Ultimate Controlling Structures and Firm Value:

Evidence from the Chinese Listed Companies

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Abstract

Using data on ultimate controlling structures of Chinese listed companies, we identify three issues in this article: (1) how common is the listed companies held by the state ultimately? (2) how does the state maintain the control of these companies? (3) the impacts of different controlling structures on firm value. It's found that more than 70% of Chinese listed companies are ultimately owned by the state and controlled by government. The government controls the listed companies directly or indirectly through solely state-owned enterprises mainly. Taking into account the trade-off between political costs and agency costs, we find that firm value increases with the separation between the listed company and the government.

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1. Introduction

This paper investigates the ultimate controlling structures and impact on firm value based on evidence from state-owned Chinese listed companies. The relationship between the state ownership and firm performance has been a focus of intensive academic research. There exist a number of studies examining the government's impact on firm performance and their findings suggest that government intervention reduced firm value (Shleifer and Vishny, 1993; Shleifer, 1998; Hellman, et. al. 2000). The other stream of research focuses on the agency problems between management and the state (Alchian, 1965; Qian, 1995; La Porta, et. al. 1999). We take both agency problem and government intervention into account to study the impact of ultimate state controlling structures on firm value.

According to the "grabbing hand" hypothesis, state-owned enterprises (SOEs) suffer from political costs when the government and politicians use SOEs to serve the political objectives which deviate from economic efficiency (Sappington and Stiglitz, 1987; Boycko et al., 1996; Shleifer and Vishny, 1994). As a result of the first stage enterprise reform (from 1978 to 1993), which decentralized some control rights from government to SOEs for improving firm efficiency, numerous evidences bring forth the increased productivity and performance (Chen, et. al. 1988; Groves, et. al.

1994).[1] However, firms suffer from the political costs seriously due to the government's direct control. In particular, politicians interfere with firm operation for political benefits through their formal authority over key personnel, investment decisions and labour deployment

To reduce the political costs, the state shifted the focus from decentralization to corporatization in the second stage of enterprise reform.[2] The main strategy is to establish a modern market system and corporatize SOEs into limited liability companies. Particularly, the state's role as owner is separated from the role as regulator to reduce political costs. However, agency costs increase when the state decentralizes more effective control rights from government to firm insiders (i.e., controlling shareholders or managers who have the effect control), resulting from managerial pursuit of private benefits at the expense of the firm value (Qian, 1995). For example, corporate insiders enjoy abnormal perks through the effective control on the firm. Moreover, the development of private business provides opportunities for diverting state assets to their private benefits (Qian, 1996).

The above evidences provide us with insights into the trade-off relationship between agency costs and political costs. On the one hand, separation of business from government reduces the political influence from the government on business decisions; on the other hand, agency costs augment accordingly with the separation due to weak corporate governance mechanisms. Therefore, the appropriate level of

[1] The 14 rights decentralized are: 1) production; 2) prices of products and services; 3) independent sale of products; 4) selection of suppliers; 5) foreign trade; 6) investment; 7) use of reserve funds; 8) disposing of assets; 9) operating jointly or merging with other units; 10) hiring and firing workers; 11) personnel management decisions; 12) distribution of wages and bonuses; 13) organization of international divisions; and 14) the refusal of prorations.

[2] Privatization is the way to reform SOE but mainly for small ones.

separation becomes an open question. In this paper, we attempt to provide some evidences through examining the relationship between the level of separation and firm value, using data on the ultimate controlling structure of Chinese listed companies owned by the state.

Specifically, we use three proxies for the level of separation between government and business: the length of controlling chain, measured by the number of layers between the government and listed company; identities of the immediate controller (the shareholder who control the listed companies directly in the controlling chain), a dummy variable depends on whether the immediate controller is a solely state-owned enterprise or not; and the divergence between cash flows and the control rights held by the government, measured by the difference between ultimate cash flow rights and control rights held by the government.

We find that 954 listed companies (more than 70%) are ultimately owned by the state.[3] Among the state-owned listed companies, 230 (24%) companies are controlled by the central government, 690 (72%) companies are controlled by the local government, and the remaining 34 (4%) companies are controlled by research institutions or universities. Data of the complete ultimate controlling structures for 887 state-owned firms are available. Using the data, we identify that 88% of firms are controlled by government through two or three layers. Further, we find that 74% of firms (655) are immediately controlled by a solely SOE. The average cash flow rights held by the ultimate controller is 43%, while the average control right is 47%.

[3] According to our data, there are 1379 firms disclosed ultimate controlling chain, but 35 of them are not complete disclosure.

Divergence between the ultimate control rights and cash flow rights is not significant, which exists in 250 (28%) firms in our sample.

It's found in this paper that the length of controlling chain and divergence between control rights and cash flow rights are positively related to firm value, while firms immediately controlled by the solely SOEs perform worse. Overall, our results support that firm value increased with separation of business from government. Finally, we separate the whole sample into two based on the intensity of political costs (local government vs. central government). The results show that firm value increased with separation when political costs are high, while this relationship does not exist in the other sub-sample where politician inference is low. Based on our findings, it's implied that local government-owned firms should be further decentralized for performance improvement.

Our study contributes to the literature as following. First, we apply the methodology used in La Porta et. al. (1999) and Claessens, et. al. (2000), and extend the research on ultimate control by the state. This paper describes the complete controlling chain from the government to the listed firms from several aspects, including the length of the chain, identities of immediate shareholders and divergence between cash flow rights and control rights held by the ultimate controller – the government.

Second, we consider both the political costs and agency costs existing under the government's ultimate control, while most of previous empirical studies of the state ownership focus on one of them separately (Hellman, et. al. 2000; Xu and Wang,

1999; Alchian, 1965; Qian, 1995; La Porta, et. al. 1999). Based on our analysis, separating business from government intervention affects both agency costs and political costs simultaneously. Thus, we provide complete explanations on the relationship between firm value and ownership structures by considering both of them.

