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The Relationship between Ownership Identity, Ownership Concentration, and Firm Performance: Evidence from China

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Krishna Reddy

Abstract- **This study compares the performance of state-owned firms, local government SOEs, and privately-owned firms in China. Using panel data comprising 13,273 firm-year observations for the period 2005-2012 and OLS, 2SLS, and difference-in-difference regression, we report that the identity of the largest shareholder does matter. Our results show that the listed, central government-owned SOEs' operating costs are similar to those of local government owned SOEs and privately-owned firms. Our results suggest that ownership concentration matters in China, that is, central government shareholding is an important determinant of state owned firms' performance. The policy implication of this study is that helping-hand and protectionist policies have helped state-owned firms to prosper in by creating an uncompetitive market and ineffective legal infrastructure.**

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I. Introduction

The success of China's transition to a market economy depended on whether state ownership reform can achieve efficiency gains as expected. According to Shleifer and Vishny (1994), the efficiency gains from privatization can only be realized if control rights are passed from the state to private investors. In this regard, China's policymakers have tried to reconcile continuing state ownership with market-orientated economic reforms to make state control more effective (Hassard, Morris, Sheehan & Xiao, 2010).

The Chinese authorities established the State-owned Assets Supervision and Administration Commission (SASAC) in 2003 to restructure its state assets management system. According to Stiglitz (1999), commercialized state ownership might bring advantages in countries with weak institutional environments but these benefits tend to be associated with political connections or a "helping hand" from governments. In consequence, the transition to a free competitive market economy is likely to be impeded (Stiglitz, 1999; Bortolotti, Fantini & Siniscalco, 2001). Leng (2009) argued that governments have the financial incentives to promote SOEs' development by imposing policy barriers against potential competitors because governments act as owners and regulators, especially in the Chinese context. If SOE expansion is undertaken by means of preferential treatment by the state, ownership reforms may fail to realize efficiency gains, as intended (Hassard et al., 2010).

However, whether state sector ownership reform in China has been successful in improving performance is not well understood since no studies (to our knowledge) have focused on the effects of state ownership on firms' performance over the last decade. Accordingly, this study is motivated by the SASAC reform in China and we aim to address four important research questions. First, did SASAC reform in China improve the efficiency of government and local government-owned firms? If it did, does the type of ownership matter? That is, do different types (identities) of the large shareholders contribute to a higher level of economic efficiency in publicly listed firms? Does the controlling shareholder influence the profit-maximizing strategy of SOE-listed firms? Do listed central government-owned SOEs perform better than the local government-owned SOEs and privately-owned firms?

This study contributes to the literature in several ways. First, this is the first study undertaken after China's SASAC reform in 2003 that focuses on central versus local government ownership. Since the government has the fiscal incentives to boost SOEs' performance through policy protection or preferential treatment, we are interested in finding out whether the state's helping hand has affected SOE performance. Second, the study supplements the literature on the relationship between ownership structure and firms' value by focusing on more recent institutional changes undertaken in China. Prior researchers have focused either on the legal share type or artificial ownership classifications as proxies for real owner type. The drawback of the legal share type is that it fails to determine who the real controlling shareholder is. On the other hand, artificial ownership classification leads to unrealistic inferences concerning firms categorized as belonging to one ownership type when they have different interests and motivations (Chen et al., 2009; Leng, 2009). Third, this study extends the limited research on the ownership-performance nexus in China by using a wider set of measures as proxies for a firm's operating efficiency. Prior studies have used either

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accounting ratios (ROA) or market indicators (Tobin's Q) as proxies for firm performance. Using a series of indicators allows for capturing the potential differences in performance of different types of ownership in a more logical manner.

The remainder of the paper is organized as follows. Section 2 provides a brief background to China's enterprise reform, in particular the SASAC reform, and also discusses ownership types among China's listed firms. Section 3 provides the literature review and introduces the hypotheses. Section 4 describes the data and research method used. Section 5 presents the empirical results and Section 6 provides the conclusion and policy implications.

II. China's Enterprise Reforms and Ownership Structure

The Chinese government announced the "Grasping the large, letting go the small" policy in 1997. The aim was to distinguish different types of traditional SOEs, then assign disparate economic objectives to them (Leung & Cheng, 2013). The "Grasping the large" scheme refers to the actions taken by the state as an owner to strengthen its control over central SOEs as well as over large, local, state firms, which are scattered among strategic industries, such as energy, telecommunications, civil aviation, defense, transportation, publication, metallurgy, and heavy machinery (Leung & Cheng, 2013). In contrast, the "Letting go the small" scheme emphasizes the complete privatization of small to medium-sized SOEs.

Despite preliminary positive results achieved by partial privatization, attempts to improve corporate governance in SOEs were faced with challenges (Leng, 2009). The major drawback was that ownership was distributed over various state agencies, reflecting inconsistent responsibilities among different government departments and conflicting supervision systems (Hassard et al., 2010). Although the central government was the sole owner of all state assets prior to 2003, it exercised direct control and supervision only of the largest SOEs (central SOEs). On the other hand, the local governments were able to actively control local SOEs within their jurisdictions, they did not have the formal status of "owner" and all-important decisions on major transactions by local SOEs were made by the central government (Hassard et al., 2010). As a result, the central government enjoyed the sales revenue from the privatized local state firms and was considered to be the major cause of the conflict of interest (Leng, 2009) in state-owned assets in China.

The separation of ownership and control existed not only at different levels of government but also among multiple government agencies (Chen et al., 2009). Various government agencies with different, sometimes conflicting, objectives were responsible for some part of SOEs' business operations. None of these agencies, however, assumed ultimate responsibility for firms' performance (Leng, 2009).

To strengthen SOE corporate governance practices, the State Council established the State-owned Assets Supervision and Administration Commission (SASAC) in 2003 which redefined the relationship between SOEs and governments (Mattlin, 2009). First, the central government separated the central, provincial, and municipal SOEs and granted control rights to SASAC offices at the respective administrative levels (Mattlin, 2009). Second, the SASAC centralized functions that formerly were distributed among different institutions and Party organizations (Leng, 2009). Third, local governments were granted de facto ownership rights for local SOEs (Leng, 2009), and local SASACs at provincial and city levels handled SOEs within their respective jurisdictions and reported directly to local governments.

Between 1992 and 2004, Chinese listed firms operated under a unique ownership classification system, which divided equity into tradable and non-tradable shares. As a result, China's listed enterprises held up to 60% (on an average basis) of non-tradable shares, and most of these were owned by the government (Jiang, Laurenceson, & Tang, 2008). The artificial splitting of shares led to significant agency problems between holders of non-tradable and tradable shares. For example, the controlling shareholders of listed SOEs were not interested in stock price movements and consequently, minority individual investors suffered from irregular fluctuation in the share price (Leng, 2009). Furthermore, managers of SOEs tended to pursue objectives that were not related to profit maximization. As a result, the expropriation of minority shareholders' interests was widespread and the principal-agent problem was further exacerbated by the existence of multiple principal-agent problems (Yu, 2013). To deal with the corporate governance failures arising from non-tradable shares, the Chinese authorities enacted the Split Share Structure Reform in 2005 (Jiang et al., 2008).

As a result, the ownership structure of Chinese SOEs has changed dramatically since 2004. By the end of 2012, there were 113 large SOEs, commonly known as the central SOEs (SOECG), owned and directly controlled by the central government. SOECGs are supervised by SASAC and since SOECG chairmen are selected on the basis of their ability, many of them got promoted to positions at the ministerial level (Chen et al., 2009). Since the central government is the ultimate shareholder of these listed enterprises, incentives serve to impose policies and laws that enhance government objectives rather than misappropriate profits or assets (Cheung, Rau, & Stouraitis, 2010).

Local SOEs constitute the largest group of controlling shareholders of listed state-invested

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companies in China (Leung & Cheng, 2013). The SASAC reform in 2004 enabled local governments to implement aggressive policies or bylaws to boost the development and performance of local SOEs (SOELGs). Some researchers have reported that SOELGs improved performance after 2004 (Leng, 2009; Cheung et al., 2010), while others argue that local governments have a strong financial incentive to undermine minority shareholders' interests, especially when faced with difficult budgetary constraints or revenue inducements (Hassard et al., 2010). Since it is difficult to enforce laws and regulations at the provincial and municipal levels, the SOELGs are subject to weaker supervision and management (Chen et al., 2009). As the ultimate shareholders of the SOELGs, local governments tend to vary widely in their behavior. On the one hand, SOELGs are the local governments' instrument for generating revenue (Mattlin, 2009) but on the other, local governments may expropriate revenue due to the fact they are both owners and regulators (Leng, 2009).

By allowing the "natural person" to be the dominant shareholder of listed firms in China since 2001 (Wei, Xie, & Zhang, 2005), the total number of listed companies controlled by private investors increased from less than 10 to 1431 by the end of July 2013, accounting for 57.94% of all listed firms in capital markets.[1] The majority of these firms are listed on China's two main boards and by the end of 2012, 325 listed firms conducted their IPOs in the newly established growth enterprise market (ChiNext).[2] Chen et al. (2009) argued that controlling private shareholders tend to have a better understanding of the industry in which firms operate and therefore are better able to monitor managers' decisions. According to Wang, Chen, and Ye (2010), approximately half of the private listed firms in China are under family control. Since private investors are not monitored by the state, the existence of weak governance structures makes it possible for the dominant shareholders to misappropriate profits or assets (Wang et al., 2010). As a result, the principal-agent and principal-principal agency problems are widespread (Shen, 2008).

III. Literature Review, Theory and Hypotheses

The proponents of the helping hand hypothesis argue that firms that have close ties with the government can benefit from political connections (Fisman, 2001; Faccio, 2006). The specific benefits of government ownership include access to favorable terms for loans from state-owned banks, a higher IPO offering price, government-sponsored bailouts, favorable government contracts, lower taxation, and receiving special licensing powers (Sapienza, 2004; Goldman, Rocholl, & So, 2009; Leng, 2009).

SOEs in the strategic industries[3] sector receive preferential treatment from the government (Cheung et al., 2010). Since this sector has a strict ban on private and foreign investors, SOEs with monopolistic features enjoy windfall profits in these industries (Mattlin, 2009; Jiang & Lin, 2012). In addition to enjoying a strong influence on the market as a result of the government's protectionist policies, these SOEs also receive a disproportionately large share of the loans provided by the large state banks (Liu, Uchida, & Yang, 2012).[4] Given their soft budgetary constraints, SOEs have tended to expand the scale of their state assets, in some cases by overinvesting or by instigating a series of mergers and acquisitions. Consequently, the revenue and size of SOEs have increased dramatically (Mattlin, 2009).

In contrast, local government-owned SOEs and privately controlled firms do not operate on the same playing field and often face capital starvation and regulatory impediments in their routine business activities (Leng, 2009; Chen et al., 2010). Based on the helping hand hypothesis, we propose our first hypothesis as follows:

H1. Listed SOECGs have a higher level of liquidity compared to SOELGs and PRIVATEs.

The debate regarding state ownership inefficiencies is highlighted by the property rights theory and the political interference hypothesis (Martin & Parker, 1997; Villalonga, 2000; Shleifer & Vishny, 1994). The proponents of the property rights theory posit that property rights are clearly defined in the private sector but not in the public sector and in consequence, private owners have a stronger incentive to effectively reduce their production costs and actively monitor the performance of management (McCormick & Meiners, 1988). Shleifer and Vishny (1997) argued that state ownership leads to principal-principal and principal-agent agency problems because government tends to pursue many different objectives and not solely value maximization (Shleifer & Vishny, 1997). As a result, state-owned enterprises tend to suffer from problems such as higher costs and lower efficiency (Stiglitz, 1999).

Researchers investigating the ownership-performance nexus have reported a negative relationship between residual state shares and firm

[1] Naughty, Naughty: China's Corruption Crackdown Skims the Richest. (2013, 15 October). Forbes. Retrieved from http://www.forbes.com/sites/hengshao/2013/10/15/naughty-naughty-chinas-corruption-crackdown-skims-the-richest/

[2] Based on the data adopted in this study, 325 private listed firms had conducted their IPOs in China's growth enterprise market (ChiNext) by the end of 2012.

[3] Strategic industries include energy, heavy machinery, metal, telecommunications, and transportation.

[4] Large sums of money (4 trillion yuan) were pumped into large SOEs in the form of financial subsi- dies or direct loans from state banks during the period 2009 – 2011 (Liu et al., 2012).

