The Effect of Multiple Large Shareholders on the Firm's Value in China

Jinho Jeong  
Division of Business Administration  
College of Global Business Korea University  
Korea

Weilian Piao*  
Division of Business Administration  
College of Global Business Korea University  
Korea  
pwlascg@163.com

Abstract—This paper examines the effect of the multiple large shareholders (MLS) on the value of the firm. It also studies whether the ownership gap between the major shareholders has an impact on the firm's value. The sample includes data of Chinese listed firms from 2008 to 2017. Our results show that the existence of MLS increases the firm's value. In particular, the ownership gap between multiple major shareholders is negatively related to the value of the firm. Because the smaller the gap, the greater the monitoring effect of the second shareholder on the first shareholder. And finally the split share structure reform affects the empirical results of almost all Chinese stock markets, so we study the influence of the split share structure reform, and the results show that the impact of the split share structure reform is considered to weaken the monitoring effect of the second shareholder on the first shareholder.

Keywords—multiple large shareholders; firm value; split share structure reform

I. INTRODUCTION

Some studies have found that corporate ownership is concentrated on multiple major shareholders rather than one major shareholder [1][2]. These results show that the traditional emphasis on corporate governance researches needs to further shift from the agency problem between managers and shareholders to the conflict between controlling shareholders and major shareholders.

The research object of this paper is the Chinese market. China is one of the largest emerging economies in the world and has one of the fastest growing markets. And Chinese listed companies provide a good platform for studying the impact of multiple major shareholders. Considering these factors, our study examines the relationship between ownership structure and firm value. The empirical results show that the existence of multiple large shareholders increases the firm value of Listed Companies in China, in addition, the smaller the stock gap between major shareholders, the higher the competitiveness of multiple large shareholders, the larger the firm value.

This study makes an important contribution to the several ideas of literature. First, we extend the research on corporate governance practice and the effects of multiple large shareholders by taking cross-listing decisions into consideration. Attig et al. (2008) use a sample of eight East Asian and 13 Western European countries to examine how multiple large shareholders affect firms’ cost of equity capital [3]. However, China is excluded from their sample. But, as a rapidly growing economy, China requires more attention so that researchers can understand its corporate governance practices. In addition, China's unique market characteristics, such as the share structure used in the stock market, constitute a different environment for examining the impact of MLS on corporate value.

Second, most existing research is based on the existence of the second largest shareholder and analyzes the impact on firm value [4]. In the literature of China, there are few studies on the impact of the ownership gap between major shareholders on firm value. This paper attempts to make contributions in this regard. This paper studies the impact on ownership structure of MLS on firm value and examines the role of the ownership gap between MLS in controlling shareholders. The results showed that the smaller the ownership gap between the multiple large shareholders, the higher the value of the company.

Finally, this paper studies the split share structure reform and its impact on the relationship between MLS and firm value. The issue of split share structure is a special institutional arrangement in China's securities market. It results in listed companies having both tradable and non-tradable shares. The two types of shareholders have different rights to circulate, while the other rights are the same. This special phenomenon distorts the formation mechanism of the stock market price, causes the inconsistency between the value of tradable shares and non-tradable shares, and undoubtedly brings great impact on the empirical research of Chinese capital market. The coexistence of tradable shares and non-tradable shares affects the scientific and reasonable determination of the stock price and number of shares of listed firms in China, and then affects the empirical results of almost all Chinese stock markets [5]. In this respect, this study considers the reform of split structure. The rest of this paper is organized as follows: Section 2 includes the literature review and hypothesis development; Section 3 discusses the data collection process and variables; Section 4 gives the empirical results; Section 5 concludes the paper.
II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. Multiple Large Shareholders and Firm Value

The agency theory based on the characteristics of modern corporate enterprises usually has two problems to solve: one is the conflict between shareholders and managers \([6][7]\); the other is the conflict of interests between large shareholders and small shareholders \([8]\). The key to solve these two problems is usually to examine the impact of ownership structure on corporate governance efficiency.

