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

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Abstract

This study compares the performance of stateowned 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 stateowned firms to prosper in by creating an uncompetitive market and ineffective legal infrastructure.

Index terms— privatized SOEs, ownership concentration, ownership identity, tobin's Q, efficiency

1 Introduction

he 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 Stateowned 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 Author: Postgraduate Business, Toi Ohomai Institute of Technology, Rotorua, New Zealand. e-mail: krishna.reddy@xtra.co.nz 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 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.

2 II.

3 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 govern-
nance 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 stateowned 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 Stateowned 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 nontradable 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. 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 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, 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. 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

4 III.

Literature Review, Theory and Hypotheses (Wang et al., 2010). As a result, the principal-agent and principal-agent agency problems are widespread (Shen, 2008).

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 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 Researchers investigating the ownership-performance nexus have reported a negative relationship between residual state shares and firm performance (Xu & Wang, 1999). H2. Listed SOEs (SOECGs) have higher profitability than SOELGs and PRIVATEs.

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).

performance (Xu & Wang, 1999). 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
5 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) 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 (PCHINEST).

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 and Erkens, Hung, and Matos (2012) 5 However, privately controlled companies listed on ChiNext (China’s growth enterprise market) tend to have three blockholders, although the second holds only about one-third of the shares held by the largest blockholder (the median for controlled companies listed on ChiNext (China’s growth enterprise market) tend to have three blockholders, and (iv) ownership unclear (PCHINEST).

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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.

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. If show that the state still retains ownership control in strategic sectors (on 
average 48.29%), 7 8 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.

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. 7?009), 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 Table III reports the list of dependent 
and independent variables used in this study and also their estimation method. 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:. 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.
9 Since net income is prone to manipulation in China, we have used operating earnings instead ??Chen et 
Second, we empirically examine whether the largest shareholder identity contributes positively to a firm financial 
performance. Following Chen et al. ( ??009), we have undertaken OLS regression after controlling for year fixed 
effects as follows:OpPerformit = a0 + a1DSOECGit + a2DSOELGit + a3DPRIVATEit + ?1SIZEit + ?2LEVit 
+ ?3IORAit + ?4DEVELOPIit + ?it(1)

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 DEVELOP. Following , 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 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.
Hence, DEVELOP1 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 II.

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 shareholder 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: 

\[
\text{OpPerformit} = \beta_0 + \beta_1\text{OWNit} + \beta_2\text{BLOCKit} + \beta_3\text{FORit} + \beta_4\text{RESUDS} + \beta_5\text{SID} + \beta_6\text{DEVELOPit} + \epsilon
\]

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 local government. PRIVATE is the proportion of shares 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.

The Relationship between Ownership Identity, Ownership Concentration, and Firm Performance: Evidence from ChinaTobin’s Qit = \beta_0 + \beta_1\text{OWNit} + \beta_2\text{RESUDSIT} + \beta_3\text{SID} + \beta_4\text{DEVELOPit} + \epsilon

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 top-tier executives (LMGP), strategic industry dummy (SID), and total residual state shares (RESUDS) as the exogenous variables. According to 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. 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 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. 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 (Leommon & 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 (??) and (??) as follows: 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.
+ ??4????????????? + ??5????????????? + ??6????????????? + ??7?????????????????????????? + ? ??7+?? ?????????????
+ ? ??14+?????????????????????? + ??????? (5) 8 19
where OWN is the percentage of ownership of the largest private shareholder in equations (??) 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
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 (??) affects PRIVATE,
but not Tobin’s Q. 16 15 Our paired correlation results for PRIVATE, TOBIN’s Q, and STATUS show that
STATUS is co-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 STATUS is not correlated with Tobin’s Q (-0.056) but
highly correlated with PRIVATE (-0.157).
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.
6 Empirical Results
7 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 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 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
9 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 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.