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performance (Xu & Wang, 1999; Qi, Wu & Zhang, 2000; Sun, Tong & Tong, 2002; Sun & Tong, 2003). However, Tian and Estirn (2008) and Ng, Yuce, and Chen (2009) argued that state ownership has a nonlinear relationship with firm profitability. Researchers who have used the shareholder's real identity have reported that listed firms in which the state is a shareholder and SOEs affiliated with the central government have performed better than private-sector firms (Wang, 2003; Chen et al., 2009; Kang & Kim, 2012). However, Chen et al. (2008) argued that former SOEs now owned by private investors show an increase in profitability because of cost savings and/or a reduction in the number of employees. Since Chen et al. (2009) used data from the period 1996-2000, it is not clear whether similar performance phenomena still existed after the SASAC reform of 2003. We argue that partially privatized SOEs perform better than their private-sector counterparts because of protectionist policies and improved monitoring by the state. Based on the property rights and political interference hypotheses, we propose our second and third hypotheses as follows:

H2. Listed SOEs (SOECGs) have higher profitability than SOELGs and privately owned firms.

H3. Listed SOEs (SOECGs) have higher operating costs than SOELGs and privately owned firms.

Prior research has reported that the largest shareholder has both a positive and negative effect on firm performance. Corporate governance literature has identified block shareholding as an influential mechanism to mitigate principal-agent problems and reduce the "free-rider" phenomenon of small investors (Shleifer & Vishny, 1997; Claessens & Djankov, 1999). However, if the largest shareholder is also the controlling shareholder, a collision of control rights with cash flow rights is likely to occur. Consequently, the conflict of interest between the largest shareholder and minority shareholders will be exacerbated (Fama & Jensen, 1983; Morck, Shleifer & Vishny, 1989). Frye and Shleifer (1997) and Shleifer and Vishny (1998) argued that when the government acts as the dominant shareholder in public firms, the wealth of minority shareholders is misappropriated by authorities swayed by political considerations and the corrupt behavior of politicians. This view is known as the interest entrenchment hypothesis.

Xu (2004) reported that on average, the largest shareholder-owned 46% of SOEs prior to the 2005 Split Share Structure Reform. Having a large stake in SOEs, the largest shareholder (government) reserves the right to appoint firm directors and top managers and in this way, can exert considerable influence on the firm's operational activities (Chen et al., 2008). Given China's inadequate legal infrastructure and its poor shareholder protection regime, prior researchers have reported that the wealth of minority investors is misappropriated when the state's shareholding goes beyond a certain level (Wei & Varela, 2003; Wei et al., 2005; Ng et al., 2009; Yu, 2013). Furthermore, researchers point out that different types (identities) of the largest shareholder are also associated with tunneling behaviors.

Leng (2009) argued that public companies connected to local governments always subvert minority shareholders' interests by asset stripping or self-serving activities in most MBO transactions. Cheung et al. (2010) provided empirical evidence of local government's "grabbing hand," a ploy by which local authorities influence the SOEs they control in order to steal or transfer minority shareholders' wealth through related party transactions. In contrast, SOEs supervised by the central government provide a "helping hand" to protect minority partners' interests during the same process. This is referred to as the interest alignment hypothesis. According to Leng (2009), Chinese stock investors view central government-controlled SOEs (also known as blue-chip companies in the market) as a safer investment as they have the ability to secure the value of their portfolios. Arguably, local government-controlled SOEs experience a more negative reaction from the market and have lower market value compared to central SOEs and private firms (Zou, Wong, Shum, Xiong, & Yuan, 2008; Chen et al., 2009). Based on the above, we argue that SOEs connected to the central government have a higher market value compared to privately listed firms and SOEs connected to local governments. Therefore, we propose our fourth and fifth hypotheses as follows:

H4. Listed SOECGs have a higher market value than privately controlled firms.

H5. Listed SOECGs have a higher market value than SOELGs.

Shleifer and Vishny (1986) argued that dispersed small shareholders are reluctant to monitor management because the cost of monitoring is greater than the benefits. As a result, monitoring is only undertaken by the company's controlling shareholder or other non-controlling block shareholders (Shleifer & Vishny, 1986; Pound, 1988). Smith (1996) and Woidtke (2002) pointed out that non-controlling institutional shareholders such as mutual funds and pension funds usually act as an effective mechanism for monitoring managerial inertia and so mitigate the typical principal-agent problems in countries such as the US and the UK. This is referred to as the interest alignment hypothesis.

However, research on this issue in China has received little attention. A plausible reason may be that the majority of previous researchers have used legal type shares as a proxy for companies' ownership structure, not distinguishing between the controlling shareholder and other important blockholders. Consequently, the effect of non-controlling shareholders on performance is not well understood in the Chinese

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context. Song, Zhang, and Li (2004), reported a positive relationship between non-controlling shareholders and firms' market value using a 3-year sample for the period 1999-2001. However, it is not clear whether this relationship still holds after the numerous institutional changes that have taken place in China since 2004. Therefore, we propose our sixth hypothesis as follows:

H6. The presence of non-controlling blockholders in Chinese listed firms has a positive effect on the market value of these firms.

Foreign shareholders of Chinese listed firms tend to be financial institutions based in Europe, Hong Kong, Japan, and North America (Chen, Firth & Rui, 2006). Boubakri, Cosset, and Guedhami (2002) and D'Souza, Megginson, and Nash (2002) argued that the presence of foreign shareholders is associated with superior performance by privatized firms. Bai, Liu, Lu, and Song (2004) and Wei et al. (2005) argued that listed firms that have foreign institutional investors as shareholders experience a higher market valuation because of transparent financial disclosure requirements and enhanced monitoring procedures brought by sophisticated foreign investors. Therefore, we propose our seventh hypothesis as follows:

H7. The presence of foreign investors in listed firms has a positive effect on their market valuation.

IV. Data and Methodology

a) Sample Selection

Data was collected from China's Stock Market and Accounting Research Database (CSMAR). The initial sample included 1246 firms trading in either of two stock exchanges in China for the period 2005 – 2012. We have taken great care in identifying the major shareholder and the other top 10 shareholders for each listed firm in the sample. To determine the true owner of the shares, we carefully checked the prospectus data of each firm through SINA Finance (http://finance.sina.com.cn/stock) and the CNINF website (www.cninfo.com.cn) which is the official disclosure platform for firms in China. By merging these data with the CSI ownership classification scheme developed by China Securities Index Ltd., we finally confirm the real identity of the dominant (or largest) shareholder for each company and have reclassified each according to the different shareholder types: (i) central government-owned SOEs (SOECGs); (ii) local government-owned SOEs (SOELGs); (iii) privately owned firms (PRIVATE), and (iv) ownership unclear (PCHINEXT).

However, a number of exclusions apply to the dataset used. First, financial firms and companies for which operating performance data were not available were removed from our dataset. Second, we winsorized firm performance variables using a similar method to that of Wei et al. (2005) and Erkens, Hung, and Matos (2012)[5] to remove the effect of outliers in our dataset. Third, because some "shell companies" are traded on China's stock markets as vehicles for investors' grey activities, we removed those also to ensure the overall validity of the dataset. Our final sample consists of 13,273 firm-year observations, comprised of 5449 (51.05%) firm-year observations where PRIVATE is the major controlling shareholder, 4911 (36.99%) observations from SOELGs, 2135 (16.09%) observations from SOECGs, and 778 (5.86%) observations from PCHINEXTs.

Table I Panel A reports the shareholdings of the three largest shareholders. According to Panel A, the median holding of the largest shareholder is 34.94%, that of the second largest investor is 6.88%, and the third is 2.66%. Since blockholders own 5% or more of a firm's shares, a typical Chinese firm has only one or two blockholders and the largest shareholder tends to be the dominant one. These results suggest that the single largest shareholder has a major influence on the operations of Chinese listed firms. Our results hold for SOECGs and SOELGs, as well as PRIVATE firms in China.

However, privately controlled companies listed on ChiNext (China's growth enterprise market) tend to have three blockholders, although the second holds only about onethird of the shares held by the largest blockholder (the median for the largest shareholder is 32.12%, and for the second 12.86%, respectively). Since the largest shareholder is the controlling shareholder, we adopt the method used by Song et al. (2004) to define the non-controlling blockholders as shareholders ranked from 2 to 10 in the tier of the top 10 shareholders.[6] Based on the results reported in Panel A, non-controlling shareholders in privately controlled firms own a higher proportion of shares (a mean of 13.54% for PRIVATE and 21.96% for PCHINEXT) compared to state-controlled firms (a mean of 9.19% for SOECG and 9.06% for SOELG).

Table I Panel B reports Chinese firms' ownership structure after the Split Share Structure Reform of 2005. The results reported in Panel B show that by end of 2006, the proportion of state ownership in SOECGs declined by 6.19% (from a mean of 46.82% in 2005 to 40.63% in 2006). Similarly, state holdings in SOELGs declined by 5.42% (from a mean of 43.60% in 2005 to 38.18% in 2006). Although average state

[5] Due to the presence of outliers, we have winsorized ROA and ROS at the 2.5% level in both tails of the distribution and Tobin's Q at the 2.5% level only at the right tail of the distribution. After receiving anonymous reviewer feedback, we also tried to winsorize at 1%. However, winsorizing at 1% increased the number of outliers so we reverted to winsorizing at 2.5%.

[6] According to the studies by Tian (2003), Song et al. (2004) and Chen et al. (2009), the pyramid ownership structure of Chinese listed firms is not significant.

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ownership declined significantly in 2012 compared to 2006, it remained high in strategically important sectors.

Table II reports state ownership in SOEs belonging to strategic sectors, such as communications, construction, energy, heavy machinery, publications, public utilities, and transportation. The results in Table II show that the state still retains ownership control in strategic sectors (on average 48.29%), [7] [8] In contrast, the state holds a relatively smaller proportion of shares (around 37.16%) in SOEs that belong to other sectors, similar to the largest shareholders' equity holdings in privately controlled firms. These findings provide support for the view that the recent privatization process in China was largely influenced by the "Grasping the large, letting go the small" policy, which allowed the state to retain control of the strategic sectors of the economy.

Although all shareholders have equal voting rights (one share, one vote), in practice the largest shareholder always gains unbridled control over firms (Chen et al., 2009). Chen et al. argued that on average, all block shareholders who attend general meetings account for 95% of voting shares and the largest shareholder controls 84% of the shares present at these meetings. In other words, a typical Chinese listed firm has one shareholder with enough votes to exercise control and a few non-controlling blockholders who are able to implement effective monitoring activities of the controlling parties' behavior.

[7] Using the Chinese Securities Regulatory Commission (CSRC) industry classification, this study reclassifies all listed firms into 19 industries (Web site: http://www.csrc.gov.cn).

[8] 48.29% is the overall (pooled) mean value of the largest shareholders' holdings in the listed SOEs distributed among the important, strategic industries in the sample.

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Table 1: Ownership Concentration for Sample Firm Years (as percentage)

	SOECG (Obs. 2135)		SOELG (Obs. 4911)		PRIVATE (Obs. 5449)		PCHINEXT (Obs. 778)		ALL (Obs. 13273)	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Panel A: Ownership Concentration by Top Shareholder										
Percent by largest shareholder	41.77	42.40	38.71	37.28	33.38	30.16	33.86	32.12	36.73	34.94
Percent by second largest shareholder	9.02	5.28	7.48	4.33	10.21	8.84	13.58	12.86	9.20	6.88
Percent by third largest shareholder	3.10	1.87	2.96	1.85	4.47	3.50	7.04	5.99	3.84	2.66
Combined ownership by top 3 shareholders	53.89	53.79	49.14	49.24	48.06	48.14	54.48	55.82	49.77	50.08
Percent by non-controlling blockholders	9.19	7.00	9.06	6.78	13.54	12.13	21.96	21.28	11.68	9.54

		SOECG (Obs. 2135)		SOELG (Obs. 4911)		PRIVATE (Obs. 5449)		PCHINEXT (Obs. 778)		ALL (Obs. 13273)	
		Mean	Median	Mean	Median	Mean	Mean	Median	Mean	Median	Mean
Panel B: Percent by Largest Shareholder for Cross-sectional Years											
Year	No. of Companies										
2005	1246	46.82	50.07	43.60	42.50	33.46	29.56			40.61	38.13
2006	1402	40.63	41.03	38.18	36.77	30.94	28.93			36.03	33.52
2007	1489	40.36	41.19	37.58	36.30	32.13	29.69			35.99	34.40
2008	1502	41.26	42.23	37.86	37.25	33.09	30.58			36.53	35.42
2009	1503	41.46	42.43	38.00	36.64	32.98	30.00	30.22	27.93	36.41	34.43
2010	1708	41.38	42.22	38.27	37.42	33.75	31.16	33.54	33.07	36.43	34.83
2011	2045	41.43	42.14	37.99	36.20	34.17	31.61	34.31	32.82	36.32	34.53
2012	2534	41.36	42.14	38.50	36.27	34.42	32.07	33.99	32.12	36.41	34.63

Table I Panel A presents the summary statistics of ownership structure by largest shareholders' actual economic identity. SOECG refers to the mean/median percentage of equity ownership owned by the public companies where the largest shareholder is affiliated to the central government. SOELG refers to the mean/median percentage of equity ownership owned by the public companies where the largest shareholder is affiliated to a local government. PRIVATE refers to the mean/median percentage of equity ownership owned by the public firms that are controlled by the natural person (private investor). ALL the companies denoted as SOECG SOELG and PRIVATE are listed on China's main boards through the Shanghai and Shenzhen stock exchange markets. PCHINEXT represents the mean/median percentage of equity ownership owned by the public firms where the identity of the largest shareholder cannot be specified. The non- controlling blockholders are referred to as a combination of shares held by second largest shareholder to the tenth largest stockholder (within the top 10 shareholders' tier) in each firm. Table I Panel B reports the summary statistics for the largest shareholder at each ownership category for each year from 2005 to 2012.

