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# Institutional Investors' Shareholding, Control Transfer and Corporate Performance

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**Abstract**

Based on the data of listed companies in Shanghai and Shenzhen from 2013 to 2018, this paper analyzes the impact of institutional investors' shareholding on corporate performance and discusses the intermediary role of control transfer and the moderating role of management power. The results show that institutional investors' shareholding and control transfer have significant positive effects on corporate performance. Control transfer plays a partial mediating role between institutional investors' shareholding and corporate performance. Management power has a negative moderating effect on the relationship between institutional investors' shareholding and a control transfer. This paper provides a new theoretical explanation and empirical evidence for institutional investors to improve corporate performance from the perspective of control transfer, reveals the mechanism of management power in the process of a control transfer, and provides a theoretical basis for the development of institutional investors.

**Keywords:** institutional investors' shareholding, control transfer, corporate performance, management power

## 1. Introduction

Under the action of a series of national policies for the unconventional development of institutional investors, China's institutional investors have achieved leapfrog development in a short period. However, since the "Baoyan turmoil" in 1993, the fight for control rights of listed companies has occurred frequently. Gome, Lester Lighting, Alibaba, and other companies have experienced different degrees of control transfer. The fight for control rights between Vanke's management and Baoneng Group has once again become a major event in China's capital market. Whether institutional investors can effectively improve corporate performance after shareholding has become the focus of continuous attention from all walks of life.

Related studies have extensively discussed the functions and roles of institutional investors in the process of corporate value creation. Some scholars agree with the hypothesis of effective supervision of institutional investors. They believe that concentrated ownership strengthens the sense of ownership of institutional shareholders, strengthens the supervision of institutional investors on the private interests of management, and alleviates the agency conflict of shareholders and managers within the enterprise. Therefore, the higher the proportion of investors, the more the company's performance increases (Shleifer & Vishny, 1986; Woidtke, 2002; Chung & Zhang, 2011). Boone and White (2015) have confirmed that institutional investors, as an important external governance mechanism, can effectively supervise the management with their own professional knowledge and information advantages. At the same time, they give up the way of "voting with their feet" in the past and begin to participate in corporate governance as stable shareholders (Cella et al., 2013). Other scholars questioned the positive correlation between the shareholding ratio of institutional investors and corporate performance, believing that institutional investors pay more attention to the short-term value of a company and it is difficult to generate motivation to improve corporate governance (Webb et al., 2003; Dyck et al., 2019; Daryaei & Fattahi, 2020).

However, the existing literature ignores the influence of increasingly strong institutional investors on corporate control and lacks an understanding of whether large-scale shareholding of institutional investors will lead to the transfer of control, thereby affecting corporate performance. Similarly, based on the market theory of control rights, there are different opinions on the relationship between the transfer of control rights and corporate performance. Some scholars believe that the transfer of control rights can produce a synergistic effect, which is conducive to the improvement of corporate performance (Nicholson, 2016). But some scholars deny its positive effect. They believe that the simple transfer of control and the resulting change of CEO cannot improve the performance of enterprises, and the transfer of control is closely related to the tunneling behavior of major shareholders (Fabisik et al., 2021). Furthermore, after the intervention of institutional investors, the management will inevitably compete with them for corporate control based on their own interests, which often leads to the lack of corporate governance efficiency and becomes an important reason why institutional investors cannot play an effective governance role in China's capital market (Frith et al., 2016). In view of this, this study, based on the realistic situation of large-scale development of institutional investors, analyzes the path "black box" of institutional investors affecting corporate governance, which is of great significance to improve corporate performance.

The main contributions of this paper are as follows. Firstly, most of the existing studies focus on the external supervision function of institutional investors, ignoring the influence of institutional investors on the allocation mode of corporate control after becoming important shareholders. This paper makes an empirical test on the relationship between institutional investors' shareholding and transfer of control rights and finds that there is a positive correlation between them, which enriches the relevant research on corporate external governance. Secondly, it explores the mediating effect of control transfer between institutional investors' shareholding and corporate performance and expands the research on the mechanism of institutional investors' shareholding on corporate performance. Thirdly, considering that the management may compete for control rights with external M&A shareholders in the process of control rights transfer, we further examine the moderating effect of management power on the relationship between institutional investors' shareholding and control rights transfer. The results show that the greater the management power is, the weaker the positive correlation between institutional investors' shareholding and corporate control rights transfer is, which provides a theoretical reference for guiding companies to replace the incompetent management through the control rights market and realize the optimal allocation of resources.

## 2. Theoretical Analysis and Research Hypothesis

### *2.1 Institutional Investors' Shareholding and Corporate Performance*

In recent years, with the continuous opening up of financial markets, institutional investors in China have achieved leapfrog development in a short time. At present, institutional investors have developed into an important force that cannot be ignored in China's capital market (Aggarwal et al., 2011). Institutional investors strive to improve corporate performance by effectively monitoring management and promoting investment and financing arrangements aimed at maximizing shareholder value (Cheng et al., 2010). One is that institutional investors can, in accordance with the relevant provisions of China's 'Company law', submit proposals to the shareholders' meeting to achieve the participation and supervision of the company's operations, thereby easing agency conflicts with internal management and better playing the role of corporate governance. Second, institutional investors with more shareholdings may appoint relevant persons who can represent their own interests to the board of directors, use the identity of directors to collect internal information related to the company's operation and financial situation, and strengthen the supervision of private interests of management and controlling shareholders. Third, institutional investors can play a positive role in governance by improving the salary incentive design of listed companies and inhibiting the management's earnings management behavior and promote corporate performance (Aluchna & Kuszewski, 2020).

