

## Accepted Manuscript

Title: Ownership, Institutions and Firm Value:  
Cross-Provincial Evidence from China

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PII: S0275-5319(17)30337-9

DOI: <http://dx.doi.org/doi:10.1016/j.ribaf.2017.07.125>

Reference: RIBAF 815

To appear in: *Research in International Business and Finance*

Received date: 21-1-2017

Accepted date: 5-7-2017

Please cite this article as: Wang, Boya, Ownership, Institutions and Firm Value:  
Cross-Provincial Evidence from China. *Research in International Business and Finance*  
<http://dx.doi.org/10.1016/j.ribaf.2017.07.125>

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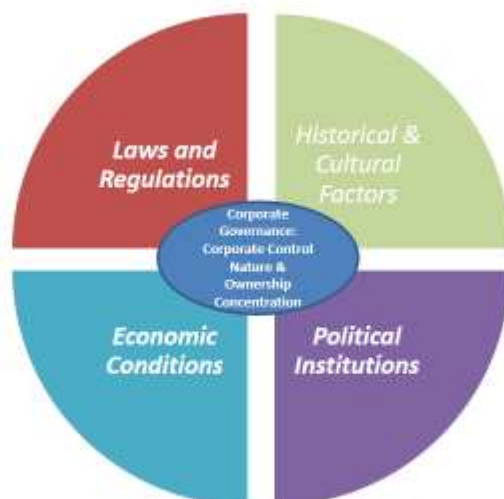
# Ownership, Institutions and Firm Value: Cross-Provincial Evidence from China

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## GRAPHICAL ABSTRACT

### Institutional Embeddedness of Chinese Corporate Governance



## HIGHLIGHTS

- A positive role of central government control on firm value versus a negative one of its local peers.
- A U-shaped relationship between ownership concentration and firm value despite a high inflection point.
- Higher government quality enhances the positive effect of central government control while mitigating the negative impact of local government control.
- The relationship between ownership concentration and firm value is attenuated by financial development, indicating the substitution effect between internal and external monitoring mechanisms.
- Empirical evidence for the institutional embeddedness of Chinese corporate governance.

## Abstract

The distinctive political-economic setups of emerging economies engender special corporate governance issues that warrant added attention to the broader institutional environments. Using a unique provincial firm-level dataset, this paper investigates how corporate control natures, ownership concentration, and provincial differences in government quality and financial development jointly affect the value of Chinese listed companies. Firstly, central government control is generally associated with higher Tobin's  $Q$ , while a negative premium is found for firms ultimately controlled by local governments. It then uses alternative concentration measures and an instrumental variable approach to confirm a nonlinear relationship between ownership concentration and Tobin's  $Q$ , implying that firm value first decreases and then increases as blockholders own more shares. Further analysis reveals that government quality has a significant, positive moderating effect on the relationship between different corporate controllers and firm value, while the value implication of ownership concentration also depends on regional financial development.

**Key Words:** corporate governance, firm value, government quality, financial development, corporate control, ownership concentration

**JEL Classification:** G31 H77 P30 P48

## 1. Introduction

Corporate governance (CG) researchers often attribute first-order importance to investor protection in determining firm performance. For the legal finance scholarship in particular, effective investor protection critically hinges upon CG mechanisms and legal environment *in situ* (La Porta et al., 2000). Disparities in legal systems and enforcement effects are taken as a key institutional factor whether it is to understand the diversity of national CG models (Mintz, 2005), or the causal links between particular CG practices and economic outcomes (Hearan et al., 2017).

Nevertheless, consideration of legal factors alone may be inadequate to capture the full complexity of all institutional dimensions implicated in CG practices and firm valuation (Claessens and Yurtoglu, 2013). Policy prescriptions enshrined in codes of 'best' practices are mostly mediated by political and economic realities and achieve limited effects (Ahrens et al., 2011). This is particularly so in those emerging markets where judicial inefficiency and government intervention render regulatory enforcement especially problematic. To the extent that the key actors' interests and behaviors are shaped by the distinctive institutional contexts, the dynamics and accompanying CG conflicts necessarily differ from those found elsewhere. Thus the relations between CG practices and performance outcomes warrant added attention to other background institutions (Filatotchev et al., 2013).

Yet, the claim that institutions matter for organisational performance and even economic growth has so far received a more extensive theoretical treatment than an empirical or methodological one (Buchanan et al., 2014). This study aims to fill this gap by examining empirically how particular ownership characteristics and institutional factors jointly affect the value of Chinese listed companies. We focus on ownership structure rather than other firm-specific CG mechanisms for the former decides the relative power and conflicts between different shareholders (Shleifer and Vishny, 1997), and therefore explains the economic efficiency of the corporations they control (Jensen and Meckling, 1976).

China's unique political-economic system provides an apposite research context. Although China's economic reform has so far been state-guided, it has also been a highly decentralised process with considerable autonomy granted to local bureaucracies (Heilmann, 2011). This gives rise to notable variation in local socioeconomic conditions, making it possible to compare the different institutional domains and their implications for CG practices and firm performance. Hasan et al. (2009) find that focusing on a single nation also helps control for heterogeneity in national cultures and political institutions as encountered in much cross-national research.

This study differs from the prevailing research on Chinese CG in several respects. First, it distinguishes different corporate control natures by manually tracing the identities of ultimate controllers along the ownership chains. In China holders of a given share class such as legal person shares typically consist of heterogeneous entities, ranging from quasi-administrative agents and central-controlled corporations to private individuals. They act as the intermediate agents for the different, ultimate controllers. The latter often imposes specific objectives and priorities on companies in ways that clearly impinge upon the evident market value. Consequently, relying on legal classification alone, as done in many previous studies, obscures the objectives and motivations of these various controllers, and has yielded mixed results when explaining their performance implications.

Secondly, ownership concentration of Chinese firms is mostly measured by aggregate ownership held by top-ranked shareholders (e.g. Chen et al., 2009). This study only examines the equity stakes that are above 5% of the outstanding shares to take into account the disproportionate influences from one or a few blockholders. The Herfindahl index of top 10 shareholdings is also applied for it assigns more weight to the very large shareholding positions and produces consistent results. To gain robustness, the nonlinear relationship between ownership concentration, legal protection, and firm value is tested using a new instrumental variable.

Thirdly, this paper makes the first attempt to understand the impact on the firm value of subnational-level policy environments. While the quality of public policies may depend on other institutions such as laws and the constitutions, such conventional constraints on executive power are relatively ineffectual in regulating the behaviors of officials in China, as with other emerging economies. Therefore, the quality of government policies, or ultimately the quality of bureaucrats and politicians who make the policies, is a critical impacting factor of Chinese firm performance and deserves separate attention in the analysis of Chinese firm valuation.

Last but not least, besides legal systems and firm-level mechanisms, competitions in real factor markets also help mitigate CG problems. The former includes all input and output markets, ranging from labor and raw materials to finance and distribution services (Khemani and Leechor, 2001). Januszewski et al. (2002) find that product market competition and concentrated ownership are complementary in enhancing German firm performance. Yet evidence on the role of factor market development in relation to CG is still limited. China's accession to the WTO and the ongoing enterprise reform promotes the deregulation of regional financial markets. An interesting question is whether a similar relation exists between financial development, ownership concentration, and firm value.

The remainder of the paper proceeds as follows. Section 2 describes the political and economic institutions pertaining to Chinese CG. Section 3 assesses their potential impacts on Chinese firm value and develops appropriate hypotheses. Section 4 discusses the database, variables, and methodological issues. Section 5 reports empirical results, with robustness tests described in Section 6. The concluding section contains a summary and implications.

## **2. Institutional Context of Chinese CG**

As China's state subsidies to loss-making state-owned enterprises (SOEs) reached untenable levels in the late 1980s, it was clear that more profound structural changes in the government-enterprise relationship were needed. Since then CG has been identified by the Chinese authorities as the core element of the "modern enterprise system" designated to promote enterprise performance and to redress incentive problems (Tenev et al., 2002:16). Many reform policies including the corporatization scheme commencing in the mid-1990s involved parallel changes in different institutional realms, as will be discussed below.

First, in the course of 'grasping the large and releasing the small', the central government retained control over a relatively small number of large corporations in the commanding heights (Lin and Milhaupt, 2013). Further regulatory reforms included the establishment of a central State Assets Supervision and Administration Commission (SASAC) aiming to integrate the once fragmented state ownership rights performed by different line ministries and functional commissions. Meanwhile, many small and medium-sized, primarily loss-making SOEs underwent outright privatization. The rest was restructured into a variety of non-state forms through the expansion of shareholding systems, the formation of joint ventures, or sales to interested parties. The pace and patterns of these changes were decided by local bureaucracies who calculated their strategies based on local resources and political interests (Heilmann, 2011). This led to a further division of the SOE ownership rights, reflecting the federalism so characteristic of China's central-local relations. Prevailing CG studies generally employ a simple state-private ownership dichotomy when analyzing the ownership impact on firm performance. As Nee et al. (2007) suggest, the central and local bureaucracies are likely to face different policy imperatives and monitoring capabilities that may lead to distinctive impacts on how enterprises should be managed and run.

Second, Chinese government follows a top-down legalistic approach to transplant the basic structures of CG from the external market-based model found in the Anglo-American system (OECD, 2011). To date, however, Chinese listed companies are characterized by highly concentrated ownership, primarily in the hands of stable government agencies or private individuals. As with many other emerging economies, concentrated ownership and weak legal institutions

are considered as the “root cause” of investor expropriation (Young et al., 2008: 200). Nevertheless, concentrated ownership can substitute for weak institutional environments in capital, labor, and product markets that confront most Chinese private-controlled firms. Milhaupt and Zheng (2015) note that the notion of state ownership dominance is rooted in the country’s socialist ideology. It plays a vital role in securing the loyalty to the Chinese Communist Party from its key constituencies. For the private-controlled firms, the costly enforcement of arm’s length contracts means that the entrepreneurs and/or founders have to rely on concentrated ownership to keep potential managerial opportunism in check (Dharwadkar, et al., 2000).

Third, along with the large-scale restructuring in the SOE sector, both the central and provincial governments frequently revise or reformulate industrial priorities in an effort to single out future winners and losers in the ongoing structural transformation of the economy. Common instruments such as market entry regulation, taxation, and loan decisions are part of government’s toolkit to influence the direction of structural transformation (Lu et al., 2013). The literature on China’s local state corporatism underscores the diverse roles of the regional governments as the producers, planners, and regulators of local economies (Shen and Tsai, 2016).