Table 2: Ownership Structure by Industry (as percentage)

Industry	No. of Observations	No. of Companies	SOECG	SOELG	PRIVATE	PCHINEXT	ALL
Agribusiness	283	57	43.21	35.46	37.96	27.22	36.74
Food & Beverage	558	408	38.90	38.62	34.99	40.96	37.15
Textile & Clothing	522	99	31.34	34.96	35.09	00.00	34.79
Petrochemical & Chemical	1457	295	39.61	38.21	33.15	33.78	35.97
Metallurgy	1153	229	42.48	46.62	36.13	34.74	41.21
Light Industry	452	100	31.81	32.82	35.75	44.18	35.00
Pharmaceuticals	858	161	46.12	36.70	31.27	33.13	34.31
Real Estate	641	131	37.87	41.26	38.15	00.00	39.53
Transportation	509	89	46.32	43.36	30.93	28.30	42.67
Public Utility	582	99	34.03	44.45	33.96	58.51	40.03
Hospitality & Tourism	208	34	34.73	37.71	27.55	34.18	34.88
Energy	209	66	60.24	48.66	25.03	31.09	48.24
Construction	297	63	51.54	39.59	33.28	41.48	40.26

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Wholesale & Retail	780	145	36.94	34.12	31.36	21.55	33.31
Heavy Industry & Machinery	1798	401	44.14	36.85	33.96	33.32	37.37
Media & Publication	197	60	52.14	46.03	39.78	38.08	44.49
Communications & IT	911	227	43.36	30.04	28.64	31.15	31.91
Electrical Equipment	1280	301	35.73	36.65	33.01	36.16	34.50
Integrated & Mixed	497	102	30.57	28.41	29.00	00.00	28.77

Table II presents the summary statistics of ownership concentration for 19 industries for each type of public listed company. SOECG refers to the mean percentage of the largest shareholders' equity ownership in companies for each industry, where the largest shareholder of the company is affiliated with the central government. SOELG refers to the mean percentage of the largest shareholders' equity ownership in companies for each industry, where the largest shareholder of the company is affiliated with a local government. PRIVATE refers to the mean percentage of the largest shareholders' equity ownership in companies for each industry, where the largest shareholder of the company is controlled by a natural persons (private investor). ALL the companies referred to as SOECG, SOELG, and PRIVATE are listed on China's main boards through the Shanghai and Shenzhen stock exchange markets. PCHINEXT represents the mean percentage of the largest shareholders' equity ownership in public firms whose identity cannot be specified.

b) Measuring Operating Performance

Data relating to financial measures and employment are collated from the CSMAR Database. Following Dewenter and Malatesta (2001) and Chen et al. (2009), the proxies for the performance measures adopted in this study are ROA, CFOA, OCS, SPROD, and Tobin's Q. Return on Assets (ROA) is equal to operating income [9] divided by total assets. Net cash flows to total assets (CFOA) is equal to net sales minus the cost of goods sold, minus selling and administrative expenses, minus tax expenses plus net debt repayment plus depreciation plus amortization expenses plus net borrowing divided by total assets (Ghosh, 2001; Chen et al., 2009). Operating costs to total sales (OCS) is equal to the direct cost of goods plus selling and administrative expenses divided by total assets (Chen et al., 2008). Sales per employee (SPROD) is equal to net sales divided by the number of employees. Tobin's Q is the performance measure and is equal to the market value divided by total assets.

ROA and CFOA reflect on a firm's accounting income and cash flow, respectively. CFOA is also used as a scalar to reveal firms' operating cash flow. To investigate the operating efficiency of listed companies, this study uses operating costs to sales (OCS) as a proxy for a firm's efficiency. Shleifer (1998) argued that state-owned firms tend to suffer from overstaffing and low productivity problems. Consequently, we use the ratio of net sales to the number of employees (SPROD) to capture the effect of productivity. Tobin's Q is the market measure.

Table III reports the list of dependent and independent variables used in this study and also their estimation method.

[9] Since net income is prone to manipulation in China, we have used operating earnings instead (Chen et al., 2008).

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Table 3: Dependent and Independent Variables Used and Their Measurement

Return on Asset (ROA)	Operating income divided by total assets
Net Cash Flow to Assets (CFOA)	[Sales – cost of goods sold – selling and administrative expenses – tax + net debt repayment + depreciation + amortization + net borrowing]/total assets
Operating Cost to Sales (OCS)	[Costs of goods sold + selling and administrative expenses]/net sales
SPROD	Net sales/number of employees
Tobin's Q	Market value divided by total assets
SIZE	Natural logarithm of total assets
LEV	Total debt divided by total assets
IORA	Total asset growth ratio
DEVELOPI	Dummy variable equal to 1 if the company is headquartered in a region with above average GDP for the period 2005 – 2012
DSOECG	Dummy equal to 1 if the central government is the largest shareholder
DSOELG	Dummy equal to 1 if the local government is the largest shareholder
DPRIVATE	Dummy equal to 1 if a private investor is the largest shareholder
SOECG	Proportion of shares held by the central government
SOELG	Proportion of shares held by the local government
PRIVATE	Proportion of shares held by private investors
PCHINEXT	Proportion of shares in private firms whose ownership cannot be verified
BLOCK	Proportion of shares held by blockholders that is greater than 5% of the total shares held
PFOR	Proportion of shares held by foreign institutional investors
LMGP	Natural logarithm of the top-tier executives' remuneration in SOEs
LNDTP	Natural logarithm of the top three executives' remuneration in privately controlled firms
PEXESH	Proportion of shares held by the top three executives in privately controlled firms
SID	Dummy equal to 1 if the industry belongs to the strategic industry group
STATUS	Dummy equal to 1 if private ownership is highly ranked in comparison to shareholding by local investors
RESUDS	Total residual state shares excluding the dominant shareholder's proportion
PBDSH	Top three directors shareholding in SOEs
RESUDA	Proportion of shares held by individual investors
OPENNESS	Rank of the value of exports and imports to the provincial GDP

Table IV Panel A reports the means and medians of the performance measures used in this study for each ownership type and all firms combined as well.[10]

c) Model Specifications

i. *Comparison of corporate performance across controlling investor groups*

First, we examine whether firms held by a particular largest shareholder type (identity) achieve a higher level of financial performance. Since different types of largest shareholders have different incentives, interests, monitoring mechanisms, and political connections, we expect that different ownership identities/types may perform different functions in monitoring managerial behavior. To examine the distinct effects achieved by different ownership identities, five pairs of comparisons of mean and median results are undertaken for the four groups of firms, that is, SOECGs, SOELGs, PRIVATEs, and PCHINEXTs. The results of the comparison of means (medians) are reported in Table IV.

Second, we empirically examine whether the largest shareholder identity contributes positively to a firm financial performance. Following Chen et al. (2009), we have undertaken OLS regression after controlling for year fixed effects as follows:

$$OpPerformit = a0 + a1DSOECGit + a2DSOELGit + a3DPRIVATEit + \beta1SIZEit + \beta2LEVit + \beta3IORAit + \beta4DEVELOPIit + \varepsilon it \quad (1)$$

[10] Paired correlation (not reported) between different financial performance measures (ROA, CFOA, SPROD, OCS and Tobin's Q) is very low, ranging from 0.002 to 0.135. This result indicates that performance measures used in this study are not correlated and each performance indicator considers a different characteristic of the firm's activities.

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Where

OpPerformit is a set of performance measures described in section 4.2; DSOECG is a dummy variable coded 1 for firm years where the largest shareholder is a SOECG; DSOELG is a dummy variable coded 1 for firm years where the largest shareholder is a SOELG; DPRIVATE is a dummy variable coded 1 for firm years where the largest shareholder is a private investor.

The owner-type dummy variable is intended to capture the differences in operating performance between SOECG, SOELG, and PRIVATE controlled firms (PCHINEXT is treated as the omitted ownership type in regression equation (1)). In this study, we have used the natural logarithm of the book value of total assets at the end of the year as a proxy for SIZE. SIZE controls for potential economies of scale or the effect of size. LEV is the ratio of total debts to total assets at the end of the year and captures the underlying capital structure effect.

Hutchinson and Gul (2003) argued that firm performance can be influenced by the investment opportunity set it faces. Accordingly, we have used the total assets growth ratio (IORA) as a proxy to control for a firm's investment opportunity set. Finally, there are significant differences in regional development, and the study controls for the regional effect by using the geo-economic dummy variable DEVELOPI. Following Wei et al. (2005), China is reclassified into two regions based on the average GDP per capita for the period 2005-2012 and the study recognizes the provinces with higher average GDP per capita as the relatively developed regions.[11] Hence, DEVELOPI is a dummy variable coded 1 if the company is headquartered in one of these provinces. The results of equation (1) are reported in Table V.

Third, we examine whether the proportion of shares owned by the largest investor has the sort of bearing on firms' financial performance as does their identity. Reddy et al. (2010) argued that the largest owner may better align the incentives of the dominant owner with the interests of the minority investors. However, high percentage ownership may also make it easier to misappropriate assets from the firm (Leng, 2009). To explore the effect of the percentage of ownership, we rerun the equation (1) regression using the following model:

$$OpPerformit = \gamma 0 + \gamma 1LOWNit + \beta 1BLOCKit + \beta 2PFORit + \beta 3PBDSHit + \beta 4LNDTPit + \beta 5PEXESHit + \beta 6LNMGPit + \beta 7SIZEit + \beta 8LEVit + \beta 9IORAit + \beta 10DEVELOPIit + \varepsilon it \quad (2)$$

Where

OpPerformit is a set of performance measures described in section 4.2. LOWNit is the proportion of shares held by the largest shareholder, that is, SOECG, SOELG, or PRIVATE. SOECG is the proportion of shares held in SOEs by the central government. SOELG is the proportion of shares held in SOEs by the local government. PRIVATE is the proportion of shares in firms held by private investors. We have undertaken regression analysis after controlling for industry and year-fixed effects. The results of equation (2) are reported in Table VI.

However, Demsetz and Villalonga (2001) argued that ownership and firm value could be endogenously determined. Since shareholders have an incentive to vary their stock holdings in accordance with their expectations of future performance, the regression results relating to firm performance-dominant shareholders could be spurious.

Fourth, to test the potential endogeneity of the performance-ownership relationship, we have undertaken a Two-Stage Least Squares (2SLS) regression. Our model consists of two equations that determine firm performance (Tobin's Q) and the percentage of shares owned by the largest shareholder (SOECG) in listed central SOEs, simultaneously.

[11] The cities of Beijing, Shanghai, and Tianjin, and the provinces of Shandong, Jiangsu, Zhejiang and Guangdong belong to the relatively developed regions of China in terms of their higher average GDP per capita over the 8 sampling years. From 2011, some of these regions had a GDP per capita above US$10,000 US and the rest of these provinces' GDP per capita is close to this standard as well.