There are some articles on the impact of ownership structure on corporate governance efficiency. For example, Sun & Huang (1999) found an inverted "U" relationship between the shareholding ratio of the largest shareholder and firm value \([9]\); Chen & Xu (2001) found that in non-protective industries, firm value is an increasing function of the shareholding ratio of the largest shareholder, but there is no such relationship in protective industries \([10]\). In addition, Chen & Xu (2003) and Liu (2003) have further studied the impact of ownership nature on corporate performance and governance effectiveness \([11][12]\).

However, the above literature only discusses the relationship between the proportion of the largest shareholder or the nature of the first shareholder and corporate performance and governance effectiveness. We believe that one aspect of the discussion of ownership structure should not be neglected is the interest relationship between shareholders, especially when there are two large shareholders in the firm. This research is rare even in Western countries, because in common law countries such as the United States and Britain, equity is usually very dispersed (one possible reason is that the legal protection of shareholders is better), firms generally do not have major shareholders who have absolute power to control the whole firm, while the possibility of a second largest shareholder to compete with is even smaller. However, in many other parts of the world, especially in East Asia, the phenomenon of ownership concentration is very common \([1]\). Many companies also have the second largest shareholder whose share-holding ratio is enough to influence the decision-making of the first largest shareholder. Therefore, it is necessary to explore the impact of conflicts of interest among major shareholders on firm value and governance efficiency.

In the late 1990s, scholars began to notice this problem. Research by Pagano & Roell (1991), shows that there are two advantages to having multiple major shareholders in a company \([13]\): The first is to be able to form effective oversight of managers. The second is that mutual supervision between shareholders can internalize the private benefits of control. In an extreme case, when two major shareholders hold the same proportion of equity, neither party has absolute right to use the company's resources to increase its private income.

In China, the ownership is very centralized, the largest shareholders often use their control rights to "empty" the listed companies, and it is difficult for other shareholders to effectively supervise this behavior. We anticipate that if the firm has a more influential second largest shareholder, this agency cost may be reduced.

The existing literature in China mainly studies the impact of ownership structure on corporate performance from the perspective of the proportion of largest shareholders and the nature of ownership. The research results in this regard can be referred to the summary of Chen et al. (2004) \([14]\). There are few studies from the perspective of Balance Mechanism of Shareholding, including: (1) emphasizing the impact of the existence of multiple major shareholders on corporate performance \([15]\); (2) analyzing the impact of the degree of Balance Mechanism of Shareholding among major shareholders on corporate performance \([16]\); and (3) Analyze the relationship between equity concentration, Balance Mechanism of Shareholding and balances and corporate performance;

Interestingly, few studies studied the Chinese market after the 2008 financial crisis. So, in this paper, we will study the relationship between the multiple large shareholders and firm value with the sample of Chinese listed companies after 2008. In addition, this study model defines second major shareholders as owners with at least 10% ownership.

To summarize the above, a dominance structure with multiple major shareholders may generate the following trade-offs: increasing the contestability of the dominant shareholder's power and reducing the likelihood of acquiring private gain, thus ultimately increasing the enterprise value.

H1: Firm value should be higher if there are multiple large shareholders.

H2. H_concentration positively affects firm value

B. Split Share Structure Reform

On April 29, 2005, the Securities Regulatory Commission started the pilot work of the split share structure reform, and the split share structure reform officially began. split share structure refers to the separation of tradable shares and non-tradable shares in the arrangement of ownership structure. As an institutional defect left over from history, the split share structure has restricted the standardized development of capital market and the fundamental reform of state-owned assets management system in many ways, resulting in the lack of common interest basis for the governance of listed companies. The core of the split share structure reform is to solve the problems of the reduction, transfer and listing of state-owned shares that have not yet been circulated, so as to realize full circulation and give full play to the role of capital market in the allocation of resources.

In many previous articles, there have been many studies on ownership structure and corporate performance, but the conclusions drawn from each article are not entirely consistent, and there are not many empirical studies on the impact of split share structure reform on corporate governance of listed firms.