8 Table V reports the regression results for Equation (1). The results reported in Table

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 DEVELOP suggests that firms that operate in developed regions benefit from better developed regional business institutions and infrastructure (Fan et al., 2001; ??fan & Stiglitz, 1996). Notes: The Model: OpPerform??? = ??0 + ??1???????????? + ??2???????????????????? + ??3???????????????????????????? + ??4?????????????? + ??5???????????? + ??6?????????? 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. DEVELOP 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.
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, 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), , 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 Finally, Table VI reports the results
of the effect of board members’ remuneration in Chinese public companies. Results show that board members’
remuneration (LNNDTP) 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).

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

OpPerform is the performance measure, including ROA, CFOA, OCS, SPROD and Tobin’s Q. SOECEG 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. LNNDTP 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. LNMG 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.

11 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
SOECEG. The coefficient for SOECeg 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 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 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
findings contrast with those of prior studies that reported that state-owned companies are superior to private firms still required to meet the government’s social/political objectives even after the SASAC reforms. However, our results show slightly higher operating costs compared to the SOELGs and PRIVATEs, thus suggesting that SOECGs are performing better.

Our findings are consistent with those of prior researchers who have reported that policy discrimination may affect the performance of PRIVATEs may be affected as they do not receive similar treatment from the government. The “helping hand” from the government tends to benefit both the central SOEs and 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.

12 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. 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, the difference in the independent variable that contributes to the change in the dependent variable, that is, \( \delta \gamma t = \delta Xit + \delta \gamma t \), where \( \delta \gamma t = \gamma t - \gamma t-1 \) and \( \delta Xit = Xit - Xit-1 \). On the other hand, difference-in-difference measures \( \delta \gamma t = \delta Xit + \delta \gamma t \), where \( \delta \gamma t = (Yit - Yit-1) - (Yit-1 - Yit-2) = Yit - 2Yit-1 + Yit-2 \) and \( \delta Xit = (Xit - Xit-1) - (Xit-1 - Xit-2) = Xit - 2Xit-1 + Xit-2 \).

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-indifference 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, thus suggesting that firm size may not be optimal. 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.

13 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 (Leung, 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 firms.
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 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.” The benefit of privatization can be realized by clearly defining property rights (Martin & Parker, 1997).

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. Prior researchers who have studied the postprivatization 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 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. “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.

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
13 CONCLUSIONS AND POLICY IMPLICATIONS

<table>
<thead>
<tr>
<th>Dependent</th>
<th>SOE</th>
<th>Non-S</th>
<th>SME</th>
<th>SKM</th>
<th>Public</th>
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<td>0.069</td>
<td>0.045</td>
<td>0.023</td>
<td>0.138</td>
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<td>0.125</td>
<td>0.210</td>
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<td>0.117</td>
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<td>0.121</td>
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<td>0.140</td>
<td>0.137</td>
<td>0.124</td>
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<td>0.125</td>
<td>0.116</td>
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<td>0.137</td>
<td>0.131</td>
<td>0.150</td>
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<td>0.142</td>
<td>0.137</td>
<td>0.131</td>
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<td>0.130</td>
<td>0.123</td>
<td>0.128</td>
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<td>TOT</td>
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<td>0.130</td>
<td>0.123</td>
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<td>0.132</td>
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</table>

**Figure 1:**

![Figure 1](image1.png)

**Figure 2:**

![Figure 2](image2.png)
Figure 3: Figure 1:

Figure 4:
I

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...
SOECG (Obs. 2135)  SOELG (Obs. 4911)  PRIVATE (Obs. 5449)  PCHINEXT (Obs. 778)  ALL (Obs. 13273)