In addition, if the purpose of improving corporate performance cannot be achieved through internal governance mechanisms, institutional investors will consider selling corporate stocks in the secondary market. As a representative of rational investors, institutional investors' concentrated selling of shares is easy to send adverse signals to the market, triggering the herding effect, thus bringing serious negative effects to corporate stocks. When this happens, the management of the target company is likely to resign or be forcibly replaced by the board of directors. Moreover, the larger the shareholding ratio of institutional investors is, the greater the impact of their stock selling on the company is, and this potential exit threat has a significant constraint effect on the opportunistic behavior of management (Edmans & Zur, 2013). At the same time, controlling shareholders, hold the most shares in the company, and the loss caused by the decline of stock prices is more serious. In order to prevent institutional investors from selling stocks on a large scale, controlling shareholders also have strong motivation to reduce their own private interest behavior (Ferreira & Matos, 2008; Liu, 2017). It can be seen that institutional investor ownership can effectively alleviate the conflict of interest between external shareholders and internal management as well as controlling shareholders and improve corporate performance, whether through internal governance mechanisms or by selling shares to form exit threats. Based on the above analysis, this paper proposes the following assumptions:

H1: In the case of other conditions unchanged, institutional investors' shareholding and corporate performance are significantly positively correlated.

### *2.2 Transfer of Control and Corporate Performance*

The controlled market replaces the unqualified management through external takeover, and its warning role can urge the new managers to continuously maximize value creation. Therefore, from the perspective of alleviating the agency conflict between shareholders and managers, the transfer of control has played a regulatory role in the external market and helped to improve corporate performance. In addition, both theory and practice show that listed companies with small scale and poor profitability are more likely to become M&A objects, and the probability of control transfer is higher (Koke, 2004; Bena et al., 2017). By purchasing these inefficient enterprises, companies with strong management ability and high efficiency can improve the management efficiency of the latter, optimize the allocation of resources, and create more value for shareholders on the basis of complementary advantages. Although some scholars believe that the controlling shareholder's decision to replace management after gaining control of the company is to facilitate collusion with the new management and empty the enterprise, which does not really improve the value of the enterprise (Hooy et al., 2020), in the Internet era, with the emergence of a series of new governance methods such as online voting system and telephone conferences, the exercise cost of small and medium-sized shareholders is greatly reduced, and their enthusiasm for participation in corporate governance is generally improved (Khan et al., 2013). The increasing awareness of minority shareholders' rights protection makes it easier to find the behavior of controlling shareholders and management. The implementation of the cumulative voting system increases the proportion of small and medium shareholders appointing directors to the board of directors, helps small and medium shareholders to obtain more internal information and participate in corporate governance, and forms effective constraints on the private interests of controlling shareholders. Therefore, the transfer of control to play more supervisory management to enhance corporate performance. Based on the above analysis, this paper proposes the following assumption:

H2: With other conditions unchanged, the transfer of control rights is significantly positively correlated with corporate performance.

### *2.3 The Mediating Effect of Control Transfer on the Relationship between Institutional Investors' Shareholding and Corporate Performance*

As a market behavior, transfer of control can improve the performance of listed companies by replacing unqualified management or promoting optimal allocation of resources. The introduction of institutional investors as an important external governance mechanism also plays an important role in improving corporate performance. Moreover, the above assumptions show that the higher the shareholding ratio of institutional investors is, the greater the possibility of corporate control transfer is, and there is a positive correlation between the two. Thus, there is a certain internal relationship between institutional investors' shareholding, control transfer, and corporate performance. Under the background of the ultra-conventional development of institutional investors, the centralized shareholding of institutional investors first increases the probability of corporate control transfer and then affects corporate performance through the control market. In this process, the transfer of control is the bridge between institutional investors' shareholding and corporate performance, which plays a role in the transmission mechanism. Based on the above analysis, this paper proposes the following assumptions:

H3: In the case of other conditions unchanged, the transfer of control has a mediating effect in the relationship between institutional investor shareholding and corporate performance.

## 3. Research Design

### *3.1 Research Samples and Data Sources*

This paper selects the listed companies in the real estate, household appliances, and biopharmaceutical industries with more institutional investors in Shanghai and Shenzhen stock exchanges from 2013 to 2018 as the initial research samples, and processes the collected data as follows: (1) Excluding the listed companies without actual controllers. (2) Excluding ST and * ST listed companies, the financial situation of such companies is abnormal, if not eliminated, it will affect the interpretation of the empirical results. (3) Remove listed companies with incomplete or serious missing research data. (4) In order to obtain strict balanced panel data, on the basis of the above operations, this paper also excludes listed companies that have been listed for less than five years, that is, companies that have approved listing only after 2013. Finally, the balanced panel data of 284 listed companies from 2013 to 2018 were obtained, with a total of 1420 sample observations.