Third, this paper contributes to the literature on SOEs reform, especially in developing countries. Previous research shows that decentralization and corporatization are better alternative choices for SOE reform in developing countries, which are lack of corporate governance mechanisms. Our findings extend the literature showing the existence of an appropriate level of separation of government and business to maximize the firm performance.

The rest of the paper organizes as follows. Section 2 is a short history on SOEs reform and development of stock market in China. Section 3 reviews relevant literatures and analyze the relationship between ultimate ownership structures and firm value. Section 4 describes the construction of data, as well as incidence of various ultimate controlling structures for Chinese listed companies. Section 5 presents the empirical findings on the relationship between ultimate controlling structures and firm value. Section 6 concludes the paper.

2. The SOEs reform and development of stock market in China

China's SOEs were owned by the state and controlled by the central or local government before the economic reform. All the decisions such as employment and production are made by the government institutions. The managers and employees

have very few incentives in operation under such conditions. Even worse, political-motivated objectives lower the firm efficiency.

In order to stimulate economic development, China transforms from a planned to a market economy from 1978. The reform was started with an expansion of enterprise autonomy and 3% of retainable profits while the basic institutional framework of central planning remained. Although the SOEs were motivated to improve productivity and efficiency, firm managers had incentives to hide profits from government or transferred to their own companies as well (Qian, 1995). However, politician's control is of limited function in mitigating agency costs, since the politicians had less information and capabilities in operations compared to firm managers. Particularly, politicians are not residual claimants, so that they are lack of incentives to monitor the mangers to maximize firm profits, rather than to pursuit political benefits, for example excessive labors to maintain social stability.

Therefore, in the second stage of reform the government retreated from direct control over enterprises by constructing a socialist market economy and a modern corporate system. Like other economies making the transition from planning system to market economy, the major task of Chinese enterprises reform is to separate SOEs from government. Particularly, two stock exchanges were set up and many large or medium-sized SOEs were transformed into publicly listed firms on the stock market.[4] According to our data on ownership structure in year 2004, more than 70% of listed companies are ultimately owned by the state and controlled by the central or

[4] One is the Shanghai stock exchange (SHSE), opened in December 1990, and the other is the Shenzhen stock exchange (SZSE), inaugurated in April 1991.

local government through shareholding chain.

Figure 1 and 2 present the typical ultimate controlling structures of two listed companies. The state-owned listed companies are ultimately controlled by the central government or at the level of local government with authorization of the State Council. However, instead of involving in the day-to-day affairs as before, the state serves the role as the owner. State Asset Management Bureaus (SAMB) at central and local levels are founded to supervise firm operation representing the state's interests. SAMB could control the shares of listed companies directly or indirectly through SOEs.[5]

3. Ultimate controlling structure and firm value

The effects of ownership structure and firm value have been researched extensively. Different from the findings documented in Berle and Means (1932), more and more studies began to question the validity of dispersed ownership from 1970s (Eisenberg, 1976; Demsetz and Lehn, 1985; Shleifer and Vishny, 1986). La Porta et al. (1999) investigate the ownership structures of large corporations in 27 economies and identify that firms in these economies are ultimately controlled by families or the state, through the use of pyramids, cross-shareholding and superior voting rights.

The presence of large shareholders causes both gains and losses which affect firm valuation. On the one hand, large shareholders have strong incentives and

[5] According to the Article Eight of "Regulation for State-owned Shares in Joint-stock Companies", when the SOE is completely transformed to a listed company, or partially but includes its core business parts, the state holds the shares directly through a government agency. These shares are classified as state shares. Alternatively, the shares are classified as state-owned legal person shares or legal person shares and held by a parent-SOE when only small portions or subsidiaries of the SOE are transformed to the listed company.

capabilities to monitor managers so as to maximize firm value (Jensen and Meckling, 1976, Shleifer and Vishny, 1997); on the other hand, however, large shareholders have their own interests, which are not consistent with the interests of other investors sometimes. The costs of large shareholders' control decrease the firm value (Morck, Shleifer and Vishny, 1988; Stulz, 1988, Claessens, et al., 2002).

The relationship between ownership structure and firm value is more complicated when the state is the ultimate owner, which is prevalent in Chinese listed companies. As the state serves the role as the regulator, the state faces more interests conflicting with the firm profitability sometimes. Fan, Wong and Zhang (2005) shows that local government burdened with poor fiscal conditions or unemployment wants the firms to subsidize public expenditure or support employment, both are against the value-maximizing objective. In addition, politicians rather than professional managers represent the government to control the firms ultimately. Groves et al. (1995) find that, politicians are not chosen for the management experience or specific industry knowledge and their promotions are based more on the commitment to government policies. As shown in Shleifer and Vishny (1994), politicians may require the firm to serve their own benefits at the expense of firm efficiency. Therefore, political costs, the costs suffered by the firm to serve the political objectives which deviate from economic efficiency, arises when the state control firms more rigorously and has negative effect on the firm value (Qian,1996; Sappington and Stiglitz, 1987; Boycko et al., 1996).

Separating business from government could reduce the political costs.

Decentralization provides firms with more decision-making autonomy. However, the separation causes extra agency costs while reducing the political costs, resulting from managerial pursuit of private benefits at the expense of the firm (Qian, 1995, 1996). According to Aghion and Tirole (1997), agency costs augment as more formal authority is delegated to the agent. The increase of agency costs is significantly higher in a developing market which is lack of corporate governance mechanisms, for example in China. With the market economy of less than 30 years and stock market of less than 15 years, China is still lack of governance mechanisms to protect shareholders from management shrinkage or entrenchment. Therefore, agency costs between the state and corporate insiders (controlling shareholder or managers who have formal control on the firm) increase with separation of business from government. The net effect of separation on firm value is thus an open empirical issue. If the political costs reduced exceed incremental agency costs, firm value will increase after the separation, and vice versa.