Moreover, the lower-level government officials, with newly-granted administrative autonomy and ready access to local information, are well positioned to interfere with major corporate decisions ranging from resource procurement and personnel selection to financing and overseas investments (Duckett, 2001). However, excessive bureaucratic intervention coupled with relation-based business practices contradicts the fiduciary spirit and principle of arm’s length transactions which constitute a cornerstone of modern CG (Tam, 2002). As such, the quality of government policies and ultimately the quality of bureaucrats and politicians who are responsible for the policy formulation can exert a critical impact on Chinese firm value (La Porta et al., 1999).

Finally, the corporatization scheme coupled with the declining central budget necessitated the growth of domestic financial markets as alternative capital sources. The accession to the WTO further accelerated the financial market development in the mainland, including granting more autonomy in investment decision-making and credit allocation to state-owned financial institutions, removing restrictions on their ownership structure, and relaxing geographical and legal restrictions on the entry of new financial intermediaries (He, 2012). For Holmström and Tirole (1989), a well-functioning financial market contributes to greater investor protection by mitigating the information asymmetry between corporate insiders and public investors. However, the local governments continue to interfere with the functioning of the market by directing certain loans or stock listing while discouraging others (Sapienza,

2004). To the extent that undue government discretion reduces the mobility and integration of the domestic financial market, the efficacy of the financial market in firm monitoring may be mitigated.

### **3. Literature Review and Hypothesis Development**

Recent development in comparative CG studies underscores the embeddedness of CG in national political and economic institutions. They go beyond the stylized convergence-divergence debate and argue that in order to better understand the diversity and changing dynamics of national CG systems more attention should be devoted to path-dependency legacies and national institutional settings (Schiehll et al., 2016).

Drawing on literature from multiple disciplines, the hypothesis development revolves around the value implications of the firm-specific ownership attributes and the underlying institutional factors highlighted above, as well as their interactions. Further discussion of their interactions will explore how the particular relationships between ownership characteristics and firm value may vary across different institutional environments.

#### **3.1 Corporate Control Nature**

Neoclassical economists posit that “private ownership should generally be preferred to public ownership when the incentives to innovate and to contain cost must be strong” (Shleifer, 1998: 147). Specifically, because the wealth of private controllers is so closely linked to firm welfare, they are more single-mindedly focused on cost saving and profit maximization than governments. With the specialized knowledge of firms’ technology, private controllers can easily enter into the management function and supervise firm operations to assure capital is deployed sparingly and used intensively (Che and Langli, 2015).

On the other hand, private controllers often expropriate firm resources and appoint unqualified family members to key posts. Schulze et al. (2003) argue that family relations may make agency conflicts more difficult to resolve because relations between principals (family owners) and agents (family-member managers) are based on emotions, sentiments, and informal linkages, resulting in the less effective monitoring of family managers. For Chen et al. (2009), the fact that China’s private corporate controllers are out of the regulatory scope of the state asset management agencies renders public investors more vulnerable to asset tunneling and share price manipulation.

As to the state sector, local governments in China retain significant autonomy over the operation and revenue disposition of local state-owned enterprises (LSOEs) under the decentralized governance framework mentioned earlier. The interests and policy imperatives of local governments as corporate controllers are most influenced by the local social, political and economic conditions and



therefore are likely to differ from those of the central agencies (Oi, 2011). The expanded supervisory and fiscal autonomy offer local bureaucracies greater latitude of discretion and thus LSOEs are often charged with nonfinancial objectives ranging from infrastructure financing to unemployment prevention and welfare provision (Zeng and Tsai, 2011). This not only raises difficulties in management monitoring and capital budgeting but also dilutes the profit-making motives of local governments as corporate controllers when various social and political objectives collide with the firms' profit goals (Sappington and Stiglitz, 1987). Consequentially, LSOEs' resources are often diverted into unprofitable, speculative or duplicative investments (OECD, 2009).

Moreover, to maintain the ownership control over a relatively large number of enterprises within the jurisdiction, a municipal government typically relies on a multitier asset management system consisting of secondary or even tertiary-level monitoring agencies (Peng, 2001). The undue organizational complexity, intertwined with goal multiplicity, increases information distortion and further diffuses the government's property rights and monitoring efforts. Chen et al. (2009) caution that the farther local agents are from the central authority, the more difficult it is to enforce laws and regulations. The fact that LSOEs are subject to weaker regulatory oversights creates fertile ground for predation and rent-seeking by local bureaucracies (Cheung et al., 2010).

By contrast, through a centralized asset supervision system, the central government "now has stronger, although far from perfect, control" over the operation and investment of central state-owned enterprises (CSOEs), bringing problems of state asset stripping and insider trading under control (Mattlin, 2009: 22). Yeo (2013) notes that the selection and compensation criteria for CSOEs' directors and managers become increasingly market-driven and such issues as profitability, liquidity, risk control and operational costs are among the major criteria against which managerial performance in the CSOEs is evaluated. As a result, Chinese CSOEs and their subsidiaries are subject to more stringent and comprehensive supervision than their local peers.

In its pursuit of nurturing 'national champions', the central government also channels enormous resources to a handful of large enterprises in key industrial sectors (Guest and Sutherland, 2010). CSOEs benefit from a range of preferential policies and treatments in areas ranging from taxation and technology transfer to material supplies and state-owned bank loans. Thus the central government's 'helping hand' (Frye and Shleifer, 1997) substitutes for weak institutional environments in factor, labor and capital markets and provides CSOEs and their subsidiaries certain advantages that would otherwise be impossible. Matlin (2011) finds that having the central government as the implicit debt guarantor effectively mitigated the financial constraints of CSOEs over the 2008 global financial crisis.

In summary, it is hard to know a priori the impact on the firm value of private controllers given the conflicting arguments discussed above. However, the divergent policy imperatives and monitoring capacities between the central and local governments are likely to exert contrasting effects on the Chinese firm value. Specifically, the excessive intervention and lax supervision by the local officials may increase expropriation risk and thus impair LSOE value, whereas CSOEs are advantaged by the easier access to necessary resources, and the better risk bearing and benefit sharing mechanisms.

### **3.2 Ownership Concentration**

Owing to their significant equity holdings, major shareholders typically have stronger incentives and power to discipline management and remedy the free-rider problem associated with dispersed ownership (Heugens et al., 2009). Nevertheless, significant equity positions can obviously tempt large shareholders to expropriate from minority investors by assuming control of the firm and depriving the latter of the returns due on their investments (Li and Qian, 2013). Whereas expropriation can occur anywhere, it is especially common in emerging markets where property rights are weakly enforced and there are but few rules and procedures to protect minority shareholders (Claessens et al., 2000).

The competing arguments imply the possibility of a nonmonotonic relation between ownership concentration and firm performance. McConnell and Servaes (1990) noted that Tobin's  $Q$  increases with insider shareholdings up to some 40% of total outstanding shares and decreases after. Kvist et al. (2006) report a similar nonlinear effect of ownership concentration on firm performance as measured by market-to-book ratio and asset returns. Busta et al. (2014) find that the bell-shaped relationship can be moderated by the institutional environment proxied by legal families among European banks.

Yet an opposite, U-shaped pattern, if anything, has been observed among the Chinese firms (Liu et al., 2012). In CG systems with relatively weak legal protection such as mainland China, expropriation is lucrative and feasible for blockholders as they exclusively capture the entire benefit but only bear costs proportional to their equity positions. Nevertheless, as their ownership increases, doing so would simply result in a direct transfer of private wealth from one venture into another, which is unlikely to benefit themselves except perhaps for fiscal seasons. Thus, the most effective strategy for increasing their private benefits is to forego wealth extraction and gear the firms for higher performance. We expect that as blockholders own more shares, the Chinese firm value is likely to first decrease and then increase.

### **3.3 Government Quality**

According to Fan et al. (2011), government quality is the extent to which the decisions of bureaucrats and politicians benefit the citizens they serve: whether the decisions are made and executed in a legally and socially acceptable manner

To a significant extent, the policy imperatives and behaviors of Chinese bureaucracies can be best explained by a combination of local economic and political structures (Zeng and Tsai, 2011). Specifically, progress in regional market liberalization reflects the strength of property rights protection, the fairness of the judicial system, the extent of allowance and tolerance of local governments to the private sector and extent of local entrepreneurship (Choi et al., 2015). This is because the competitive pressure unleashed by market deregulation coupled with the quest for fiscal revenue compels local officials to act as the promoters and protectors of local businesses.

The competitive pressure from the rising non-state sector and ultimately the government quality also has powerful implications for the incentives of the Chinese governments as corporate controllers, and the way of exercising their power. Li and Zhou (2005) note that under a merit-based appraisal system, improving state asset value or reversing declining earnings amidst increased competition, becomes the crucial work target and evaluation criteria for the career progression of SOE cadres. Such political incentives deter the government corporate controllers from undue predation and expropriation (Duckett, 2011), and reinforces what Shevchenko (2004; 162) termed “the entrepreneurial adaptation” of the local government officials to increased market competition at both the central and local levels.

Kwon (2005) notes that the balance between the ‘helping’ and ‘grabbing’ hand of a government is not clear-cut but hinges on the extent to which the excessive intervention can be curtailed. Meanwhile, the imperative for them to mandate extra and/or noneconomic burdens on the SOEs may become less pronounced, inasmuch as the expanding non-state sector provides alternative sources of investment and employment (Gordon and Li, 2011). The alleviated goal multiplicity reduces the possibilities of rent-seeking and relation-based business conducts that would otherwise impair the value of the state assets.

As such, improved government quality leads to a more growth-oriented policy environment and fosters a business culture more consistent with shareholder wealth accumulation (OECD, 2009). It also implies alleviated goal multiplicity and stronger market orientation among the SOE cadres. Therefore, it is expected that higher government quality can increase Chinese firm value, and in particular enhance the positive effect of central government control while mitigating the negative effect of local government control.

### **3.4 Financial Development**

A larger and more liquid financial market enables asset prices to incorporate information regarding the business operation and growth prospect in a faster and more cost-effective manner (Demirgüç-Kunt and Maksimovic, 1998). For Huyghebaert and Wang (2012), improved information flow is arguably valuable for scrutinizing the actions of managers and even of majority shareholders, thereby alleviating the perceived risk of expropriation. They further argue that financial development stimulates the growth of legal and financial services that can act as both the information providers and management monitors. Pistor and Xu (2005) stress the key role of legal and accountant professionals in deterring majority shareholders' oppressive behaviors, given the prohibition of class-action lawsuits in the Chinese mainland.

Moreover, the disciplinary forces from various market participants make expropriation and other malpractices more costly and less attractive to major shareholders (Shleifer and Wolfenzon, 2002). Chen and Steiner (2000) find that managerial ownership and analyst coverage are substituted in the U.S. firm monitoring. By alleviating the interest conflicts between large shareholders and external investors, a well-functioning financial market mitigates the adverse effect associated concentrated ownership. Relatedly, financial market monitoring can be thought of as directly limiting the scope for managerial extraction and hence making large shareholder monitoring less needed (La Rocca and Montalto, 2013).