From the descriptive statistical analysis of the sample data in 2005, it can be seen that the listed companies in China have the phenomenon of "one share is the largest" and excessive concentration of shares. The proportion of the largest shareholders in the company averages as high as 44%. The top five shareholders control more than 60% of the shares. The proportion of the state shares is relatively large, and the major
shareholders are basically state-owned shares that cannot be listed and circulated. The proportion of tradable shares is relatively low, and its average value is less than 40%. The descriptive statistics of 2006 data show that the proportion of the first largest shareholder and the top five shareholders has decreased, from 44.1% to 37.1%, from 60.4% to 50.9%. Compared with the ownership structure in 2005, the proportion of state-owned shares has been significantly reduced, and the proportion of corporate shares has also changed slightly. The proportion of circulating shares has increased considerably, from 37% to 47% [17]. It shows that the reform of non-tradable shares has changed the situation of "dominant share" of Listed Companies in China. The degree of ownership concentration has gradually changed from excessive concentration to moderate concentration, and the ownership structure is gradually becoming reasonable. Here we explore the effect of this split share structure reform on the firm’s value.

H3: Split share structure reform will affect the second shareholder’s monitoring role on the first shareholder.

III. METHODOLOGY

A. Data and Sample

We use a sample comprised of firms listed on the Shanghai Stock Exchanges between 2008 and 2017. Data were collected from the China Securities Market Research Database (CSMAR). Financial and insurance firms were excluded since their accounting principles differ from those of other industries.

B. Models

This study empirically analyzes the relationship between the existence of multiple major shareholders and firm value under corporate governance with more than one major shareholder. Therefore, this study adopts the following analytical model to analyze the possibility of enterprise dominance competitiveness and enterprise value.

\[
TQ = 0 + \text{1} \times \text{HI concentration} + \text{2} \times \text{LEV} + \text{3} \times \text{SIZE} + \text{4} \times \text{FIXED RATIO} + \text{5} \times \text{GROWTH} + \text{6} \times \text{YEAR} + \text{7} \times \text{IND} + \varepsilon
\]

(1)

\[
TQ = 0 + \text{1} \times \text{HI differences} + \text{2} \times \text{LEV} + \text{3} \times \text{SIZE} + \text{4} \times \text{FIXED RATIO} + \text{5} \times \text{GROWTH} + \text{6} \times \text{YEAR} + \text{7} \times \text{IND} + \varepsilon
\]

(2)

\[
TQ = 0 + \text{1} \times \text{HI concentration} + \text{2} \times \text{LEV} + \text{3} \times \text{SIZE} + \text{4} \times \text{FIXED RATIO} + \text{5} \times \text{GROWTH} + \text{6} \times \text{YEAR} + \text{7} \times \text{IND} + \varepsilon
\]

(3)

Where model 1 explains hypothesis 1, and model 2 and model 3 explain hypothesis 2.

C. Dependent Variable

The main proxy for corporate value is Tobin’s Q. This variable is the market value of the asset divided by the replacement value.

D. Independent Variables

Multiple large shareholder (MLS). MLS is a dummy variable which is set to 1 if there is at least one large shareholder other than the largest shareholder with a holding of more than 10% of voting rights, and 0 otherwise.

HI differences. The research hypothesis suggests that corporate value increases with the possibility of dominance of major shareholders. Thus, this study takes several measures as a proxy for the likelihood of Monitoring. The first is the Herfindahl index (i.e., HI differences), measured as the sum of the differences between the first and second shareholders’ shares and the second and third shareholders’ shares, (Votes 1 - Votes 2)² + (Votes 2 - Votes 3)² [18].

For example, if the largest shareholder owns 30%, the second shareholder owns 20%, and the third largest shareholder owns 10% of the stock, the index is 200. If the three largest shareholders own 20% each, the index is zero. This reflects the competitiveness of higher control.

HI concentration. The second measure, HI concentration (i.e., Herfindahl concentration), is a proxy variable for the total concentration of voting rights of major shareholders. The HI_concentration variable is the sum of the shares held by the three largest shareholders, (Votes 1)² + (Votes 2)² + (Votes 3)². The exponent is 1400 in the first example, whereas the exponent in the second example is 1200. This reflects lower concentration. The logarithmic transformation of these two Herfindahl exponents was used to control the degree of causality. These values are expected to have a negative correlation with firm value.