Specifically, this study uses three proxies for the level of separation of the listed firms from government. The first proxy is the length of controlling chain between the listed firms and the government. As reported in Qian and Stiglitz (1996), the managerial autonomy is enhanced and political intervention reduced in the companies which stay far from the government through a series of organizational transformations.[6] Accordingly, we predict that the longer of the controlling chain,

[6] Qian and Stiglitz (1996) report several cases of such organization transformations. Qian (1996) documents that 'a state-owned enterprise of Beijing first sets up a wholly-owned subsidiary in a special economic zone of Shenzhen; then the subsidiary enters into a joint venture with domestic and Hong Kong partners; later the joint venture sets up another subsidiary in Pudong development zone in Shanghai, and then the subsidiary forms another joint venture with a TVE (Tower-village enterprise) in neasby Wuxi of Jiangsu. After several rounds of

the less political cost endured by the firm. However, the corporate insiders' agency problem becomes worse when the government controls less. Tunneling, assets stripping, etc. could be the consequence of agency costs and lower the firm value.

The second proxy is the identity of the immediate controller (the shareholder who controls the listed companies directly in the controlling chain). When the immediate controller is a solely state-owned enterprise (SSOE), the state's control on the listed firms is more rigorous. According to the Company Law (1993), SSOE is wholly owned by the state-authorized organizations (institutions or government departments). The Chairman and deputy Chairman are directly assigned by the state-authorized organization. Although board of directors could decide the some business activities, the most important decisions are made by the state-authorized organizations, including mergers and acquisitions, dissolution, change of capital and bond issuance. Accordingly, the listed firms bear higher political costs but lack of the opportunity to shrink when immediately held by the SSOE.

The third proxy is the divergence between cash flows and the control rights held by the ultimate owner, government. Resulting from a longer controlling chain, divergence between cash flows and control rights represents the level of separation of business from the government (Qian, 1996). This is particularly true when the shareholders in the controlling chain are non-SSOEs. Therefore, the higher divergence between cash flows and control rights implies lower political cost suffered by the firm. However, the probability that corporate insiders benefit

transformation, effective managerial control expands.'

themselves through the effective control increased simultaneously, which implies an increase in agency costs.

4. Data collection and descriptive statistics

Starting from 2004, listed companies in China are required to disclose the complete controlling chain from the ultimate owner to the listed firm in annual report. This provides us an opportunity to investigate in detail the relationship between ultimate controlling structure and firm value. Using the characteristics of controlling chain to proxy the level of separation of enterprises from the government, we support evidences on the appropriate level of separation.

Data regarding the controlling chain is manually collected from annual reports of 2004. Other financial data and stock market data are from CCFR (Center for China Finance Research of Tsinghua University) database. Definitions of the variables used in this paper are explained in Table 1.

[Insert Table 1 here]

We exclude firms that a controlled by person(s) or work unions (28% of the total population), public universities and public research institutions (2.5%), financial intermediaries (0.7%), and firms whose ultimate owners cannot be identified (2.5%). Our final sample, as described in Table 2, consists of 230 central government controlled firms and 690 local government controlled firms, together represents 67% of the total population.

[Insert Table 2 here]

Four characteristics of the ultimate controlling chain are investigated: The

ultimate owner, the length of the controlling chain, the identity of the immediate controller, and the divergence between ultimate cash flows and control rights held by the government.

In our definition, the ultimate controller must be a government bureau.[7] Sometimes, we could only identify the controlling chain from the listed company to the government, but could not find the shareholding information in some level of the controlling chain. The data about ultimate cash flow rights and control rights is unavailable in such cases. For this reason, the number of observations for analysis of ultimate owners and the number of layers is higher than that for analysis of the identity of the immediate controller and the divergence between cash flows and control rights ultimately held by the government.

When calculating the length of the controlling chain, we identify the chain(s) connecting the largest ultimate owner and the company in question, and count the number of layers in the chain. The layer from the immediate controller to the listed firm is not included. When the ultimate owner has several controlling chains through which to control the listed firm, the number of layers is determined by the layers in the controlling chain that the ultimate owner has the highest voting rights.

In line with Claessens et al. (2000) and La-Porta et al. (1999), our definition of ownership relies on cash-flow rights, while the definition of control relies on voting rights. Ownership equals to the product of the ownership stakes along the controlling chain, whereas control right is the weakest link in the chain of voting rights. When

[7] When a firm discloses its ultimate owner is a company, we trace to the upper level, until the government level, otherwise it is classified into the group that the ultimate owner is not identifiable.

the ultimate owner has several controlling chains through which to control the votes in a company, we trace those chains individually and then sum up the control (cash flow) rights to yield the ultimate control (cash flow) share.

4.1 Who controls China's listed firms

Table 2 shows the ultimate owner of China's listed firms. 1379 firms disclosed the controlling chain. Except for 35 listed companies whole the ultimate owner are not identifiable, 390 (28.78%) firms have person(s) as the ultimate owner, 34 (2.51%) are ultimately controlled by public universities and public research institutions, and the left 920 are controlled by government. This indicates that private sector grown rapidly with the economic reform in Chinas. Among the 920 government controlled firms, 513 are controlled by local SAMB. This is 37.86% of the total population, and 55.76% of government controlled firms. The second largest group is firms controlled by central SAMB (205), which is 15.13% of the total population, and 22.28% of government controlled firms. These two figures show that with the SOE reform, both local and central government control SOEs mainly with SAMB. Firms controlled by other local and central government bureau are 177 (13.06% of the total, and 19.24% of the government controlled firms) and 25 (1.85% of the total, and 2.71% of the government controlled firms) respectively.