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$$\text{Tobin's Qit} = \gamma 0 + \gamma 1 \text{OWNit} + \beta 1 BLOCKit + \beta 2 PFORit + \beta 3 SIDit + \beta 4 SIZEit + \beta 5 LEVit + \beta 6 IORAit + \beta 7 DEVELOPIit + \sum_{j=1}^{8} \beta 7{+}jYEARit + \sum_{k=1}^{19} \beta 15{+}kINDUSTRYit + \varepsilon it \quad (3)$$

$$\text{OWNit} = \gamma 0 + \gamma 1 \text{Tobin's Qit} + \beta 1 LMGP + \beta 2 RESUDSit + \beta 3 SIZEit + \beta 4 IORAit + \beta 5 DEVELOPIit + \sum_{k=1}^{19} \beta 5{+}kINDUSTRYit + \sum_{j=1}^{8} \beta 24{+}jYEARit + \varepsilon it \quad (4)$$

Where OWN is the ownership percentage of the largest shareholder (SOECG or SOELG). The log of remuneration of top-tier executives (LMGP), strategic industry dummy (SID), and total residual state shares, excluding the dominant shareholder's proportion (RESUDS), are treated as exogenous variables (instruments). The remaining control variables are the same as those used earlier.

The 2SLS regression allows us to control for the effect of endogeneity between Q and the largest ownership. Given the dataset, we have identified the remuneration of toptier executives (LMGP), strategic industry dummy (SID), and total residual state shares (RESUDS) as the exogenous variables. According to Wei et al. (2005) and Mattlin (2009), when deciding the level of shares owned by the dominant shareholder in SOEs, the government takes into account whether the firm is in a strategic or pillar industry. Consequently, SID has an effect on Tobin's Q but not on SOECG.[12]

Moreover, through the corporate restructuring process during the early 2000s, the Chinese authorities adopted a debt for equity swap program to reduce the level of SOEs' bad loans, allowing a certain number of state shares to be held by different state agencies or enterprises rather than by the direct controlling shareholders (Kang & Kim, 2012). Since this type of equity is treated politically as a pledge of future debt repayment, the actual holders of these shares (various state agencies) rarely get involved in the management of these SOEs and seldom attend shareholders' meetings (Wang, 2003; Leng, 2009). For the reason stated above, we assume that RESUDS will have a positive effect on SOECG as proof of strong political links but these RESUDS will not have any effect on Tobin's Q.[13] In addition, the remuneration package of SOE senior management is designed by the state which takes into consideration size and meeting the objectives of the state (Leung & Cheng, 2013) rather than performance. Therefore, we do not expect LMGP to have an effect on firm value.[14]

However, the difficulty of disentangling the endogeneity of private ownership structure and firm performance has been widely documented in many studies, using samples from Western countries (Lemmon & Lins, 2003; Beiner, Drobetz, Schmid & Zimmermann, 2006; Bhagat & Bolton, 2008). Since private firms were only officially approved in 2001 to go public, it is unclear whether the same phenomenon also exists in China as well. To test for potential endogeneity in private ownership, we have modified equations (4) and (5) as follows:

[12] We have also undertaken correlation in pairs between SID, Tobin's Q, SOECG and SOELG. Our results show that the correlation between SID and Tobin's Q is -0.214, 0.015 between SID and SOECG, and 0.065 between SID and SOELG. These results suggest that SID is correlated with Tobin's Q but not with SOECG and SOELG.

[13] We have also undertaken paired correlation between RESUDS, Tobin's Q, SOECG and SOELG. Our results show the following correlations: between RESUDS and Tobin's Q, -0.098; between RESUDS and SOECG, 0.304; between RESUDS and SOELG, 0.446. This result suggests that RESUDS is correlated with SOECG and SOELG but not with Tobin's Q

[14] Our paired correlation results indicate that LMGP is negatively correlated with SOECG and SOELG, that is, for LMGP and SOECG, -0.162, and for LMGP and SOELG, -0.242. The paired correlation between LMGP and Tobin's Q is 0.058. These results suggest that LMGP is correlated with SOECG and SOELG but not with Tobin's Q.

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$$\text{Tobin's Qit} = \gamma 0 + \gamma 1\text{OWNit} + \beta 1 BLOCKit + \beta 2 PFORit + \beta 3 STATUSit + \beta 4 SIZEit + \beta 5 LEVit + \beta 6 IORAit + \beta 7 DEVELOPIit + \sum_{j=1}^{8} \beta 7 + jYEARit + \sum_{k=1}^{19} \beta 15 + kINDUSTRYit + \varepsilon it \quad (5)$$

$$\text{OWNit} = \gamma 0 + \gamma 1\text{Tobin's Qit} + \beta 1 LMGP + \beta 2 RESUDAit + \beta 3 OPENESSit + \beta 4 SIZEit + \beta 5 IORAit + \beta 6 DEVELOPIit + \sum_{j=1}^{8} \beta 6 + jYEARit + \sum_{k=1}^{19} \beta 14 + kINDUSTRYit + \varepsilon it \quad (6)$$

where OWN is the percentage of ownership of the largest private shareholder in equations (6) and (7). The natural log of remuneration for senior executives (LNDTP), the market status dummy (STATUS), the proportion of shares owned by individual investors (RESUDA), and the regional openness dummy (OPENNESS) are treated as exogenous variables (instruments).

We have identified STATUS as the first instrument. Tian and Zhou (2003) and Luo, Wan & Cai (2012) argued that the largest private investors tend to acquire the licenses of businesses that are performing well or sectors they regard as valuable. They also undertake merger and acquisition activities to obtain permits indirectly (Luo et al., 2012). Local protectionism is strong in China and without a local partner or making a direct investment in a region, enterprises cannot readily sell products in regional markets, especially those operating in highly competitive industries (Tian & Zhou, 2003). Consequently, private firms in these sectors will have high performance but the concentration of ownership will be low due to the expansion of their partnership networks (Tian & Zhou, 2003).

For the reasons stated above, we argue that STATUS affects PRIVATE but not Tobin's Q. [15] The second exogenous variable used is RESUDA, which represents the proportion of shares owned by individual investors. A higher proportion of shares owned by small investors indicates that a relatively lower proportion of stocks is available for the largest shareholder. Therefore, we argue that RESUDA in equation (7) affects PRIVATE, but not Tobin's Q.[16] The third exogenous variable used in this study is OPENNESS. Wang et al. (2010) argued that the majority of Chinese private listed firms are owned by families who operate typical product manufacturing and export processing businesses. These firms tend to have relatively high levels of ownership concentration and are often gathered in certain regions to form industrial clusters (Shen, 2008; Leng, 2009). Therefore, we have used the proportion of the total value of exports and imports to provincial GDP and ranked them to capture the most export-oriented regions in China. We presume that OPENNESS positively affects PRIVATE but not Tobin's Q.[17] Finally, we argue that the compensation plans for hired executives have the potential to be based on size and meeting the largest shareholders' objectives. Based on the above, we argue that LMGP affects PRIVATE but not Tobin's Q.[18]

V. Empirical Results

a) Effect of Ownership Identity on Firm Performance

The results reported in Table IV Panel A show that firms' financial performance does differ for different types of largest shareholders. For example, the mean (median) ROA for SOECGs as the largest shareholder is 5.60% (5.29%), 5.78% (5.39%) for SOELGs, and 6.79% (6.60%) for PRIVATEs. These results suggest that PRIVATE controlled firms perform better than both SOECGs and SOELGs. These results are statistically significant at a 1% level. The statistical significance of the differences in means (medians) of ROA for different types of the largest shareholder is reported in Table IV, Panel B. The results for ROA reported in Panel A do not support hypothesis H2. That is, SOEs (SOECGs and SOELGs) perform better than the PRIVATE controlled firms.

The results for SPROD show that SOELGs perform better than PRIVATEs and SOECGs and also that SOECGs perform better than PRIVATEs. The results of SPROD suggest that listed SOEs have a relatively stronger revenue-generating capacity compared to the PRIVATE controlled firms, thus supporting our hypothesis H1. The results of CFOA suggest that SOELGs and SOECGs have higher cash flow returns

[15] Our paired correlation results for PRIVATE, TOBIN's Q, and STATUS show that STATUS is cor- related with Tobin's Q (0.151) but not with PRIVATE (0.067).

[16] Our paired correlation results for PRIVATE, TOBIN's Q, and RESUDA show that RESUDA is not correlated with Tobin's Q (-0.056) but highly correlated with PRIVATE (-0.157).

[17] Our paired correlation results for PRIVATE, TOBIN's Q and OPENNESS show that OPENNESS is not correlated with Tobin's Q (0.002) but highly correlated with PRIVATE (0.146).

[18] Our paired correlation results for PRIVATE, TOBIN's Q and LMGP show that LMGP is not corre- lated with Tobin's Q (0.042) but highly correlated with PRIVATE (0.138).

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compared to PRIVATE and PCHINEXT. The results of CFOA provide support for hypothesis H1. The results of OCS show that the operating costs of PRIVATE controlled firms and PCHINEXT are slightly lower than the SOECGs and SOELGs. The results of OCS provide support for hypothesis H3. Results for Tobin's Q suggest that PRIVATE controlled firms have higher market value compared to SOECGs and SOELGs. Thus this finding does not provide support for hypotheses H4 and H5.

The cross-sectional results reported in Table IV Panel C show that PRIVATE controlled firms perform better than SOECGs and SOELGs. In the period 2005 – 2008, however, according to all performance measures SOECGs performed better than SOELGs but from 2009 to 2012, SOELGs achieved better performance than SOECGs. Our results suggest that SASAC 2003 has had a positive effect on SOELG performance.

Table 4: Operating Performance of Publicly Listed Firms with Different Types of Largest Shareholder

	SOECG		SOELG		PRIVATE		PCHINEXT		ALL	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Panel A: Overall Performance										
ROA	5.60%	5.29%	5.78%	5.39%	6.79%	6.60%	8.61%	8.49%	6.33%	5.90%
CFOA	4.88%	4.61%	5.43%	5.31%	3.88%	3.96%	1.94%	2.74%	4.50%	4.51%
SPROD	2.905	1.242	4.386	1.214	2.357	1.085	1.931	1.472	3.171	1.176
OCS	0.795	0.825	0.758	0.798	0.735	0.770	0.592	0.627	0.745	0.781
Tobin's Q	2.117	1.636	1.996	1.996	2.641	2.008	2.812	2.404	2.328	1.786
Panel B: Test of Differences in Mean and Median of Different Performance Measures										
	SOECG vs SOELG		SOECG vs PRIVATE		SOECG vs PCHINEXT		SOELG vs PRIVATE		SOELG vs PCHINEXT	
	Mean[a]	Median[b]	Mean[a]	Median[b]	Mean[a]	Median[b]	Mean[a]	Median[b]	Mean[a]	Median[b]
ROA	0.459	2.187**	3.805***	8.794***	6.505***	10.343***	1.099	8.667***	4.451***	9.604***
CFOA	2.574**	3.687***	-4.179***	4.069***	-9.164***	8.993***	-8.587***	9.837***	-11.003***	12.301***
SPROD	3.954***	0.552	-3.324***	6.759***	-3.055***	4.075***	-8.704***	7.378***	-4.197***	4.404***
OCS	-8.528***	8.546***	-13.970***	15.530***	-31.186***	27.326***	-6.546***	8.329***	-24.461***	24.104***
Tobin's Q	-3.127***	4.519***	10.024***	13.118***	11.759***	16.926***	16.980***	23.290***	14.185***	21.806***

Panel C: Accounting Indicator and Market Measure of Performance by Year

Year	Observations	SOECG		SOELG		PRIVATE		PCHINEXT		ALL	
		Mean[a]	Tobin's Q	Mean[a]	Tobin's Q	Mean[a]	Tobin's Q	Mean[a]	Tobin's Q	Mean[a]	Tobin's Q
2005	1246	4.94%	1.313	3.96%	1.272	-0.64%	1.456			2.51%	1.345
2006	1402	5.88%	1.784	5.29%	1.621	4.01%	1.925			4.94%	1.760
2007	1489	7.54%	3.455	7.50%	3.193	8.95%	3.988			8.06%	3.548
2008	1502	5.13%	1.495	4.98%	1.480	6.10%	1.913			5.46%	1.658
2009	1503	4.81%	2.551	5.10%	2.548	7.42%	3.620	13.01%	5.136	6.16%	3.039
2010	1708	6.42%	2.797	7.17%	2.487	8.82%	3.736	10.01%	4.235	7.98%	3.205
2011	2045	5.56%	1.803	6.28%	1.723	8.36%	2.224	8.93%	2.475	7.42%	2.047
2012	2534	4.66%	1.675	5.80%	1.633	7.04%	2.113	7.36%	2.271	6.43%	1.943

Table IV Panel A reports a series of financial measures of operating performance for companies clustered according to different identities. ROA/CFOA is operating earnings/cash flows deflated by the average book value of total assets. SPROD is the ratio of net sales to the number of employees in millions of RMB. OCS is the ratio of operating cost to net sales. Tobin's Q is the market value of total assets deflated by the average book value of total assets, where the market value of total assets is the sum of monthly average market capitalization and average total debts. Table III Panel B represents the statistical differences from 0 in the T-test for means and in the Mann-Whitney U-test for medians at the 1%, 5% and 10% levels, respectively (marked ***, ** and *). a indicates the T-value from the T-test of differences in means; b indicates the Z-value from the Mann-Whitney U-test of differences in medians; and Table IV Panel C reports the average value of ROA and Tobin's Q for each type of ownership by years.