The relevant data of institutional investors used in this paper are from the RESSET database, and the rest are from the CSMAR database. To eliminate the influence of outliers on the empirical results, this paper conducts Winsor treatment at the upper and lower 1% levels for all continuous variables.

### *3.2 Research Variables*

#### 3.2.1 Dependent Variable

Corporate performance. For the measurement of corporate performance, some scholars tend to use market value indicators such as Tobin's Q. Some scholars tend to use financial indicators such as return on total assets (ROA) and return on net assets (ROE) to measure corporate performance. Because the primary purpose of the company is to obtain profits, and the effectiveness of Chinese stock market remains to be improved, the use of financial indicators to reflect the company's performance has been widely recognized by domestic scholars. Among them, ROA is the most commonly used index to measure the profitability of the company, which can be calculated directly by the relevant data disclosed in the balance sheet and the profit statement. Given this, this paper finally chooses the return on total assets as the proxy variable of corporate performance, which is counted as ROA.

#### 3.2.2 Independent Variable

Institutional investors hold shares. The total shareholding ratio of institutional investors at the end of the year is divided by the total number of A-shares of the target listed company. The larger the value is, the more shares institutional investors hold. Institutional investors tend to choose companies with good operating performance as investment objects, and there may be endogenous problems among variables. To reduce the endogenous effect, and considering that the influence of institutional investors' shareholding on corporate performance and control will be accompanied by lag effect, this paper selects the variable of institutional investors' shareholding as $Ins_{t-1}$.

#### 3.2.3 Intermediary Variables

Transfer of control. Under the trend of increasingly decentralized ownership structure, considering that the shareholding share of the largest shareholder often has a large gap with the control proportion stipulated by the company law, coupled with the existence of related relationships such as consistent actors, the nominal largest shareholder is often not the actual owner of the control rights of listed companies. This paper takes whether the actual controller changes as the judgment standard for the transfer of control. And denoted as Change, if the company in a year occurred control transfer, change value is 1. Otherwise, the value is 0.

#### 3.2.4 Control Variables

This paper selects the following factors that may affect corporate performance and transfer of control rights, which are commonly seen in the literature, including the dummy variables of company size (Size), growth rate of operating income (Growth), asset-liability ratio (Lev), ownership concentration (Top1), ownership nature (SOE), two-position integration (Dual), independent director size (Ind), listing year (Age), industry (Industry) and year (Year). The explanations and descriptions of each variable are shown in Table 1.

Table 1. Variable definition table

| Variable type | Variable name | Variable symbol | Description |
|---|---|---|---|
| Dependent variable | Corporate performance | ROA | Net profit / average balance of total assets, average balance of total assets = (total assets + total assets last year) / 2 |
| Independent variable | Institutional investor holdings | $Ins_{t-1}$ | Shares of institutional investors / total A shares of listed companies |
| Intermediary variables | Transfer of control | Change | If the company transfers control, the value is 1, otherwise the value is 0. |
| Control variables | Company size | Size | Total assets at the end of the period |
| | Business income growth rate | Growth | (Current operating income - previous operating income) / previous operating income |
| | Asset-liability ratio | Lev | The ratio of total liabilities to total assets at the end of the year |
| | Ownership concentration | Top1 | proportion of the largest shareholder |
| | Nature of equity | SOE | If it is a state-owned listed company, the value is 1, otherwise the value is 0. |
| | Scale of independent directors | Ind | Number of independent directors / total number of board of directors |
| | Integration of two positions | Dual | If the chairman and general manager are the same person, the value is 1, otherwise the value is 0. |
| | Listing years | Age | Listed years of the company |
| | Industry | Industry | Dummy variable |
| | Year | Year | Dummy variable |

## 4. Empirical Results and Analysis

### *4.1 Descriptive Statistics*

From the descriptive statistical results shown in Table 2, it can be seen that the maximum value of the explained variable ROA is 0.339, the minimum value is -0.631, and the standard deviation is 0.062, indicating that there are great differences in the performance of different listed companies. The maximum value of the control transfer variable Change is 1, the minimum value is 0, and the average value is 0.029, indicating that the control market of listed companies in China is being activated. From the perspective of explanatory variables, the maximum and minimum value of institutional investors holding $Ins_{t-1}$ is 93.7% and 0.1%, respectively, with an average of 29.4%, indicating that there is a large gap in the proportion of institutional investors holding. From the control variables, the maximum and minimum values of Size are 27.784 and 19.226, respectively, and the standard deviation is 1.410, indicating that the size of the sample company is significantly different. The maximum value of Growth is 19.765, and the minimum value is -0.926, indicating that the growth status and development ability of different listed companies are quite different. In addition, the average value of Dual is 0.237, indicating that about 23.7% of listed companies in China have the situation of the integration of chairman and general manager.