Ultimate controllers show different pervasiveness in different industries. In diversified firms and industries such as real estate, finance, IT, public service, and agriculture, there are relatively more private firms. However, in mining, utility, and transportation industry, most of the firms are controlled by government. Particularly,

more than 60% of the firms in these industries are ultimately controlled by local government.

4.2 How the government controls the listed companies

Table 3 shows the ownership characteristics of government controlled SOEs. We investigate the following aspects in detail. The first factor we examine is the identity of the immediate controller and second top shareholders in the controlling chain. It is shown in Table 3 that government controls 84.59% listed companies through a solely SOE at the second top level in the controlling chain. This number is even higher in central government controlled firms. With regard to the immediate controller, 73.90% firms have solely SOEs as their largest shareholder. Local government controlled firms are also more likely to use a solely SOE as the immediate controller.

[Insert Table 3 here]

The second aspect is the length of the controlling chain. It is shown in Table 3 that on average, 2.34 layers are applied by the ultimate owner to control the listed firm. Most of the ultimate owners use 2 or 3 layers. In 55 firms, the ultimate owner uses only 1 layer, and 6 layers are used by 3 firms. The number of layers used in SAMB and other government bureau controlled firms are similar, but local government controlled firms tend to have longer controlling chain. In central government controlled firms, the average number of layers used is 2.83 and 2.70 respectively. However, the most common number of layers used is 3. In local government controlled firms, the average number of layers used is 2.16 and 2.25

respectively. The possible reason is that central government controlled firms are larger. As a result, subsidiaries in the group, instead of the group itself, go public is a more common practice.

The third aspect being investigated is the divergence between ownership and control of the government. Table 3 shows that on average, the ultimate controller owns 42.87% cash flow rights in the listed firm. Central SAMB and other local government bureau have higher cash flow rights in listed firms. The mean control rights hold by ultimate owner is 46.49%. Central SAMB has the highest control rights in listed firms. In the process of collecting data, we notice that cross-holding is rear in government controlled firms. Furthermore, although there are layers in the control chain, the divergence between ownership and control of the government is not remarkable. This implies that the government is probably not intended to establish pyramidal structure. The ratio of ownership to control is 0.91 on average. The mean difference between ultimate owner's control rights and cash flow rights in listed firms is 3.63%. Local governments have closer cash flow rights and control rights in the listed companies. This indicates that the government and enterprises is still not highly separated in government controlled firms, especially in local government controlled firms. Consistent with our analysis that the divergence between ownership and control is a proxy for the separation of enterprises from government, a large percentage of our sample has the same ultimate ownership and control rights. Only 28.23% sample firms have higher ultimate control rights than cash flow rights. Central government tends to delegate more rights to enterprises.

The fourth aspect being investigated is the immediate controlling of the firm. Table 3 shows that the largest shareholder holds 46.35% shares on average. The largest shareholder in central SAMB holds more shares in listed firms. This might because that central SAMB controlled firms are larger. The mean herfindaile index of the largest three shareholders is 50.99%. Central SAMB controlled firms also shows the highest number.

4.3 To what extend that the government control is alone

[Insert Table 4 here]

Table 4 shows the probability that the government control is alone. We use four criterions to determine whether the government has solely control in listed firms: The control rights of the ultimate owner > 20%, >50%, the largest shareholding > 20%, and >50%. It is shown that 91.48% ultimate owners have relative control (control rights >20%) in listed firms, and 42.60% have absolute control (control rights > 50%). Using the largest shareholding as criteria, this number is higher. Central government is more likely to have absolute control over listed firms. Consistent with the result in Table 2, in mining and transportation industry, the government control is more probable to be alone. In diversified firms, this probability is much lower.

5. Empirical Analysis

Table 5 gives us some general information on the performance of SOEs. It is shown that compared to industry median, SOEs are larger, and have higher current ratio, turnover ratios, and market performance ratios, but lower profit ratios. T test

on the variance between central government and local government controlled firms shows that central government controlled firms are significantly larger than local government controlled firms. Moreover, the former group has significantly lower leverage, and higher profit margin from core business, net profit margin, ROA, CROA, ROE, CROE, and Tobin's Q.

[Insert Table 5 here]

Table 6-9 tests the effects of ultimate controlling structure on firm value. In Table 6, all SOE firms in our sample are used. It is shown that LAYER has significantly positive effect on market-to-book ratio. Longer controlling chain tends to produce higher value. The significantly positive parameter of OC2 and OC3 indicates that value is higher when the government is more separated from the enterprise. Consistent with this result, OC1 has significantly negative effect on market-to-book ratio. The significantly negative parameter of SC indicates that using a solely SOE to play the role of the immediate controller over the listed firm will have negative effect on the firm value. As all these variables are proxies for the level of separation of enterprises from government, and more separation is associated with lower political cost and higher agency cost, these results suggest that compared to agency cost, the political cost is more important in government controlled firms. When the firm is more separated from the government (has longer controlling chain, has a non-solely SOE act as the immediate controller, or has higher divergence of ultimate ownership and control rights), although the agency cost increased, the effect of lower political cost is dominate, and the value is increased. Table 6 also shows

that the number of years from IPO and leverage is positively correlated to firm value, while larger firms have lower value. Shareholding concentration at the immediate controlling level shows no marginal effect on firm performance.

[Insert Table 6 here]

Qian (1996) argues that the political costs are induced from two aspects. The first one is the conflict of interests between local government and central government. As the central government is the ultimate controller over state assets, the local government worries about possible future reallocation of assets by the central government. Hence, they might encourage enterprises to pursue short-term goal of profit maximization, rather than increasing the net worth of the assets. The second one is the conflicts between local government and enterprises. Local government might bring interference and unauthorized fees to enterprises. As a result, the political cost in local government controlled firms might be higher than that in central government controlled firms.