A relatively developed financial market, as an external governance mechanism, can arguably mitigate the expropriation risk for public investors and thus generate a positive effect on firm value. Specifically, by reducing the expropriation and monitoring incentives of majority shareholders, regional financial development may weaken the relationship between blockholder ownership and firm value, implying a substitution effect between financial development and concentrated ownership.

#### **4. Data and Variables**

The sample represents the nonfinancial companies listed on Shanghai and Shenzhen Stock Exchanges for the period between 2005 and 2009. It consists of 6078 province-firm-year observations, including 896 companies in 2005, 958 in 2006, 1279 in 2007, 1381 in 2008, and 1564 in 2009. The firm-level financial and ownership variables are mainly drawn from Thomson DataStream and the China Stock Market and Accounting Research Database (CSMAR).

The ultimate corporate controllers are identified by tracing the ownership chains derived from multiple information sources, including the annual reports and the ownership transfer notices issued by the stock exchanges during the observation period. Firms are assigned to the provinces or municipalities based on the locations where they are officially registered. The firm-level data set is then

merged with the provincial-level institutional indices retrieved from the latest Marketization Index for China's Provinces (MICP).

Tobin's  $Q$  measures firm value, which is calculated as the market value of a firm's equities and liabilities relative to their replacement costs (Lozano et al., 2016). For Durnev and Kim (2005), firm value is an increasing function of the quality of a firm's current projects and anticipated investments within the existing CG structure and institutional environment. Using Tobin's  $Q$  complements the notion that investors favor or disfavor certain firms given the perceived investment risk and institutional quality, and that this will be reflected by particular  $Q$  values (Shan and McIver, 2011). Additionally, an illiquidity discount of 70% based on 364 Chinese private transfers of non-tradable shares is applied to the equity market value to derive adjusted Tobin's  $Q$  ( $Q_{70DIS}$ ) (Firth et al., 2008). A firm's discounted equity market value is the sum of the number of its tradable shares multiplied by the share price and the number of its non-tradable shares by the 30 per cent of the share price. Both the unadjusted and illiquidity-adjusted  $Q$ s are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles to mitigate outlier bias.

$CTL\_CTRL$  is defined as a dummy variable equal to one if the listed company is ultimately controlled by the central government and zero otherwise. Likewise,  $LCL\_CTRL$  takes the value of one when a local government is the ultimate corporate controller and zero otherwise. Companies controlled by private individuals or families are the reference group. As in Wright et al. (2007), ownership concentration ( $O\_CNT$ ) is measured by the cumulative shareholdings of blockholders owning at least 5% of a firm's outstanding equity with the quadratic term ( $O\_CNT^2$ ) detecting the possible nonlinear correlation.

The primary indicator for provincial government quality ( $GOV\_Q$ ) is proxied by the MICP index of non-state sector development. The index itself is a weighted average of three sub-indexes for the non-state sector's shares in provincial industrial output, fixed-asset investment, and urban employment. As noted earlier, the relative size of a non-state sector indicates the degree of marketization and accordingly the policy orientation within the corresponding jurisdiction.

The MICP index of provincial financial competition captures the progress of regional financial development ( $FIN\_DEV$ ). Allen et al. (2005) find that financial intermediation in China is largely bank-based and dominated by the state-owned financial institutions. The index is based on the deposits held by the non-state financial institutions as a proportion of the provincial total. The financial institutions herein include the commercial banks, credit cooperatives, insurance companies, asset management companies, securities companies and trust investment companies that are not government-affiliated. A more

commercialized financial market, as indicated by a higher index value, can arguably impose stronger oversights over large shareholders and management.

To isolate the effects of the ownership and institutional variables, other firm-specific CG characteristics affect firm valuation are also controlled. These include board size ( $BD\_SZ$ ), board independence ( $BD\_I$ ), and director shareholding ( $DIR\_SHR$ ). The number of functional board committees ( $CMTE\_NUM$ ) is included given their important roles in monitoring and professionalizing major corporate decisions such as strategy evaluation, financial auditing, remuneration setting, and executive nomination (Xie et al., 2003). Vafeas (1999) finds that investors devalue firms with more active boards for increased board activities signal poor performance or controversial decision-making. Director activeness ( $DIR\_ACT$ ) is proxied by the frequency of board meetings (Marchionne and Niccoli, 2012). Similarly, the frequency of supervisory board meetings measures supervisor activeness ( $SUPV\_ACT$ ). Following Klapper and Love (2004), a dummy variable of cross-listing ( $CRS\_L$ ) is set to one if the firm has shares traded in an advanced stock market. Since disclosure standards and investor protection in the advanced economies are much higher than in the Chinese mainland, firms cross-listed in overseas stock exchanges, such as Hong Kong and New York, are expected to benefit from lower informational asymmetry and higher valuation (Hope and Thomas, 2008).

Other control variables include firm size ( $F\_SZ$ ), return on sales ( $ROS$ ), debt to equity ratio ( $DE\_R$ ), and a 2-digit SIC industry dummies ( $IND$ ). The ratio of fixed assets to total assets measures asset tangibility ( $ATAG$ ) for firms with higher asset tangibility tend to operate in more traditional industries where growth opportunities are relatively limited (Tian and Estrin, 2008).

A crisis period dummy ( $CRS$ ) that takes on the value of one in 2008 and zero otherwise is used to control for the likely adverse effect on firm value. A fiscal stimulus dummy ( $STIM$ ) for 2009 is also created to capture the potential effects of the \$586 billion stimulus package unveiled by the Chinese State Council in late 2008. Finally, the regional economic disparity is proxied by the natural logarithm of provincial GDP ( $PROV\_GDP$ ) (Ferreira and Laux, 2007). Table 1 provides the variable definitions.

*Insert Table 1 here.*

Table 2 reports the descriptive statistics. Panel A shows that the illiquidity discount lowers the average Tobin's  $Q$  from 2.59 to 1.98, which was comparable with those in other major stock exchanges. Between 2007 and 2008 the unadjusted  $Q$  decreased by 1.95 (or approximately 52%) on average, reflecting the severe value declines among Chinese listed firms during the financial crisis. This was followed by a recovery of 1.45 or around 79% in 2009, which could be interpreted as a result of the fiscal stimulus undertaken by the

Chinese State Council. Along with the expanded  $BD\_SZ$ ,  $BD\_I$  increased moderately from 35% in 2005 to 37% in 2009.  $CMTE\_NUM$  averaged around 4, and the average  $DIR\_SHR$  equaled around 3%. As with  $DIR\_ACT$ , the average frequency of supervisory board meetings increased from 3.24 in 2005 to 4.75 in 2009, indicating the increased involvement of supervisors in CG over the observation period. Meanwhile, the sample companies are featured by highly concentrated ownership, as the blockholders typically controlled 47% of total shares outstanding. While unreported,  $O\_CNT$  remained robustly stable across different control natures, about 49% for CSOEs, 47% for the LSOEs, and 46% for the private firms.

In Panel B, only a small proportion of Chinese listed firms conformed to the higher-quality accounting standards, as the firms cross-listed in the advanced capital markets accounted for 2.99% of the entire sample. SOEs constituted the majority of the entire sample (64%), most of which, around 74%, were in fact controlled by the provincial and municipal governments through local state asset administration agencies or shareholding companies. As expected, the institutional indicators of  $GOV\_Q$  and  $FIN\_DEV$  exhibited significant regional variation. Higher  $GOV\_Q$  and  $FIN\_DEV$  were primarily found in economically more developed provinces such as Guangdong, Jiangsu, and Zhejiang, despite the significant improvement of some interior regions.

*Insert Table 2 here.*

Table 3 presents the correlation matrix. Most of the correlations are less than 0.5 and variance inflation factors (VIFs) are within an acceptable range (mean 1.44). Thus, there is no evidence of serious multicollinearity problem being present in the regression models.

*Insert Table 3 here.*

## **5. Regression Results and Analysis**

### **5.1 Univariate Analysis**

Table 4 reports the univariate comparisons of firm value between different subsamples. In Panel A, Tobin's  $Q$  differs across different corporate control natures. The mean  $Q$  and  $Q\_70DIS$  values of LOSEs are significantly lower than those of CSOEs, providing preliminary evidence of the contrasting effects between the central and local governments as corporate controllers. The entire sample is also divided based on whether the ownership concentration degree is above or below the median. The mean  $Q\_70DIS$  for firms with higher (upper quantile)  $O\_CNT$  is 1.796 compared to 2.155 for firms with lower  $O\_CNT$  (below the lower quantile). The difference of -0.359 is significant at the 0.01 level, indicating the adverse expropriation effect of concentrated ownership.

*Insert Table 4 here.*

Both provincial government quality and financial development are found to be positively correlated with firm value. The  $Q$  and  $Q\_70DIS$  average at 2.673 and 2.015 respectively for the firms in provinces with higher (upper quantile)  $GOV\_Q$ , which are significantly higher than the corresponding values for the firms in provinces with lower (lower quantile)  $GOV\_Q$ . In other words, public investors assign a higher valuation to the firm from a more market-driven policy environment. Similarly, there are significant differences in the mean  $Q$  and  $Q\_70DIS$  values between firms in provinces with higher (upper quantile) and lower (lower quantile)  $FIN\_DEV$ . For example, the mean  $Q\_70DIS$  is 2.052 for firms in the financially more developed regions compared to 1.903 for those in financially less developed, implying a positive correlation between financial development and firm value. Panel B reports the similar results from median comparisons. While consistent with the earlier expectation, these preliminary findings should be interpreted cautiously as many other firm-specific and macroeconomic factors are not included.

## 5.2 Model Specification

A fixed-effects (FE) model can alleviate the endogeneity issues by eliminating particular time-invariant, firm-specific unobservable that affects both firm performance and explanatory variables (Wintoki et al., 2012). However, an FE model only gives the “within-groups” effect estimates to time-varying variables, and so an insignificant coefficient of an almost time-invariant variable could be taken as saying that there is no evidence for such an effect (Green, 2011: 194). This may give misleading answers to our research questions given that corporate control nature is almost time constant.

