government officials has no relation with firm performance of previously SOE firms, which suggests that after IPOs, the external market plays a more pivotal role that leads to more professional business practices in those firms. On the other hand, this relation is significantly positive for previously private firms. Accordingly, previously

private firms in China may reap benefits of hiring directors with a government official or bureaucrat background, such as getting an access to government projects, business acquaintances, etc. For previously SOE firms, the advantages of employing this type of directors is less pronounced as these firms basically had been controlled by the government, and had enjoyed all government projects, facilities, and information.