In Table 7 and Table 8, we test the effects of ultimate controlling structure on firm value in two different sub-samples. In Table 7, only local government controlled firms are included, and in Table 8 the central government controlled firms. We can see that in the sample of local government controlled firms, firms value increase with the separation of enterprise from government. This is consistent with the result in Table 6. However, the result doesn't hold in the sample of central government controlled firms. This suggests that in central government controlled firms, separating the government from the enterprises more clearly does not improve the

firm performance. Recall that in Table 2, we saw that central government has higher intensity to use solely SOE as its immediate agent to control listed firms. This suggests that although central government induces lower political costs to listed firms, it controls SOEs more tightly. This might lower the effect of decreased political costs.

[Insert Table 7 & 8 here]

6. Conclusions

This article documents the ultimate controlling structures of state-owned listed companies in China. We find that more than 70% of listed companies are ultimately owned by the state and controlled by local or central government branches. Complementary to the evidences of state-owned firms' structures reported in La Porta, et. al. (1999), this paper shows that the state holds the listed companies directly or indirectly through a controlling chain. Divergence between the cash flow rights and control rights of the state is not significant. In addition, the state strengthens the control on the listed firms by reducing the length of controlling chain or employing the SSOEs as immediate shareholders.

Consistent with the Qian (1996), we take both the political costs and agency costs into account to explain the impacts of ultimate controlling structures on firm value. Compared to previous studies which consider one of the costs, we could interpret the relationship between firm value and ownership structures more accurately. It's found that firms perform better when separated more from government in general. Particularly, our results suggest that local government should

decentralize more effect control rights to the corporate insiders for improving efficiency.

This paper has implications for state enterprise reform in the developing countries. Our findings support that decentralization and corporatization might be better alternatives than privatization, especially in the developing markets lack of governance mechanisms. When the firms are separated from government to reduce political costs, the regulators should enhance the corporate governance system to prevent agency problems.

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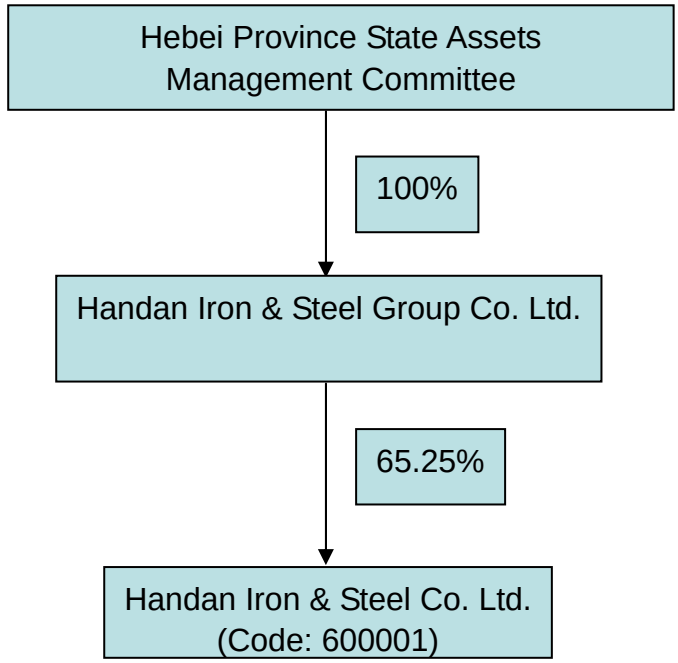
Figure 1 Ultimate controlling structure of Handan Iron & Steel Co. Ltd. (600001)

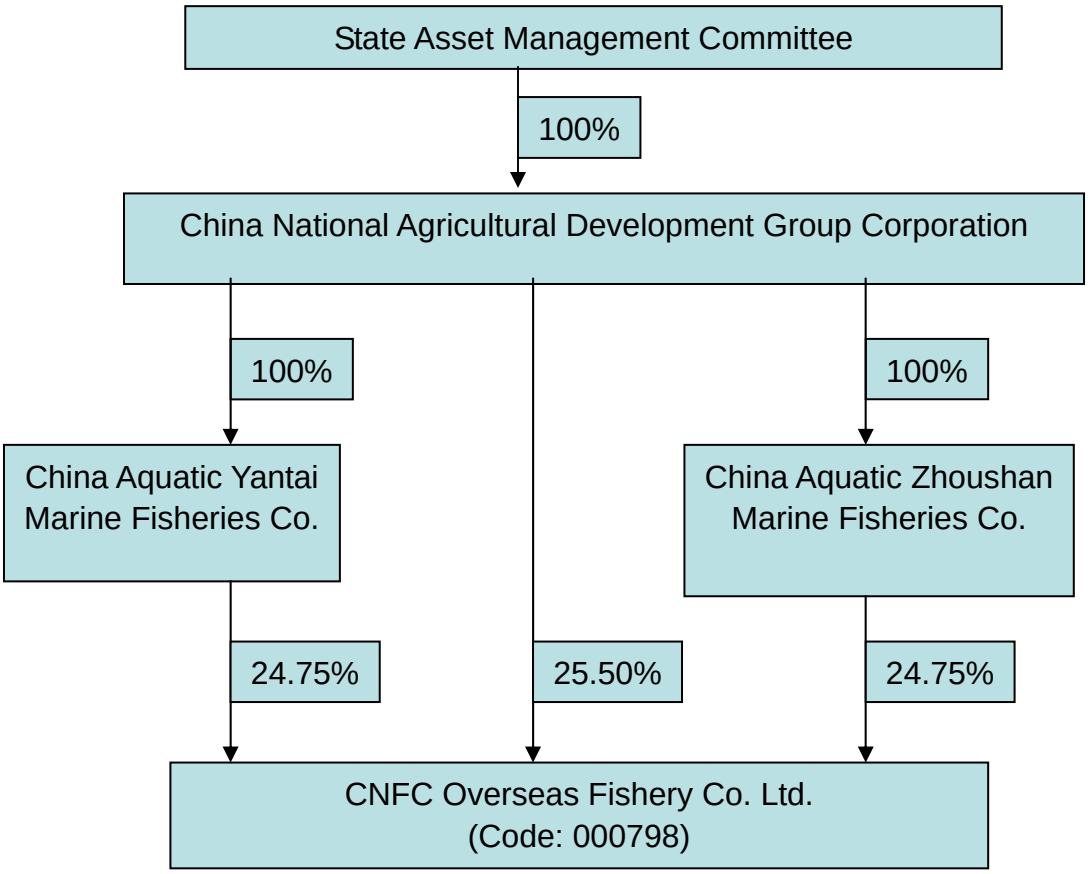
The Handan Iron & Steel Co. Ltd. (600001) is a state-owned listed company, which is ulimately controlled by Hebei Provincial State Assets Management Committee. The SAMB controls the listed company through a solely SOE, Handan Iron & Steel Group Co. Ltd.



