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Economics with a Focus on China**

**State ownership, Corporate governance, and
Corporate performance
Lessons from China's mixed-owned enterprises**

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Abstract: In the past 30 years, the Chinese government has promoted ownership reform and corporate governance reform to improve the performance of SOEs. Simultaneously, China has come to the era of MOEs. There has been growing empirical studies that consider the effects of corporate governance and state ownership on MOEs' performance. This study utilized a panel vector autoregression approach to analyze the dynamic relationship between the three variables. Based on a panel data of China's listed A-share firms from 2004 to 2016, we found the corporate governance cannot help to improve MOEs' performance. Besides that, the effect of state ownership on MOEs' performance is not observed.

Key words: State ownership, corporate governance, corporate performance

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1 Introduction

At the end of 1978, China began the transition from a planned economy to a market economy. It also marked the start of China's reform and opening-up strategy. China is not the only country taking an economic transition decision, other former-socialist countries including some of the Eastern European countries and the former Soviet Union all experienced it, but China is one of the unique cases. From 1978 to 2009, China experienced a fast economic development with a 9.8% average annual GDP growth rate. Different from countries who utilized a big-bang and top-down approach, China adopted a gradualism and bottom-up approach. However, regardless of the approach, as the basis of planned economies, the restructuring of state-owned enterprises (SOEs) has become one of the most critical issues. Instead of a big-bang approach, China launched partial and gradual privatization of SOEs and restructuring throughout the whole period of China's economic transition. In different periods, the restructuring approaches are different. Before 1992, reform of SOEs is in a market approach, which aims to increase the efficiency of SOEs relying on organizational changes. After that, reform has turned to a property approach, partial or full privatization of SOEs, and one of the most notable change is the establishment of joint-stock firms and limited liability firms, which is close to the nowadays definition of Mixed-owned enterprises (MOEs).

1.1 Emerging of MOEs

Xue (1987) introduced the cause of formation of China's MOEs. It is also a bottom-up process, MOEs emerging with the promotion of economic transition and several types of ownership. MOEs were much complicated in the initial period; it refers not only to those enterprises with a different type of ownership but also to joint ventures and corporation enterprises cross-region or cross-industry. Nowadays, MOEs more refer to the enterprises containing both state shares and non-state shares, which rely on the development of the stock market. Zhang (2011) found that 77.3% of the 950 ownership-transformed enterprises are MOEs and 14% of the 300 listed companies in Shanghai-Shenzhen Component Index are

MOEs.

The Chinese government also promoted the emergence of MOEs. In the Third Plenary Session of the 18th Communist Party of China (CPC) Central Committee, the party indicated the willingness to develop the mixed-ownership economy actively, and treat it as the next generation of China's ownership structure. With regard to the implementation measures; there are two approaches, the ownership approach, and the corporate governance approach. The former one focuses on the transition of ownership structure; it utilized measures like overall listing, cooperation with private enterprises (PEs), merging of PEs and employee stock ownership (ESOP). The other one focuses on the reform of the enterprise's governance structures, which aims to help SOEs to build up a modern enterprise system. However, the implementation of the ownership approach and the corporate governance approach are unbalanced; in most of MOEs, the control structure is not corresponding to the shareholding structure, the former one being far lagged (Zhang, 2011). As there is an indication that the government's direct intervention into the governance of firms is likely to cause negative effects on firm-level performance (Nee et al., 2007), it is doubtful that the ownership approach could increase the firm performance while the corporate governance structure is not mature. In the existing research of MOEs' performance (Boardman&Vining, 1989; Zhang, 2011; Xu&Wang, 1999; Duncan,2015), the firm performance variable is always treated as a dependent variable and estimated by the classical regression model. However, in this way, it needs many control variables to ensure the estimation is accurate while increases the problem of endogeneity. Meanwhile, as too many variables are included in the model, it is difficult to form a series of continuous long-term time-series data. So far, there is no convincing evidence to prove the positive effect of privatization on firm performance, and the results of existed studies are mixed. For corporate governance, Zhang (2011) indicates that China needs to push further development of MOEs' corporate governance, but there is lack of empirical evidence.

1.2 Research Problem

The thesis investigated the background of China's SOEs reform and the emerging of MOEs. It aimed to answer the following research questions:

1. How did SOEs transform to MOEs through corporate governance reform and ownership reform?

2. What was the dynamic relationship between corporate governance, state ownership, and corporate performance?

Specifically, the first general research question aimed to investigate the ways of how SOEs transform to MOEs through corporate governance reform and ownership reform, including what is the definition of MOEs in China, what kinds of governance models utilized, and how the SOEs privatized the state-owned shares. The second question attempted to examine the dynamic relationship between corporate governance, state ownership, and corporate performance. Based on the results, we can analyze the impact of corporate governance and state ownership on corporate performance.

1.3 Aim and Scope

The overall aim of the thesis is to analyze the effects of state ownership and corporate governance on corporate performance. More specifically, we wanted to:

1. Discuss the definition of MOEs in China.
2. Analyse the process of China's ownership reform and corporate governance reform.
3. Develop a methodology to test the dynamic relationship between corporate governance, state ownership, and corporate performance.
4. Gain insight China's SOEs reform from our findings and previous studies.

The selected literature in this thesis is related to corporate governance, SOEs, corporate performance and China's transition process. Also, some literature about panel data econometrics is utilized for developing methodology.

1.4 Outline of the Thesis

This thesis utilized a quantitative method to explore the relationship between corporate governance, state ownership, and corporate performance. The theoretical framework of this thesis contained three parts. In the first part, we specified the definition of MOEs and discuss

the status quo of MOEs. The second part introduced the transition of SOEs' governance structure and existing corporate governance models in other countries. In the last part, based on the property rights theory, we discussed MOEs' ownership structure. In the Data chapter, we introduced the data and variables, and used statistical description to present the overview of the panel. In the Method chapter, we presented the hypotheses and introduced the models. In the Empirical Analysis chapter, we analyzed the results of regressions and tests. Finally, in the conclusion part, we concluded the findings and constructions made by this thesis. Also, there is a chapter discussed the shortage of this thesis and gave some advice for future research.

2 Theory

2.1 Theoretical Background

2.1.1 Definition of MOEs

As mixed-ownership is not unique in China, in some Asian nations like Malaysia, Singapore, and Thailand, MOEs also existed when the privatization of SOEs is not completed (Beladi& Chao, 2006). However, different from these cases, MOEs are rooted profoundly in China's model. Before 1978, China's economy was characterized as planned and public; enterprises were state-owned and collective-owned, and in this time, MOEs existed as the cooperation of SOEs and Collective-owned enterprises (COEs). In the 1960s, there were lots of corporate factories were not entirely collectively owned, but owned by the Second Light Industry Bureau (SLIB); SILB collected the profits and used it to expand the urgently needed industries (Xue, 1987)¹. In that time, these joint venture firms and joint operation firms with a different type of ownership involved are also MOEs. Joint stock firms also emerged, and there are two approaches at that time, one is employee offering, and the other is social offering. However, Xue (1987) indicates public ownership should be in the dominant position in a socialist country, and if the shareholders are from the outward society they only care about the profits but not the production of factories.

Before 1992, the reform of SOEs is through the market approach, and it relies on the organizational change. To increase the profits of SOEs and solve the problem of information barrier between central government and local firms, the government shifted part of the responsibility to firms and also allowed firms to keep a proportion of profits. In this case, firms received more autonomy, and there is the motivation for creating profits. Empirical

¹ Excluding the tax, these profits have not been handed to the Central Financial Department, but used locally, which makes these SLIB enterprises developed much quicker than SOEs.

findings suggest that both autonomy and bonus payments increase firm productivity, but there is weak evidence that autonomy increases pretax profits (Groves et al., 1994). Benefited from the market approach, workers received more salary and bonus payment, but the government budget has not benefited from the increase in firm autonomy. However, the development of profits distribution mechanism falls behind, and more or less, these policies conflict with the public owned systems.