Table V reports the regression results for Equation (1). The results reported in Table V show that the coefficients of the owner type/identity variables are statistically significant for the performance measures ROA, CFOA, SPROD, and Tobin's Q, thus suggesting that ownership identity does matter. Our results suggest that as the largest owner of SOECGs, the central government has a positive effect on firm performance,

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measured by CFOA and Tobin's Q. For CFOA and SPROD, our results indicate that local governments have played an active role in the management of SOELGs after gaining ownership rights as a result of the recent SASAC reform. The coefficient of DSOELG is negative and statistically significant at a 1% level for the performance measure Tobin's Q. This finding is consistent with that reported by Zou et al. (2008) and Chen et al. (2009) that SOELGs experience negative market reactions compared to SOECGs and PRIVATEs. In regard to PRIVATEs, our results are positive for the performance measures ROA, CFOA, and Tobin's Q.

The coefficient of SIZE is positive and statistically significant for all the accounting based performance measures, thus suggesting that larger firms are better at exploiting economies of scale and have access to capital on more favorable terms. However, the negative coefficient of SIZE for Tobin's Q suggests that investors are concerned about the agency problems existing in larger firms and therefore favor smaller firms instead (Jiang et al., 2008). The coefficient of LEV is negative for the accounting-based measures but positive for the operating efficiency, productivity, and market measures, which suggest that firms that take on leverage are better governed and have better growth prospects. The coefficient of IORA is positive for both ROA and Tobin's Q, thus suggesting that firms that experience growth generate better returns for the shareholders. The positive coefficient of DEVELOP1 suggests that firms that operate in developed regions benefit from better developed regional business institutions and infrastructure (Fan et al., 2001; Qian & Stiglitz, 1996).

Table 5: Pooled OLS Regression Analysis of Operating Performance on Ownership Type/Identity

	Profitability		Operating Efficiency	Productivity	Market Performance
Dependent	ROA	CFOA	OCS	SPROD	Tobin's Q
Constant	**-0.186*** [0.22]**	-0.019 [0.014]	1.34 [1.19]	**-13.446*** [0.737]**	**14.428*** [0.252]**
DSOECG	**-0.007† [0.004]**	**0.005** [0.002]**	-0.204 [0.196]	-0.167 [0.121]	**0.117*** [0.039]**
DSOELG	-0.002 [0.003]	**0.011*** [0.002]**	-0.158 [0.152]	**0.452*** [0.094]**	**-0.178*** [-0.030]**
DPRIVATE	**0.006† [0.004]**	**0.005** [0.002]**	0.204 [0.196]	0.167 [0.121]	**0.190*** [0.029]**
SIZE	**0.012*** [0.002]**	**0.004*** [0.001]**	-0.007 [0.057]	**0.656*** [0.035]**	**-0.614*** [0.011]**
LEV	**-0.103*** [0.003]**	**-0.007*** [0.002]**	**0.472*** [0.138]**	**0.427*** [0.085]**	**0.946*** [0.027]**
IORA	**0.020*** [0.002]**	**-0.005 [0.001]**	0.014 [0.109]	-0.082 [0.067]	**0.271*** [0.021]**
DEVELOPI	**0.005** [0.002]**	**-0.003† [0.002]**	**-0.414*** [0.130]**	**0.966*** [0.080]**	**0.081*** [0.026]**
Industry dummies	no	no	no	no	no
Firm-fixed effects	yes	yes	yes	yes	yes
Year dummies	yes	yes	yes	yes	yes
F-statistics	**171.41***	**31.99***	**3.12***	**52.41***	**609.66***
(P-value)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
R2	0.144	0.031	0.030	0.059	0.374
(Adj. R^2)	(0.143)	(0.023)	(0.021)	(0.048)	(0.374)
Durbin-Watson	2.016	1.428	1.786	0.457	1.085
			13273		

Notes: The Model: $\text{OpPerform}it = a0 + a1DSOECGit + a2DSOELGit + a3DPRIVATEit + \beta1SIZEit + \beta2LEVit + \beta3IORAit + \beta4DEVELOPIit + \varepsilon it$

where OpPerform is the performance measure, including ROA, CFOA, OCS, SPROD and Tobin's Q. DSOECG is a dummy variable coded 1 for firms whose biggest shareholder is a SOE affiliated to the central government. DSOELG is a dummy variable coded 1 for firms whose biggest shareholder is a SOE affiliated to a local government. DPRIVATE is a dummy variable coded 1 for firms whose biggest shareholder is a private investor. SIZE is the natural logarithm of total assets in billions. LEV is the ratio of total debt to total assets at the end of the year. IORA is the total asset growth rate. DEVELOPI is a geo-economic dummy variable for China's economically developed regions, including Beijing, Tianjin, Shanghai and the coastal regions (ranked by each region's GDP per capita over the 8 sampling years). The table reports pooled-OLS regression and fixed effects OLS regression. Standard errors are reported in brackets, where ***, ** and † represent statistical significance at the 1%, 5%, and 10% levels, respectively.

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b) Effect of Ownership Concentration on Firm Value

We are interested in finding out whether the proportion of shares held by the largest shareholder has a positive effect on the various financial performance measures. According to Shleifer and Vishny (1986), larger ownership may better align the incentives of the dominant owner with the preference of the minority investors but it also increases the possibility that the controlling party may undertake tunneling activities.

Table VI reports the results of the linear relationship between the five performance measures and the proportion of the largest shareholder ownership. According to columns 11 and 14 of Table VI, the percentage of shares held by the central government in SOEs is statistically significantly related to SPROD and Tobin's Q. However, the coefficient of SOECG in column 11 is negative, thus suggesting that the largest shareholder contributes negatively to firm performance measured by SPROD. This result indicates that the central government is interested in achieving social objectives. Consequently, it hires more people to boost employment, and this in turn leads to a decline in sales per employee (as measured by SPROD). On the other hand, the coefficient of SOECG in column 14 is positive and statistically significant at a 1% level. Results reported for the non-linear model in Figure 1, Graph A in the Appendix also show that central government ownership above 40% leads to higher Tobin's Q. Our results reported in Table II confirm that central government ownership in strategic industries is between 45% and 60%. Our results are similar to that reported by Wang and Xiao (2009), which suggest that the central government has kept a substantial amount of state shares in the partially privatized enterprises to retain control even after the Split Share Reform. This result supports our hypothesis H5.

According to columns 3, 6, 12, and 15 of Table VI, the percentage of shares held by the local government in SOEs is statistically significantly related to the firm performance measures ROA, CFOA, SPROD, and Tobin's Q. The coefficient of SOELG in columns 3, 6, and 12 is positive, thus suggesting that the largest shareholder contributes to firm performance measured by ROA, CFOA, and SPROD. Our findings support the view posited by Li, You, Wang, and Yuan (2013), that managers are interested in accounting based performance measures because their personal performance appraisals are determined by them. On the other hand, the coefficient of SOELG in column 15 is negative and statistically significant at a 5% level. This result supports the view posited by Zou et al. (2008), that local government-owned SOEs receive a negative market reaction from investors and consequently experience lower market valuation (similar to the results reported in Table V). Results reported for the non-linear model in Figure 1, Graph B in the Appendix show that local government ownership between 25% and 72% leads to higher Tobin's Q. Our results reported in Table II show that local government ownership in strategic industries is between 28% and 49%. However, Chen et al. (2009) and Leng (2009), argue that the proper legal infrastructures and weak law enforcement may have led to the expropriation of the minority shareholder rights by the local government.

According to columns 4, 10, 13 and 16 of Table VI, the percentage of shares held by private investors is statistically significantly related to firm performance measures ROA, OCS, SPROD, and Tobin's Q. The coefficient of PRIVATE in columns 4, 10, and 16 is positive, thus suggesting that the largest private shareholder contributes to a firm's performance, as measured by ROA, OCS, and Tobin's Q. This result indicates that the largest shareholder (PRIVATE) is interested in creating value for the firm. Results reported for the non-linear model in Figure 1, Graph C in the Appendix also show that the local government ownership above 30% leads to higher Tobin's Q. According to Wang et al. (2010), family businesses account for a large proportion of private firms where concentrated ownership of up to 45% is common. Since private firms are not close to government ties, expropriation seems to be lower. On the other hand, the coefficient of PRIVATE in column 13 is negative and statistically significant at a 5% level. This result suggests that firms with predominantly private investors tend to contribute negatively to sales per employee, which could be the result of misappropriation.

The results in Table VI show that the percentage of ownership by non-controlling blockholders (BLOCK) is positively related to the firm value measured by Tobin's Q, a result that is statistically significant at a 1% level. This result provides support for hypothesis H6 and is consistent with the results reported by Song et al. (2004), Kang and Kim (2012), and Leung and Cheng (2013). The evidence suggests that non-controlling, large shareholders play an active role in corporate governance in China irrespective of who the controlling investor is.

The coefficient of foreign ownership (PFOR) for Tobin's Q reported in Table VI is positive and is statistically significant at a 1% level for all three types of controlling investor groups. This result supports our hypothesis H7 and is consistent with the results reported by Bai et al. (2004), Wei et al. (2005), and Jiang et al. (2008), who in different contexts conclude that the presence of foreign shareholders in China's public firms leads to higher market value. A plausible reason for this may be greater transparency in these companies' financial performance, enhanced monitoring effects, and the technical support brought by foreign investors. Since foreign investors seek better economic returns, they force management to act more consistently in regard to the goal of profit maximization. Consequently, an increase in foreign investors in China's listed companies

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could lead to an improvement in corporate governance practices, especially in SOEs.

Finally, Table VI reports the results of the effect of board members' remuneration in Chinese public companies. Results show that board members' remuneration (LNDTP) contributes to firm value and the result is statistically significant at a 1% level. This result indicates that remuneration packages are an important mechanism for motivating top decision-makers in privately controlled firms (Li et al., 2013).

Table 6: OLS Regression with Fixed Effects for Different Performance Measures and Ownership Proportion

