

Reform of Mixed Ownership of State-owned Enterprises and Enterprise Value

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Abstract. In recent years, promoting the reform of mixed ownership of state-owned enterprises has become an important direction of deepening the reform of state-owned enterprises in China. This paper takes state-owned A-share listed companies from 2012 to 2017 as the research object, and empirically examines the impact of non-state-owned capital participation on the value of state-owned enterprises. The research finds that private equity participation significantly improves the enterprise value of state-owned enterprises. This finding proves the necessity of implementing and promoting the reform of mixed ownership in state-owned enterprises, and also provides some experience for reference.

1. Introduction

Ownership structure is not only the embodiment of property rights in micro-enterprises, but also the soul and foundation of enterprises. Different ownership nature of enterprises will be accompanied by different resource endowments and governance structures, which ultimately affect the financial behavior and operating performance of enterprises (Alchian, 1965; Demsetz, 1967; Aghion et al., 2013). The reform of mixed ownership of state-owned enterprises (hereinafter referred to as "mixed ownership of state-owned enterprises") as one of the core and key contents of China's economic reform, to a certain extent directly determines the development and growth of state-owned enterprises (bigger, stronger and better) and the sustained growth of macro-economy. Before the reform and opening up, subject to the national mission, the function of the state-owned economy was positioned and laid out in industry and manufacturing industry. Most of the enterprises formed were state-owned enterprises and solely state-owned enterprises. However, due to the agency conflict (Laffont and Tirole, 1993) between government intervention derived from the multiple objectives of state-owned enterprises (Shleifer and Vishny, 1994) and the deterioration of ownership vacancy, in the process of deepening the reform of state-owned enterprises, a completely privatized theory of property rights reform (Zhang Weiyong et al., 1995; Megginson and Netter, 2001; Liu Xiaoxuan, 2004) and a market competition hypothesis of stripping policy burdens (Lin Yifu et al., 1997) have gradually formed. Some scholars point out that the mixed reform of state-owned enterprises can reduce the policy burden (Zhang Hui, 2016), improve economic efficiency (Bai Chongen, 2006), benefit enterprise innovation (Li Wengui, Yu Minggui, 2015) and boost economic growth (Xu Zhaoyuan, Zhang Wenkui, 2015). Some scholars have also found that in the process of mixed ownership reform of state-owned enterprises, the soft budget constraints are more serious (Lin Yifu, Liu Peilin, 2001), the policy burden is not reduced but increased (Liu Chun, Sun Liang, 2013), and the private controlling shareholders are even more hollowed out (Tu Guoqian, Liu Feng, 2010). When the proportion of non-state-owned shares in state-owned enterprises exceeds a certain limit, the performance of enterprises decreases (Ma Lianfu, et al., 2015).

So under the special institutional background of China, how does the reform of mixed ownership of state-owned enterprises affect the market value of enterprises? Based on this, this paper takes the state-owned listed companies from 2012 to 2017 as the sample to examine the impact of non-state-owned capital participation on the market value of state-owned enterprises. It is found that

non-state-owned capital shares have a significant positive impact on the market value of state-owned enterprises.

The main contributions of this paper are as follows: the existing literature focuses on the impact of mixed ownership reform on internal governance, innovation activities and executive contracts, but lacks the research based on the relationship between mixed ownership reform and enterprise value. This paper enriches the relevant literature on the economic consequences of mixed ownership reform and provides additional empirical evidence on the degree of realization of the objectives of state-owned enterprise reform.

2. Literature Review and Research Hypothesis

As the main way of mixed ownership reform, non-state-owned capital participation is the key to improve the modern corporate governance structure of state-owned enterprises. Its purpose is to revitalize the vitality of state-owned enterprises, enhance their market value and thus promote the development of the national economy. The introduction of non-state-owned capital can optimize the corporate governance structure of state-owned enterprises, alleviate the phenomenon of "one share is dominant" of state-owned shares and reduce agency problems.