After 1992, the government started to promote corporatization and privatization of SOEs; public listings become a key measure, and the issue of company law in 1993 allows most of COEs and SOEs to register as joint-stock firms and limited liability firms. In the stock market of China, there are different share types; in the first level, it is divided into tradeable shares and non-tradeable shares. Usually, State shares and Legal persons shares are not allowed to trade in the market, and except these two, the others like A-shares and B-shares are allowed to be traded. State shares are generally controlled by the institution who is representing the central government, and the interest of these shares is not connected tightly to the corporate performance; these shares transferable upon state approval. However, since China indicates mixed-ownership is an essential type of ownership in China model from 16th Central Committee of the CPC (2003), China's MOEs has begun to become different from others. Until the 18th Central Committee of the CPC (2013), the role of mixed ownership in China's future top design of the economy was further promoted. The government indicated mixed-ownership was not only the privatization of state-ownership but the cooperation between different type of ownership, they integrated, cross-shares and developed together.

According to the general definition, MOEs refers to those enterprises containing both state-shares and non-state shares. In this way, the listed firms that have non-tradeable state shares are MOEs. However, in practice, it is usually difficult to trace the ultimate owner of the shares, which means there could be lots of potential MOEs that cannot be observed. Therefore, in this thesis, we have only considered MOEs as a separate group in the statistical description, but not in regressions. In the part of ownership, we will further discuss the ultimate ownership and specify MOEs in our sample, and in the next part, we will discuss the corporate governance in China.

2.1.2 Corporate Governance

Corporate governance is to balance the responsibilities, powers, and interests among different characters inside of cooperation (Cochran& Wartick, 1988. It has now become the primary method of MOEs reform in government's strategy, and the target of this strategy is to build up a modern enterprises system. As mentioned before, before 1992 there was a time the government adopted the market approach, and there are lots of organizational changes happened, which may be confused with the corporate governance approach. There are some similarities like both, indicate autonomy decentralization and aim to increase firm performance. However, the institutional environments before 1992 and after 2000 are entirely different. After years of experiment, the government has already confirmed the importance of private ownership. Moreover, most enterprises have registered as joint-stock firms and limited liability firms, some of them went public listed. Comparing with the market approach, the corporate governance approach is rooted deeper on the base of the liberalized market and partial-privatization ownership.

Different models of corporate governance

It is difficult to summarise the corporate governance models, as there are always differences existed in different countries' developing path, and no model can be suitable for all firms. Vive (2000) concluded two categories of corporate governance models, market-oriented system, the bank-oriented system (relations-based system). The market-oriented system is also called Anglo-Saxon model or Anglo-American model, which usually practiced in English-speaking countries like the United Kingdom, the United States, and Australia. This model relies on a single-tiered board, and the chairman of the board is usually elected by shareholders. Usually, the ownership concentration is modest and dispersed among all the shareholders (Zhang, 2011). Since the 1980s, the balance of power between shareholders and managers in the Anglo-Saxon model has shifted towards managers (Gospel& Pendleton, 2003). The bank-oriented system or relation-oriented system also called continental Europe model or two-tier board system, which is typical in German. There is an organizational separation between managers and supervision in a two-tier system, and there exists two board, the management boards, and the supervisory boards. In a two-tier system, members of the supervisory board may not be on the management board at the same time, and usually, the management board manages and leads the firm and takes the responsibility, the supervisory board only involved in crucial decisions related to the management board (Cernat, 2004). Because in these countries, large firms usually have close relations with banks, and the ownership is quite concentrated and shows as a pyramidal control. Although the most listed

corporation is private, banks still play a critical role in corporate governance. For example, in Japan, the bank holds both debt and equity of the firm and can intervene when the firm is in the financial problem (Zhang, 2011).

Agency approach

The corporate governance system can be simplified as a fundamental agency problem, and the purpose of this system is to solve the incentive problems between the manager (agent) and investors (principal). When the firms went public listed, the manager is no longer the only owner of the firm as before; then the manager has the motivation to increase duty consumption and reduce work intensity. For some time, because the information is not equal between manager and owner, the managers can sacrifice owner's property in exchange for their interests, which is defined as agency loss. In this approach, the primary purpose of corporate governance simplified to the maximum the interests of shareholders. However, some customarily used monitoring measures like regular reports and external independent audit also produce the extra cost.² In the agency approach, a two-tier system is better than one-tier, as the one-tier system usually has unrestricted information flow between the executive and the non-executive directors, and the risk of interest conflicts increased due to lack of necessary monitoring measures (Dienes& Velte, 2016). However, Vives (2000) indicates that from both the theoretical and the empirical perspective, it shows a mixed picture of the role and effectiveness of corporate governance. Vitols et al. (1999) also indicate there is no 'on best' system of corporate governance, but only comparative advantages. The market-oriented system has more competitiveness in quick entering and quitting new markets, or there is a need for flexibility of labor employment. The bank-oriented system better suits firms in sectors which require long-term and stable relationships with employees and suppliers.

Case of China

As China adopted the gradualism approach in economic transition, the establishment of

² Shankmann indicates sustainability information is suppose to reduce information asymmetries and transaction costs in agency relationships (as cited in Dienes& Velte, 2016).

modern enterprise systems in China also experienced a long time. Before the modern enterprise systems established, 'Danwei' (work unit) is the fundamental unit of China's economic life. Because in the pre-reform period, the whole economy is public and central planned, the government needs the 'Danwei' system to convey and imply the party's wills to grassroots, and usually danwei is supervised by a local or central party agency. As an administrative body, 'Danwei' has multiple functions, it was an economic producer, which took the responsibility to complete the production plan from the government, and also it is responsible for social welfare distribution. The main problem of 'Danwei' system is its overwhelming reliance on administrative control and central planning (Tenev, 2002), which is not applicable in a liberalized market. However, 'Danwei' system has a profound impact on China's modern enterprise system, for example, the settlement of a party branch inside of enterprises. Before 1992, while the government had not issued the decision of establishing a Socialist Market Economic Structure, the reform in corporate governance is always limited. The government introduced some policies to increase the performance of SOEs, for example, the contracting responsibility system. However, the average performance of SOEs was not improved (Shirley & Xu, 2002).

Comparing with the pre-reform period and reform period, the corporate governance of SOEs has already changed a lot, and the modern enterprise system is gradually establishing. However, the party always has a sort of control power on SOEs, and only the government has the power to determine the relationship with SOEs, which makes the SOE reform a top-down process. In this process, the government has introduced plenty of ordinances to enhance the governance of SOEs. In the primary governance structure of SOEs, it stipulated that SOEs should be supervised by the party committee and managed by the factory chief; in 1979, the further ordinance stipulated the SOEs should be monitored by the Congress of workers; in 1984, the ordinance stipulated that the factory chief and the secretary of the party branch should be appointed by the government, but the factory chief and the secretary have the right to appoint the other mid-level managers; in 1988, it stipulated that the factory chief appointed by the party committee take the whole responsibility of the enterprises and the working term is between three to five years (Zhang, 2011). Until 1993, China enacted the first company law; it stipulated the enterprises should set up the board of directors, the board of supervisors, and the shareholders meeting to form a modern enterprises system. However, the General manager and chairman of the board are still directly appointed by the government, which makes it incomparable with the existing models based on election system. In this way, the

central problem of SOEs governance has shifted to the conflict between the modern enterprise's system and the old leftover rules from past.