Table 2. The descriptive statistics of main variables

| Variable | N | Mean | Median | SD | Min | Max |
|---|---|---|---|---|---|---|
| ROA | 1420 | 0.047 | 0.035 | 0.062 | -0.631 | 0.339 |
| $Ins_{t-1}$ | 1420 | 0.294 | 0.240 | 0.226 | 0.001 | 0.937 |
| Change | 1420 | 0.029 | 0.000 | 0.173 | 0.000 | 1.000 |
| Size | 1420 | 22.665 | 22.495 | 1.410 | 19.226 | 27.784 |
| Growth | 1420 | 0.267 | 0.115 | 1.162 | -0.926 | 19.765 |
| Lev | 1420 | 0.478 | 0.494 | 0.232 | 0.020 | 1.256 |
| Top1 | 1420 | 0.357 | 0.342 | 0.157 | 0.039 | 0.812 |
| SOE | 1420 | 0.387 | 0.000 | 0.487 | 0.000 | 1.000 |
| Ind | 1420 | 0.376 | 0.343 | 0.056 | 0.182 | 0.667 |
| Dual | 1420 | 0.237 | 0.000 | 0.425 | 0.000 | 1.000 |
| Age | 1420 | 14.676 | 16.000 | 6.821 | 1.000 | 27.000 |

### *4.2 Correlation Analysis*

Table 3 reported the Pearson correlation coefficient of the main variables. The results show that the correlation coefficient between the core explanatory variable $Ins_{t-1}$ and the explained variable ROA is 0.107, and the significance test is passed at the 1% level. It shows that institutional investors' shareholding is beneficial to improve corporate performance, which preliminarily verifies the hypothesis H1 proposed earlier. From the correlation analysis results of the main control variables and corporate performance, the growth rate of operating income growth is significantly positively correlated with corporate performance, which is consistent with the theoretical expectation. Age has a significantly negative correlation with corporate performance, while Ind has no significant effect on corporate performance. In addition, the duality of chairman and general manager has a significant negative correlation with Change at the level of 5%, indicating that the listed companies with duality are less prone to control transfer. In addition, the correlation coefficient values between other variables are relatively small, indicating that there is no serious multicollinearity problem between variables. The empirical results obtained by this data are credible.

Table 3. The "Pearson" correlation analysis of main variables

| | ROA | $Ins_{t-1}$ | Change | Size | Growth | Lev | Ind | Dual | Age |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.000 | | | | | | | | |
| 2 | $0.107^{***}$ | 1.000 | | | | | | | |
| 3 | 0.006 | 0.036 | 1.000 | | | | | | |
| 4 | -0.028 | $0.186^{***}$ | $-0.088^{***}$ | 1.000 | | | | | |
| 5 | $0.108^{***}$ | 0.037 | $0.003^{*}$ | 0.030 | 1.000 | | | | |
| 6 | $-0.385^{***}$ | 0.020 | -0.043 | $0.383^{***}$ | $0.063^{**}$ | 1.000 | | | |
| 7 | -0.024 | 0.001 | 0.007 | $0.061^{**}$ | 0.022 | 0.027 | 1.000 | | |
| 8 | $0.055^{**}$ | $-0.070^{***}$ | $-0.004^{**}$ | $-0.048^{*}$ | 0.006 | $-0.094^{***}$ | $0.097^{***}$ | 1.000 | |
| 9 | $-0.164^{***}$ | $0.137^{***}$ | 0.008 | $0.331^{***}$ | $0.044^{*}$ | $0.400^{***}$ | 0.002 | $-0.154^{***}$ | 1.000 |

*Note.* $^{*}$, $^{**}$, $^{***}$ in the table represent significant at 10%, 5% and 1% levels respectively.

### *4.3 Analysis of Regression Results*

#### 4.3.1 Institutional Investors' Shareholding and Corporate Performance

Based on the results of the F test and Hausman test, this paper uses a fixed-effect model to analyze the relationship between institutional investor shareholding and corporate performance. It can be seen from Model 1 in Table 4 that the regression coefficient of the explanatory variable $Ins_{t-1}$ is 0.014, which is significantly positive at the 10% level, indicating that there is a positive correlation between institutional investors' shareholding and corporate performance. Hypothesis H1 is verified. The role of institutional investors in improving corporate performance mainly includes the following aspects: Firstly, institutional investors' shareholding alleviates the 'free rider' problem of minority shareholders in the process of corporate governance. Secondly, institutional investors with more shareholdings can also appoint representatives to the board of directors. While conducting daily management of the company, they can also use the identity of directors to collect internal information related to the company's operation and financial situation, and strengthen the supervision of the management, and controlling shareholders' private interests. Finally, the exit threat of institutional investors has largely alleviated the conflicts of interest between shareholders and managers and promoted the improvement of corporate performance.

#### 4.3.2 Control Transfer and Corporate Performance

Based on the results of the F test and Hausman test, this paper uses a fixed-effect model to empirically test the relationship between control transfer and corporate performance. Model 2 in Table 4 is the result of the regression of control transfer to corporate performance. It can be seen that the regression coefficient of Change is 0.011, and it is significantly positive at the level of 10%. This result confirms that there is a significant positive correlation between the transfer of control rights and corporate performance, indicating that the control market plays an external regulatory role, which is conducive to enhancing the value of the enterprise. Hypothesis H2 is verified. It shows that the transfer of control rights can optimize the allocation of resources and improve the efficiency of corporate governance.