Following Wooldrige (2015), this study employs a random-effects model augmented with the Mundlak (1978) correction, also referred to as a correlated random-effects approach (CRE). To modify the restrictive assumption that unobserved heterogeneity is random and particularly uncorrelated with the explanatory variables, a CRE model incorporates the averages of all firm-level time-varying variables to control for the correlation between the error term and corresponding covariates (Bell and Jones, 2015). It estimates the valuation effects of all time-varying characteristics net of unobserved heterogeneity while keeping time constant information. In detail, firm value is estimated by:

$$\begin{aligned}
 Q_{it}^p = & \alpha + \beta_1 CTL\_CTRL_i^p + \beta_2 LCL\_CTRL_i^p + \beta_3 O\_CNT_{it}^p + \beta_4 O\_CNT_{it}^{p^2} + \beta_5 GOV\_Q_t^p \\
 & + \beta_6 FIN\_DEV_t^p + \beta_7 CTL\_CTRL_i^p * GOV\_Q_t^p + \beta_8 LCL\_CTRL_i^p * GOV\_Q_t^p \\
 & + \beta_9 O\_CNT_{it}^p * FIN\_DEV_t^p + \beta_{10} O\_CNT_{it}^{p^2} * FIN\_DEV_t^p + \delta Control_{it}^p \\
 & + \theta Averages_{it}^p + \varepsilon_i^p + \mu_{it}^p
 \end{aligned}$$



where  $p$  denotes provinces or municipalities;  $i$ , firms;  $t$ , years;  $\beta_0$ , the intercept;  $Control_{it}^p$ , a vector of all the CG and financial control variables; and  $Averages_{it}^p$  a vector of the averages of all endogenous, firm-specific, time-varying variables. The unadjusted and adjusted  $Q_{it}^p$  values are tested separately on the independent variables. The institutional variable of  $GOV\_Q_t^p$  multiplies  $CTL\_CTRL_i^p$  and  $LCL\_CTRL_i^p$  respectively to capture the interaction effects. Similarly,  $FIN\_DREG_t^p$  interacts with  $O\_CNT_{it}^p$  and its quadratic term respectively. Finally, the composite error term consists of a time-constant unobservable,  $\varepsilon_i^p$  and the idiosyncratic shocks,  $\mu_{it}^p$ . Both are assumed to be normally distributed.

### 5.3 Multivariate Analysis

Columns 1 of Table 5 represents the baseline estimation that includes only the financial and CG control variables. Consistent with Nguyen et al. (2016),  $BD\_SZ$  is negatively related to firm value, as a larger board typically incurs higher coordinating cost and entrenchment risk. The significantly positive coefficient on  $CRS\_L$  indicates the valuation premium for cross-listed firms given the higher accounting standards and corporate transparency. As with  $DIR\_ACT$ ,  $SUPV\_ACT$  is positively related to firm value, suggesting that increased supervisory board activities improve monitoring and decision making.

*Insert Table 5 here.*

In Column 2,  $CTL\_CTRL$  is significantly positively related to Tobin's  $Q$  ( $\beta_1=0.210$ ,  $p<0.05$ ), whilst the coefficient for  $LCL\_CTRL$  is highly significant and with the expected negative sign ( $\beta_2=-0.289$ ,  $p<0.01$ ). This implies that CSOEs generally enjoy higher valuation by approximately 22% than their local peers. The valuation gains can be attributed to the vast resource base and strong monitoring capabilities processed by the central government agencies (Chen et al., 2009). Column 3 detects a significant negative coefficient on  $O\_CNT$  ( $\beta_3=-6.613$ ,  $p<0.01$ ), and a significantly positive coefficient on the quadratic term  $O\_CNT^2$  ( $\beta_4=-4.148$ ,  $p<0.01$ ). The signs and magnitudes of the coefficients indicate a nonlinear correlation between firm value and blockholder ownership. Columns 4 to 6 reestimate the above regressions using  $Q\_70DIS$  as an alternative firm value proxy and recover qualitatively the same results.

Table 6 extends the above regressions by including the institutional variables of  $GOV\_Q$  and  $FIN\_DEV$ . Results of the control variables are largely maintained. In Column 1 of Table 6,  $GOV\_Q$  is significantly and positively associated with the firm value ( $\beta_5=0.142$ ,  $p<0.0.1$ ). *Ceteris paribus*, an improvement of one standard deviation in  $GOV\_Q$  (2.669) raises Tobin's  $Q$  by 0.379, an almost 15% increase relative to the sample average. The effect is economically significant and lends quantitative support to Edin (2005), who posits a positive connection

between quality of policy environment and investor confidence. *FIN\_DEV* is significantly positively related to firm value ( $\beta_6=0.113$ ,  $p<0.01$ ). The coefficient magnitude suggests that the same increase in regional financial development (2.284) would raise the firm value by 0.258 or almost 10% relative to the sample average. This finding supports the conjecture that a more developed financial market helps safeguard minority investors' interests, thus exerting a positive effect on firm valuation (Huyghebaert and Wang, 2012).

*Insert Table 6 here.*

As shown, the earlier findings on corporate control nature and ownership concentration are robust to the inclusion of the institutional variables. The coefficients for *O\_CNT* and *O\_CNT*<sup>2</sup> retain the same signs and significance ( $\beta_3=-6.022$ ,  $p<0.01$ ;  $\beta_4=4.023$ ,  $p<0.01$ ), confirming the U-shaped relationship between ownership concentration and firm value. However, the inflection point occurs at around 75%, which far exceeds the average blockholder ownership observed in the full sample. Thus we cannot reject the graphic impression that the concentration-value relationship is virtually negative for Chinese listed companies. A plausible explanation is that the monitoring effect becomes dominant only if the equity stakes and incentives of large shareholders are sufficiently large (Daily et al., 2003).

Column 7 of Table 6 examines the moderating effect of *GOV\_Q* on the control-value relationships. The coefficient on *GOV\_Q\*CTL\_CTRL* is positive and significant at the 0.01 level ( $\beta_7=0.165$ ), indicating that investors additionally value CSOEs operating in policy environments that are benign and less interventionist. The result is consistent with the argument that formalized CG and increased competitive pressure promote market orientation among CSOEs cadres and thereby lead to better organizational performance (Li, 2014). As expected, the interaction between *GOV\_Q* and *LCL\_CTRL* enters significantly positive, supporting the conjecture that a pro-growth policy environment, as implied by a more prosperous non-state sector, attenuates the adverse effects of local government control and contributes to higher LSOE value. Specifically, one standard deviation improvement in the *GOV\_Q* (2.669) raises the LSOE value by 0.571, a 25% increase relative to the average *Q* ratio of 2.25 for the sample LOSEs. In provinces with a more prosperous non-state sector such as Guangdong (the 5-year average *GOV\_Q* =10.478), local government control (*LCL\_CTRL*=1) even increases Tobin's *Q* by 0.62. The results echo Jin et al. (2005) who document that the competitive pressure disciplines local governments to adopt better CG practices and to function as a 'helping hand' rather than a 'grabbing hand'. Therefore, the moderating effect of government quality is not only statistically significant but also economically meaningful.

To examine the substitution effect between financial development and concentrated ownership, Column 3 of Table 6 enters the interaction terms of  $FIN\_DEV$  with  $O\_CNT$  and  $O\_CNT^2$ . The coefficient on the interaction with  $O\_CNT^2$  suggests the significant mediating effect of financial development on the concentration-value relationship ( $\beta_{10}=-0.968, p=0.01$ ). To probe this finding, we plot the results in Figure 1. Following Zhang and Rajagopalan (2010), all variables, except  $FIN\_DEV$ ,  $O\_CNT$ , and  $O\_CNT^2$ , are constrained to the mean values.  $FIN\_DREG$  takes the values at the 25<sup>th</sup> and 75<sup>th</sup> percentiles.

Figure 1 illustrates that at lower levels of concentration, the negative expropriation effect on Tobin's  $Q$  declines less steeply for the firms in financially more developed jurisdictions. It supports the conjecture that a well-functioning financial market reduces the inclination of blockholders to engage in expropriatory activities and thus mitigates the adverse effects associated with concentrated ownership. Likewise, at higher levels of ownership concentration, the positive effects of large shareholder monitoring on Tobin's  $Q$  also rises less steeply for firms in financially more developed regions. In brief, the marginal impact of ownership concentration on firm value decreases with regional financial development. This can be interpreted as evidence that the disciplining mechanism of financial markets partially substitutes the monitoring function performed by major shareholders.

Although unshown, the effect of  $FIN\_DEV$  is qualitatively unchanged by using the Herfindahl index of top 10 shareholdings as an alternative concentration proxy. The findings remain consistent when the dependent variable is changed to  $Q\_70DIS$ . Meanwhile, the addition of the institutional variables markedly increases the models' explanatory power: the adjusted  $R^2$  increases substantially to 0.401 in Column 3 of Table 6 as compared to 0.34 in Column 1 of Table 5. All hypotheses are supported by the empirical results.

*Insert Figure 1 here.*

## 6. Robustness

A common critique of the ownership-value relationship is that firm value is a determinant of ownership characteristics and should be treated as an endogenous variable instead (Demsetz and Villalonga, 2001). However, the validity of the reverse causality argument critically relies on the liquidity and informational efficiency of the underlying stock market.

In China, the transfers and liquidation of state shares are strictly scrutinized and restricted by the national and provincial state assets administrative apparatus. Given the highly regulated nature of state asset transactions, the identities of corporate controllers are relatively stable and unaffected by firm value

fluctuation, suggesting that *CTL\_CTRL* and *LCL\_CTRL* can be treated as the exogenous variables.

To address the simultaneous causality between *O\_CNT* and Tobin's *Q*, the first robustness test uses the percentage of shareholdings present at the annual general meeting (AGM) (*PCT\_SHR\_AGM*) as an instrumental variable (IV). This can be justified by the following consideration. First, major shareholders have strong incentives to engage in CG through exercising their formal voting rights in AGMs, and particularly so given the considerable exit costs incurred by the poor liquidity of the mainland stock markets (Bhide, 1993). Therefore, the shareholdings present at the AGM should be highly correlated with the aggregate equity holdings held by large shareholders. Second, *PCT\_SHR\_AGM* is not highly correlated with firm value. Tam (2002) finds that in China minority investors exhibit a highly speculative tendency with very short investment horizon. The relative inactivity of minority shareholders suggests that *PCT\_SHR\_AGM* may remain rather stable regardless of changes in firm performance. Finally, the correlation between Tobin's *Q* and *PCT\_SHR\_AGM* is -0.018, while the correlation between *O\_CNT* and *PCT\_SHR\_AGM* is 0.79, suggesting that *PCT\_SHR\_AGM* be an appropriate instrument.

In the first stage of the IV regression, *O\_CNT* is regressed on *PCT\_SHR\_AGM*. The predicted value of *O\_CNT* (*O\_CNT\_IV*) is then used as the ownership concentration proxy in the second stage regression. Meanwhile, an alternative illiquidity discount of 90% based 2090 public auctions of Chinese restricted shares is to Tobin's *Q* (*Q\_90DIS*) as public auction represents a more market-driven and efficient pricing mechanism compared with private transfers (Hou and Howell, 2012).