2.1.3 Ownership Structures

Throughout the whole economy transition period, the government has never ignored the importance of ownership structure. In the economy aspect of China model, there is always updates on the description of ownership structure. With these updates, more and more vitality has been injected into the economy, which makes the emerging of several new types of ownership, and Township-village enterprises (TVEs) is the most famous one. TVEs developed in rural China and promoted the fast economic growth from the 1980s to the mid-1990s. TVEs are local firms controlled by village or town governments. In the general environment that private enterprises are still regarded as the enemy of a socialist economy, TVEs are the best solution to satisfy the demand of products in the market. Because of the non-exclusive property rights, TVEs failed finally. However, the case of TVEs inspired us to notice the flexibility and creativity of grassroots, not only the people but also the local government.

In China, the government divides public ownership into state ownership and collective ownership, but in the initial reform period, the concepts of state ownership and the collective ownership are both abstract. Xue (1987) indicated it is necessary to draw an abstract concept because, in reality, the public ownership has already separated to central, province, city and county-level ownership. The central government does not have an efficient system to manage the all enterprises, so the local governments get the operating rights of some enterprises. The property rights of these enterprises belongs to the state, but the local governments can keep the added values, and the enterprises invested by this capital belong to the local government. It is difficult to define whether these enterprises are state-owned or collective-owned.

However, Jin and Qian (1998) drew a clear picture of China's ownership structure that follows the administrative concept from the planned era, and divided China into the rural and urban area; in the urban area, firms consists of state-owned, collective-owned, private-owned and 'others'; in the rural area, firms consist of community public firms (TVEs) and private firms. In 2006, China National Bureau of Statistics published the Public and non-public ownership economy classification, which stipulated five types of ownership, state-owned, collective-owned, private-owned, Hong Kong, Macao and Taiwan Business-owned, and

foreign-owned. According to the proportion of shareholdings, each type of ownership is divided into absolute control and relative control. The absolute control means the investors have more than 50 percent of the total shareholding; the relative control means investors have less than 50 percent of shareholding, but there is agreement states the real control rights of the enterprise, or there is no other type of ownership has more proportion. It also stipulated if the enterprise consists of two type of ownership, 50 percentages each, and one of them is public ownership, then it preferred as state ownership, then collective ownership. However, this classification still cannot clearly measure the MOEs. In 2011, a further ordinance stipulated the type of business registration, which set the category of a company limited by shares and limited liability company³. The transition of SOEs towards a modern enterprises system started from the approval of Company Law of the People's Republic of China. However, the progress of transition is slow, until the end of 2016, 68.3 percent of central government-owned enterprises and 6 percent of central government-owned subsidiaries had not registered as firms yet⁴. In 2016, the government issued the Notice of the General Office of the State Council on Printing and Distributing the Implementing Plan for Corporate-style Restructuring of Central Enterprises, and indicated that the restructuring would be completed at the end of 2017. Because of the gradual progress of SOEs' Corporate-style Restructuring, the restructured SOEs and restructuring SOEs are still both existed in the economy now. Also, the whole structure of ownership is in flux, not only the SOEs, the other ownership like TVEs is also under restructuring, and these firms become a mixed property form (Nee, 1992).

Before all the firms established the modern enterprise system and finished the Corporative-style Restructuring, listed firms is a comparably proper research object. Based on the ownership of the shareholders, we can draw a picture of a firm's ownership structure. In this approach, some scholars found the most of SOEs was not merely privatized. Kang and Kim (2012) indicate the significant portion of the shares of SOEs has transferred to the domestic institutions and public after restructuring, but the ultimate ownership is still state-owned. La Porta et al. (1999) indicated that a corporation had an ultimate owner if this shareholder's direct and indirect voting rights exceed 20 percent, and if there was at least one publicly

³ Rules on the classification of enterprise registration, China National Bureau of Statistics

⁴ Data from State-owned Assets Supervision and Administration Commission of the State Council

traded company between the ultimate owner and the controlled company, then the ownership structure was a pyramid. Based on the ultimate control chain of 1340 firms in 2004, more than 70 percent of them are ultimately state-owned, and among these firms, 23 percent are owned by central government, 72 percent are controlled by local government, the rest are controlled by university and research institutions (Wang & Xiao, 2009). In an empirical study, Lins (2003) traced out ultimate ownership of 1433 firms from 18 emerging markets and indicates large non-management control limits shareholders positively related to firm value, and indicated the non-management shareholders could be the substitute for missing governance mechanisms in an institutional environment with limited shareholder rights protection. In the ultimate ownership structure approach, the actual degree of privatization (ownership decentralization) is still low. With regard to the SOEs in the listed stock market, most of them are still ultimately controlled by the state. Cao et al. (2011) classified state-controlled firms into two categories based on ultimate owner, except the SOEs, there are firms controlled by the state assets management bureaus (SAMBs), which was a government agency responsible for managing and controlling state-owned assets, and in SAMBs, managers performed as the representatives of government.

Because of the gradualist ownership reform in the past three decades, China's ownership structure has always been in flux. As Duncan (2015) indicates that although MOEs has appeared in nearly every part of China's economy, it still seems to have no coherent strategy guiding their development, and the CPC still relies on slowly-phased-in modification, trial, and error. Especially in the period of corporate-style restructuring, the ownership structure has become more complicated with the existence of both restructured firms, restructuring firms and the firms have not started restructuring process. However, by tracing the ultimate owners of publically traded firms through shareholder structure, we can draw a clear picture of firms' ownership structure.

2.2 Previous Research

The property rights theory suggests that public enterprises will perform worse than private enterprises in profit and efficiency, but the results of existing empirical studies on China are mixed. Boardman and Vining (1989) indicated that after controlling a variety of factors, large industrial MOEs and SOEs perform worse than PEs in profit indicators, and MOEs sometimes

even worth than SOEs in a competitive environment. However, the promotion of MOEs is always with political goals. For example, the TVEs has increased the levels of nonfarm employment and local public goods provision. Although the rural income has not increased and the efficiency is also lower compared with PEs, TVEs help to increase the local government revenue (Jin& Qian, 1998). On the other hand, more and more evidence is found to support that state ownership is negatively correlated with firm performance. Wei et al. (2005) indicated that state and institutional shares were significantly negatively related to Tobin's Q. However, the development degree of cooperate governance was not discussed. In a firm-level study, Nee et al. (2007) indicated that direct intervention into the governance of firms was negatively related to the economic performance of firms, and there must be other types of intervention external to the firm promoted the rapid economic growth. Other scholars find the ownership concentration is positively correlated with firm performance: Xu and Wang (1999) indicate that there is positive and significant relationship from ownership concentration to firm performance, and within the corporate governance structure, they find state ownership is inefficient. Wei (2007) finds that the relationship between state-owned shares and firm performance is non-linear, and state-owned shares have a significant negative effect on performance only proportion above 50 percent, and there is no evidence of corporate governance factors like independent supervisory directors, size of the board, managers' incentives and audit committee have significant effect on firm's performance. However, after traced the ultimate owners of listed companies, the results are different. Wang and Xiao (2009) indicated 70 percent of listed companies were ultimately state-owned, and the firm value increased with decentralized control rights from the government to SEOs, also decentralization only had significant effect on the firm performance of local government-controlled firms. Zhang (2011) found the same result in MOEs, and indicated that there was no significant relationship between corporate performance and mixed ownership, but the transfer of controlling power was essential for MOEs to improve performance. However, the proportion of different ownership of MOEs has not been considered. To get a more accurate result and fill in the research gap, we traced the ultimate owner of shares and quantified the proportion of MOEs' state-owned shares. Also, the poor shareholder protection institutional environment was considered.