Table 4. Regression results of institutional investor' shareholding, control transfer and firm performance

| variable | model 1 | model 2 |
|---|---|---|
| $Ins_{t-1}$ | $0.014^{*}$ (1.74) | |
| Change | | $0.011^{*}$ (1.76) |
| Size | $0.027^{***}$ (6.42) | $0.025^{***}$ (6.15) |
| Growth | $0.007^{***}$ (6.90) | $0.007^{***}$ (7.25) |
| Lev | $-0.166^{***}$ (-11.79) | $-0.168^{***}$ (-12.00) |
| Top1 | 0.026 (1.17) | 0.026 (1.15) |
| SOE | -0.020 (-1.52) | $-0.023^{*}$ (-1.74) |
| Ind | -0.041 (-1.22) | -0.045 (-1.22) |
| Dual | -0.004 (-1.00) | -0.411 (-1.00) |
| Age | $-0.005^{***}$ (-5.64) | $-0.005^{***}$ (-5.26) |
| Constant term | $-0.363^{***}$ (-3.94) | 5.062 (1.44) |
| Year & Industry | control | control |
| N | 1420 | 1420 |
| $R^2$ | 0.124 | 0.143 |

*Note.* $^{*}$, $^{**}$, $^{***}$ represent significant at 10%, 5% and 1% respectively. The value is t in parentheses.

#### 4.3.3 Analysis of the Mediating Effect of Control Right Transfer

The mediating variable of this paper is the transfer of control rights, which is a binary variable. Stepwise regression method, Sobel method, and Bootstrap method are used to test the mediating effect (Zhao et al., 2010), but they do not apply to this study. When dependent or intermediate variables are categorical variables, it is not possible to test the mediating effect of the significance of the ab product directly according to the traditional method but to unify the measurement of the regression coefficient (Iacobucci, 2012) to make it comparable. This paper first uses the dependent variable as the transfer of control rights and the independent variable as institutional investors' shareholding to do Logit regression. The specific results are shown in Table 5 model 3.1. Among them, the regression coefficient of $Ins_{t-1}$ is 2.324, that is, the coefficient a = 2.324 referred to earlier, and the corresponding value of Z statistic $Z_a$ is 2.63. On this basis, do the linear regression of the dependent variable company performance to institutional investors' shareholding and control transfer, the specific results are shown in Table 5 model 3.2. The regression coefficient for Change is 0.006, which is b = 0.006. Although T-test is used for the significance test of regression coefficient in linear regression when the degree of freedom of sample size exceeds 30, the T-test can be regarded as Z-test, so this paper corresponds to $Z_b$= 2.12. Then, the 95 % confidence interval of $Z_a \times Z_b$ calculated by Rmediation software package is [ LLCI = 0.0007, ULCI = 0.0041], excluding 0, indicating significant mediating effect. It can be seen that the transfer of control has a mediating effect on the relationship between institutional investors' shareholding and corporate performance. In addition, after controlling the influence of the mediating variable, the regression coefficient of $Ins_{t-1}$ is 0.015, which is still significant at the level of 10%, indicating that the transfer of control only plays a partial mediating role, and institutional investors' shareholding can also affect corporate performance through other paths.

Table 5. Test mediating effect test of control right transfer

| **Variables** | **Model 3.1**<br>**Change** | **Model 3.2**<br>**ROA** |
|---|---|---|
| $Ins_{t-1}$ | 2.324*** | 0.015* |
| | (2.63) | (1.86) |
| Change | | 0.006** |
| | | (2.12) |
| Size | -0.395** | 0.022*** |
| | (-2.54) | (5.31) |
| Growth | 0.336 | 0.011*** |
| | (0.37) | (6.09) |
| Lev | 0.302* | -0.140*** |
| | (1.87) | (-9.45) |
| Top1 | -3.908*** | 0.030 |
| | (-2.92) | (1.34) |
| SOE | -0.908** | -0.021 |
| | (-2.02) | (-1.60) |
| Ind | 1.048 | -0.054 |
| | (0.36) | (-1.50) |
| Dual | -0.219*** | -0.005 |
| | (-2.56) | (-1.08) |
| Age | 0.015 | -0.006*** |
| | (0.027) | (-4.52) |
| $R^2$ | — | 0.169 |

*Note.* *, **, *** in the table represent significant at 10%, 5% and 1% levels respectively. Model 3.1 is z in parentheses and model 3.2 is t in parentheses.

### *4.4 Robustness Test*

In the regression model of institutional investors' shareholding, transfer of control, and corporate performance, the return on total assets ROA is selected as a measure of corporate performance. To ensure the reliability of the research conclusions, the return on net operating assets Roe is selected as a measure of corporate performance. The results are shown in Table 6. The results of the robustness test are consistent with the previous results, which proves that the conclusions of H1 and H2 are reliable.

Robustness test of mediating effect of control transfer. The return on net operating assets Roe is used to replacing the return on total assets ROA as a measure of corporate performance. The results are shown in Table 7. The regression coefficient of $Ins_{t-1}$ is 2.324, and the corresponding Z value is 2.63. Similarly, after controlling the influence of intermediary variables, the regression coefficient of Change is 0.032, and the corresponding t value is 2.43. After using the Remediation software package of R software to run the 95% confidence interval of $Z_a \times Z_b$, the conclusion is consistent with the above, and the specific results are [ LLCI = 0.0012, ULCI = 0.0135], which also does not include 0. The results show that the transfer of control plays an intermediary role in the relationship between institutional investor shareholding and corporate performance, assuming that the conclusion of H3 is reliable.