Dependent	ROA			CFOA			OCS			SPROD			Tobin's Q		
Constant	-0.264***	-0.263***	-0.67**	-0.101***	-0.099***	-0.023	4.754**	4.712**	1.983	-10.22***	-9.667***	-10.972***	14.856***	14.522***	15.103***
	[0.028]	[0.028]	[0.018]	[0.018]	[0.017]	[0.016]	[1.521]	[1.513]	[1.394]	[0.929]	[0.919]	[0.847]	[0.294]	[0.294]	[0.271]
SOECG	0.002			0.005			-0.549			-0.767**			0.869***		
	[0.008]			[0.005]			[0.417]			[0.253]			[0.081]		
SOELG		0.011†			0.021***			-0.516			1.723***			-0.143**	
		[0.006]			[0.004]			[0.335]			[0.203]			[0.065]	
PRIVATE			0.028***			0.004			1.042**			-0.528**			0.503***
			[0.007]			[0.004]			[0.354]			[0.216]			[0.069]
BLOCK	0.028†	0.033**	0.052***	0.024**	0.032***	0.032***	-0.678	-0.816	-1.053	-2.234***	-1.321**	-2.237***	1.711***	1.508***	1.685***
	[0.015]	[0.016]	[0.015]	[0.009]	[0.009]	[0.009]	[0.823]	[0.834]	[0.788]	[0.506]	[0.505]	[0.478]	[0.159]	[0.162]	[0.153]
PFOR		0.008	0.023		-0.016†	-0.007		-0.339	-0.408		-0.148	-0.386		0.885***	1.059***
		[0.015]	[0.015]		[0.009]	[0.008]		[0.810]	[0.809]		[0.495]	[0.497]		[0.157]	[0.153]
PBDSH	-0.007	-0.006		-0.027***	-0.025***		-0.211	-0.245		0.372	0.650		-0.025	-0.100	
	[0.008]	[0.008]		[0.009]	[0.005]		[0.465]	[0.467]		[0.284]	[0.284]		[0.090]	[0.091]	
LNDTP	0.015***	0.015***		0.011***	0.012***		-0.329***	-0.323		-0.213***	-0.185***		0.138***	0.121***	
	[0.002]	[0.002]		[0.001]	[0.000]		[0.084]	[0.084]		[0.052]	[0.051]		[0.016]	[0.016]	
PEXESH			-0.009			-0.023***			-0.480			0.225			0.133[0.124]
			[0.012]			[0.007]			[0.640]			[0.391]			
LNMGP			0.002[0.004]			-			-			0.000[0.000]			-
						0.000[0.001]			0.001[0.000]						0.002[0.000]
SIZE	0.006***	0.006***	0.012***	0.001	0.000	0.004***	0.024	0.017	-0.071	0.671***	0.660***	0.567***	-0.672***	-0.639***	-0.592***
	[0.001]	[0.001]	[0.001]	[0.000]	[0.001]	[0.001]	[0.067]	[0.065]	[0.059]	[0.040]	[0.039]	[0.036]	[0.012]	[0.013]	[0.012]
LEV	-0.102***	-0.002***	-0.103***	-0.003**	-0.003**	-0.005**	0.461***	0.461**	0.506***	0.209**	0.233**	0.225**	1.015***	1.006***	1.007***
	[0.003]	[0.001]	[0.002]	[0.002]	[0.002]	[0.002]	[0.141]	[0.141]	[0.140]	[0.085]	[0.086]	[0.085]	[0.012]	[0.027]	[0.027]
IORA	0.020***	0.019***	0.019888	-0.005***	-0.005***	-0.005***	0.099	0.101	0.088	-0.016	-0.014	0.002	0.221***	0.218***	0.206***
	[0.002]	[0.002]	[0.002]	[0.001]	[0.001]	[0.001]	[0.113]	[0.113]	[0.112]	[0.068]	[0.068]	[0.068]	[0.027]	[0.021]	[0.021]
DEVELOPI	0.002	0.001	0.005†	-0.001	-0.234†	-0.367**	-0.219	-0.239†	-0.367**	0.083	0.863***	0.793***	-0.000	0.078**	0.088**
	[0.001]	[0.003]	[0.003]	[0.002]	[0.109]	[0.135]	[0.138]	[0.138]	[0.135]	[0.068]	[0.083]	[0.082]	[0.002]	(0.027)	[0.026]
Ind.Dummy	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
YearDummy	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
F Stats	80.67***	80.80***	74.82***	39.75***	40.80***	33.99***	3.55***	3.57***	3.27***	46.65***	49.11***	45.90***	226.05***	220.91***	220.69***
(P Value)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Overall R^2	0.151	0.150	0.144	0.068	0.071	0.064	0.089	0.086	0.070	0.090	0.094	0.089	0.262	0.259	0.255
(Within R^2)	(0.143)	(0.141)	(0.137)	(0.075)	(0.078)	(0.065)	(0.072)	(0.071)	(0.067)	(0.089)	(00.094)	(0.088)	(0.316)	(0.311)	(0.310)
Obs								10548							

OpPerform is the performance measure, including ROA, CFOA, OCS, SPROD and Tobin's Q. SOECG is the proportion of shares held by the central government. SOELG is the proportion of shares held by the local government. PRIVATE is the proportion of held by private investors. BLOCK is the non-controlling blockholders' shareholding. PFOR is the proportion of shares held by residents outside mainland China, include: foreign nationals, residents of Hong Kong, Macau, and Taiwan. PBDSH is the proportion of shares held by the board members. LNDTP is the natural logarithm of the total emolument of the top three directors on the board. PEXESH is the percentage shareholding of the top three ranked executives. LNMGP is the total emolument of the top three executives. SIZE is the natural logarithm of total asset. LEV is the ratio of total debt to total assets. IORA is the total asset growth rate. DEVELOPI is geo-economic dummy variable for China's economically developed regions, including Beijing, Tianjin, Shanghai and the coastal regions. Standard errors re reported in brackets and ***, **and † represent significance at 1%, 5% and 10% levels, respectively.

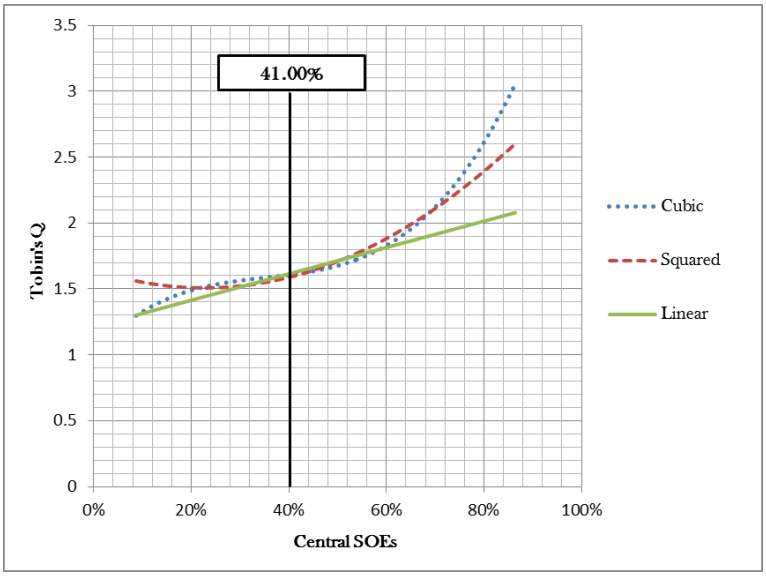
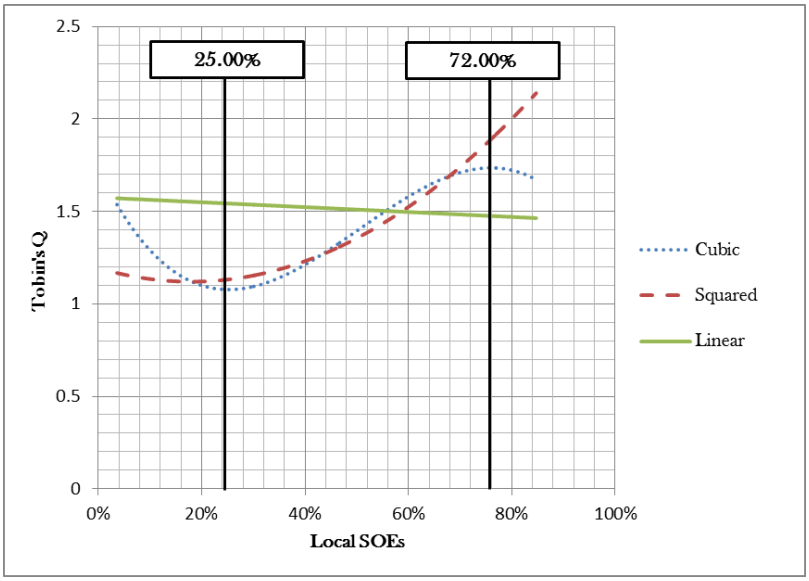
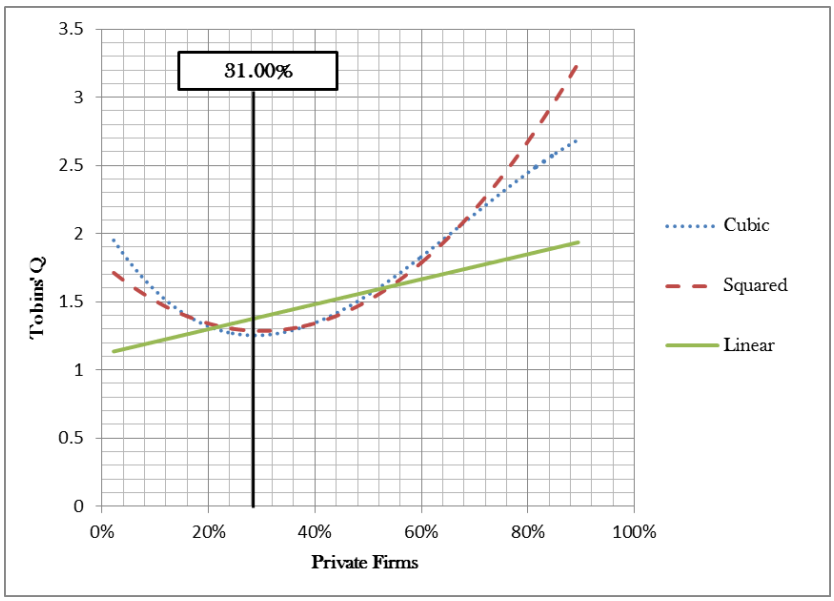


Figure 1: Graph A: Tobin's Q versus central SOEs

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Graph B: Tobin's Q versus local SOEs



Graph C: Tobin's Q versus private investor controlled firms

VI. Tests of Reverse Causality

To check for the robustness of our results reported in Table VI, we have undertaken further investigation using Two-Stage Least Squares (2SLS) which allows us to control for the effect of endogeneity.

Table VII Panel A reports the 2SLS regression results for equation (4) when the largest shareholder is a SOECG. The coefficient for SOECG is positive and is statistically significant at a 1% level, as with the results reported for OLS regression in Table VI. The coefficient of SID is positive and is statistically significantly related to Tobin's Q, thus providing support for the view that the government cherry-picks firms in industries that tend to perform well.

Table VII Panel B reports the 2SLS regression results for equation (4) where the largest owner is the local government. The coefficient of SOELG is statistically insignificant, thus indicating that local government ownership is not an important determinant of firm performance. Graph B shows that the relationship between local government ownership and Tobin's Q is not clear, as reported by Bai et al. (2004), Chen et al. (2004), and Li et al. (2004). The coefficient of SID in Panel B is statistically insignificantly related to Tobin's Q, thus providing support for the view that firms in which local government has the largest proportion of shares do not belong to the strategic industries sector.

To check the robustness of the 2SLS regression, we have undertaken further analysis as follows. First, we checked whether the instruments are not correlated with both ownership and Tobin's Q. Second, we tested the instruments' validity by checking

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whether they are orthogonal to the error term of the respective equation. The test for over-identifying restrictions is implemented where the equation has two or more instruments (Sargan, 1964). According to Panels A and B of Table VII, Hansen's J statistics for equation (5) is 0.095 and is statistically insignificant, thus indicating that the instruments of the system are orthogonal to the error term and are all valid. Third, we checked whether the instruments used are "weak," as this problem has the potential to cause severely biased results (Stock & Yogo, 2004). According to the results reported in Table VII, the F-statistic exceeds the general criterion of 10 (Stock & Watson, 2007), and we, therefore, conclude that the instruments used in equations (4) and (5) are not weak.

Table VII Panel C reports the 2SLS regression results for equation (6) when the largest shareholder is PRIVATE. The coefficient of PRIVATE is positive and is statistically significant at a 1% level. The coefficient of STATUS is statistically insignificant, thus indicating that the participation of private investors investing in high-performing firms in local areas is not an important determinant of firm performance. The evidence regarding the concentration of ownership in private firms when market barriers exist is not convincing. The results of instrument validity tests reported in Panel C of Table VII suggest that the instruments used in equations (6) and (7) are not weak.