3 Data

3.1 Data source

We collected the data from the China Stock Market& Accounting Research Database (CSMAR), which contained the complete related information of all listed firms in China.⁵ To form a panel dataset, we mainly utilized the data related to financial indices, corporative governance, and shareholder structure. In our full panel dataset, there are nearly 3000 A-share listed firms, and the period is 2004 to 2016.⁶ For the quarterly and semiannual data, we unified statistic period to be yearly based on the last statistics in December of that year. Because of the mergers and acquisitions, the panel is unbalanced with missing values. Due to the methodology required a balanced panel, we collected those large and stable firms which had continuous information from the original dataset, and this was concerned when we were concluding the findings.

⁵ The database is used in related empirical studies by Wei et al. (2005), Chen et al.(2009), Cao et al. (2011).

⁶ The shares in this thesis are refer to A shares.

3.2 Main variable

Table 1 Variable List

Variable name	Variable description
id	Securities code of the firm
time	Statistical deadline, unified based on the last statistic in December
sp	The proportion of state-owned shares in total shares
cg	Whether the chairman of the board or the General manager is the same person at a statistical year ⁷
roa	Return on assets

In our panel dataset, we utilized proportion of state-owned shares to measure the ownership structure of firms, the same person as chairman of the board and General manager to measure the internal control mechanism and return on assets (ROA) to measure corporate performance. The proportion of state-owned shares is calculated by:

$$sp = \frac{\text{State - owned shares}}{\text{Total shares}} \quad (1)$$

The denominator is total shares of the firms, which contains the tradeable shares and non-tradeable shares. Most non-tradeable shares are state-owned shares, and it including but not limited to state-owned shares, legal person-owned shares, employee and manager-owned shares. The state-owned shares in non-tradeable shares is originated from the shareholding system reform of SOEs in mid-1997. At the beginning, the capitalization of non-tradeable state and corporate shares are 25 percent more than the total capitalization of the Shanghai and Shenzhen exchanges (Ma, 1998). The variable sp can describe the change of state-owned shares and differ PEs, SOEs, and MOEs. For corporate governance, we mainly focus on the

⁷ The situation whether there is only chairman of board or the General manager are considered as the same person.

internal control mechanism, which measured by whether the chairman of the board is the General manager in the same statistical year. Furthermore, the firm performance is measured by ROA, and the equation is:

$$ROA = \frac{Net\ profit}{Average\ total\ assets}^8 \quad (2)$$

3.3 Statistical description

As our dataset is a long panel, it is difficult to present the data based on the firm. Instead, we present the table of our main variables based on time trend.

Table 2 Sum of main variables – full sample

Time	sp			cp			roa		
	Mean	Std. Dev.	Freq.	Mean	Std. Dev.	Freq.	Mean	Std. Dev.	Freq.
2004	0.345	0.262	1377	0.517	0.500	1110	0.006	0.156	1281
2005	0.331	0.258	1374	0.345	0.476	1316	0.001	0.132	1362
2006	0.286	0.237	1457	0.222	0.416	1451	0.015	0.135	1367
2007	0.252	0.232	1571	0.194	0.395	1568	0.062	0.322	1446
2008	0.220	0.226	1625	0.187	0.390	1625	0.028	0.238	1570
2009	0.130	0.211	1774	0.203	0.403	1774	0.032	0.147	1615
2010	0.093	0.189	2129	0.233	0.423	2129	0.044	0.302	1772
2011	0.065	0.163	2363	0.254	0.436	2363	0.058	0.463	2124
2012	0.055	0.152	2492	0.256	0.436	2492	0.043	0.127	2361
2013	0.041	0.129	2536	0.254	0.436	2536	0.046	0.260	2487
2014	0.040	0.127	2652	0.267	0.443	2652	0.033	0.359	2534
2015	0.035	0.117	2842	0.273	0.445	2842	0.033	0.071	2645
2016	0.039	0.123	3136	0.294	0.456	3135	0.040	0.062	2838
Total	0.119	0.209	27328	0.263	0.440	26993	0.036	0.246	25402

⁸ Net profit is calculated by Trailing Twelve Month (TTM), and the average total assets is the mean of aggregate assets at end of current year and aggregate assets at end of preceding year.

From Table 2, we can find the number of the A-share listed firms is increasing, and the state shares has decreased in average from 2004 to 2016. However, before 2008, the state shares always remains in a high level, and in the eight years after 2008, the state shares have experienced a continuous and sharp decrease, which also reflects a General release of non-tradeable shares.⁹ With the public listing of SOEs and the gradual establishment of modern enterprise system, most SOEs have stepped into the era of MOEs. However, the following broader privatization is trapped by the restrains from nontradeable shares. Before the formal implementation of ‘Interim Measures for the Administration of State-owned Shareholders Transfer of Their Shares of Listed Companies’, there is no significant further privatization signs on MOEs. The other concern is the new listed Pes, which decrease the state-owned shares because their state-owned shares proportion is zero. However, we have not found there is significant change near the specific year when China Securities Regulatory Commission stopped the initial public offering (IPO). In addition, the average proportion of newly A-share listed firms from 2010 to 2016 is only 46.14¹⁰, which is comparatively smaller than the total quantity of A-share listed firms. The influence from new listed PEs is limited. We also found the situation of same person as General manager and chairman had decreased from 2004 to 2016. Although it has increased a bit after 2008, the general trend from 2004 to 2016 is decreasing. To further analyze the data, we set five groups which based on the different situations of corporate governance, and the results is in Table 3.

Table 3 The proportion of the different type of corporate governance – full sample

Time	The different person		The same person		Only chairman of the board		Only General manager		None of them		Total
	Freq.	Prop.	Freq.	Prop.	Freq.	Prop.	Freq.	Prop.	Freq.	Prop.	
2004	536	38.87%	97	7.03%	213	15.45%	264	19.14%	269	19.51%	1379
2005	862	62.74%	129	9.39%	114	8.30%	211	15.36%	58	4.22%	1374
2006	1129	77.43%	178	12.21%	33	2.26%	111	7.61%	7	0.48%	1458
2007	1264	80.46%	225	14.32%	29	1.85%	50	3.18%	3	0.19%	1571

⁹ In 2007, the government enacted the Interim Measures for the Administration of State-owned Shareholders' Transfer of Their Shares of Listed Companies.

¹⁰ Data is from Shanghai Stock Exchange.

2008	1321	81.29%	243	14.95%	26	1.60%	35	2.15%	0	0.00%	1625
2009	1413	79.65%	322	18.15%	19	1.07%	20	1.13%	0	0.00%	1774
2010	1633	76.70%	461	21.65%	25	1.17%	10	0.47%	0	0.00%	2129
2011	1762	74.57%	576	24.38%	22	0.93%	3	0.13%	0	0.00%	2363
2012	1855	74.41%	622	24.95%	15	0.60%	0	0.00%	1	0.04%	2493
2013	1891	74.57%	625	24.65%	18	0.71%	2	0.08%	0	0.00%	2536
2014	1943	73.24%	679	25.59%	25	0.94%	5	0.19%	1	0.04%	2653
2015	2067	72.73%	745	26.21%	27	0.95%	3	0.11%	0	0.00%	2842
2016	2213	70.57%	877	27.97%	39	1.24%	6	0.19%	1	0.03%	3136
Total	19889	72.77%	5779	21.14%	605	2.21%	720	2.63%	340	1.24%	27333

From 2004 to 2016, due to the establishment of modern enterprise system and requirement of setting internal control mechanism, more and more listed firms have set the positions of chairman of the board and General manager. Since 2006, most of the A-share listed firms have finished this process. However, we find the establishment of the chairman of the board is earlier than the General manager. Also, the decreasing trend appeared two years earlier, however, since 2007, almost the whole A-share listed firms have both the chairman of the board and the General manager, and it has transformed to a binomial distribution, whether they are the same person or not. However, since 2007, there is a trend that the number of firms with the same person as chairman and the General manager is increasing. After having analyzed the whole economy, we further investigated into the MOEs which the proportion of state-owned shares exceeded 20 percent and the state is the ultimate owner (La Porta, 1999). Table 4 and Table 5 present the related information about the MOEs.