Table 6. Institutional investors shareholding, control transfer and corporate performance robustness test

| | **Model 4.1** | **Model 4.2** |
|---|---|---|
| $Ins_{t-1}$ | 0.026$^{*}$<br>(1.74) | |
| Change | | 0.039$^{*}$<br>(1.79) |
| Size | 0.140$^{***}$<br>(6.92) | 0.035$^{***}$<br>(4.36) |
| Growth | 0.018$^{***}$<br>(3.98) | 0.027$^{***}$<br>(7.88 ) |
| Lev | -0.739$^{***}$<br>(-10.76) | -0.138$^{***}$<br>(-5.00) |
| Top1 | 0.120$^{***}$<br>(2.79) | 0.119$^{***}$<br>(2.75) |
| SOE | -0.099$^{***}$<br>(-3.99) | -0.101$^{***}$<br>(-4.03) |
| Ind | -0.093<br>(-1.38) | -0.091<br>(-1.37) |
| Dual | -0.011<br>(-1.29) | -0.011<br>(-1.31) |
| Age | -0.008$^{***}$<br>(-3.92) | -0.008$^{***}$<br>(-4.45) |
| Cons | -0.441$^{**}$<br>(-2.41) | -0.428$^{**}$<br>(-2.38) |
| Year & Industry | control | control |
| N | 1420 | 1420 |
| $R^2$ | 0.139 | 0.139 |

*Note*.$^{*}$, $^{**}$, $^{***}$ represent significant at 10%, 5% and 1% respectively. The value is t in parentheses.

Table 7. Robustness test of mediating effect of control transfer

| **Variables** | **Model 5.1**<br>**Change** | **Model 5.2**<br>**ROA** |
|---|---|---|
| $Ins_{t-1}$ | 2.324$^{***}$<br>(2.63) | 0.039$^{**}$<br>(1.92) |
| Change | | 0.032$^{**}$<br>(2.43) |
| Size | -0.395$^{**}$<br>(-2.54) | 0.127$^{***}$<br>(6.56) |
| Growth | 0.336<br>(0.37) | 0.017$^{***}$<br>(3.66) |
| Lev | 0.302$^{*}$<br>(1.87) | -0.694$^{***}$<br>(-10.23) |
| Top1 | -3.908$^{***}$<br>(-2.92) | 0.226$^{**}$<br>(2.18) |
| SOE | -0.908$^{**}$<br>(-2.02) | -0.102<br>(-1. 62) |
| Ind | 1.048<br>(0.36) | -0.185<br>(-1.14) |
| Dual | -0.219<br>(-0.56) | -0.008<br>(-0.37) |
| Age | 0.015<br>(0.027) | -0.022$^{***}$<br>(-4.52) |
| $R^2$ | — | 0.116 |

*Note*. $^{*}$, $^{**}$, $^{***}$ in the table represent significant at 10%, 5% and 1% levels respectively. Z value in parentheses of Model 6.1 and t value in parentheses of Model 6.2.

## 5. Further Analysis

The previous paper shows that the transfer of control rights plays a partial intermediary role between institutional investors' shareholding and corporate performance. To further explore whether institutional investors' shareholding will lead to the fight for control rights and the role of management in the process of control rights transfer, this paper further examines the role of management power in institutional investors' shareholding and control rights transfer and tries to clarify the mechanism of institutional investors' shareholding on control rights transfer.

### *5.1 Institutional Investors Shareholding and Control Transfer*

Institutional investors are considered to be the representatives of rational investors with innate capital advantages, industry-related professional backgrounds, and strong information collection and interpretation capabilities. As the key to corporate governance, control has a decisive influence on major issues and daily business management activities. Therefore, when institutional investors have strong motivation to interfere in the company's major decisions, they begin to appeal for corporate control (Chung et al., 2020).

Regression analysis is made on the relationship between institutional investors' shareholding and control transfer, and the results are shown in model 6.1 in Table 8. According to the results of the F test and Hausman test, this section selects the random effect model to conduct regression analysis on the relationship between the two. The regression coefficient of the main explanatory variable $Ins_{t-1}$ was 2.324 and was significantly positive at the 1% level. This shows that the increase in the shareholding ratio of institutional investors significantly increases the probability of control transfer of listed companies. This paper argues that the main reasons for the positive correlation between institutional investors' shareholding and the transfer of control rights include: on the one hand, with the deepening of the marketization process, China's institutional investors have achieved leapfrog development in a short time, and the enthusiasm of institutional shareholders to participate in corporate governance has been generally improved. Control is the key to corporate governance, when the proportion of institutional investors reach a certain share, you want to grasp the control of the company to affect the company's major business decisions. On the other hand, companies need constant external financing in the process of growth and expansion, which will lead to repeated dilution of actual controllers' equity, thereby reducing the difficulty of institutional investors acquiring target companies.