Table 7 reports the results. The contrasting effects of *CTL\_CTRL* and *LCL\_CTRL* on Tobin's *Q*, as well as their interactions with *GOV\_Q*, remained qualitatively unchanged. They contrast with previous findings that state ownership is uniformly harmful to firm value (e.g. Bai et al., 2004; Wei et al., 2005). Such differences are due to this study's focus on the actual identities of corporate controllers rather than the legal classification of shares.

*Insert Table 7 here.*

In Columns 5 and 6, the negative interactions between *FIN\_DEV* and *O\_CNT\_IV*<sup>2</sup> are largely maintained despite the minor decreases in significance and magnitude. In other words, the potential simultaneity cannot explain away the mediating effect of regional financial development on the concentration-value relationship. Unreported tests also obtain similar results, when the lagged value of *O\_CNT* is applied as the alternative instrument as in Maury and Pajuste (2005). Results using IV regressions generally confirm the previous findings.

The second robustness test retrieves the MICP index of enterprise nontax burden reduction as a more direct measurement of government quality, denoted as *NTX\_RED*. For La Porta et al. (1999), entrusting officials with greater power of extracting non-tax revenues invites corruption and predation. The political economy literature on China's enterprise reform suggests that under the decentralized fiscal structure, the provincial and municipal governments often impose considerable nontax fiscal burdens on local businesses via their patron-client networks in order to fulfill their social and other non-economic functions (Ko and Zhi, 2013). A higher value for the index is associated with less bureaucratic intervention and more growth-oriented policies within the corresponding jurisdiction.

Meanwhile, there may also exist a substitution effect between legal quality and ownership concentration as argued by legal economists (e.g. Durnev and Kim, 2005; Filatotchev et al., 2008). For this reason, *FIN\_DEV* is replaced with the MICP index of legal quality (*LGL\_Q*) as an alternative proxy for the strength of external oversight. The index represents a weighted average of six sub-indices related to different aspects of legal protection including legal intermediary development, contract enforcement, and property right protection.

Table 8 reports the results of these alternative institutional indicators. The positive relationship between *NTX\_RED* and Tobin's *Q* is economically important and statistically significant as with *GOV\_Q*. The sign and significance of the *LEG\_QUA* coefficient suggest that firms in provinces with stronger legal protection are significantly valued higher. However, the coefficient magnitude is much smaller compared to that of *FIN\_DEV*. This should be interpreted as evidence of the limited protection by Chinese legal institutions due to the absence of judicial independence (Clarke, 2010). Similar results are obtained when *Q\_90DIS* is applied (Models 4 to 6).

*Insert Table 8 here.*

In Columns 3 and 6, the interactions of *NTX\_RED* with *CTRL\_CTROL* and *LCL\_CTROL* enter statistically significantly positive, reaffirming the importance of local political and economic institutions in shaping the incentives and behaviors of the government officials. Furthermore, the interaction terms between *LGL\_Q* and *O\_CNT*<sup>2</sup> is significantly positive at the 0.01 level ( $\beta_{10}=0.358$  in Column 3 and 0.261 in Column 6 respectively). Figure 2 graphically presents the results following the earlier approach. The less steep, downward-sloping solid curve suggests that genuine legal quality (75<sup>th</sup> percentile) may mitigate the negative expropriation effect at lower levels of ownership concentration. However, as *CON\_CNT* increases, such a negative effect levels off and the expected positive effect of large shareholder monitoring remain either trivial or non-existent. Heugens et al. (2009) argue that stronger

legal protection renders large shareholder monitoring redundant. Taken together, the association between concentrated ownership and firm value proves to be weaker in the presence of effective external CG mechanisms including regional financial market and legal protection. The robustness test results are largely consistent with the earlier findings

*Insert Figure 2 here.*

## **7. Conclusion**

This paper examines empirically the impacts on Chinese firm value of particular ownership characteristics and the relevant institutional factors of government quality and financial development. Several revealing findings emerge. Firstly, the positive role of central government corporate controllers contrasts significantly with that of their local peers, showing the divergent policy imperatives and monitoring capacities under fiscal and administrative decentralization. This challenges the commonly-held view of one monolithic state uniformly presiding over Chinese corporate governance. Secondly, it confirms a U-shaped effect of ownership concentration on firm value using alternative concentration measures. However, it is only at very high levels of concentration that a positive impact on firm valuation is observed, suggesting that the potential expropriation risk remains a major investor concern. Thirdly, the value implication of provincial-level government quality is statistically and economically significant. A pro-growth policy environment enhances the positive relationship between central government control and firm value while alleviating the deleterious effect associated with local government control. These findings indicate that there are gains to be obtained by altering the incentives structure of SOE cadres without large-scale privatization. Finally, the effect of ownership concentration on firm value is reduced by regional financial development, as well as is the case of regional legal quality. This is because the disciplining function of a well-functioning financial market mitigates both the expropriation and monitoring incentives of large shareholders. Extending the legal finance literature, these results shed light on the institutional embeddedness of Chinese corporate governance.

For many emerging economies, an acceptance of the primacy of legal investor protection is unlikely to simply materialize under the present political and economic institutions. As heavy government intervention continues, reform initiatives should also be directed towards limiting bureaucratic predation and cultivating a more growth-oriented policy environment that is advantageous to both public and private enterprises. Accordingly, more research is needed to understand the incentives of a government in its relationship with firms under its jurisdiction. This entails an analysis of the political system and an understanding of how bureaucrats are compensated and promoted, how

politicians are selected into power, and how misconduct is detected and punished. In addition to capital raising and risk sharing, competition in financials helps safeguard investors' interests and prevent CG problems. Firms subject to the scrutinization and monitoring of market participants must adjust their operations and management to maximize value added. To this extent, financial deregulation can have a powerful role in guiding firms towards good governance practices. Further research should take into account other factor markets, including labor, raw material, and distribution services, and in particular their interactions with particular firm-level CG mechanisms.

## **Acknowledgements**

The author is grateful for helpful comments and suggestions by John Amour, Simon Deakin, Sean Holly, Zhiyun Daniel Li, Paul Stoneman, Alessandro Zattoni, and Enying Zheng. I would also like to thank the Chinese Academy of Social Sciences and the Central University of Finance and Economics for providing me with the Marketization Index for China's Provinces and the access to the China Stock Market and Accounting Research Database. Also, special thanks and appreciation go to Weifang Florence Chen of Renmin University and Hongru Gao of Central University of Finance and Economics in Beijing, for their excellent research assistance. This research was partly funded by the Economic and Social Research Council's "Law, Development and Finance in Rising Powers" research project (Grant ES/J012491/1) and the National Natural Science of Foundation of China (Grant 71272065).



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Figure 1 Moderating Effect of Financial Development on the Concentration-Value Relationship

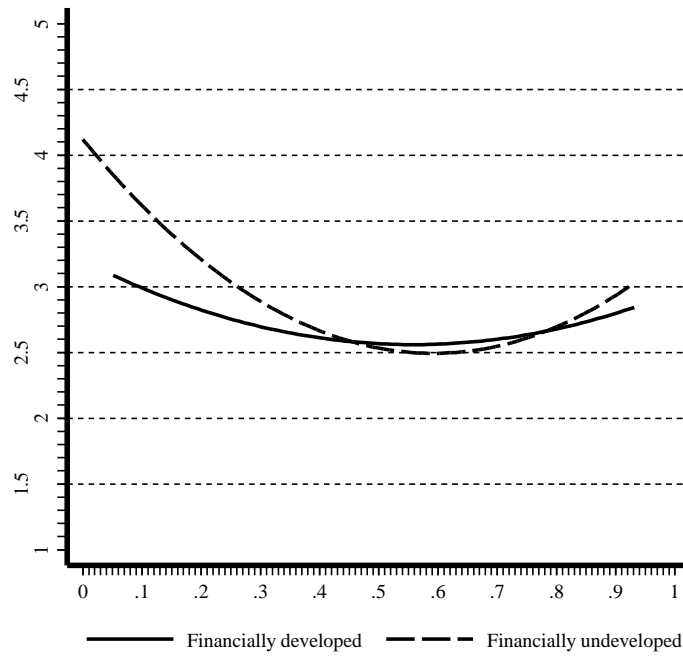
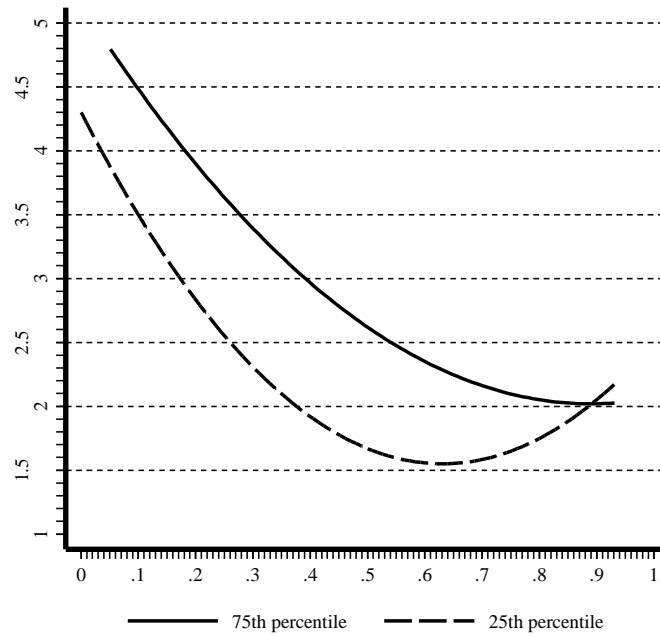


Figure 2 Moderating Effect of Legal Environment on the Concentration-Value Relationship



**Table 1 Variable Definition**

Variable	Specification
<i>Q</i>	Tobin's Q, calculated as the ratio of the sum of equity market value and liability book value over the total asset book value: $\frac{\text{equity market value} + \text{book value of total liabilities}}{\text{replacement cost of total assets}}$
<i>Q_70DIS</i>	Tobin's Q after 70 percent illiquidity discount, defined as the ratio of the sum of the adjusted equity market value and liability book value over total asset book value. It is calculated as: $\frac{\text{discounted equity market value} + \text{book value of total liabilities}}{\text{replacement cost of total assets}}$ <p>where discounted equity market value = number of tradable shares * share price + number of non-tradable shares * share price * 30%.</p>
<i>F_SZ</i>	Firm size, defined as the natural logarithm of total assets.
<i>DE_R</i>	Debt to equity ratio.
<i>ROS_R</i>	Return on sales.
<i>AT</i>	Asset tangibility, defined as the ratio of tangible fixed assets to total assets.
<i>CRS</i>	Crisis dummy that equals to one for 2008 and zero otherwise.
<i>STIM</i>	Stimulus dummy that equals to one for 2009 and zero otherwise.
<i>PROV_GDP</i>	Natural logarithm of provincial GDP for the corresponding year.
<i>IND</i>	Dummy variables equal to one for each of the two-digit SIC categories and zero otherwise.
<i>BD_SZ</i>	Board size, defined as the total number of directors on a board.
<i>BD_I</i>	Board independence, defined as the proportion of non-executive directors on a board.
<i>CMTE_NUM</i>	Number of functional committees under the board.
<i>DIR_SHR</i>	Aggregate shareholdings held by directors.
<i>DIR_ACT</i>	Director activities, defined as the number of board meetings during the corresponding fiscal year.
<i>SUPV_ACT</i>	Supervisor activities, defined as the number of supervisory board meetings during the corresponding fiscal year.
<i>CRS_L</i>	Cross listing dummy that equals to one if the firm has shares traded in an advanced stock market and zero otherwise.
<i>CTL_CTRL</i>	Central control dummy that equals to one if the firm is ultimately controlled by the central government.
<i>LCL_CTRL</i>	Local control dummy that equals to one if the firm is ultimately controlled by a provincial or municipal government.
<i>O_CNT</i>	Ownership concentration, calculated as the aggregate shareholding held by investors who own 5 percent or more of a firm's outstanding equity.
<i>GOV_Q</i>	The MICP index of non-state sector development, using the weighted average of the proportional contributions of the non-state enterprises to provincial industrial output, fixed asset investment, and urban employment.
<i>FIN_DEV</i>	The MICP index of financial development based on the percentage of deposits at non-state financial institutions in total provincial deposits.