Table 4 Sum of main variables – MOEs

Time	sp			cp			roa		
	Mean	Std. Dev.	Freq.	Mean	Std. Dev.	Freq.	Mean	Std. Dev.	Freq.
2004	0.338	0.242	80	0.584	0.389	80	0.024	0.080	80
2005	0.332	0.231	80	0.586	0.380	80	-0.018	0.222	80
2006	0.282	0.220	80	0.572	0.412	80	0.011	0.224	80
2007	0.237	0.216	80	0.539	0.445	80	0.058	0.081	80
2008	0.204	0.200	80	0.520	0.450	80	0.060	0.238	80
2009	0.120	0.173	80	0.342	0.441	80	0.026	0.133	80
2010	0.102	0.172	80	0.299	0.434	80	0.051	0.073	80
2011	0.082	0.161	80	0.266	0.422	80	0.047	0.100	80
2012	0.081	0.165	80	0.275	0.435	80	0.053	0.076	80
2013	0.083	0.162	80	0.243	0.406	80	0.047	0.062	80
2014	0.079	0.153	80	0.243	0.405	80	0.032	0.076	80
2015	0.070	0.147	80	0.227	0.400	80	0.028	0.073	80
2016	0.073	0.147	80	0.217	0.391	80	0.032	0.065	80
Total	0.160	0.211	1040	0.378	0.440	1040	0.035	0.133	1040

Compared with the full sample, the proportion of state-owned shares in MOEs is usually higher, but it also has decreased throughout the whole period. Surprisingly, these firms seem to be the pioneer in establishing the modern enterprise system. Especially after 2008, MOEs have speeded up the separation of control power and ownership, and the process is substantially beyond other firms in the whole economy.

Table 5 The proportion of the different type of corporate governance – MOEs

Time	Different person		Same person		Only chairman of the board		Only General manager		None of them		Total
	Freq.	Prop.	Freq.	Prop.	Freq.	Prop.	Freq.	Prop.	Freq.	Prop.	
2004	60	75.00%	12	15.00%	2	2.50%	4	5.00%	2	2.50%	80
2005	66	82.50%	14	17.50%	0	0.00%	0	0.00%	0	0.00%	80
2006	64	80.00%	16	20.00%	0	0.00%	0	0.00%	0	0.00%	80
2007	69	86.25%	11	13.75%	0	0.00%	0	0.00%	0	0.00%	80
2008	65	81.25%	15	18.75%	0	0.00%	0	0.00%	0	0.00%	80
2009	67	83.75%	13	16.25%	0	0.00%	0	0.00%	0	0.00%	80
2010	69	86.25%	11	13.75%	0	0.00%	0	0.00%	0	0.00%	80
2011	66	82.50%	14	17.50%	0	0.00%	0	0.00%	0	0.00%	80
2012	66	82.50%	14	17.50%	0	0.00%	0	0.00%	0	0.00%	80
2013	70	87.50%	10	12.50%	0	0.00%	0	0.00%	0	0.00%	80
2014	72	90.00%	8	10.00%	0	0.00%	0	0.00%	0	0.00%	80
2015	70	87.50%	10	12.50%	0	0.00%	0	0.00%	0	0.00%	80
2016	70	87.50%	10	12.50%	0	0.00%	0	0.10%	0	0.00%	80
Total	874	84.04%	158	15.19%	2	0.00%	4	0.38%	2	0.19%	1040

Table 5 indicates that in 2004, 97.5 percent of MOEs have set the position of the chairman of the board or General manager, and 90 percent of them have set the both. After 2005, it has formed a stable pattern, and the firms have a different person as chairman of the board, and the General manager is in flux but within a 5 percent range.

Figure 1 is a comprehensive comparison between MOEs and full sample. Except in the initial period, we find there are no significant differences in none, only chairman of the board and only General manager, and the main differences are in same person and different person options. After 2008, two lines have separated in the figures of Different person and Same person. The MOEs has remained in a stable pattern, but the full sample has decreased in Different person, increased in Same person, which means not the MOEs but the other types of ownership like PEs has concentrated the decision-making rights and control rights.

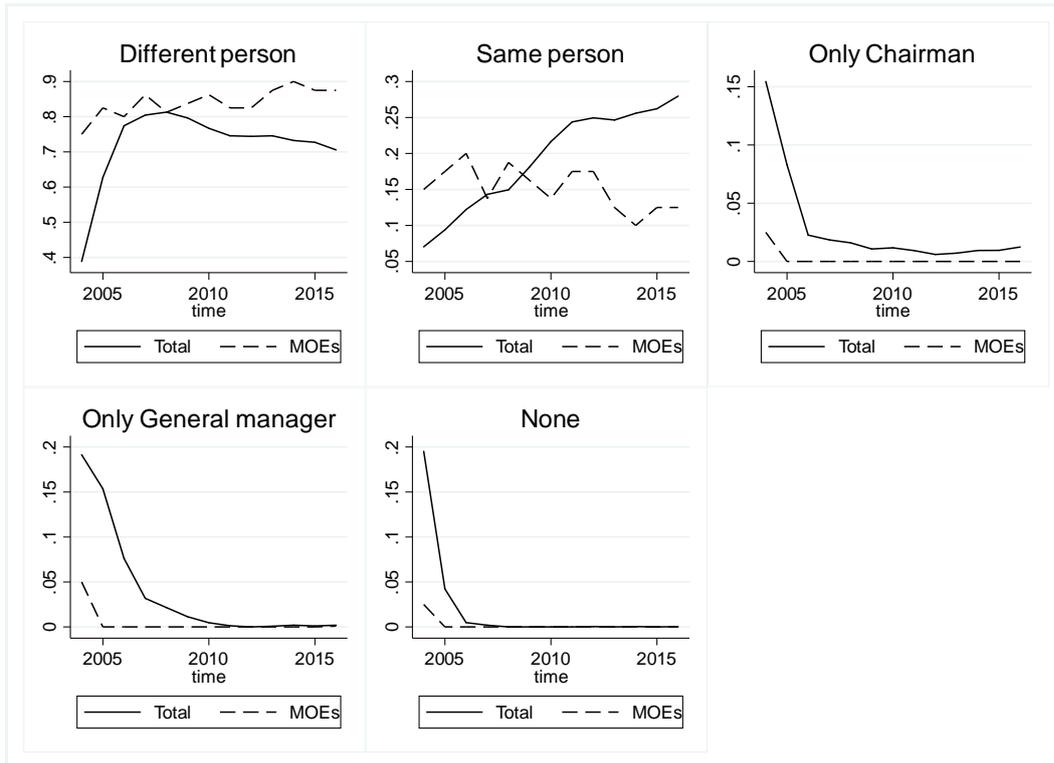


Figure 1 Different type of corporate governance from 2004 to 2016 – full sample and MOEs

Figure 2 presents the change of average ROA from 2004 to 2016. From the figure, we found the trend of MOEs is very close to the full sample. In 2007 and 2010, ROA experienced a sharp decrease, which mainly reflected in the lousy performance of manufacturing (Wang, 2011). Also, the financial crisis in 2008 influenced the average ROA.

Before 2007, the average ROA of MOEs is higher than full sample, then the full sample increased quickly and exceeded the MOEs. After 2010, the ROA of full sample is always higher than MOEs, and the gap enlarged after 2010. In general, the figure showed the MOEs performed worse than average level of the full sample, which implies most MOEs are still inefficiency compared with the PEs.