Source: The 2004 annual report of Handan Iron & Steel Co. Ltd. (600001)

Figure 2 Ultimate controlling structure of CNFC Overseas Fishery Co. Ltd. (000798)

The CNFC Overseas Fishery Co. Ltd. (000798) is a state-owned listed company, which is ulimately controlled by State Assets Management Committee that report to the State Council. The SAMB controls the listed company through three solely SOEs: China National Agricultural Development Group Corporation, China Aquatic Yantai Marine Fisheries Corporation and China Aquatic Zhoushan Marine Fisheries Corporations.



Source: The 2004 annual report of CNFC Overseas Fishery Co. Ltd. (000798)

Table 1 Definition of the variables

Variable	Description
SSOE	Equals one if the largest shareholder is a solely SOE or government bureau.
Layer	Number of layers in the control chain. The listed firm is not included.
OC1	Ultimate owner's ownership / control. rights
OC2	Ultimate owner's control rights – ownership.
OC3	Equals one if the control rights of the ultimate owner exceed ownership.
H3	Square root of the summation of squared shareholding of the largest three shareholders.
Current	Current assets / Current liability.
Leverage	Total liability / Total assets
Accountings receivable turnover	Sales / Year end accountings receivable
Inventory turnover	COGS / Year end inventory
Total assets turnover	Sales / Total assets
Profit margin from core business	(Net sales – COGS – Operating taxes – operating expense – management expense – financial expense) / Net sales
Net profit margin	Net income / Net sales
ROA	Net income / Year end total assets
CROA	(Net sales – COGS – Operating taxes – operating expense – management expense – financial expense) / Year end total assets
CFROA	Cash from operating / Year end total assets
ROE	Net income / Year end equity
CROE	(Net sales – COGS – Operating taxes – operating expense – management expense – financial expense) / Year end equity
CFROE	Cash from operating / Year end equity
MB	Market price / Book value of equity per share
Tobin's Q1	(Book value of liability + Market price × Total shares outstanding) / Book value of total assets
Tobin's Q2	(Book value of liability + Market price × tradable shares outstanding + Book value of equity per share × non-tradable shares outstanding) / Book value of total assets
Year	Number of years from the IPO year to 2004.
Size	Ln (Total assets)

Table 2 Who controls China's listed firms

This table reports the number of firms controlled by different types of ultimate owner: Persons, central SAMB, central government, local SAMB, local government, and universities or research institutions. The number is calculated in whole sample and in each industry respectively. The percentage of the number in valid disclosure is in parentheses.

	Number of firms disclosed control chain	Number of firms that ultimate owner cannot be determined	Number of firms controlled by persons	Number of firms controlled by central SAMB	Number of firms controlled by central government bureau	Number of firms controlled by local SAMB	Number of firms controlled by local government bureau	Number of firms controlled by universities or research institutions
	(1)	(2)	(3) ((3)/(1-2))	(4) (4/(1-2))	(5) (5/(1-2))	(6) (6/(1-2))	(7) (7/(1-2))	(8) (8/(1-2))
Whole sample	1379	35	390 (28.78%)	205 (15.13%)	25 (1.85%)	513 (37.86%)	177 (13.06%)	34 (2.51%)
Agriculture	33	0	10 (30.30%)	3 (9.09%)	1 (3.03%)	9 (26.27%)	9 (27.27%)	1 (3.03%)
Mining	20	0	0 (0.00%)	7 (35.00%)	0 (0.00%)	11 (55.00%)	2 (10.00%)	0 (0.00%)
Manufacturing	788	17	230 (29.79%)	115 (14.90%)	11 (1.42%)	313 (40.54%)	89 (11.53%)	13 (1.68%)
Utility	60	1	4 (6.78%)	14 (23.73%)	2 (3.30%)	25 (42.37%)	14 (23.73%)	0 (0.00%)
Construction	24	0	4 (16.67%)	7 (29.17%)	0 (0.00%)	11 (45.83%)	2 (8.33%)	1 (4.17%)
Transportation	55	1	5 (9.26%)	9 (16.67%)	1 (1.85%)	23 (42.59%)	15 (27.78%)	0 (0.00%)
IT	82	2	29 (36.25%)	21 (26.25%)	2 (2.50%)	11 (13.75%)	6 (7.50%)	11 (13.75%)
Wholesaler	91	3	22 (25%)	9 (10.23%)	1 (1.14%)	43 (48.86%)	13 (14.77%)	0 (0.00%)
Finance	9	1	3 (37.50%)	2 (25.00%)	1 (12.5%)	1 (12.50%)	1 (12.50%)	0 (0.00%)
Real estate	57	1	23 (41.07%)	3 (5.36%)	0 (0.00%)	24 (42.86%)	5 (8.93%)	1 (1.79%)
Public service	47	1	16 (34.78%)	5 (10.87%)	2 (4.35%)	11 (23.91%)	12 (26.09%)	0 (0.00%)
Publishing	10	3	2 (28.57%)	1 (14.29%)	1 (14.29%)	2 (28.57%)	0 (0.00%)	1 (14.29%)
Diversified	78	3	35 (46.67%)	3 (4.00%)	2 (2.67%)	22 (29.33%)	7 (9.33%)	6 (8.00%)

