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Shareholding Structure, Board Governance, and Corporate Performance

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ABSTRACT. *With the comprehensive deepening of the reform of mixed ownership, does the shareholding structure of state-owned enterprises affect its performance? How does it affect? To this end, this article selects the data of A-share listed companies from 2014 to 2018 to explore the interrelationships between shareholding structure, board governance and corporate performance. The results show that: (1) equity concentration and equity balance have a positive impact on corporate performance; (2) equity concentration and equity balance have a positive impact on board governance; (3) between shareholding structure and corporate performance Board governance plays a clear mediating role.*

KEYWORDS*: State-Owned Enterprises; Shareholding Structure; Board Governance; Corporate Performance*

1. Raising the Problem

After the State-owned Assets Supervision and Administration Commission of the State Council document "Guiding Opinions on the Construction of the Board of Directors of Wholly State-owned Companies" was implemented in 2004, the pilot work of board governance has gradually begun in state-owned enterprises with the aim of improving their governance mechanisms. Since the launch of the pilot work, the issue of the construction of the board of directors of state-owned enterprises has become the focus of the reform of state-owned enterprises and the focus of theoretical research (Xu Wei, 2011). Although state-owned enterprises aim to improve the decision-making quality of the board of directors by introducing an external director system, from the perspective of implementation effects, the formalization of the board of directors of most companies is serious and lacks substantial effectiveness (Gao Minghua, 2015), the governance effect of the board of directors of state-owned enterprises is still not satisfactory. In recent years, there are countless incidents of equity disputes among enterprises, and the failure of the board of directors' governance has led to the decline of company performance. In this context, exploring the relationship between corporate equity composition, board

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governance effects, and performance under the background of mixed reforms will not only help optimize and improve the company's equity structure, but also improve the effectiveness of board governance, which is useful for promoting the development of mixed ownership reform in China Significance.

2. Theoretical Analysis and Research Hypothesis

2.1 Ownership Structure and Corporate Performance

The equity structure is measured by two indicators: the concentration of equity and the degree of balance of equity. (1) Concentration of equity and company performance. The concentration of equity affects the distribution of voting rights and control rights of the company, which leads to an inseparable relationship between the concentration of equity and corporate performance. In general, the degree of equity concentration has a very strong role in promoting accounting earnings, that is, corporate performance (Cubbin & Leech, 1983; Xu Liping et al., 2006). Because in companies with a high degree of equity concentration, the profit of the company is closely related to the interests of the controlling shareholders, and they will be more willing and motivated to supervise the daily operation and management activities of the company(Shleifer & Vishny, 1986).With the continuous progress of the mixed reform policy, its effect is obvious. Diversification of the ownership structure of state-owned enterprises can actively promote performance development (Yao Zhigang and Ren Yu, 2015), which can reduce asset specificity, increase information transparency (Tang Jijun, 2014), and make up for the lack of marketization, reduce the policy burden of state-owned enterprises (Zhang Hui et al., 2016; Chen Lin and Tang Yangliu, 2014), and improve the efficiency of resource allocation. However, Porta et al (2000) hold the opposite view: if a company has the problem of "one share dominance" and "one word", the company's equity is controlled in the hands of major shareholders. Under the assumption of "economic man", major shareholders may pass through the "tunnel". "Behavior" transfers benefits, occupying the interests of small and medium shareholders, increasing the second type of agency costs, and leading to poor company performance. Some scholars also believe that there is a "U"-shaped relationship between equity concentration and corporate performance (Hu Zemin and Liu Jie, 2018; Wang Xin and Han Baoshan, 2018). (2) Equity checks and balances and company performance: The control of the enterprise is occupied by the large shareholder. The mixed reform has enabled private enterprises and some strategic investors to hold shares, effectively improving the state-owned enterprises' "one share dominance" holding situation. Equity tends to be diversified to form equity checks and balances, reduce corporate decision-making errors, and improve corporate performance (Huang Su Built, 2014). Therefore, equity diversification will effectively restrain the private interests of major shareholders and improve company performance. When enterprises are fighting for control, large shareholders will win over and please small and medium shareholders, and the infringement on the rights and interests of small shareholders will be reduced. The enhancement of corporate checks and balances

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has led to improved company performance (Li Xiangrong, 2018; Chen Deping and Chen Yongsheng, 2011). However, the struggle for control of Vanke has proved that the company's ownership structure is too dispersed, which will lead to a decline in corporate performance.