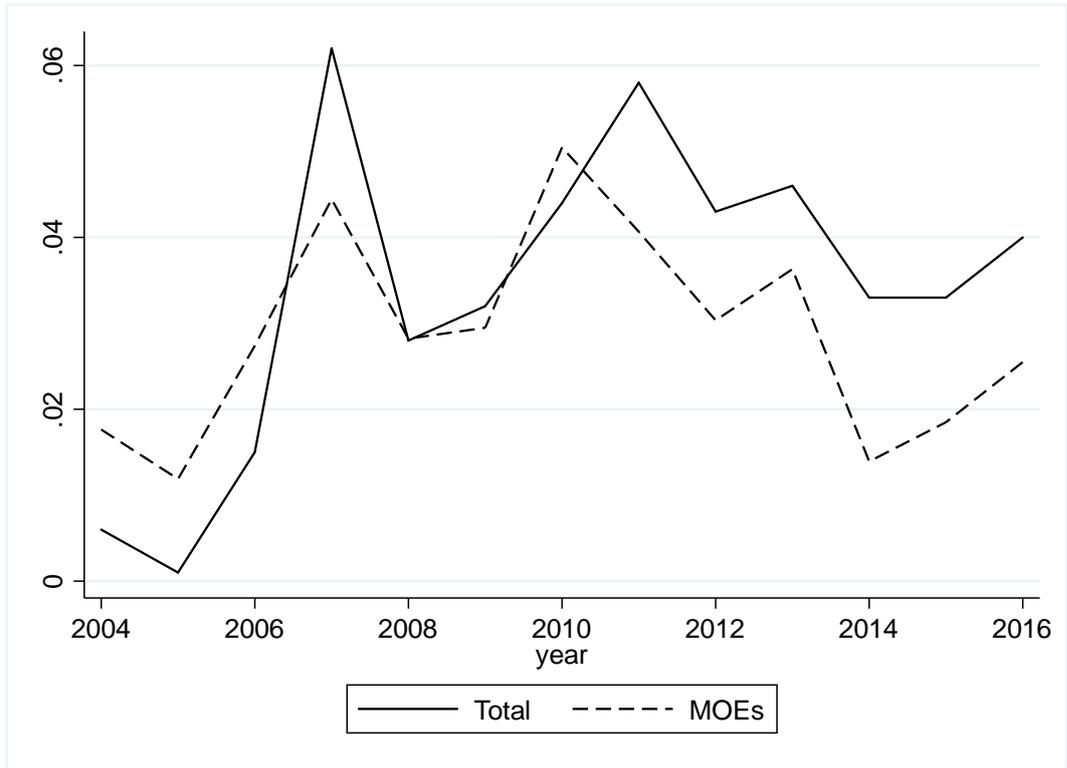


Figure 2 Change of ROA from 2004 to 2016 – full sample and MOEs

4 Method

4.1 Hypothesis

Discussed before, the property rights theory suggests the state ownership is less efficient than private ownership, Wei et al. (2005) and Wei (2007) all proved that. Furthermore, state ownership is even inefficiency under corporate governance (Xu & Wang, 1999). Because the managers have interest conflicts with the owner under the agency-principal model, it is necessary to build an effective monitoring system to supervise the managers. The same person as General manager and chairman will lead to an inefficiency monitoring system and be harmful to corporate performance. As we are most interested in the dynamic relationship between corporate governance, state ownership, and corporate performance, we utilized panel vector autoregression (Panel VAR) and Impulse-response functions (IRF) to explain the effects of corporate governance and state ownership on corporate governance. Therefore, following hypotheses are proposed:

Hypothesis 1: The proportion of state-owned shares is negatively related to the corporate governance.

Hypothesis 2: The same person as a General manager and chairman of the board is negatively related to the corporate governance.

4.2 Model

We utilized a panel vector autoregression methodology in this thesis. In panel VAR approach, there is no classification between dependent variable and independent variable, all of the variables are regarded as endogenous variables. Also, the model does not rely on the production function, which means there is no requirement to set complex control variables. Also, to avoid the individual differences influence the estimation of the model, our model included the individual heterogeneity (fixed effects). As we are mainly interested in the

relationship between corporate governance, state ownership, and corporate performance, we developed a three-variable VAR, and the equation is:

$$Y_{it} = Y_{it-1}A_1 + Y_{it-2}A_2 + \dots + Y_{it-p+1}A_{p-1} + Y_{it-p}A_p + X_{it}B + u_i + e_{it} \quad (3)$$

$$i \in \{1, 2, \dots, N\}, t \in \{1, 2, \dots, T_i\}$$

To examine the multivariate relationship, the traditional method like Simultaneous Equation Models requires to specify many control variables. In the past study of Zhang (2011), a model was developed to test the relationship between mixture degree of MOEs and the firm performance. Four control variables were introduced, the net margin, earnings before interest and taxes, sales growth rate, and total cost. Also the work of Wei (2007), who studied the relationship between firm performance, corporate governance, and ownership structure, controlled to the value of total assets, number of listing name, capital structure, investment opportunity, and industry. The model is like:

$$FP_i = \beta_0 + \beta_1 SP_i + \beta_2 CG_i + \beta_3 CV_i + \beta_4 I_i + \varepsilon_i \quad (4)$$

FP is the firm performance; SP is the state-owned shares, CG is the corporate governance variable, CV is the control variable, ε is the standard error. In these studies, it is always limited by the short time period and complex theoretical relationship. However, panel VAR approach could help to resolve these problems, by utilizing the orthogonalization of impulse responses, we could simply observe the response of corporate performance to the shocks of state ownership and corporate governance. However, because there are three variables in our model, to isolate one variable from the others, it is necessary to decompose the residuals to make them orthogonal; also, the ordering of variables is important, and the variables that appear later are more endogenous (Love & Zicchino, 2006). In equation 3, Y_{it} is a vector of dependent variables; u_i and e_{it} are vectors of dependent variable-specific panel fixed-effects

and idiosyncratic. By utilizing this model, we could estimate the fixed effects jointly.¹¹

Combined with our variables, the first order VAR model is

$$\begin{aligned} F_{it} &= F_{it-1}A_{11} + S_{it-1}A_{21} + C_{it-1}A_{31} + u_{1i} + e_{1it} \\ S_{it} &= S_{it-1}A_{12} + C_{it-1}A_{22} + F_{it-1}A_{32} + u_{2i} + e_{2it} \\ C_{it} &= C_{it-1}A_{13} + F_{it-1}A_{23} + S_{it-1}A_{33} + u_{3i} + e_{3it} \end{aligned} \quad (5)$$

$$i \in \{1, 2, \dots, N\}, t \in \{1, 2, \dots, T\}$$

F_{it} is a vector of firm performance variable, ROA; S_{it} is a vector of ownership variable, state-owned shares; C_{it} is a vector of corporate governance variable, a dummy whether the chairman of the board and the General manager is the same person; $X_{it}B$ is the vector of control variables. By using VAR on panel data, we are able to consider the complex relationships between our interested variables, and with introduced the fixed effects, it allows the firm-specific unobserved heterogeneity in the levels of the variables (Love & Zicchino, 2006). To remove the individual different among the MOEs, we utilized the forward mean-differencing procedure. This procedure removed the mean of all the future observations for each time unit, it also preserved the orthogonality between transformed variables and lagged regressors, so we could use lagged regressors as instruments to estimate the coefficients by Generalized method of moments (GMM) framework (Love & Zichinno, 2006).