Table 7: Two-Stage Least Squares Regression with Various Ownership Types and Tobin's Q

Tobin's Q is the performance measure market value divided by total assets. SOECG is the proportion of shares held by the central government, SOELG is the proportion of shares held by the local government, and PRIVATE is the proportion of shares held by private investors. In estimating the 2SLS system, Tobin's Q and SOECG, Tobin's Q and SOELG, and Tobin's Q and PRIVATE are treated as endogenous variables for simultaneous equations. LMGP refers to the log of remuneration of top-tier executives. SID is the strategic industry dummy. RESUDS is a fraction of total residual state shares, excluding the dominant shareholder's proportion in listed SOEs. STATUS refers to the market status dummy that captures whether there is a strong trade barrier for private firms in China's various regions. RESUDA is the proportion of shares owned by individual small investors. OPENNESS is the regional macro-economic indicator that labels the most export-oriented regions in China (ranked by each region's proportion of the total value of exports and imports to provincial GDP over the 8 sampling years). SIZE is the natural logarithm of the book value of total assets. LEV is the ratio of total debt to total assets. IORA is the total growth rate and is used to control for investment opportunities. DEVELOPI is a geo-economic dummy variable for China's more economically developed regions. Standard errors are reported in [ ] and ***, ** and † indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Panel A		Panel B		Panel C	
Variables	SOECG	Tobin's Q	SOELG	Tobin's Q	PRIVATE	Tobin's Q
Constant	-0.682*** [0.017]	15.878*** [0.489]	0.349 [0.036]	14.663*** [0.422]	-0.303**** [0.019]	12.136*** [0.459]
Tobin's Q	0.005*** [0.001]		0.007 [0.001]		0.004 [0.011]	
SOECG		2.266*** [0.335]				
SOELG				1.214 [0.174]		
PRIVATE						2.801*** [0.348]
BLOCK		2.273*** [0.178]		2.348*** [0.187]		1.695*** [0.151]
PFOR				0.872*** [0.184]		1.310*** [0.192]
SID		0.673** [0.279]		0.064 [0.268]		
STATUS						-0.198 [0.181]
LMGP	-0.084*** [0.004]		0.032*** [0.003]		-0.238*** [0.013]	
RESUDS	0.195*** [0.010]		0.401*** [0.010]			
RESUDA					-0.072*** [0.004]	
OPENNESS					0.006** [0.002]	
SIZE	0.031*** [0.001]	-0.681*** [0.022]	-0.004** [0.002]	-0.634*** [0.019]	0.015** [0.001]	-0.525*** [0.020]
LEV	-0.007*** [0.001]	1.021*** [0.091]	0.006 [0.012]	1.025*** [0.092]	-0.008*** [0.002]	1.042*** [0.093]
IORA	-0.009*** [0.001]	0.229*** [0.028]	0.002 [0.002]	0.221*** [0.028]	-0.014*** [0.003]	0.186*** [0.028]
DEVELOPI	0.010*** [0.003]	0.109*** [0.028]	-0.019† [0.003]	0.010*** [0.003]		-0.011 [0.032]
IndDummy	yes	yes	yes	yes	yes	yes
YearDummy	yes	yes	yes	yes	yes	yes
Chi^2 statistics (P-value)	108.02*** (0.000)	4634.10*** (0.000)	487.96*** (0.000)	4631.42*** (0.000)	899.67*** (0.000)	43332.61*** (0.000)
R^2 (Root MSE)	0.227 (0.149)	0.41 (1.438)	0.452 (0.178)	0.396 (1.443)	0.645 (0.112)	0.367 (1.478)
Obs			13273			
Instrument Validity Tests						
Instrument Overriding Test		0.95 (0.864)		1.54 (0.218)		3.678 (0.215)

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Hansen's chi^2 (P-value)					
Stock & Yoko (2004) Weak Instrument Test 310.75 (0.000) First-stage F-Statistics	13.16 (0.000)	423.58 (0.000)	36.27 (0.000	32.40 (0.000)	28.45 (0.000)
Hansen (1978) Specification Test 58.07 (0.582)	59.07 (0.5822)	145.56 (0.000)	145.57 (0.000)	4.27 (1.000)	4.27 (1.000)

a) Robustness Check

To further check the robustness of the results reported in Tables VI and VII, we have undertaken a difference and difference-in-difference regression.[19] The results are reported in Table VIII. The difference measures the change in the independent variable that contributes to the change in the dependent variable, that is, $\Delta Y_{it} = \Delta X_{it} + \varepsilon_{it}$, where $\Delta Y_{it} = Y_{it} - Y_{it-1}$ and $\Delta X_{it} = X_{it} - X_{it-1}$. On the other hand, difference-in-difference measures $2\Delta Y_{it} = 2\Delta X_{it} + \varepsilon_{it}$, where $2\Delta Y_{it} = (Y_{it} - Y_{it-1}) - (Y_{it-1} - Y_{it-2}) = Y_{it} - 2Y_{it-1} + Y_{it-2}$ and $2\Delta X_{it} = (X_{it} - X_{it-1}) - (X_{it-1} - X_{it-2}) = X_{it} - 2X_{it-1} + X_{it-2}$.

The results reported in columns 2 and 3 in Table VIII show that the presence of the central government as the largest shareholder contributes positively to Tobin's Q. The difference and difference-in-difference regression results also show that the coefficient of SOECG is positive and is statistically significant at a 1% level, thus suggesting that the central government as the largest shareholder provides a measure of vigilance over managerial decisions. The results reported in Table IV show that the performance of SOECGs is positive but not better than that of SOELGs and PRIVATEs. This suggests that the positive performance of SOECGs is the result of the central government's cherry-picking of industries for investment rather than close monitoring.

The results reported in columns 4 and 5 in Table VIII show that the participation of local government as the largest shareholder (SOELG) does not contribute to firm performance, nor does the private investor (PRIVATE) as the largest shareholder (refer to columns 6 and 7 in Table VIII). These results possibly reflect misappropriation by local government and private investors and suggest that tunneling activities may be involved.

The results of BLOCK, PFOR, and LEV are positive and statistically significant at a 1% level, thus suggesting that BLOCK, PFOR, and LEV are important mechanisms for monitoring managerial decisions. Furthermore, the results of IORA suggest that an increase in total assets is seen as a positive signal for growth and encourages a positive outlook among investors. Thus the firm is positively evaluated as measured by Tobin's Q. However, the coefficient of SIZE is negative and is statistically significant at a 1% level, thus suggesting that firm size is not at an optimal level. This result is not surprising, since industries in China are new and still in the development stage. Consequently, firm size may have been developed only to suboptimal levels as a temporary response to market demand.

[19] We thank the anonymous reviewer for suggesting that we use the difference and difference-in- difference method to check for robustness in our OLS and 2SLS regression.

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Table 8: Difference and Difference-in-Difference Regression for Ownership Variables and Tobin's Q as Performance Measure

	Difference for SOECG	Difference-in-Difference for SOECG	Difference for SOELG	Difference-in-Difference for SOELG	Difference for PRIVATE	Difference-in-Difference for PRIVATE
Constant	0.012 [0.019]	0.051 [0.035]	0.012 [0.019]	-0.044 [0.036]	0.014 [0.019]	0.046 [0.035]
SOECG	0.094*** [0.091]	0.964*** [0.098]				
SOELG			0.107 [0.072]	0.075 [0.077]		
PRIVATE					0.075 [0.082]	-0.009 [0.088]
BLOCK	1.418*** [0.178]	1.320*** [0.186]	1.358*** [0.180]	1.275*** [0.189]	1.491*** [0.175]	1.444*** [0.185]
PFOR			0.775*** [0.202]	0.518** [0.226]	0.898*** [0.203]	0.629** [0.227]
PBDSH	-0.009 [0.108]	0.097 [0.109]	-0.094 [0.108]	-0.009 [0.109]		
LNDTP					0.163*** [0.017]	0.193*** [0.019]
PEXESH					0.247† [0.139]	0.294** [0.140]
LNMGP	-0.128 [0.177]	-0.304† [0.79]	-0.095 [0.172]	-0.259 [0.172]	-0.0001 [0.0001]	-0.0000 [0.0001]
SIZE	-0.739*** [0.015]	-0.727*** [0.016]	-0.713*** [0.015]	-0.698*** [0.016]	-0.656*** [0.015]	-0.632*** [0.015]
LEV	0.925*** [0.032]	0.743*** [0.039]	0.915*** [0.032]	0.726*** [0.039]	0.898*** [0.032]	0.698*** [0.038]
IORA	0.283*** [0.032]	0.318*** [0.034]	0.278*** [0.033]	0.312*** [0.034]	0.272*** [0.033]	0.309*** [0.035]
F Stats (P Value)	432.13*** (0.000)	299.79*** (0.000)	416.07*** (0.000)	284.97*** (0.000)	402.74*** (0.000)	270.25*** (0.000)
R^2 (Root MSE)	0.24 (1.972)	0.22 (3.319)	0.24 (1.981)	0.23 (3.336)	0.23 (1.989)	0.20 (3.354)
Obs	10687	8942	10687	8942	10687	8942

VII. Conclusions and Policy Implications

The results reported in this study show that different types of owners behave differently to promote their firms' operating efficiency. The "helping hand" from the government tends to benefit both the central SOEs through preferential incentives, such as loans and subsidies, large government orders, and the protection of local industry. These resources tend to be an important factor contributing to SOECGs' performance. In contrast, the performance of PRIVATEs may be affected as they do not receive similar treatment from the government. Our findings are consistent with those of prior researchers who have reported that policy discrimination may have resulted in serious capital starvation in private firms (Leng, 2009). Our results also show that SOECGs have slightly higher operating costs compared to the SOELGs and PRIVATEs, thus suggesting that SOECGs are still required to meet the government's social/political objectives even after the SASAC reforms. However, our findings contrast with those of prior studies that reported that state-owned companies are superior to private ones because of their political connections and better corporate governance (Xu and Wang, 1999; Chen et al., 2009).

Our findings support the argument made by Stiglitz (1999) that without the helping hand and protection of government, it will be difficult for SOECGs to maintain sustainable performance in the long run. Finally, our results show that the three ownership types (central government, local government, and private investors) tend to determine their incentives by modifying their practice in accordance with a profit-maximizing strategy. Under the strict supervision of the central government, SOECGs show strong, positive alignment with minority shareholders when the largest investors increase their holdings. In contrast, without proper monitoring and with weak legal enforcement at local levels, both SOELGs and PRIVATEs tend to abuse

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minority shareholders' interests when the dominant shareholders' holdings are below a certain level.

Our results are timely for policymakers and can assist in better aligning the effects of ownership on firms' performance and can also provide guidelines for China's future enterprise reforms. In 2013, China's new government released its social and economic reform agenda for the next 10 years, highlighting major steps to further reform SOEs and plans to adopt such measures as "pushing further ownership diversification" as a "high priority."[20] In this regard, our results suggest that partial privatization has not led to higher performance and efficiency gains, especially when SOEs still have monopolistic powers. Shleifer and Vishny (1994) argued that efficiency gains from privatization can only be expected if control rights are passed to private investors.

The benefit of privatization can be realized by clearly defining property rights (Martin & Parker, 1997).[21] Leng (2009) argued that the rapid expansion of SOEs is likely to cause a "spill-over" problem in other parts of the economy since they consume large quantities of social and financial resources and use them inefficiently. Chen et al. (2008) also reported that the efficiency gains of China's former SOEs after privatization only appear when control rights are passed to a private entity. Consequently, our results provide support for the view that further ownership reform of large SOEs in China should be followed by increasing market competition, which could be beneficial for improving SOE performance. In this regard, Stiglitz (1999) argued that the effects of privatization in transition economies largely depend on the existence of a free competitive market.

Prior researchers who have studied the post-privatization performance of former SOEs have reported positive results for the OECD countries (Bortolotti & Faccio, 2006). However, the empirical evidence from the developing world is more equivocal and in some cases negative, thus indicating that privatization may not always work when addressing the operational inefficiencies of former SOEs (Leng, 2009). In this regard, Merritt and Michael (2000) reported that privatized firms in Russia have suffered from the pervasive interference of politicians, and enterprises are unable to freely implement their profit-maximizing strategies. Similarly, the oligarchs, who acquired the former large SOEs after privatization in Russia, colluded with politicians to obtain financing or set up excessive administrative barriers against potential competitors to ensure their monopoly status (Galina & Robert, 2003). Consequently, market failures tend to distort incentives for non-politically linked businesses and reduce the benefits provided by private ownership even after complete privatization (Leng, 2009).

The findings of studies undertaken in China and Russia suggest that in the absence of a free competitive market, "spill-over" problems may remain regardless of whether privatization is partial or complete. Finally, because of the lack of good corporate governance and legal protection for minority shareholders, the largest shareholders in both local SOEs and private firms have the opportunity to expropriate these shareholders when their holdings reach a certain level. Accordingly, it is recommended that Chinese policymakers enact regulations to improve the monitoring of the largest shareholders, especially at the local level.

[20] "SOE reforms to be launched after Plenum." China Daily, November 11, 2013.

[21] Control privatization refers to the situation where government relinquishes its control rights over state enterprises or reduces its holdings as a non-controlling shareholder after privatization. Revenue privatization refers to the situation where the government retains a controlling stake after privatization.