**Table 2 Descriptive Statistics for Firm Value, Corporate Governance and Institutional Variables****Panel A: Non-Dummy Variables**

<b>Year</b>	<b>Variable</b>	<b>Obs.</b>	<b>Mean</b>	<b>S.D.</b>	<b>Min.</b>	<b>Max.</b>	
2005	<i>Q</i>	896	1.432	0.577	0.808	3.995	
	<i>Q_70DIS</i>	896	1.095	0.630	0.698	10.184	
	<i>BD_SZ</i>	896	9.648	2.045	5	19	
	<i>BD_I</i>	896	0.348	0.046	0.083	0.600	
	<i>CMTE_NUM</i>	896	3.046	1.550	0	6	
	<i>DIR_SHR</i>	896	0.010	0.061	0.000	0.634	
	<i>DIR_ACT</i>	896	7.608	3.205	2	32	
	<i>SUPV_ACT</i>	896	3.238	1.655	1	16	
	<i>O_CNT</i>	896	0.524	0.138	0.000	0.931	
	<i>GOV_Q</i>	896	7.282	2.226	0.090	9.940	
	<i>FIN_DEV</i>	896	6.909	2.476	-3.980	10.240	
	2006	<i>Q</i>	958	1.942	1.141	0.904	7.600
		<i>Q_70DIS</i>	958	1.452	0.888	0.698	10.184
<i>BD_SZ</i>		958	9.458	2.000	4	19	
<i>BD_I</i>		958	0.353	0.046	0.111	0.571	
<i>CMTE_NUM</i>		958	3.294	1.378	0	7	
<i>DIR_SHR</i>		958	0.016	0.073	0.000	0.656	
<i>DIR_ACT</i>		958	8.204	3.533	2	33	
<i>SUPV_ACT</i>		958	4.100	1.598	1	13	
<i>O_CNT</i>		958	0.462	0.142	0.000	0.926	
<i>GOV_Q</i>		958	9.346	2.638	2.800	12.770	
<i>FIN_DEV</i>		958	7.268	2.248	-2.460	10.200	
2007		<i>Q</i>	1279	3.846	2.504	1.379	15.928
		<i>Q_70DIS</i>	1279	2.722	1.586	0.986	10.184
	<i>BD_SZ</i>	1279	9.324	1.940	3	18	
	<i>BD_I</i>	1279	0.359	0.048	0.143	0.667	
	<i>CMTE_NUM</i>	1279	3.661	0.958	0	8	
	<i>DIR_SHR</i>	1279	0.026	0.098	0.000	0.729	
	<i>DIR_ACT</i>	1279	9.799	3.573	2	36	
	<i>SUPV_ACT</i>	1279	4.568	1.663	1	15	
	<i>O_CNT</i>	1279	0.457	0.162	0.000	0.911	
	<i>GOV_Q</i>	1279	9.901	2.560	3.120	13.440	
	<i>FIN_DEV</i>	1279	8.105	2.200	-2.780	11.010	
	2008	<i>Q</i>	1381	1.835	1.085	0.893	8.040
		<i>Q_70DIS</i>	1381	1.472	0.992	0.698	10.184
<i>BD_SZ</i>		1381	9.197	1.889	4	18	
<i>BD_I</i>		1381	0.362	0.053	0.143	0.667	
<i>CMTE_NUM</i>		1381	3.860	0.590	0	8	
<i>DIR_SHR</i>		1381	0.039	0.123	0.000	0.730	
<i>DIR_ACT</i>		1381	9.681	3.468	3	36	
<i>SUPV_ACT</i>		1381	4.954	1.586	1	16	
<i>O_CNT</i>		1381	0.463	0.160	0.000	0.896	
<i>GOV_Q</i>		1381	10.076	2.467	3.440	13.730	
<i>FIN_DREG</i>		1381	8.312	2.100	-2.310	11.020	
2009		<i>Q</i>	1564	3.289	2.086	1.184	14.141
		<i>Q_70DIS</i>	1564	2.635	1.585	0.842	10.184
	<i>BD_SZ</i>	1564	9.090	1.868	4	18	
	<i>BD_I</i>	1564	0.365	0.052	0.091	0.714	
	<i>CMTE_NUM</i>	1564	3.850	0.538	0	7	
	<i>DIR_SHR</i>	1564	0.049	0.138	0.000	0.730	
	<i>DIR_ACT</i>	1564	8.478	3.685	1	34	
	<i>SUPV_ACT</i>	1564	4.748	1.603	0	16	
	<i>O_CNT</i>	1564	0.456	0.164	0.000	0.903	
	<i>GOV_Q</i>	1564	10.070	2.505	3.360	13.630	
	<i>FIN_DEV</i>	1564	8.578	2.098	-1.870	12.100	
	All	<i>Q</i>	6078	2.590	1.952	0.808	15.928
		<i>Q_70DIS</i>	6078	1.976	1.423	0.698	10.184
<i>BD_SZ</i>		6078	9.304	1.944	3	19	
<i>BD_I</i>		6078	0.359	0.050	0.083	0.714	
<i>CMTE_NUM</i>		6078	3.606	1.045	0	8	
<i>DIR_SHR</i>		6078	0.031	0.109	0.000	0.730	
<i>DIR_ACT</i>		6078	8.858	3.614	1	36	

Continued on next page

**Table 2 Descriptive Statistics for Firm Value, Corporate Governance and Institutional Variables (continued)**

<b>Panel A: Non-Dummy Variables</b>						
<b>Year</b>	<b>Variable</b>	<b>Obs.</b>	<b>Mean</b>	<b>S.D.</b>	<b>Min.</b>	<b>Max.</b>
All	<i>SUPV_ACT</i>	6078	4.432	1.714	0	16
	<i>O_CNT</i>	6078	0.469	0.157	0.000	0.931
	<i>GOV_Q</i>	6078	9.511	2.669	0.090	13.730
	<i>FIN_DEV</i>	6078	7.966	2.284	-3.980	12.100
<b>Panel B: Dummy Variables</b>						
<b>Year</b>	<b>Variable</b>	<b>N</b>	<b>Frequency</b>	<b>Percentage</b>		
2005	<i>CRS_L</i>	896	28	3.13		
	<i>CTL_CTRL</i>	896	157	17.52		
	<i>LCL_CTRL</i>	896	483	53.91		
2006	<i>CRS_L</i>	958	27	2.82		
	<i>CTL_CTRL</i>	958	156	16.28		
	<i>LCL_CTRL</i>	958	497	51.88		
2007	<i>CRS_L</i>	1279	39	3.05		
	<i>CTL_CTRL</i>	1279	219	17.12		
	<i>LCL_CTRL</i>	1279	597	46.68		
2008	<i>CRS_L</i>	1381	43	3.11		
	<i>CTL_CTRL</i>	1381	226	16.36		
	<i>LCL_CTRL</i>	1381	616	44.61		
2009	<i>CRS_L</i>	1564	45	2.88		
	<i>CTL_CTRL</i>	1564	260	16.62		
	<i>LCL_CTRL</i>	1564	660	42.20		
All	<i>CRS_L</i>	6078	182	2.99		
	<i>CTL_CTRL</i>	6078	1018	16.75		
	<i>LCL_CTRL</i>	6078	2853	46.94		

Table 3 Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 <i>Q</i>	1																			
2 <i>F_SZ</i>	-0.364	1																		
3 <i>DE_R</i>	-0.239	0.250	1																	
4 <i>ROS_R</i>	0.231	-0.037	-0.166	1																
5 <i>AT</i>	-0.145	0.167	0.141	-0.058	1															
6 <i>CRS</i>	-0.210	0.019	-0.003	-0.004	-0.019	1														
7 <i>STIM</i>	0.211	0.067	-0.024	0.041	-0.080	-0.319	1													
8 <i>PROV_GDP</i>	0.045	0.078	-0.040	-0.029	-0.101	0.104	0.216	1												
9 <i>BD_SZ</i>	-0.135	0.305	0.105	0.005	0.165	-0.030	-0.065	-0.045	1											
10 <i>BD_I</i>	0.063	0.009	-0.017	-0.028	-0.050	0.038	0.071	0.059	-0.265	1										
11 <i>CMTE_NUM</i>	0.049	0.023	0.024	-0.006	-0.035	0.132	0.137	0.084	0.032	0.052	1									
12 <i>DIR_SHR</i>	0.140	-0.154	-0.093	0.118	-0.125	0.039	0.099	0.175	-0.115	0.060	0.031	1								
13 <i>DIR_ACT</i>	-0.024	0.174	0.087	0.004	-0.122	0.124	-0.062	0.047	-0.028	0.035	0.071	-0.041	1							
14 <i>SUPV_ACT</i>	0.052	0.078	-0.014	0.011	-0.038	0.165	0.109	0.117	-0.028	0.036	0.122	0.006	0.328	1						
15 <i>CRS_L</i>	-0.061	0.330	0.022	0.004	0.110	0.004	-0.004	0.040	0.126	0.065	-0.001	-0.049	0.061	0.021	1					
16 <i>CTL_CTRL</i>	-0.018	0.202	0.063	-0.073	0.016	-0.006	-0.002	-0.037	0.148	-0.018	-0.005	-0.119	-0.015	-0.034	0.172	1				
17 <i>LCL_CTRL</i>	-0.168	0.142	0.045	-0.055	0.147	-0.025	-0.056	-0.082	0.116	-0.063	-0.006	-0.253	-0.024	-0.019	-0.009	-0.422	1			
18 <i>O_CNT</i>	-0.003	0.121	-0.029	0.087	0.049	-0.021	-0.047	0.008	0.035	0.019	-0.084	0.139	-0.075	-0.046	0.082	0.069	-0.008	1		
19 <i>GOV_Q</i>	0.073	0.052	-0.022	-0.020	-0.143	0.115	0.123	0.779	-0.062	0.058	0.079	0.196	0.098	0.148	0.037	-0.051	-0.126	-0.012	1	
20 <i>FIN_DEV</i>	0.041	0.116	-0.015	-0.041	-0.134	0.082	0.158	0.633	-0.005	0.056	0.057	0.139	0.055	0.122	0.053	0.018	-0.040	-0.008	0.573	1