Abrigo and Love (2015) developed a methodology by GMM to estimate VAR models, which performed well in fixed T and large N settings. Hartwig (2009) concluded the ‘difference’ GMM and ‘system’ GMM, which is used to solve correlation between the lagged dependent variables. However, two methods are normally implied for the panels with small T and large N. As the GMM is a consistent estimator, there is no bias when N is infinite, but is severe bias with long panels. Usually, Biased-correlated LSDV is preferred with long panels. However, the results of Monte Carlo simulation shows for long panels even when T = 20, Biased-correlated LSDV has the best performance, and when the corrected LSDV is not practical, a

¹¹ Aribo and Love(2015) indicate with the presence of lagged dependent variables into the system of equations, the estimates would be biased even with large N and large T. Although theoretically, the bias approaches zero as T gets large, Judson and Owen (1999) find significant bias when T=30.

GMM producer produces lower root-mean-square error relative to the Anderson-Hsiao estimator (Judson& Owen, 1999). As we observed the average T of observations is around 10 , the method of system GMM is utilized. Anderson and Hsiao (1982) presented a statistical analysis of time series regression models for penal data with large N and suggested an instrumental variable which is realized by the first-difference transformation. However, the first-difference transformation is not preferred in unbalanced panel data, because it caused problems like the enlarges of the gap.¹² Instead, the instruments used in this estimator is observed realizations, which subtracts the average of all available future observations and the missing observations substituted with zero (Abrigo& Love, 2015). By applying this estimator, the observations in the sample got the maximum level of reservation.

4.3 Model specification

There are two ways to select the lag order, one way is to select the number of lags based on an information criterion (AIC/BIC/HQIC), and the other way is to compute bootstrapped critical values for \bar{Z} and \tilde{Z} by cross-sectional dependence (Lopez& Weber, 2017). However, in this way, \bar{Z} and \tilde{Z} only normally distributed when $N \rightarrow \infty$ and T is relative large close to N.¹³ Love and Abrigo (2015) applied Andrews and Lu (2001)'s moment and model selection criteria (MMSC) to GMM estimator, and indicate an alternative criterion, the overall coefficient of determination (CD), but it still need large T to complete calculations. Here we followed the method of Lian (2009) to calculate the AIC, BIC and, HQIC, and the results are presented in Table 6.

Table 6 Results of selection order criteria

lag	AIC	BIC	HQIC
1	-2.85269	-1.54879	-2.34872
2	-2.88541	-1.41793	-2.31573

¹² If some Y_{it-1} is missing values, then the first-differences at time t and t-1 are both missing (Abrigo& Love, 2015).

¹³ $N \rightarrow \infty$ and $T \rightarrow \infty$.

3	-3.21549	-1.55481	-2.56774
4	-3.15294	-1.2599	-2.41074
5	-4.07415*	-1.89528*	-3.21506*

The order following '*' is recommended by the tests.

Based on the AIC, BIC, and HQIC, it suggests the fifth-order panel VAR is the preferred model.

5 Empirical results

Based on the fifth order panel VAR model, we estimated the models for cp, sp, roa, and the individual difference is removed by forward mean-differencing procedure. The estimated results of the model is presented in Table 7, and the coefficients indicate the effects of the endogenous with different lags. The estimation results of all models suggests the GMM weight matrix is robust. To analyze the effect of each endogenous on the other, Table 7 is separated into three parts. In each part, one endogenous is regarded as the dependent variable. The first part of cp indicates the first lag of cp has a significant effect on cp in all models, and the first lag of cp and roa, the second lag of cp and the fifth lag of sp have a significant positive effect on cp. The second part indicates the first lag of sp has a positive effect on sp, and the third lag of sp has a negative effect on sp. The third part indicates that the first lag of roa, the third lag of roa and the fourth lag of sp have a positive effect on roa.

A critical finding of the regression results is the fourth lag of sp is positively related to the roa, which indicates that the state ownership has a positive effect on corporate performance in around two to three years. The other finding is the ROA is positively related to cp, which means the firm with higher ROA tends to have the same person as a General manager and Chairman. Also, we found the firms with higher proportion of state ownership tend to have different person as General manager and chairman. The result rejected our hypothesis 1 and supported the state ownership was positively related to corporate performance. Also, the change of state ownership needs at least three to four years to be effective on corporate governance and corporate performance. As sp is negatively related to cp, it suggests the state ownership can improve the corporate governance by enhancing the monitoring system. Alternatively, the more the SOEs privatized, the firms are more likely to have the same person as a General manager and chairman. Because both General manager and chairman of these firms are directly appointed by the government, the relationship can be caused by the political intentions. Although the result cannot tell the mechanism between them, the direction of the relationship between corporate governance and state ownership is found.

Table 7 Results of panel vector autoregression

	L1. cp			L1. sp			L1. roa		
	Coef.	Std. Err.	P> z	Coef.	Std. Err.	P> z	Coef.	Std. Err.	P> z
cp L1.	0.639***	0.088	0.000	-0.021	0.017	0.210	-0.017	0.036	0.628
sp L1.	0.042	0.146	0.773	0.544***	0.090	0.000	-0.004	0.046	0.935
roa L1.	0.200**	0.088	0.022	-0.010	0.051	0.851	0.153**	0.068	0.025
cp L2.	-0.043	0.081	0.600	0.002	0.013	0.881	0.010	0.031	0.757
sp L2.	0.001	0.100	0.996	-0.007	0.045	0.884	0.065	0.057	0.255
roa L2.	-0.160	0.087	0.064	0.053	0.042	0.204	0.120	0.077	0.119
cp L3.	0.104 *	0.063	0.100	0.000	0.018	0.980	-0.005	0.018	0.783
sp L3.	0.105	0.066	0.109	-0.071*	0.041	0.084	-0.078	0.049	0.110
roa L3.	-0.049	0.043	0.262	-0.047	0.043	0.282	0.054*	0.031	0.077
cp L4.	-0.019	0.062	0.763	0.026	0.018	0.161	0.008	0.016	0.633
sp L4.	0.036	0.067	0.591	-0.001	0.035	0.982	0.071**	0.033	0.030
roa L4.	-0.001	0.044	0.979	-0.019	0.021	0.374	0.024	0.019	0.195
cp L5.	-0.014	0.050	0.784	-0.001	0.017	0.976	-0.003	0.014	0.807
sp L5.	-0.090*	0.050	0.075	0.017	0.021	0.424	-0.015	0.022	0.490
roa L5.	0.027	0.035	0.438	0.002	0.023	0.919	0.018	0.020	0.359
No. of panels	80								
No. of obs	446								

*Instruments used: 11.cp 11.sp 11.roa 12.cp 12.sp 12.roa 13.cp 13.sp 13.roa 14.cp 14.sp 14.roa 15.cp 15.sp 15.roa. '***' indicates significance at 1% level; '**' indicates significance at 5% level; '*' indicates significance at 10% level.

Because the VAR with high orders needs many lags as instruments, which makes it difficult to explain the estimation results. Usually, Impulse-response functions is more preferred as the instrument to analyze the dynamic between each two endogenous variables in the VAR

system. We present the graph of Impulse-response functions in figure 3, and the confidence interval is estimated at one thousand times of Monte Carlo simulation (Abrigo & Love, 2015). Figure 3 indicates the response of the ROA to corporate governance is positive in the initial period, but not significant in the following period. This implies the same person as General manager and chairman increases the ROA in the first period. If the General manager and chairman was the same person, the power of decision-making and control are highly concentrated. Although it leads to an ineffective monitoring system, the concentration of decision-making rights and control can still help to increase the corporate performance. Because both manager and chairman are appointed by the government, in this case, the same person not only avoids the conflicts between decision maker and controller but also help to improve the efficiency in operating. Moreover, because these managers and chairman belonging to the government at the same time, the monitoring from the government can supervise the activities of managers.