### *5.2 Moderating Effect of Managerial Power on the Relationship Between Institutional Investors' Shareholding and Control Transfer*

There is a strong synchronization between the transfer of corporate control and the change of management in the target company. Institutional investors compete for corporate control by replacing management (Fan & Leung, 2020). Because of the company's development prospects and career prospects, management will prevent the transfer of control in various ways. Gillan and Starks (2000) found that the fight for control usually occurs between major shareholders and management, and the management has a financial basis for the fight for control with institutional investors. Mccahery et al. (2016) confirmed that when the controlling shareholder equity pledge, the main stakeholders represented by management will take positive action to reduce the risk of the stock price crash, as far as possible to avoid the situation that the company has been replaced due to the transfer of control rights. Iwasaki et al. (2020) pointed out that social capital based on the mutual trust of stakeholders is of positive significance to control acquisition and maintenance.

Taking managerial power as moderating variable, this paper examines whether managerial power plays a moderating role in the process of corporate control transfer. Referring to Finkelstein (1992), managerial social capital, managerial equity capital, and internal director size are selected as proxy variables for managerial power. (1) Management social capital. Considering that social capital, as a relational resource, needs long-term training, and the important position of chairman and general manager in the company, this paper finally selects the average tenure of chairman and general manager to measure the social capital owned by the management, which is expressed as Social. (2) Management equity capital. China's company law strictly implements the principle of "one share, one power". The more shares held by the management, the greater the influence on the company's business decisions. Therefore, this paper uses the proportion of managerial ownership to measure equity capital, which is expressed as Share. (3) Scale of internal directors. A board seat is the embodiment of a company's discourse power. This paper selects the proportion of the number of directors held by management to the total number of directors to measure the size of internal directors.

The regression results are shown in models 6.2, 6.3, and 6.4 in Table 8. Model 6.2 examines the moderating effect of managerial social capital on the relationship between institutional investors' shareholding and control transfer. The results show that the regression coefficient of $Ins_{t-1}$ is 2.965, and it is significantly positive at the 5%

level. However, after adding the moderating variable Social, the cross term between institutional investor shareholding and managerial social capital is significantly negative, which indicates that when managerial social capital is large, the positive effect of institutional investor shareholding on the transfer of control rights will be weakened. Model 6.3 examines the moderating effect of managerial equity capital on the relationship between institutional investors' shareholding and control transfer. The results show that after introducing the moderating variable Share, the cross-term coefficient of institutional investors' shareholding and managerial equity capital is positive, but it does not pass the significant test, indicating that managerial ownership has no significant moderating effect on the relationship between the two. This may be since most of the management does not hold company shares, and the low shareholding ratio makes it difficult for the management to compete for control rights with institutional investors through equity capital. Model 6.4 examines the moderating effect of internal director size on the relationship between institutional investors' shareholding and control transfer. The results show that the regression coefficient of $Ins_{t-1}$ is 3.002, and it is significantly positive at the 10% level. However, after adding Seat, the cross term between institutional investors' shareholding and the size of internal directors is significantly negative, which indicates that when the management occupies more seats on the board of directors, it will also weaken the positive effect of institutional investors' shareholding on the transfer of control rights.

To sum up, when using Social, Share and Seat as proxy variables of managerial power and introducing the model, it is found that both managerial social capital and the size of internal directors weaken the positive correlation between institutional investors' shareholding and control transfer to some extent, and play a moderating role. This conclusion means that when a company competes for control, the management can compete with institutional investors under the social capital accumulated in long-term business management activities. In addition, the management's control over the board of directors can also reduce the probability of transfer of control.

Table 8. Institutional investors shareholding, management power and control transfer

| **explanatory variables** | **Model 6.1** | **Model 6.2** | **Model 6.3** | **Model 6.4** |
|---|---|---|---|---|
| Social | | $-0.342^{***}$ (-2.64) | | |
| $Ins_{t-1}$* Social | | $-0.226^{*}$ (-1.83) | | |
| Share | | | -5.886 (-1.33) | |
| $Ins_{t-1}$* Share | | | 13.590 (1.05) | |
| Seat | | | | -2.836 (-1.46) |
| $Ins_{t-1}$* Seat | | | | $-1.028^{*}$ (-1.74) |
| Size | $-0.395^{**}$ (-2.54) | -0.155 (-0.95) | $-0.391^{**}$ (-2.51) | $-0.421^{***}$ (-2.71) |
| Growth | 0.336 (0.37) | 0.271 (1.58) | $0.309^{*}$ (1.91) | $0.309^{*}$ (1.91) |
| Lev | $0.302^{*}$ (1.87) | -0.423 (-0.46) | 0.320 (-0.46) | 0.161 (0.18) |
| Top1 | $-3.908^{***}$ (-2.92) | $-3.891^{***}$ (-2.84) | $-3.816^{***}$ (-2.86) | $-4.300^{***}$ (-3.26) |
| SOE | $-0.908^{**}$ (-2.02) | $-1.212^{***}$ (-2.60) | $-0.927^{**}$ (-2.07) | $-0.767^{*}$ (-1.72) |
| Ind | 1.048 (0.36) | 0.445 (0.15) | 1.264 (0.43) | 1.533 (0.52) |
| Dual | $-0.219^{***}$ (-2.56) | $-0.025^{**}$ (-1.96) | $-0.105^{***}$ (-2.13) | $-0.411^{***}$ (-3.25) |
| Cons | $5.186^{*}$ (1.75) | 1.723 (0.46 ) | 5.334 (1.54) | 5.062 (1.44) |
| Year & Industry | control | control | control | control |
| N | 1420 | 1420 | 1420 | 1420 |
| $R^2$ | — | — | — | — |

*Note*. $^{*}$, $^{**}$, $^{***}$ in the table represent significant at 10%, 5% and 1% levels respectively. Z value is in parentheses.