The existing literature shows that non-state-owned capital participation can improve the performance of state-owned enterprises (Bortolotti et al., 2002) and reduce the cost of equity (Attig et al., 2008). Non-state-owned shareholders can reduce agency costs by actively participating in governance (Zheng Zhigang et al., 2015) and improve the cash value of enterprises (Attig et al., 2013). Lin Yifu and Li Zhiyi (2004) believed that excessive policy burden affected the operational efficiency of state-owned enterprises. By introducing non-state-owned shareholders to optimize corporate governance structure, state-owned enterprises reduce policy burden (Chen Lin and Tang Yangliu, 2014; Liao Guanmin and Shen Hongbo, 2014), increase the cost of government intervention (Boycot et al., 1996), and improve supervision and incentives for state-owned enterprise managers (Gupta, 2005; Cai Guilong, 2018a). In order to recover the initial investment as soon as possible, non-state-owned shareholders are more motivated to participate in the corporate governance of state-owned enterprises (Liu Hanmin et al., 2018). The key to the reform of mixed ownership lies in how to coordinate the interests between state-owned shareholders and non-state-owned shareholders, make full use of the resources advantages of all parties, produce synergistic effects and enhance the market value of enterprises. In addition, non-state-owned capital will bring new management experience and management concept to state-owned enterprises, and give full play to the advantages of non-state-owned capital (Li Wengui and Yu Minggui, 2015). Non-state-owned capital shares have changed the original internal governance structure, and have an impact on the decision-making process, operation mechanism and supervision incentives of enterprises, and ultimately on the market value of state-owned enterprises. Based on the above analysis, hypothesis H1:

H1: Non-state-owned capital participation has a significant role in promoting the market value of state-owned enterprises.

3. Research Design

3.1 Sample Selection and Data Source

Taking state-owned A-share listed companies from 2012 to 2017 as the research object, the following screening was carried out: (1) excluding financial and insurance companies; (2) excluding ST and other special companies; (3) excluding the samples of missing key data, and finally 9154 observations were obtained. Data source is Cathay Tai'an Database (CSMAR). In the empirical analysis, continuous variables are tailed at 1% level.

3.2 Regression Model and Variable Definition

To test the hypothesis, this paper constructs the following regression model:

$$Tobin\ Q_{i,t} = \beta_0 + \beta_1 Omd_{i,t} + \beta_2 Size_{i,t} + \beta_3 Growth_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Roe_{i,t} + \beta_6 Zczz_{i,t} + \beta_7 Gzbz_{i,t} \\ + \beta_8 Indp_{i,t} + \beta_9 Dual_{i,t} + \beta_{10} Inst_{i,t} + \beta_{11} Market_{i,t} + \sum Year + \sum Ind + \varepsilon_{i,t}$$

(1) Interpreted Variables: Enterprise Value (Tobin Q): Tobin Q value, which represents the ratio of market value to replacement cost, is used to measure enterprise value in this paper. Tobin Q value is used to measure the investment value of enterprises. It is the market evaluation of the growth of enterprises by investors. A higher Q value means that investors in the market are optimistic about the company and willing to invest in it.

(2) Explanatory Variables: This paper sets two proxy variables OMD1 and OMD2 to measure the degree of mixed ownership reform. Among them, OMD1 is the percentage of non-state-owned shareholders in the top 10 shareholders, indicating the degree of equity mixing; because the first proxy variable is the relative degree of mixing, OMD2 uses the absolute number of the sum of the proportion of non-state-owned shareholders in the top 10 shareholders to express the degree of equity depth as a supplement.

(3) Control Variables: This paper chooses control variables such as Size, Lev, Roe, Indep and Market, and also controls the dummy variables of year and industry. Specific variables are defined in Table 1.

Table 1. Definition of specific variables

Variables	Variable Symbols	Definition of variables
Interpreted Variables	Tobin Q	Ratio of Market Value to Replacement Cost
Explanatory Variables	OMD1	The percentage of non-state-owned shareholders in the top 10 shareholders
	OMD2	the proportion of non-state-owned shareholders in the top 10 shareholders
Control Variables	Size	Log of total assets
	Lev	Asset-liability ratio
	Roe	Return on net assets
	Growth	Growth Rate of Main Business
	Psa	Proportion of State-owned Assets
	Atr	Asset turnover rate
	Indep	Proportion of independent directors
	Dual	The chairman and the general manager should take one or the other.
	Inst	Institutional Investor Shareholding Ratio
	Market	Marketization Process Score of Company Area

4. Analysis of Empirical Results

4.1 Descriptive Statistical Results

Table 2 is the descriptive statistical results of the main variables. The mean value of enterprise value is 1.248, the minimum value is 0.131, the maximum value is 6.56, and the standard deviation is 1.136. There is little difference in value between different enterprises, but the overall value of listed state-owned enterprises in China is low. From the perspective of ownership structure, the average value of OMD1 is 24.2%, and the proportion still needs to be improved. From the perspective of equity checks and balances, OMD2 increased from 38.940% in 2012 to 50.961% in 2017, indicating

that the influence of non-state-owned shareholders is increasing, and some achievements have been made in the reform of mixed ownership of state-owned enterprises in China.