**Table 4 Results from Univariate Tests****Panel A: Mean Comparison**

	Obs.	<i>Q</i>		<i>Q_70DIS</i>	
		Mean	Difference	Mean	Difference
<i>CTL_CTRL</i>	1018	2.510	0.268***	1.912	0.151***
<i>LCL_CTRL</i>	2853	2.242		1.761	
<i>PRI_CTRL</i>	2207	3.076	0.834***	2.282	0.521***
<i>LCL_CTRL</i>	2853	2.242		1.761	
<i>PRI_CTRL</i>	2207	3.076	0.566***	2.282	0.370***
<i>CTL_CTRL</i>	1018	2.510		1.912	
Upper quantile of <i>O_CON</i>	3040	2.59	0.004	1.796	-0.359***
Lower quantile of <i>O_CON</i>	3038	2.588		2.155	
Upper quantile of <i>GOV_Q</i>	2958	2.673	0.162***	2.015	0.076**
Lower quantile of <i>GOV_Q</i>	3120	2.511		1.939	
Upper quantile of <i>FIN_DEV</i>	2971	2.678	0.172***	2.052	0.149***
Lower quantile of <i>FIN_DEV</i>	3107	2.506		1.903	

**Panel B: Median Comparison**

	Obs.	<i>Q</i>		<i>Q_70DIS</i>	
		Median	Difference	Median	Difference
<i>CTL_CTRL</i>	1018	1.932	0.187***	1.478	0.088***
<i>LCL_CTRL</i>	2853	1.745		1.390	
<i>PRI_CTRL</i>	2207	2.731	0.986***	1.782	0.392***
<i>LCL_CTRL</i>	2853	1.745		1.390	
<i>PRI_CTRL</i>	2207	2.731	0.799***	1.782	0.304***
<i>CTL_CTRL</i>	1018	1.932		1.478	
Upper quantile of <i>O_CON</i>	3040	1.984	0.015	1.427	-0.237***
Lower quantile of <i>O_CON</i>	3038	1.969		1.664	
Upper quantile of <i>GOV_Q</i>	2958	2.087	0.212***	1.629	0.169***
Lower quantile of <i>GOV_Q</i>	3120	1.875		1.460	
Upper quantile of <i>FIN_DEV</i>	2971	2.092	0.211***	1.643	0.187***
Lower quantile of <i>FIN_DEV</i>	3107	1.881		1.456	

**Note:** The mean and median comparisons use the unpaired *T*-test and the Wilcoxon *Z*-test respectively.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Table 5 Tobin's Q on Control Nature and Ownership Concentration**

	<i>Q</i>			<i>Q_70DIS</i>		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>F_SZ</i>	-1.095*** (0.057)	-1.088*** (0.057)	-0.986*** (0.058)	-0.914*** (0.042)	-0.909*** (0.042)	-0.806*** (0.042)
<i>DE_R</i>	-0.073*** (0.026)	-0.075*** (0.026)	-0.076*** (0.025)	-0.049*** (0.019)	-0.051*** (0.019)	-0.053*** (0.018)
<i>ROS_R</i>	1.263*** (0.269)	1.250*** (0.269)	1.400*** (0.266)	0.567*** (0.197)	0.560*** (0.197)	0.724*** (0.193)
<i>AT</i>	-1.604*** (0.236)	-1.588*** (0.236)	-1.670*** (0.233)	-0.873*** (0.173)	-0.863*** (0.173)	-0.942*** (0.169)
<i>BD_SZ</i>	-0.041* (0.023)	-0.042* (0.023)	-0.031 (0.022)	-0.040** (0.017)	-0.041** (0.017)	-0.029* (0.016)
<i>BD_I</i>	1.994*** (0.623)	1.982*** (0.622)	1.867*** (0.615)	1.370*** (0.456)	1.362*** (0.455)	1.254*** (0.445)
<i>CMTE_NUM</i>	0.269*** (0.026)	0.269*** (0.026)	0.237*** (0.026)	0.201*** (0.019)	0.201*** (0.019)	0.167*** (0.019)
<i>DIR_SHR</i>	-2.594** (1.068)	-2.596** (1.066)	-2.026* (1.055)	-3.287*** (0.781)	-3.288*** (0.780)	-2.686*** (0.764)
<i>DIR_ACT</i>	0.076*** (0.009)	0.075*** (0.009)	0.070*** (0.009)	0.054*** (0.006)	0.053*** (0.006)	0.048*** (0.006)
<i>SUPV_ACT</i>	0.106*** (0.015)	0.106*** (0.015)	0.092*** (0.015)	0.084*** (0.011)	0.084*** (0.011)	0.068*** (0.011)
<i>CRS_L</i>	0.559*** (0.188)	0.442** (0.188)	0.415** (0.186)	0.458*** (0.137)	0.380*** (0.137)	0.384*** (0.135)
<i>CTL_CTRL</i>		0.210** (0.094)	0.204** (0.094)		0.151** (0.069)	0.180*** (0.068)
<i>LCL_CTRL</i>		-0.289*** (0.070)	-0.272*** (0.069)		-0.177*** (0.051)	-0.149*** (0.050)
<i>O_CNT</i>			-6.613*** (1.020)			-5.714*** (0.739)
<i>O_CNT</i> <sup>2</sup>			4.148*** (1.052)			3.129*** (0.762)
<i>Constant</i>	6.362*** (1.190)	6.534*** (1.184)	8.398*** (1.210)	6.015*** (0.867)	6.140*** (0.862)	7.174*** (0.879)
<i>CRS</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>STIM</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>IND</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>PROV_GDP</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Mundlak</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	6078	6078	6078	6078	6078	6078
<i>Firms</i>	1605	1605	1605	1605	1605	1605
<i>Within group R</i> <sup>2</sup>	0.262	0.265	0.283	0.313	0.314	0.345
<i>Between group R</i> <sup>2</sup>	0.437	0.444	0.458	0.342	0.349	0.370
<i>Overall R</i> <sup>2</sup>	0.340	0.346	0.363	0.335	0.340	0.363

**Note:** Robust standard errors are in parentheses

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Table 6 Firm Value on Control Nature, Ownership Concentration and Institutional Indicators**

	<i>Q</i>			<i>Q_70DIS</i>		
	(7)	(8)	(9)	(10)	(11)	(12)
<i>F_SZ</i>	-1.035*** (0.056)	-1.061*** (0.056)	-1.289*** (0.055)	-0.842*** (0.041)	-0.863*** (0.041)	-1.032*** (0.040)
<i>DE_R</i>	-0.072*** (0.025)	-0.072*** (0.025)	-0.039* (0.024)	-0.050*** (0.018)	-0.049*** (0.018)	-0.025 (0.017)
<i>ROS_R</i>	1.410*** (0.259)	1.509*** (0.258)	1.610*** (0.248)	0.732*** (0.188)	0.805*** (0.188)	0.877*** (0.179)
<i>AT</i>	-1.534*** (0.227)	-1.561*** (0.226)	-1.069*** (0.218)	-0.848*** (0.165)	-0.868*** (0.164)	-0.501*** (0.158)
<i>BD_SZ</i>	-0.029 (0.022)	-0.029 (0.022)	-0.012 (0.021)	-0.027* (0.016)	-0.027* (0.016)	-0.014 (0.015)
<i>BD_I</i>	1.638*** (0.598)	1.591*** (0.596)	1.093* (0.571)	1.102** (0.434)	1.070** (0.433)	0.703* (0.414)
<i>CMTE_NUM</i>	0.214*** (0.026)	0.208*** (0.025)	0.129*** (0.025)	0.150*** (0.019)	0.146*** (0.018)	0.087*** (0.018)
<i>DIR_SHR</i>	-2.205** (1.025)	-2.368** (1.022)	-3.441*** (0.981)	-2.803*** (0.744)	-2.922*** (0.742)	-3.700*** (0.711)
<i>DIR_ACT</i>	0.065*** (0.008)	0.063*** (0.008)	0.047*** (0.008)	0.045*** (0.006)	0.044*** (0.006)	0.032*** (0.006)
<i>SUPV_ACT</i>	0.079*** (0.015)	0.077*** (0.015)	0.040*** (0.014)	0.059*** (0.011)	0.057*** (0.011)	0.030*** (0.010)
<i>CRS_L</i>	0.330* (0.195)	0.318 (0.195)	0.344* (0.187)	0.327** (0.141)	0.308** (0.141)	0.326** (0.135)
<i>CTL_CTRL (1)</i>	0.239** (0.097)	-0.552* (0.315)	-0.571* (0.302)	0.201*** (0.070)	-0.476** (0.228)	-0.490** (0.218)
<i>LCL_CTRL (2)</i>	-0.240*** (0.072)	-0.832*** (0.214)	-0.625*** (0.206)	-0.127** (0.052)	-0.501*** (0.155)	-0.346** (0.148)
<i>O_CNT (3)</i>	-6.022*** (0.992)	-6.090*** (0.990)	-15.131*** (2.453)	-5.311*** (0.721)	-5.362*** (0.719)	-10.801*** (1.774)
<i>O_CNT<sup>2</sup> (4)</i>	4.023*** (1.022)	4.285*** (1.020)	12.881*** (2.652)	3.039*** (0.742)	3.225*** (0.741)	8.344*** (1.919)
<i>GOV_Q (5)</i>	0.142*** (0.016)	0.085*** (0.021)	0.112*** (0.020)	0.089*** (0.012)	0.048*** (0.015)	0.069*** (0.014)
<i>FIN_DEV (6)</i>	0.113*** (0.017)	0.118*** (0.017)	0.483*** (0.067)	0.091*** (0.012)	0.094*** (0.012)	0.404*** (0.048)
<i>(1)*(5)</i>		0.165*** (0.036)	0.115*** (0.034)		0.124*** (0.026)	0.087*** (0.025)
<i>(2)*(5)</i>		0.129*** (0.025)	0.074*** (0.024)		0.091*** (0.018)	0.050*** (0.017)
<i>(3)*(6)</i>			1.376*** (0.289)			0.863*** (0.209)
<i>(4)*(6)</i>			-1.168*** (0.317)			-0.710*** (0.230)
<i>Constant</i>	19.928*** (1.642)	19.080*** (1.654)	14.641*** (1.667)	15.176*** (1.188)	14.544*** (1.195)	10.968*** (1.201)
<i>CRS</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>STIM</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>IND</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>PROV_GDP</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Mundlak</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	6078	6078	6078	6078	6078	6078
<i>Firms</i>	1605	1605	1605	1605	1605	1605
<i>Within Group R<sup>2</sup></i>	0.32	0.324	0.395	0.375	0.378	0.442
<i>Between Group R<sup>2</sup></i>	0.427	0.432	0.433	0.348	0.354	0.375
<i>Overall R<sup>2</sup></i>	0.358	0.363	0.401	0.359	0.365	0.409