Table 3 How government controls SOEs

This table reports the means that the government controls SOEs. The whole sample includes only firms controlled by central SAMB, central government, local SAMB, local government, and universities or research institutions. Definition of the variables is in Table 1.

	Whole sample	Firms with central SAMB as ultimate owner	Firms with central government bureau as ultimate owner	Firms with local SAMB as ultimate owner	Firms with local government bureau as ultimate owner
% of firms with a solely SOE at the second top layer	84.59%	97.45%	100.00%	81.00%	78.61%
% of firms with a solely SOE as the largest shareholder	73.90%	63.78%	60.00%	79.20%	71.68%
Mean layers	2.34	2.83	2.70	2.16	2.25
Firms with 1 layers	55	0	0	45	10
2	543	73	8	344	118
3	237	92	10	98	37
4	41	25	2	11	3
5	8	3	0	2	3
6	3	3	0	0	0
Mean ownership	42.87%	43.87%	32.58%	42.79%	43.20%
Mean control	46.49%	49.07%	42.56%	45.81%	45.93%
Mean OC1	0.91	0.87	0.75	0.93	0.94
Mean OC2	3.63%	5.26%	9.98%	3.02%	2.73%
Mean OC3	28.23%	39.80%	60.00%	22.20%	28.90%
Mean largest shareholding	46.35%	49.61%	42.49%	45.49%	45.58%
Mean H3	50.99	54.18%	49.05%	50.01%	50.31%

Table 4 Probability that government's ultimate control is alone

This table reports the probability that government control is alone in whole sample, in different sub-samples, and in different industry. Four criterions for determining whether the government control is alone are used: Control rights of the ultimate owner > 20%, Control rights of the ultimate owner > 50%, Largest shareholding > 20%, and largest shareholding > 50%. Group 1 is firms with central SAMB as ultimate owner. Group 2 is firms with central government bureau as ultimate owner. Group 3 is firms with local SAMB as ultimate owner. Group 4 is firms with local government bureau as ultimate owner. Group 5 is firms with universities or research institutions as ultimate owners.

	Control>20%	Control>50%	Largest shareholding>20%	Largest shareholding>50%
Whole sample	91.48	42.60	94.78	43.77
Group1	95.41	52.55	97.45	53.06
Group 2	90.00	45.00	95.00	40.00
Group 3	92.60	42.60	94.20	42.80
Group 4	91.33	39.31	96.53	42.77
Group 5	88.24	17.65	88.24	17.65
Agriculture	95.65	43.48	91.30	34.78
Mining	100.00	80.00	100.00	80.00
Manufacturing	92.80	45.39	96.68	47.05
Utility	92.45	39.62	94.34	41.51
Construction	95.00	50.00	100.00	55.00
Transportation	98.00	50.00	98.00	52.00
IT	88.68	37.74	92.45	37.74
Wholesaler	86.57	32.84	89.55	29.85
Finance	87.88	30.30	90.91	27.27
Real estate	96.67	33.33	100.00	36.67
Public service	62.50	50.00	100.00	62.50
Publishing	73.68	15.79	76.32	21.05

Table 5 Performance of SOEs

This table provides some performance information of government controlled listed firms. All variables are measured with industry median adjusted numbers. Column (1), (2), and (3) report the sample means. Column (4) is the result of t-test on the variance between firms controlled by local and central government. *, **, and *** indicates the t statistic is significant at 10%, 5%, and 1% level respectively. Column (5) reports the p-value of the t-test.

	Whole sample	Local Local bureau firms	SAMB or government controlled	Central central bureau firms	SAMB or government controlled	t-test	Wilcoxon Z test
		Mean	Median	Mean	Median		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Current ratio	0.41	0.17	0.00	0.31	0.16	-1.20	-2.7480***
Leverage	-1.32%	-2.00%	0.21%	-6.00%	-4.38%	1.97**	2.2296**
Total assets (Million Yuan)	3746.11	2350.00	1786.7300	2810.00	1802.8600	-2.06**	-0.2529
Accounts receivable turnover	4.89	4.14	0.61	1.51	0.76	1.62	0.0730
Inventory turnover	1.20	0.65	0.14	-1.10	-0.18	1.36	1.6620*
Total asset turnover	0.13	0.07	0.01	0.10	0.09	-1.61	-1.8298*
Profit margin from core business	-4.27%	-9.40%	-0.27%	-3.10%	0.18%	-2.13**	-1.3062
Net profit margin	-4.87%	-12.00%	-0.34%	-2.60%	0.34%	-2.14**	-1.2391
ROA	-0.51%	-1.40%	-0.06%	-0.20%	0.38%	-2.94***	-2.0256**
CROA	-0.35%	-1.20%	-0.04%	-0.20%	0.06%	-2.63***	-1.8421*
CFROA	0.14%	-0.50%	0.17%	-1.00%	0.02%	-0.2	-0.3757
ROE	-5.16%	-10.70%	-0.19%	-3.40%	-0.05%	-2.47**	-1.4816
CROE	-4.71%	-10.50%	-0.34%	-3.00%	-0.04%	-2.34**	-1.4508
CFROE	2.40%	-0.04%	0.41%	-2.30%	0.14%	-0.39	0.0006
MB	0.32	0.16	-0.10	0.15	0.10	-0.34	-2.1759**
Tobin’s Q1	0.10	0.03	-0.07	0.08	0.08	-2.09**	-2.7974***
Tobin’s Q2	0.04	0.01	-0.02	0.02	0.01	-1.21	-1.6780*
Observation	888	673		215			