Table 2. Descriptive statistical results of main variables

Variables	Num	Mean	SD	Min	Med	Max
Tobin Q	2288	1.248	1.136	0.131	0.910	6.56
OMD1	2288	24.2	16.275	1.705	20.648	68.358
OMD2	2288	0.341	0.267	0.017	0.259	0.98
Size	2288	23.514	1.442	20.562	23.417	27.387
Growth	2288	0.072	0.222	-0.456	0.055	0.851
Indep	2288	0.374	0.056	0.333	0.364	0.571
Roe	2288	0.064	0.117	-0.576	0.074	0.324
Lev	2288	0.529	0.197	0.095	0.551	0.928
Dual	2288	0.089	0.284	0	0	1
Atr	2288	0.66	0.459	0.098	0.552	2.425
Psa	2288	0.015	0.043	0	0.003	0.606
Inst	2288	4.816	4.378	0.15	3.86	24.56
Market	2288	8.241	1.869	2.64	8.69	11.109

4.2 Regression Results

From the results of Table 3, we can see that the explanatory variables OMD1 and OMD2 of the impact of non-state-owned shareholders' equity participation on the market value of state-owned enterprises are significantly positive at the level of 1%. After eliminating the industry factors, the results remain unchanged. The results support the hypothesis H1 in this paper. It shows that the mixed ownership reform of state-owned enterprises by introducing non-state-owned capital has brought new governance mechanism to the company, strengthened the incentive level to the management of state-owned enterprises, and enhanced the market value of state-owned enterprises. In order to safeguard the legitimate rights and interests of non-state-owned shareholders in state-owned enterprises, the supervision of controlling shareholders will be strengthened. The new structure of equity checks and balances is conducive to alleviating the situation that state-owned shares are "dominated by one share". Reducing the proportion of state-owned shares is conducive to promoting the participation of non-state-owned capital in enterprise decision-making and raising the cost of government intervention in enterprises. At the same time, the joining of non-state-owned capital eases the problem of absence of owner and internal controller of state-owned enterprises. The introduction of non-state-owned capital with discourse power can cause the structural change of board of directors and improve the modern enterprise system. To sum up, non-state-owned shareholders can have a significant impact on the decision-making process, operation mechanism and supervision and incentives of state-owned enterprises, and ultimately play a role in improving the market value of state-owned enterprises.

Table 3. Non-state-owned Capital Sharing and the Value of State-owned Enterprises

Variables	(1)	(2)	Variables	(1)	(2)
OMD1	0.00313*** (2.78)		Roe	0.912*** (4.26)	0.897*** (4.21)
OMD2		0.00717*** (4.60)	Lev	-1.996*** (-14.76)	-1.989*** (-14.73)
Size	-0.337*** (-16.83)	-0.346*** (-17.20)	Dual	-0.00777 (-0.12)	-0.00172 (-0.03)
Growth	0.323*** (3.40)	0.323*** (3.39)	Atr	0.0266 (0.63)	0.0216 (0.52)
Indep	0.602** (2.08)	0.589** (2.03)	Psa	2.188*** (3.56)	2.183*** (3.62)
Roe	0.912*** (4.26)	0.897*** (4.21)	Inst	0.00673 (1.44)	0.00616 (1.34)
Lev	-1.996*** (-14.76)	-1.989*** (-14.73)	Market	0.0337*** (3.13)	0.0303*** (2.82)
_cons	9.184*** (21.56)	9.401*** (22.02)	R2	0.535	0.537
N	2288	2288	N	2288	2288

Note: t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

5. Research conclusions and Enlightenment

This paper investigates the relationship between non-state-owned capital participation and the value of state-owned enterprises. The main conclusion is as follows: non-state-owned capital participation has a specific and significant positive impact on the value of state-owned enterprises. The conclusion of this paper enriches the relevant research on the economic consequences of the reform of mixed ownership, and provides an empirical basis for the current implementation of the reform of mixed ownership in state-owned enterprises.

At the level of state-owned enterprise reform, the development of mixed ownership economy should encourage private shareholders to participate in the restructuring and reorganization of state-owned enterprises and the management of state-owned enterprises. In the process of reform, relevant measures should be set up to protect the basic rights of private shareholders and a certain right of speech, so as to give full play to the advantages of private shareholders to enhance the market competitiveness of state-owned enterprises, and smoothly achieve the goal of maintaining and increasing the value of state-owned capital and improving the value of enterprises.

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