Panel A: Ownership Concentration by Top Shareholder

<table>
<thead>
<tr>
<th>Ownership Category</th>
<th>Mean</th>
<th>Median</th>
<th>Mean</th>
<th>Median</th>
<th>Mean</th>
<th>Median</th>
<th>Mean</th>
<th>Median</th>
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<tr>
<td>Percent by largest shareholder</td>
<td>41.77</td>
<td>42.40</td>
<td>38.71</td>
<td>37.28</td>
<td>33.38</td>
<td>30.16</td>
<td>33.86</td>
<td>32.12</td>
<td>36.73</td>
<td>34.94</td>
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<tr>
<td>Percent by second largest shareholder</td>
<td>9.02</td>
<td>5.28</td>
<td>7.48</td>
<td>4.33</td>
<td>10.21</td>
<td>8.84</td>
<td>11.94</td>
<td>11.94</td>
<td>11.94</td>
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<td>Percent by third largest shareholder</td>
<td>3.10</td>
<td>1.87</td>
<td>2.96</td>
<td>1.85</td>
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<td>4.47</td>
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<td>Combined ownership by top 3 shareholders</td>
<td>53.89</td>
<td>53.79</td>
<td>49.14</td>
<td>49.24</td>
<td>48.06</td>
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<td>49.77</td>
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<tr>
<td>Percent by non-controlling blockholders</td>
<td>9.19</td>
<td>7.00</td>
<td>9.06</td>
<td>6.78</td>
<td>13.54</td>
<td>12.13</td>
<td>21.96</td>
<td>21.28</td>
<td>11.68</td>
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Panel B: Percent by Largest Shareholder for Cross-sectional Years

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<tr>
<th>Year</th>
<th>No. of Companies</th>
<th>SOECG (Obs. 2135) Mean</th>
<th>Median</th>
<th>SOELG (Obs. 4911) Mean</th>
<th>Median</th>
<th>PRIVATE (Obs. 5449) Mean</th>
<th>Median</th>
<th>PCHINEXT (Obs. 778) Mean</th>
<th>Median</th>
<th>ALL (Obs. 13273) Mean</th>
<th>Median</th>
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<td>2005</td>
<td>1246</td>
<td>46.82</td>
<td>50.07</td>
<td>43.60</td>
<td>42.50</td>
<td>33.46</td>
<td>29.56</td>
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<tr>
<td>2006</td>
<td>1402</td>
<td>40.63</td>
<td>41.03</td>
<td>38.18</td>
<td>36.77</td>
<td>30.94</td>
<td>28.93</td>
<td></td>
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<tr>
<td>2007</td>
<td>1489</td>
<td>40.36</td>
<td>41.19</td>
<td>37.58</td>
<td>36.30</td>
<td>32.13</td>
<td>29.69</td>
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<tr>
<td>2008</td>
<td>1502</td>
<td>41.26</td>
<td>42.23</td>
<td>37.86</td>
<td>37.25</td>
<td>33.09</td>
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<td>2009</td>
<td>1503</td>
<td>41.46</td>
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<td>2010</td>
<td>1708</td>
<td>41.38</td>
<td>42.22</td>
<td>38.27</td>
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<td>2011</td>
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<td>2012</td>
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[Note: Table 1 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 1 reports the summary statistics for the largest shareholder at each ownership category for each year from 2005 to 2012.]
2

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

<table>
<thead>
<tr>
<th>Industry</th>
<th>No. of Observations</th>
<th>No. of Companies</th>
<th>SOECG</th>
<th>SOELG</th>
<th>PRIVATE</th>
<th>PCHINEX</th>
<th>ALL</th>
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<td>Agribusiness</td>
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<td>57</td>
<td>43.21</td>
<td>35.46</td>
<td>37.96</td>
<td>27.22</td>
<td>36.74</td>
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<td>38.90</td>
<td>38.62</td>
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<td>40.96</td>
<td>37.15</td>
</tr>
<tr>
<td>Textile &amp; Clothing</td>
<td>522</td>
<td>99</td>
<td>31.34</td>
<td>34.96</td>
<td>35.09</td>
<td>00.00</td>
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Figure 7: Table 2:

3

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

Figure 8: Table 3:

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<td>4.61%</td>
<td>5.43%</td>
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Panel B:

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Figure 10: 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

Figure 11: 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
### 13 CONCLUSIONS AND POLICY IMPLICATIONS

#### Table 5:

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Figure 12: Table 5:

#### Table 7:

Figure 13: Table 7:
The Relationship between Ownership Identity, Ownership Concentration, and Firm Performance: Evidence from China

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Figure 14: 19
### CONCLUSIONS AND POLICY IMPLICATIONS


g**Figure 15: Table 8 :**

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[Leng (2009)] Corporate governance and financial reform in China’s transition economy, J Leng. 2009. Hong Kong: Hong Kong University Press.


CONCLUSIONS AND POLICY IMPLICATIONS