Based on this, hypothesis 1:

H1a: Equity concentration has a driving effect on corporate performance.

H1b: Equity checks and balances have a driving effect on corporate performance.

2.2 Enterprise's Equity Structure and Board Governance Mechanism

(1) The concentration of equity and the governance of the board of directors: the principal and the agent have a serious principal-agent problem due to the separation of the two powers, which we call the first type of agency cost. Strengthening and perfecting the corporate governance mechanism is an effective way to solve such problems. Based on the assumption of "economic man", in order to maximize their own interests, the company's major shareholders will be more motivated to actively perform their duties and effectively supervise the work status of managers. A high degree of equity concentration can reduce the free-riding behavior of small and medium shareholders, help improve the governance of the board of directors, and thereby reduce the first-type agency cost. A sound corporate governance mechanism can not only alleviate the agency cost due to monitoring and management, but also avoid the agent's selfish behavior to a certain extent. The stakeholder theory believes that corporate governance is more obligated to safeguard the interests of all stakeholders, so the board of directors should also pay attention to the interests of small shareholders.

A high degree of shareholding concentration may lead to hidden dangers of "one word", and the major shareholders appoint members of the board of directors, and the governance of the board of directors may be biased toward the interests of major shareholders and cannot achieve effective governance. In some companies with a low degree of equity concentration in the United Kingdom and the United States, due to their high market transparency and complete legal system, the phenomenon of manipulation by major shareholders rarely occurs, and the board of directors can truly effectively play a governance role. There is still a certain gap between the transparency and soundness of my country's capital market and the British and American countries. Before the establishment of the State-owned Assets Supervision and Administration Commission (SASAC), companies with different equity concentrations also had different board governance effects. Companies with higher levels of corporate governance are those with higher government-controlled equity concentration, followed by companies with dispersed equity. Based on this, hypothesis 2:

H2a: Equity concentration has a positive impact on board governance.

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2.3 Equity Checks and Balances and Board Governance

The shareholding ratio reflects the shareholders' right to speak and control over the enterprise. The checks and balances of the enterprise are realized through the shareholding ratio. The shareholding structure of the company's shareholders determines the corporate governance mechanism (Jiang Jianxiang, 2012), and the effect of corporate governance depends on the effectiveness of the internal governance of the board of directors. If the company's equity structure is too differentiated, the first type of agency costs will increase to ease the conflict between shareholders and management, and the interests of shareholders will be damaged and cannot be maximized. The governance level of the board of directors will decrease, which will have a negative impact on corporate performance. The mixed reform of state-owned enterprises usually introduces private enterprises to reduce the excessive proportion of state-owned shares, and aims to diversify the composition of corporate equity and form a situation of mutual checks and balances among different shareholders. After the mixed reform, the state-owned holding will still be maintained, but the structure of the board of directors will change and the nature of the directors will be more reasonable. The excessive concentration of equity will make the major shareholders absolutely control the company, which will have a serious impact on the company's business decision-making, and the failure of the board of directors' governance mechanism will cause the company's business chaos and affect the company's business performance. Based on this, hypothesis 3:

H2b: Equity checks and balances promote the improvement of board governance.

2.4 Ownership Structure, Board Governance and Corporate Performance

The board of directors is a bridge between the company's shareholders and managers, and has a decisive influence on the company's business development. Through the mixed reform of state-owned enterprises, the ratio of state-owned shares can be reduced and the structure of the board of directors can be affected. For example, when non-state-owned capital is introduced, the number of non-state-owned directors among board members will increase. This behavior not only helps safeguard the interests of non-state-owned shareholders, but also promotes the decision-making of the board of directors to be scientific and reasonable (Xie Haiyang, 2018). The governance level of the board of directors can be effectively improved by adjusting the corporate equity structure to enhance corporate performance. Based on this, the following assumptions are made:

H3: The shareholding structure positively affects the governance effect of the board of directors, and then has an impact on corporate performance.

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3. Research Design and Sample Selection

3.1 Sample Selection and Data Sources

This paper uses all A-share companies from 2014 to 2018 as a sample to conduct an empirical study. The data comes from the Wind database. In order to make the research conclusions more effective and accurate, the following types of sample data are excluded: (1) ST and PT company samples; (2) Banking, securities and other financial industry samples; (3) Corporate insolvency sample data; (4) Sample data with incomplete data. In the end, 11859 valid samples were obtained.