Table 6 Ownership structure and firm performance: Whole sample

This table tests the effect of ownership structure on firm performance. MB is used to measure firm performance. The sample includes all firms with non-persons as ultimate owner (Firms in finance industry are excluded). *, **, and *** indicates the t statistic is significant at 10%, 5%, and 1% level respectively. T statistics are in parenthesis.

	(1)	(2)	(3)	(4)	(5)
Intercept	10.6576***	11.6365***	12.2542***	11.6174***	11.2912***
	(9.0876)	(10.0806)	(10.1422)	(9.7437)	(9.7755)
Layer	0.2372***				
	(3.3949)				
SSOE		-0.2685**			
		(-2.3219)			
OC1			-0.7763***		
			(-2.7573)		
OC2				0.0153**	
				(2.1107)	
OC3					0.2329**
					(2.0578)
H3	0.0036	0.0049	0.0059	0.0047	0.0050
	(0.9629)	(1.3247)	(1.5468)	(1.2268)	(1.3390)
Year	0.0598***	0.0602***	0.0581***	0.0587***	0.0612***
	(3.7122)	(3.7304)	(3.5036)	(3.5310)	(3.7903)
Size	-0.6118***	-0.6249***	-0.6340***	-0.6373***	-0.6216***
	(-10.8244)	(-11.0563)	(-10.8255)	(-10.8647)	(-10.9855)
Leverage	3.3268***	3.2952	3.3994***	3.4063***	3.3019***
	(10.8973)	(10.7881)	(10.7575)	(10.7540)	(10.7979)
Adj_R2	0.2089	0.2026	0.2043	0.2012	0.2015
F	45.73***	44.14***	43.11***	42.32***	43.85***
Observation	847	820	820	820	820

Table 7 Ownership structure and firm performance：Local government controlled SOEs

This table tests the effect of ownership structure on firm performance. MB is used as to measure firm performance. The sample includes all firms with local SAMB or local government bureau as ultimate owner (Firms in finance industry are excluded). *, **, and *** indicates the t statistic is significant at 10%, 5%, and 1% level respectively. T statistics are in parenthesis.

	(1)	(2)	(3)	(4)	(5)
Intercept	13.0476***	14.0318***	15.1022***	14.2196***	13.7327***
	(7.6507)	(8.3082)	(8.5371)	(8.0974)	(8.1093)
Layer	0.3393***				
	(3.3274)				
SSOE		-0.3095**			
		(-2.0110)			
OC1			-1.1112***		
			(-2.8452)		
OC2				0.0204**	
				(2.0837)	
OC3					0.3000**
					(1.9771)
H3	0.0001	0.0017	0.0021	0.0008	0.0017
	(0.0295)	(0.3612)	(0.4397)	(0.1609)	(0.3569)
Year	0.0584***	0.0602***	0.0572***	0.0573***	0.0605***
	(2.8839)	(2.9661)	(2.7688)	(2.7654)	(2.9837)
Size	-0.7318***	-0.7355***	-0.7513***	-0.7585***	-0.7362***
	(-8.9360)	(-8.9384)	(-8.8151)	(-8.8795)	(-8.9481)
Leverage	3.5028***	3.4787***	3.6007***	3.6209***	3.4853***
	(9.0757)	(8.9972)	(9.0597)	(9.0827)	(9.0149)
Adj_R2	0.2089	0.1988	0.2056	0.2005	0.1986
F	33.00***	31.17***	31.43***	30.49***	31.13***
Observation	606	588	588	588	588

Table 8 Ownership structure and firm performance: Central government controlled SOEs

This table tests the effect of ownership structure on firm performance. MB is used to measure firm performance. The sample includes all firms with central SAMB or central government bureau as ultimate owner (Firms in finance industry are excluded). *, **, and *** indicates the t statistic is significant at 10%, 5%, and 1% level respectively. T statistics are in parenthesis.

	(1)	(2)	(3)	(4)	(5)
Intercept	8.1332***	8.3857***	8.2998***	8.3618***	8.3155***
	(5.1086)	(5.5032)	(5.3750)	(5.5893)	(5.5872)
Layer	0.0337				
	(0.3130)				
SSOE		-0.0417			
		(-0.2224)			
OC1			0.0783		
			(0.1801)		
OC2				-0.0040	
				(-0.3878)	
OC3					-0.0112
					(-0.0628)
H3	0.0087	0.0089	0.0093	0.0095	0.0088
	(1.3919)	(1.4126)	(1.4599)	(1.4975)	(1.4057)
Year	0.0884***	0.0877***	0.0904***	0.0908***	0.0894***
	(3.0689)	(2.9838)	(3.0883)	(3.1194)	(3.0936)
Size	-0.472***3	-0.4788***	-0.4811***	-0.4802***	-0.4766***
	(-6.2634)	(-6.4093)	(-6.4426)	(-6.4288)	(-6.4322)
Leverage	2.8302***	2.8479***	2.8669***	2.8578***	2.8290***
	(5.5159)	(5.4996)	(5.5212)	(5.4982)	(5.4837)
Adj_R2	0.2454	0.2452	0.2473	0.2478	0.2450
F	13.75***	13.74***	13.75***	13.78***	13.72***
Observation	196	194	194	194	194