**Note:** Robust standard errors are in parentheses

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01



Table 7 Regression Results from Instrumental Variable Approach

	$Q$			$Q\_90DIS$		
	(1)	(2)	(3)	(4)	(5)	(6)
$F\_SZ$	-1.048*** (0.056)	-1.068*** (0.056)	-1.293*** (0.054)	-0.806*** (0.038)	-0.822*** (0.038)	-0.965*** (0.037)
$DE\_R$	-0.069*** (0.024)	-0.070*** (0.024)	-0.037 (0.023)	-0.041** (0.017)	-0.041** (0.017)	-0.02 (0.016)
$ROS\_R$	1.377*** (0.257)	1.465*** (0.257)	1.542*** (0.246)	0.579*** (0.175)	0.638*** (0.175)	0.688*** (0.168)
$AT$	-1.354*** (0.228)	-1.383*** (0.227)	-0.944*** (0.219)	-0.585*** (0.155)	-0.606*** (0.155)	-0.313** (0.149)
$BD\_SZ$	-0.025 (0.022)	-0.025 (0.022)	-0.011 (0.021)	-0.019 (0.015)	-0.019 (0.015)	-0.01 (0.014)
$BD\_I$	1.826*** (0.595)	1.784*** (0.594)	1.254** (0.569)	1.121*** (0.405)	1.095*** (0.404)	0.748* (0.388)
$CMTE\_NUM$	0.207*** (0.025)	0.201*** (0.025)	0.123*** (0.025)	0.130*** (0.017)	0.127*** (0.017)	0.075*** (0.017)
$DIR\_SHR$	-1.321 (1.062)	-1.476 (1.060)	-2.599** (1.016)	-1.823** (0.722)	-1.925*** (0.721)	-2.625*** (0.694)
$DIR\_ACT$	0.065*** (0.008)	0.064*** (0.008)	0.047*** (0.008)	0.041*** (0.006)	0.040*** (0.006)	0.029*** (0.005)
$SUPV\_ACT$	0.080*** (0.015)	0.078*** (0.015)	0.041*** (0.014)	0.047*** (0.010)	0.045*** (0.010)	0.021** (0.010)
$CRS\_L$	0.165 (0.197)	0.157 (0.197)	0.199 (0.189)	0.323** (0.133)	0.306** (0.133)	0.333*** (0.128)
$CTL\_CTRL (1)$	0.209** (0.098)	-0.512 (0.315)	-0.499* (0.301)	0.145** (0.066)	-0.435** (0.213)	-0.432** (0.204)
$LCL\_CTRL (2)$	-0.227*** (0.072)	-0.712*** (0.214)	-0.481** (0.206)	-0.154*** (0.049)	-0.391*** (0.145)	-0.248* (0.140)
$O\_CNT\_IV (3)$	-8.032*** (1.286)	-7.856*** (1.284)	-13.786*** (3.615)	-4.693*** (0.874)	-4.573*** (0.873)	-8.792*** (2.460)
$O\_CN\_IV^2 (4)$	4.782*** (1.312)	4.786*** (1.309)	10.741*** (4.008)	1.515* (0.892)	1.510* (0.890)	6.396** (2.729)
$GOV\_Q (5)$	0.139*** (0.016)	0.090*** (0.021)	0.117*** (0.020)	0.079*** (0.011)	0.049*** (0.014)	0.067*** (0.014)
$FIN\_DEV (6)$	0.114*** (0.017)	0.118*** (0.017)	0.554*** (0.100)	0.084*** (0.012)	0.087*** (0.012)	0.382*** (0.068)
$(1)*(5)$		0.154*** (0.035)	0.100*** (0.034)		0.103*** (0.024)	0.068*** (0.023)
$(2)*(5)$		0.109*** (0.025)	0.055** (0.024)		0.068*** (0.017)	0.033** (0.016)
$(3)*(6)$			1.131*** (0.437)			0.791*** (0.297)
$(4)*(6)$			-0.917* (0.487)			-0.733** (0.332)
$Constant$	20.392*** (1.660)	19.613*** (1.674)	14.670*** (1.789)	12.824*** (1.120)	12.280*** (1.129)	9.010*** (1.212)
$CRS$	Yes	Yes	Yes	Yes	Yes	Yes
$STIM$	Yes	Yes	Yes	Yes	Yes	Yes
$IND$	Yes	Yes	Yes	Yes	Yes	Yes
$PROV\_GDP$	Yes	Yes	Yes	Yes	Yes	Yes
$Mundlak$	Yes	Yes	Yes	Yes	Yes	Yes
$Observations$	5909	5909	5909	5909	5909	5909
$Firms$	1543	1543	1543	1543	1543	1543
$Within Group R^2$	0.327	0.331	0.401	0.393	0.396	0.451
$Between Group R^2$	0.429	0.433	0.439	0.352	0.357	0.374
$Overall R^2$	0.362	0.366	0.406	0.367	0.372	0.411

Note: Robust standard errors are in parentheses

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Table 8 Firm Value on Control Nature, Ownership Concentration and Alternative Institutional Indicators

	<i>Q</i>			<i>Q_90DIS</i>		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>F_SZ</i>	-1.001*** (0.058)	-1.000*** (0.058)	-1.089*** (0.058)	-0.742*** (0.039)	-0.742*** (0.039)	-0.808*** (0.039)
<i>DE_R</i>	-0.074*** (0.025)	-0.073*** (0.025)	-0.067*** (0.025)	-0.045*** (0.017)	-0.045*** (0.017)	-0.040** (0.017)
<i>ROS_R</i>	1.416*** (0.265)	1.383*** (0.265)	1.401*** (0.262)	0.565*** (0.178)	0.553*** (0.178)	0.563*** (0.176)
<i>AT</i>	-1.643*** (0.232)	-1.640*** (0.232)	-1.476*** (0.230)	-0.744*** (0.156)	-0.747*** (0.156)	-0.617*** (0.155)
<i>BD_SZ</i>	-0.029 (0.022)	-0.031 (0.022)	-0.023 (0.022)	-0.024 (0.015)	-0.025* (0.015)	-0.018 (0.015)
<i>BD_I</i>	1.841*** (0.611)	1.806*** (0.611)	1.841*** (0.604)	1.164*** (0.411)	1.151*** (0.411)	1.188*** (0.405)
<i>CMTE_NUM</i>	0.228*** (0.026)	0.230*** (0.026)	0.205*** (0.026)	0.142*** (0.018)	0.143*** (0.018)	0.123*** (0.017)
<i>DIR_SHR</i>	-2.033* (1.050)	-1.921* (1.051)	-1.485 (1.041)	-2.800*** (0.706)	-2.747*** (0.707)	-2.373*** (0.698)
<i>DIR_ACT</i>	0.070*** (0.009)	0.069*** (0.009)	0.067*** (0.008)	0.043*** (0.006)	0.043*** (0.006)	0.041*** (0.006)
<i>SUPV_ACT</i>	0.090*** (0.015)	0.090*** (0.015)	0.079*** (0.015)	0.061*** (0.010)	0.061*** (0.010)	0.053*** (0.010)
<i>CRS_L</i>	0.398** (0.188)	0.390** (0.188)	0.430** (0.187)	0.340*** (0.124)	0.334*** (0.125)	0.380*** (0.123)
<i>CTL_CTRL (1)</i>	0.180* (0.094)	-2.866** (1.273)	-3.997*** (1.266)	0.150** (0.063)	-1.128 (0.851)	-1.932** (0.843)
<i>LCL_CTRL (2)</i>	-0.264*** (0.070)	-2.062** (0.879)	-2.509*** (0.873)	-0.116** (0.046)	-0.943 (0.589)	-1.224** (0.583)
<i>O_CNT (3)</i>	-6.557*** (1.014)	-6.445*** (1.013)	-5.890*** (1.052)	-5.441*** (0.682)	-5.396*** (0.682)	-4.848*** (0.706)
<i>O_CNT (4)</i>	4.203*** (1.045)	4.143*** (1.044)	1.964* (1.068)	2.912*** (0.703)	2.884*** (0.703)	1.395* (0.716)
<i>NTX_RED (5)</i>	0.151*** (0.032)	0.079* (0.045)	0.077* (0.045)	0.090*** (0.021)	0.056* (0.030)	0.060** (0.030)
<i>LEG_Q (6)</i>	0.014* (0.008)	0.012 (0.008)	0.044*** (0.012)	0.013** (0.005)	0.012** (0.005)	0.045*** (0.008)
<i>(1)*(5)</i>		0.196** (0.086)	0.269*** (0.086)		0.08 (0.058)	0.132** (0.057)
<i>(2)*(5)</i>		0.097 (0.060)	0.128** (0.059)		0.048 (0.040)	0.067* (0.040)
<i>(3)*(6)</i>			-0.220*** (0.051)			-0.171*** (0.034)
<i>(4)*(6)</i>			0.385*** (0.048)			0.261*** (0.032)
<i>Constant</i>	7.875*** (1.398)	9.129*** (1.489)	7.102*** (1.511)	6.656*** (0.929)	7.222*** (0.991)	5.695*** (1.002)
<i>CRS</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>STIM</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>IND</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>PROV_GDP</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Mundlak</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	6078	6078	6078	6078	6078	6078
<i>Firms</i>	1605	1605	1605	1605	1605	1605
<i>Within Group R<sup>2</sup></i>	0.288	0.29	0.313	0.368	0.369	0.389
<i>Between Group R<sup>2</sup></i>	0.459	0.459	0.449	0.334	0.334	0.344
<i>Overall R<sup>2</sup></i>	0.366	0.367	0.374	0.363	0.363	0.376

Note: Robust standard errors are in parentheses

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01