The other significant response is from ROA to state-owned shares, a shock of ROA significantly increased the state-owned shares at first, and then repeated significant and not significant in the following periods. After 2000, one most important strategy in SOEs reform is 'zhuadafangxiao,' which requires to gradually close the loss-making SOEs and keep the enterprises with good performance in the market. Hence, most of reminded SOEs are selected by the government. Because the process is still in flux, and the mechanism behind is not completely market-oriented, but policy-oriented. If the government gave priority to privatizing companies that are not profitable, the state shares in those better performed SOEs will be relatively higher. However, the figure 3 indicates the lower bond of 5% confidence interval is only 0.001 above zero, which implies the effect mainly exists in the early period.

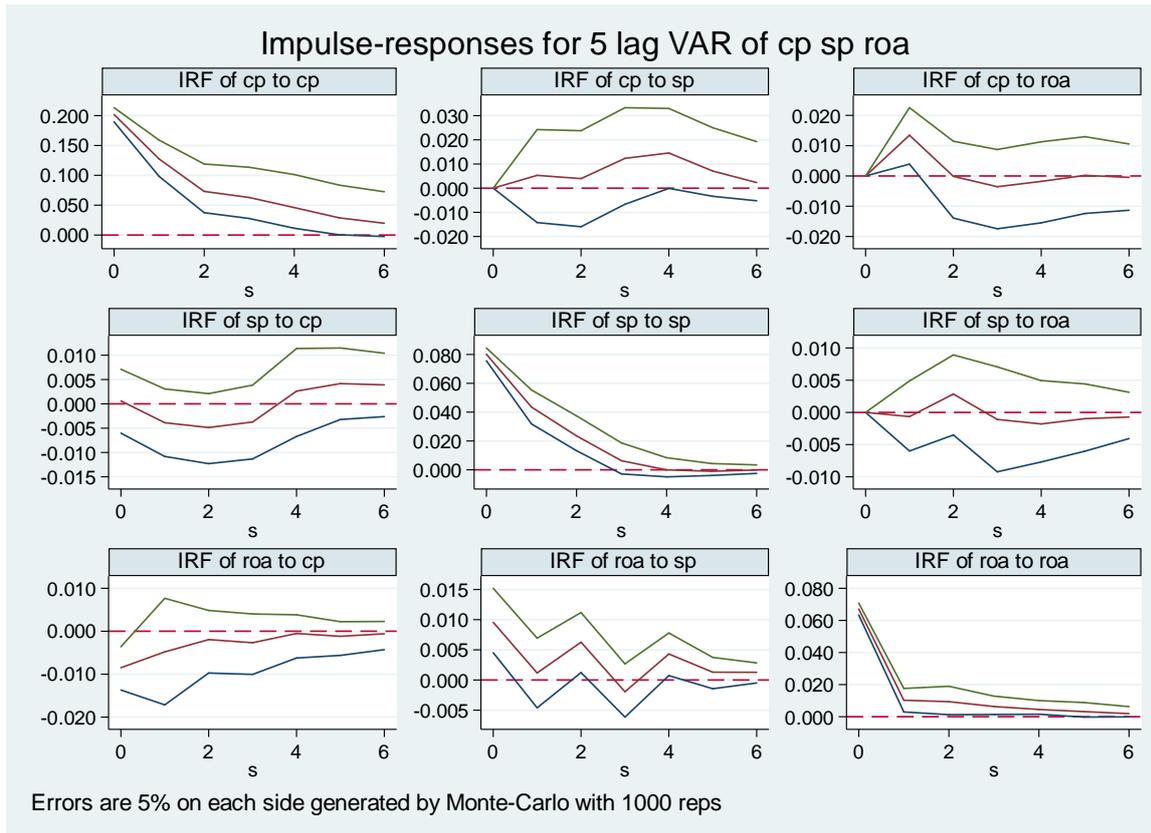


Figure 3 Impulse-response for variables cp, sp and roa

Concluded the results of vector autoregressions and impulse-response functions, we found the fourth lag of sp had a positive effect on roa, and a shock of cp to roa had a significant positive response in the very early period. With regard to the comprehensive results suggests the same person as General manager and chairman has a positive effect on corporate performance, and state-owned shares is positively related to corporate performance, hypothesis 1 and hypothesis 2 are rejected.

Moreover, we compared the average mean between MOEs and full sample and found the MOEs did not perform better than the average level, which indicated the MOEs was still inefficiency comparing with the PEs. However, not only offering economic value, MOEs carries much more political weight than PEs (Duncan, 2015). The government needs MOEs to realize the party interests and controls the most important industries which can pose a threat to the stability of the regime. Therefore, the ownership reform and corporate reform is only for improving the performance of MOEs, but not transformed them to be complete profit-driven like PEs. That is also the reasons why chairman and General manager are still appointed by the government. It is also argued that the corporate governance reform has been

too rapid in China. Because of the lack of formal institutional environment, the MOEs cannot completely adopt the western-style governance models (Wei, 2007). In the case of weak internal and external control mechanism, separating the decision-making rights and governance rights cannot improve the corporate performance. In contrast, the concentration of these rights improved the corporate performance. Besides, the privatization of state ownership cannot improve the corporate performance too. Although the transformation to a market economy is incomplete without privatization, as Kang and Kim (2012) suggested, the market economy cannot work without relevant institutions. Because state-owned shares is not freely tradeable in the market, we believe the positive effect of ROA to state ownership is more policy-driven.

6 Conclusion

This study investigated the dynamic relationship between state ownership, corporate governance, and corporate performance. We found the SOEs transformed into MOEs through partial-privatization and building the modern enterprise systems. Based on a panel data of A-share listed MOEs from 2004 to 2016, we shown a concentration of decision-making rights and control rights was postively related to MOE's corporate performance, and the corporate performance of MOEs was negatively related to the process of privatization.

Our first finding indicates the internal control mechanism like separating decision-making rights and control rights does not help to improve MOE's performance. In contrast, the concentration of these rights can help to improve MOE's performance in a short period. Different from the other emerging economies, the origin internal control mechanism cannot help to resolve the traditional agency problem of MOEs in China. As China's institutional environment is still lack of formal property-rights protection systems, the corporate governance reform seems to be overdeveloped now. In current status, it is still the political monitoring system, and the government intervention play the important roles in MOEs' governance system. The second finding indicates the state ownership does not have a significant negative effect on MOEs' performance. However, the government has played a more important role in the process of MOEs' privatization, which makes the state ownership concentrated in those high-performance MOEs.

As most studies suggest (Chen et al., 2009; Wei, 2007), for countries like China who have not established strong institutional environment, market-oriented state owner might be more suitable as controlling owner. Hence, we suggest the government should more focus on the establishment of institutional environment, for example, a more formal property rights protection legal systems. Moreover, in the approach of liberalizing market, the government should further lose the restrictions of non-tradeable shares to increase the liquidity of the stock market.

Potential for further development

In the past decades, China has made remarkable economic achievements and become one of the hottest research topics. Among these topics, as one of the most critical procedures in China's economic transition, the reform of SOEs attracted much attention.

With the partial privatization of SOEs, MOEs has come to the stage and appeared in every part of the economy. Because in this procedure, there are two approaches utilized to improve MOEs' performance. We are interested in which approach can influence the performance of MOEs. Finally, we found some empirical evidence and made a conclusion about the relationship between corporate governance, state ownership, and corporate performance, but there are still some shortcomings. First, the result does not strongly reflect the relationship, especially the relationship between ROA and state ownership. Second, limited by the methodology, lots of observations were dropped, and there was slight differences between the long-standing MOEs and others. Third, the variable cp can be better set, not only the internal control mechanism but the other features can be included to get a more convincing result.

As we found the traditional internal control mechanism is not useful in MOEs, the further research will focus on discussing how the government resolves the agency problem of MOEs.

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