3.2 Variable Definition

(1) Explained variable: This article uses ROE to measure company performance.

(2) Explanatory variables: This paper refers to the research of Bai Chongen (2005), Ye Chengang (2016) and other scholars, selects Executive compensation、Proportion of A shares outstanding 、Board size、Corporate leadership structure、Board shareholding ratio、Board compensation and 7 Concentration of equity indicators, conducts principal component analysis, and calculates the comprehensive index of board governance level.

The calculation process of the comprehensive index of board governance is as follows:

KMO and Bartlett’s sphere test are shown in Table 1. the KMO test statistic of the board governance index is 0.602, which is greater than 0.6. The results show that the degree of information overlap between different variables is good, and a satisfactory factor analysis model can be obtained.

Table 1. KMO and Bartlett’s sphere test

KMO and Bartlett's test

	The Kaiser-Meyer-Olkin measure of sampling adequacy.	.602
Bartlett's sphericity test	Approximate chi-square	3237.604
	df	21
	Sig.	.000

The cumulative contribution rate of the first six indicators is as high as 90.611%, exceeding 80%, indicating that these six main components contain 90.61% of the information on corporate governance, and the remaining 9.39% of the information cannot be explained. Overall, this indicator can be better explained.

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Table 2 Principal component analysis table

Explained total variance

Ingredients	Initial eigenvalue			Load the extracted sum of squares		
	total	variance%	accumulation %	total	variance% O	accumulation%
1	1.630	23.285	23.285	1.630	23.285	23.285
2	1.137	16.243	39.527	1.137	16.243	39.527
3	.995	14.218	53.745	.995	14.218	53.745
4	.958	13.689	67.434	.958	13.689	67.434
5	.865	12.353	79.787	.865	12.353	79.787
6	.758	10.824	90.611	.758	10.824	90.611
7	.657	9.389	100.000			

According to formula 1, the factor score coefficient matrix is calculated, and the variance contribution of common factors is composed of the sum of the product of each factor coefficient and its corresponding index in Table 3: The final factor score formula is calculated according to the factor score coefficient matrix, and the company is evaluated The effectiveness of governance elements;

$$BG = \sum a_i F_i$$

Table 3 Coefficient table of component score

Component score coefficient matrix

	Ingredients					
	1	2	3	4	5	6
X1	.242	.543	-.150	.184	.496	-.602
X2	.347	-.256	-.411	.408	-.095	.352
X3	.322	.125	.228	-.544	.462	.619
X4	-.334	.183	-.194	.486	.484	.572
X5	-.446	.132	.150	-.180	.074	.023
X6	.074	.666	.064	.085	-.666	.349
X7	.124	-.095	.835	.521	.066	.000

Extraction method: principal component analysis method.

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Board governance BG is based on the variance contribution rate of each factor in Table 2 multiplied by the score formula of each factor to obtain the expression of the board governance comprehensive index:

$$BG=(0.2332F_1+0.1624F_2+0.1422F_3+0.1370F_4+0.1235F_5+0.1082F_6)/0.9061$$

(3)Control variables.

Table 4 Variable definition

Variable code	Variable name	Variable interpretation
Size	Company Size	Divide total assets by 1000000, take the logarithm
Lev	Assets and liabilities	Total liabilities divided by total assets
Groth	Total business revenue growth rate	Sales revenue growth rate
Salary	Executive incentives	Divide the total compensation of the top three executives by 1,000,000 and take the logarithm
TNT	Total asset turnover	Total operating income divided by average total assets
Liquid	Flow ratio	Current assets divided by current liabilities

3.3 Model Construction

To verify the above assumptions, the following model is designed:

$$ROA = \partial + \beta_1 TOP_1 + \beta_2 HH_{2-10} + \beta_3 Size + \beta_4 Lev + \beta_5 Groth + \beta_6 Salary + \beta_7 TNT + \beta_8 Liquid + \varepsilon \quad (1)$$

$$BG = \partial + \beta_1 TOP_1 + \beta_2 HH_{2-10} + \beta_3 Size + \beta_4 Lev + \beta_5 Groth + \beta_6 Salary + \beta_7 TNT + \beta_8 Liquid + \varepsilon \quad (2)$$

$$ROA = \partial + \beta_1 TOP + \beta_2 HH_{2-10} + \beta_3 Size + \beta_4 Lev + \beta_5 Groth + \beta_6 Salary + \beta_7 TNT + \beta_8 Liquid + \beta_9 BG + \varepsilon \quad (3)$$