## 6. Conclusions

Based on the balanced panel data of 284 A-share state-owned and private listed companies from 2013 to 2018, this paper examines the impact of institutional investors holding and a control transfer on corporate performance and tests whether a control transfer plays a mediating role in the relationship between institutional investors' holding and corporate performance. This paper further discusses the relationship between institutional investors holding and the transfer of control rights of listed companies and introduces the management power variable to test the moderating effect of management power on the relationship between institutional investors holding and the transfer of control rights. The following conclusions were reached:

1) Institutional investors' shareholding and control transfer have a positive impact on corporate performance. Institutional investors alleviate the 'free rider' problem of minority shareholders in the process of corporate governance and strengthen the supervision of management. Institutional investors with more shareholdings effectively constrain the opportunistic behavior of large shareholders and management by exiting threats. The transfer of control is mainly through the replacement of unqualified management to play the role of external supervision, prompting management to continue to maximize enterprise value as the business goal.

2) The transfer of control plays a partial mediating role in the relationship between institutional investors' shareholding and corporate performance. The increase of institutional investors' shareholding will first affect the allocation mode of control, and then affect corporate performance through the control market. This conclusion shows that the introduction of institutional investors as an important external governance mechanism often requires a specific transmission mechanism to achieve impact on corporate performance, and the transfer of control provides a path for institutional investors to affect corporate performance. The partial mediating effect indicates that in addition to the transfer of control, institutional investors can influence corporate performance through other ways. For example, the direct involvement of institutional investors in executive pay design and the inhibition of management's manipulation of internal information can positively promote corporate performance.

3) There is a significant positive correlation between institutional investors' shareholding and control transfer. The increase in institutional investors' shareholding significantly increases the probability of control transfer. Managerial power plays a moderating role in the relationship between institutional investors' shareholding and control transfer. The more social capital owned by management and the higher proportion of internal directors, the weaker the positive correlation between institutional investors' shareholding and control transfer. This shows that the social capital accumulated by management in long-term management activities has become an important weight to compete with institutional investors for control. As a dominant voice, management competes with institutional investors by occupying a majority of board seats, thereby reducing the probability of a shift in control.

Because of the above research conclusions, this paper puts forward the following management implications:

First, improve the external control market construction. The increase in the shareholding ratio of institutional investors significantly increases the probability of the transfer of control rights of listed companies, which has a positive impact on corporate performance. This mechanism of action mainly realizes the redistribution of equity through the control market. By taking over and replacing the unqualified management, the control market can restrain the management behavior, alleviate agency conflicts and reduce information asymmetry, to encourage management to continuously improve corporate performance. China's control market started late, we should learn from the western control market theory, to explore the localization of application experience. By improving the laws and regulations of the control market, reducing administrative intervention, building a rational, free and market-oriented control market.

Second, grasp the appropriate intervention of institutional investors. Through the supervision of management behavior, institutional investors reduce agency costs and form an external governance mechanism, which can play a positive role in improving corporate performance. However, it should be noted that due to the widespread interest difference between institutional investors and management, the self-interest behavior of both sides will inevitably break the long-standing interest pattern of enterprises, thus triggering the fight for control and reducing governance efficiency. Therefore, institutional investors' involvement in corporate governance is a double-edged sword, and the appropriate degree of institutional investors' involvement should be accurately grasped. Enterprises should actively explore new governance methods, broaden the channels for institutional investors to participate in corporate governance, and reduce their cost of rights protection. In addition, the state needs to continuously improve relevant laws and regulations, strengthen the protection of the rights and interests of institutional investors, and guide the speculation of institutional investors, to improve the efficiency of institutional investors' participation in corporate governance under the premise of legal compliance.

Third, guide management behavior selection and corporate governance efficiency consistently. In the process of the transfer of control rights caused by the intervention of institutional investors, management competes with institutional investors for control rights based on their interests. On the one hand, management resists the 'invasion' of institutional investors through the long-term accumulation of social capital during their tenure. On the other hand, management increases the right to speak by occupying more board seats, to combat the decision-making power 'violation' caused by institutional investors entering the board. Managerial social capital and internal director size have a negative moderating effect on the relationship between institutional investors' shareholding and control transfer. Competition for control caused by interest conflicts will inevitably increase the cost of corporate governance, resulting in loss of governance efficiency. Therefore, it is necessary to improve the governance structure of the board of directors and the stakeholder representation mechanism, to guide the management's behavioral choices to remain consistent with the efficiency of corporate governance. One is to give full play to the role of the cumulative voting system. The majority of shareholders can enter the board of directors by electing people who can represent their interests supervise the behavior of management. Two is to play the role of independent directors of management constraints, to avoid the board of directors as management or controlling shareholders' "rubber stamp". Three is to respect the role of human capital management in enterprise value creation, can consider drawing on the dual ownership structure and partnership system as the representative of the new control arrangement mode, incentive management behavior always consistent with the efficiency of corporate governance.

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