References Références Referencias

1. Bai, C., Liu, Q., Lu, J., & Song, F. M. (2004). Corporate governance and market valuation in China. Journal of Comparative Economics, 32(4), 599-616. DOI: 10.1016/j.jce.2004.07.002
2. Beiner, S., Drobetz, W., Schmid, M. M., & Zimmermann, H. (2006). An integrated framework of corporate governance and firm valuation. European Financial Management, 12(2), 249-283. DOI:10.1111/j.1354-7798.2006.00318.x
3. Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. Journal of Corporate Finance, 14(3), 257-273.
4. Bortolotti, B., & Faccio, M. (2006). Reluctant privatization (CEI Working Paper, Series No. 2006-5). Hitotsubashi University, Institute of Economic Research, Tokyo.
5. Bortolotti, B., Fantini, M., & Siniscalco, D. (2001). Privatization: Politics, institutions, and financial markets. Emerging Markets Review, 2(2), 109-137.
6. Boubakri, N., Cosset, J-C., & Guedhami, O. (2002). Liberalization, corporate governance and the performance of newly privatized firms (Working Paper). Laval University, Quebec.
7. Chen, G., Firth, M., Xin, Y., & Xu, L. (2008). Control transfers, privatization, and corporate performance: Efficiency gains in China's listed companies. Journal of Financial and Quantitative Analysis, 43(1), 161-190.
8. Chen, G., Firth, M., & Xu, L. (2009). Does the type of ownership control matter? Evidence from China's listed companies. Journal of Banking & Finance, 33(1), 171181.
9. Cheung, Y. L., Rau, P. R., & Stouraitis, A. (2010). Helping hand or grabbing hand? Central vs. local government shareholders in Chinese listed firms. Review of Finance, 14, 669-694.
10. Claessens, S., & Djankov, S. (1999). Ownership concentration and corporate performance in the

© 2022 Global Journals

Czech Republic. Journal of Comparative Economics, 27(3), 498513.
11. Demsetz, H., & Villalonga, B. (2001). Ownership structure and corporate performance. Journal of Corporate Finance, 7(3), 209-33.
12. D'Souza, J., Megginson, W., & Nash, R. (2002). Determinants of performance improvements in privatized firms: The role of restructuring and corporate governance (Working Paper). Norman: University of Oklahoma, Oklahoma.
13. Dewenter, K. L., & Malatesta, P. H. (2001). State owned and privately owned firms: An empirical analysis of profitability. Leverage and labor intensity. American Economic Review, 91(1), 320-334.
14. Erkens, D. H., Hung, M. Y., & Matos, P. P. (2012). Corporate government in the 20072008 financial crisis: Evidence from financial institutions worldwide. Journal of Corporate Finance, 18(2), 389-411.
15. Faccio, M. (2006). Politically connected firms. American Economic Review, 96(1), 369386.
16. Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. Journal of Law and Economics, 26(2), 301-325.
17. Fan, G., Wang, X., & Zhang, L. (2001). Annual Report 2000: Marketization index for China's provinces. National Research Institute, China Reform Foundation, Beijing (April). Reprinted in China & World Economy, No. 5 (2001). See http://www.iwep.org.cn/wec/english/articles/2001_05/5fangan.htm.
18. Fisman, R. (2001). Estimating the value of political connections. American Economic Review, 91(4), 1095-1102.
19. Frye, T., & Shleifer, A. (1997). The invisible hand and the grabbing hand. American Economics Review, 87(2), 354-358.
20. Galina, G. P., & Robert, W. M. (2003). Corporate governance in a transition economy: A case study of Russia. Paper presented at the Annual Conference of the Academy of International Business, Clearwater, Florida, November 13-14, 2003.
21. Ghosh, A. (2001). Does operating performance really improve following corporate acquisitions? Journal of Corporate Finance, 7(2), 151-178.
22. Goldman, E., Rocholl, J., & So, J. (2009). Do politically connected boards affect firm value? Review of Financial Studies, 22(6), 2331-2360.
23. Green, S. (2004). The privatization two-step at China's listed firms (China Project Working Paper No. 3, Asia Programme). London: Chatham House.
24. Hassard, J., Morris, J., Sheehan, J., & Xiao, Y. (2010). China's state-owned enterprises: Economic reform and organizational restructuring. Journal of Organizational Change Management, 23(5), 500-516.
25. Hutchinson, M., & Gul, F. A. (2003). Investment opportunity set, corporate governance practices and firm performance. Journal of Corporate Finance, 10(4), 565-614. http://dx.doi.org/10.1016/S0929-1199(03)00022-1
26. Jiang, B. B., Laurenceson, J., & Tang, K. K. (2008). Share reform and the performance of China's listed companies. China Economic Review, 19(3), 489-501.
27. Jiang, Z., & Lin, B. (2012). China's energy demand and its characteristics in the industrialization and urbanization process. Energy Policy, 49, 608-615.
28. Kang, Y. S., & Kim, B. Y. (2012). Ownership structure and firm performance: Evidence from the Chinese corporate reform. China Economic Review, 23(2), 471-481.
29. Lemon, M., & Lins, K. (2003). Ownership structure, corporate governance, and firm value: Evidence from the East Asian financial crisis. Journal of Finance, 58, 1445-1468.
30. Leng, J. (2009). Corporate governance and financial reform in China's transition economy. Hong Kong: Hong Kong University Press.
31. Leung, N. W., & Cheng, M. A. (2013). Corporate governance and firm value: Evidence from Chinese state-controlled listed firms. China Journal of Accounting Research, 6, 98-112.
32. Li, Y., Lou, F., Wang, J., & Yuan, H. (2013). A survey of executive compensation contracts in China's listed companies. China Journal of Accounting Research, 6, 211231.
33. Liao, J., & Young, M. (2012). The impact of residual government ownership in privatized firms: New evidence from China. Emerging Markets Review, 13(3), 338-351.
34. Liu, C., Uchida, K., & Yang, Y. (2012). Corporate governance and firm value during the global financial crisis: Evidence from China. International Review of Financial Analysis, 21, 70-80.
35. Luo, J. H., Wan, D.F., & Cai, D. (2012). The private benefits of control in Chinese listed firms: Do cash flow rights always reduce controlling shareholders' tunneling? Asia Pacific Journal of Management, 29(2), 499-518.
36. Martin, S., & Parker, D. (1997). The impact of privatizations: Ownership and corporate performance in the UK. London: Routledge.
37. Mattlin, M. (2009). Chinese strategic state-owned enterprise and ownership control. BICCS' Asia Papers, 4(6), 1-28. Available at http://www.vub.ac.be/biccs/site/assets/files/apapers/Asia%20papers/Mattlin%20%282009%29%20%20SOE.pdf
38. McCormick, R. E., & Meiners, R. E. (1998). University governance: A property rights perspective. Journal of Law and Economics, 31(2), 423-442.

© 2022 Global Journals

39. Merritt, B. F., & Michael, A. H. (2000). Corporate governance lessons from Russian enterprise fiascoes. New York University Law Review, 75, 1720-1780.
40. Morck, R., Shleifer, A., & Vishny, R.W. (1998). Management ownership and market valuation: An empirical analysis. Journal of Financial Economics, 20, 293-315.
41. Morck, R., Shleifer, A., & Vishny, R. (1989). Alternative mechanisms for corporate control. American Economics Review, 79(4), 842-852.
42. Ng, A., Yuce, A., & Chen, E. (2009). Determinants of state equity ownership, and its effect on value/performance: China's privatized firms. Pacific-Basin Finance Journal, 17(4), 413-443.
43. Pound, J. (1988) Proxy contests and the efficiency of shareholder oversight. Journal of Financial Economics, 20(1-2), 237-265.
44. Qi, D., Wu, W., & Zhang, H. (2000). Shareholding structure and corporate performance of partially privatized firms: Evidence from listed Chinese companied. PacificBasin Finance Journal, 8(5), 587-610.
45. Reddy, K., Locke, S., & Scrimgeour, F. (2010). The efficacy of principle-based corporate governance practices and firm financial performance: An empirical investigation. International Journal of Managerial Finance, 6(3), 190-219.
46. Sapienza, P. (2004). The effects of government ownership on back lending. Journal of Financial Economics, 72(2), 357-384.
47. Sargan, J. D. (1964). Wages and prices in the United Kingdom: A study in econometric methodology (with discussion). In Hart, P. E., Mills, G., & Whitaker, J. K. (Eds.). Econometric Analysis for National Economic Planning (Colston Papers, Vol. 16, pp. 25-63). London: Butterworth.
48. Shen, M. H. (2008). Corporate governance and tunneling activities in China's family listed firms. Economic Research, 6, 135-144.
49. Shleifer, A. (1998). State versus private ownership. Journal of Economic Perspectives, 12(4), 133-150.
50. Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. The Journal of Political Economy, 94(3), 461-488.
51. Shleifer, A., & Vishny, R. W. (1994). Politicians and Firms. Quarterly Journal of Economics, 109(4), 995-1025.
52. Shleifer, A., & Vishny, R. W. (1998). The grabbing hand: Government pathologies and their cures. Cambridge, MA: Harvard University Press.
53. Shleifer, A., & Vishny, R. (1997). A survey of corporate government. The Journal of Finance, 52(2), 737-783.
54. Smith, M. P. (1996). Shareholder activism by institutional investors: Evidence from CalPERS. Journal of Finance, 51, 227-52.
55. Song, M., Zhang, J., & Li, C. (2004). A trap inside the ownership. Nan Kai Business Review, 1, 9-23.
56. Stiglitz, J. E. (1999). Whither reform? Ten years of transition. Keynote address given at the Annual World Bank Conference on Development Economics, 28-30 April, Washington, DC.
57. Stock, J. H., & Yogo, M. (2004). Testing for weak instruments in linear IV regression. In D. W. K Andrews, & J. H. Stock (Eds.). Identification and inference for econometric models: Essays in honor of Thomas J. Rothenberg. Cambridge: Cambridge University Press.
58. Stock, J. H. & Watson, M. W. (2007). Introduction to econometrics (Pearson international edition), Boston, MA: Addison-Wesley.
59. Sun, Q., & Tong, W. H. S. (2003). China share issue privatization: The extent of its success. Journal of Financial Economics, 70(2), 183-222.
60. Sun, Q., Tong, W. H. S., & Tong, J. (2002). How does government ownership affect firm performance? Evidence from China's privatization experience. Journal of Business Finance and Accounting, 29(1-2), 1-27.
61. Tian, L. H., & Estrin, S. (2008). Retained shareholding in Chinese PLC's: Does government ownership always reduce corporate value? Journal of Comparative Economics, 36(1), 74-89.
62. Tian, K. R., & Zhou, J. (2003). The ownership structure and corporate governance in China's privately listed companies. Modern Accounting, 6, 25-28.
63. Villalonga, B. (2000). Privatization and efficiency: Differentiating ownership effects from political, organizational, and dynamic effects. Journal of Economic Behavior & Organization, 24(1), 43-74.
64. Wang, C. (2005). Ownership and operating performance of Chinese IPOs. Journal of Banking and Finance, 29, 1835-1856.
65. Wang, J. (2003). Governance role of different types of state-shareholders: Evidence from China's listed firms. Unpublished doctoral thesis, Hong Kong University of Science and Technology, Hong Kong.
66. Wang, M., Chen, L., & Ye, C. (2010). Private listed companies in China: Family governance and firm value. Nankai Business Review, 2, 61-67.
67. Wei, Z., Xie, F., & Zhang, S. (2005). Ownership structure and firm value in China's privatized firms: 1991-2001. Journal of Financial and Quantitative Analysis, 40(1), 87-108.
68. Wei, Z. B., & Varela, O. (2003). State equity ownership and firm market performance: Evidence from China's newly privatized firms. Global Finance Journal, 14 (1), 65-82.
69. Wei, Z., Xie, F. & Zhang, S. (2005). Ownership structure and firm value in China's privatized firms: 1991-2001. Journal of Financial and Quantitative Analysis, 12(1), 87-108.

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70. Woidtke, T. (2002). Agents watching agents? Evidence from pension fund ownership and firm value. Journal of Financial Economics, 20, 431-60.
71. Xu, L. P. (2004). Types of Large Shareholders. Corporate Governance, and Firm Performance: Evidence from China's Listed Companies. Unpublished doctoral thesis, Hong Kong Polytechnic University. Retrieved from http://repository.lib.polyu.edu.hk/jspui/handle/10397/1064/
72. Xu, X., & Wang, Y. (1999). Ownership structure and corporate governance in Chinese stock companies. China Economic Review, 10(1), 75-98.
73. Yu, M. (2013). State ownership and firm performance: Empirical evidence from Chinese listed companies. China Journal of Accounting Research, 6, 75-87.
74. Zou, H., Wong, S., Shum, C., Xiong, J., & Yuan, J. (2008). Controlling-minority shareholder incentive conflicts and directors' and officers' liability insurance: Evidence from China. Journal of Banking and Finance, 32(12), 2636-2645.

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