4. Empirical Analysis

4.1 Correlation Analysis

It can be seen that the concentration of equity, the balance of equity and the performance of the company are obviously in a positive correlation. H1a and H1b have been initially verified; the concentration of equity, the balance of equity and There is a strong correlation between the governance of the board of directors, and

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H2a and H2b have been initially verified; from the coefficient symbols in the table, it can be seen that both the ownership structure and the corporate governance mechanism of the board of directors can positively affect corporate performance. Correlation analysis only considers the relationship between the two, and its deeper relationship must be analyzed through regression models. In addition, the coefficients between different variables indicate that there is a strong correlation between the variables, and it is necessary to control these variables.

Table 5 Correlation analysis of main variables

	ROA	Top1	HH2-10	size	Lev	Groth	Salary	TNT	Liquid	BG
ROA	1.000									
Top1	.053*** (.000)	1.000								
HH2-10	.028*** (.001)	-.171*** (.000)	1.000							
size	.059*** (.000)	.242*** (.000)	.057*** (.000)	1.000						
Lev	-.082*** (.000)	.101*** (.000)	-.069*** (.000)	.509*** (.000)	1.000					
Groth	.017** (.029)	-.036*** (.000)	.021** (.011)	.009 (.154)	.033*** (.000)	1.000				
Salary	.102*** (.000)	.011 (.120)	.081*** (.000)	.452*** (.000)	.140*** (.000)	.005 (.276)	1.000			
TNT	.037*** (.000)	.064*** (.000)	-.008 (.204)	.049*** (.000)	.125*** (.000)	.061*** (.000)	.104*** (.000)	1.000		
Liquid	.024*** (.004)	-.043*** (.000)	.059*** (.000)	-.268*** (.000)	-.494*** (.000)	-.016** (.044)	-.067*** (.000)	-.112*** (.000)	1.000	
BG	.061*** (.000)	.158*** (.000)	.020** (.013)	.408*** (.000)	.187*** (.000)	-.029*** (.001)	.446*** (.000)	.059*** (.000)	-.133*** (.000)	1

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4.2 Regression Model Analysis

1. Test the ownership structure and corporate performance

The adjusted R2 of model (1) is 0.129, indicating that the model fits well. The coefficient of the largest shareholder's shareholding ratio is significantly positive at the level of 0.01, which means that in the research sample, the positive correlation is obviously in the equity The relationship between concentration and corporate performance, that is, a certain degree of equity concentration can prompt companies to improve performance, which validates H1a. Concentration of equity has a positive effect on corporate performance, indicating that the phenomenon of "one share dominates" and "one word" still exists in state-owned enterprises; the coefficient of the sum of the squares (HH2-10) of the second to ten largest shareholders' shareholding ratios is at the level of 0.05 Significantly positive means that the degree of equity checks and balances has a significant effect on company performance, that is, to a certain extent, the degree of equity checks and balances can promote the improvement of corporate performance, which validates H1b.

Table 6 Regression analysis table

	Model 1		Model 2	Model 3	
	(ROE)	(ROA)	BG	(ROE)	(ROA)
constant	-0.058*** (-3.005)	0.007 (1.032)	1.279*** (55.264)	-0.069*** (-3.197)	0.000 (0.035)
TOP1	0.090*** (4.952)	0.050*** (7.722)	0.259*** (11.732)	0.088*** (4.801)	0.049*** (7.469)
HH2-10	0.187** (1.618)	0.102** (2.475)	0.002** (0.012)	0.187** (1.618)	0.102** (2.476)
BG	--	--	--	0.009** (1.143)	0.005** (1.956)
Size	0.017*** (6.659)	0.007*** (7.828)	0.064*** (20.637)	0.017*** (6.330)	0.007*** (7.328)
Lev	-0.205*** (-12.900)	-0.119***(-21.228)	-0.013 (-0.699)	-0.204*** (-12.892)	-0.119*** (-21.218)
Groth	0.003** (2.215)	0.002*** (3.257)	-0.006*** (-3.846)	0.003** (2.254)	0.002*** (3.325)
Salary	0.032*** (7.692)	0.013*** (9.127)	0.188*** (37.967)	0.030*** (6.886)	0.012*** (7.975)
TNT	0.018*** (4.035)	0.021*** (12.875)	0.003 (0.489)	0.018*** (4.030)	0.021*** (12.867)
Liquid	-0.002* (-1.731)	0.000** (-2.246)	-0.006*** (-5.490)	-0.002* (-1.671)	0.000** (-2.145)
Adjusted R2	.129	.171	.264	.129	.170

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There is a significant positive correlation between company size (Size) and company performance, indicating that different company sizes will have an impact on the performance of the company. Within a reasonable range, the larger the company size, the better the performance; the debt-to-asset ratio (Lev) The correlation coefficient with corporate performance is significantly negatively correlated at the level of 0.01, indicating that to a certain extent, corporate performance has a downward trend when corporate asset-liability ratio rises;.

2. Test the mediating effect of board governance

First, model (1) is used to test the relationship between equity structure and performance. If the corresponding coefficient is significant, it means that the equity structure has a driving effect on company performance. Second, the study on the mediating effect of board governance, based on the above research, examines the influence of equity composition structure on board governance, namely model (2). If the coefficient is significant, it indicates that equity structure can have a positive impact on board governance. Third, use model (3) to test the relationship between the ownership structure, board governance mechanism, and corporate performance. If the first two coefficients in model (3) are significant, it means that the part of the impact of the ownership structure on corporate performance is achieved by the governance of the board of directors; In model (3), the coefficient of the former is not significant and the latter is significant, indicating that the influence of the ownership structure on corporate performance is all realized by the governance of the board of directors.

The results of the multiple regression show that the coefficients of the two indicators that measure the structure of the equity structure in the model (1) are significant, and the regression results of the model (2) are analyzed on this basis. Table 8 shows that the relationship between the shareholding ratio of the largest shareholder (TOP1) and corporate performance is very significant, and is significantly positive at the level of 0.01; the coefficient of the sum of the squares of the shareholding ratios of the second to ten largest shareholders (HH2-10) Significant at the 5% level, and the signs of the coefficients are all positive, there is a positive correlation. That is, to a certain extent, the increase in the shareholding structure (equity concentration and equity balance) will have a positive impact on the governance effect of the board of directors. H2a and H2b have been verified by this; based on the establishment of the first two assumptions, the analysis model (3) In the regression results, the coefficient of TOP1 is significantly positively correlated at 1%, and the coefficient of HH2-10 and BG is significantly positively correlated at 5%, indicating that the board of directors governance mechanism plays a positive role in the relationship between the ownership structure and corporate performance. That is, the structure of the equity structure affects the governance mechanism of the board of directors, which in turn affects corporate performance, and H3 has been verified.

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5. Conclusions

By studying the relationship between the ownership structure of state-owned enterprise mixed reform, board governance and corporate performance, the following conclusions are obtained:

First, the steady implementation of mixed-ownership reforms in state-owned enterprises can effectively decentralize the structure of corporate equity and make corporate equity diversified. Although the reasonable concentration of equity can improve corporate performance and greatly reduce the first type of agency costs, we must pay attention to "degree" and avoid "one share dominance." Second, for state-owned enterprises, the advantages of equity diversification outweigh the disadvantages. The dispersion of corporate equity within a reasonable range is not only conducive to improving corporate performance, but a higher degree of equity checks and balances also helps to efficiently supervise corporate controlling shareholders and make their decision-making more scientific and reasonable, thereby improving corporate performance. Third, the mixed reform can change the structure of the board of directors, which is conducive to the construction of the board of directors, and effective board governance can give full play to its governance mechanism and alleviate the problems of state-owned enterprises' operating efficiency and the virtual establishment of the three meetings. A certain degree of equity diversification is conducive to improving the governance effectiveness of the board of directors, so that the supervisory function owned by the controlling shareholder can effectively play a role, reduce the first-type agency cost, and improve corporate performance; through the mixed reform of state-owned enterprises to improve the degree of equity balance, to a certain extent The “one share dominates” holding mode of major shareholders can be improved, and the vitality of the company can be fully brought into play, and the performance of the company can be accelerated. The study found that the board of directors governance mechanism can effectively play a role in the relationship between the equity structure and corporate performance.

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