The Herfindahl index used in this study has many advantages as an empirical variable and as a continuous variable, but this study also uses dummy variables in relation to the contestability of major shareholders' dominance. This is to take into account the significant legal and minor shareholder assigned to shareholders with a minimum of 10% stakes.

E. Control Variable

| TABLE I. VARIABLES |
|---------------------|
| Variable types      | Variable name      | Assignment     |
| dependent variable  | Tobin’s Q          | TQ             |
| Independent variable| Herfindahl index   | HI_differences |
|                     | Herfindahl index   | HI_concentration |
|                     | whether only 1 major shareholders | MLS Dummy |
|                     | Asset-liability ratio | LEV |
|                     | Logarithm of assets scale | SIZE |
| control variable    | Fixed Asset/Total Asset | FIXED RATIO |
|                     | Increase rate of business income | GROWTH |
|                     | Year               | YEAR |
|                     | Industry           | IND |

As shown in Table I, this study will include variables such as SIZE, ASSET, GROWTH, and LEV, which have been...
shown to be important in previous studies. The firm size is the natural logarithm of total assets. It is expected to have a negative effect on corporate value. The following table is the assignment table for all variables:

IV. RESULTS

A. Summary Statistics

The basic descriptive statistics of the selected variables, mainly those involved in hypothesis 1, are presented in Table II.

The summary statistical analysis revealed that hypothesis 1 involved 1804 sample sizes, of which the average value of Tobin’s Q was 3.1987 and the standard deviation representing the discrete trend was 2.6194, indicating that there is a certain profit difference between sample companies. The average values of HI differences and HI concentration of the three major shareholders were 0.0200 and 0.1268, respectively, indicating that there is little difference overall. The average value of LEV was 0.3558, which shows that more than 30% of the total assets of the sample companies were raised through liabilities, with some companies reaching more than 90%.

B. Correlation Analysis

We analyzed the correlations between variables involved in hypothesis 1. The results are presented in Table III.

The correlation coefficient r is a statistic for the intensity and direction of linear correlations between two random variables. It has no units and ranges from -1 to +1. The positive and negative values of r represent the direction of linear correlation between two variables; that is, r > 0 indicates positive correlation and r < 0 indicates negative correlation; r = 0 indicates zero correlation. The absolute value of R indicates the degree of linear correlation between the two variables. The closer the absolute value of r is to 1, the closer the degree of intimacy is; conversely, an absolute value of r close to 0 indicates a low degree of intimacy. Here, r is given by the Pearson correlation. As seen in Table III, the correlation value between MLS and TQ was 0.039, indicating a positive influence between MLS and TQ relative to a single major shareholder. The control variables LEV, SIZE, and FIXED RATIO negatively correlated with TQ, while GROWTH positively correlated with TQ.

Table II. Summary Statistics

| Variable | Minimum(M) | Maximum(N) | Median(F) | Standard deviation |
|----------|------------|------------|-----------|-------------------|
| TQ       | 0.0000     | 9.0000     | 0.5000    | 1.0000            |
| HI differences | 0.0000 | 0.0000     | 0.0000    | 0.0000            |
| HI concentration | 0.0000 | 0.0000     | 0.0000    | 0.0000            |
| LEV      | 0.0000     | 0.0000     | 0.0000    | 0.0000            |
| SIZE     | 0.0000     | 0.0000     | 0.0000    | 0.0000            |
| FIXED RATIO | 0.0000 | 0.0000     | 0.0000    | 0.0000            |
| GROWTH   | 0.0000     | 0.0000     | 0.0000    | 0.0000            |

Table III. Correlations (Hypothesis 1)

|          | TQ      | MLS     | LEV     | SIZE    | FIXED RATIO | GROWTH |
|----------|---------|---------|---------|---------|-------------|--------|
| Pearson  | 0.355   | -0.144  | -0.405  | 0.205   | -0.131      | -0.144 |
| Sig. (2-tailed) | 0.000 | 0.000   | 0.000   | 0.000   | 0.000       | 0.000  |

As presented in Table IV, the correlation value between HI differences and TQ was -0.131 and the corresponding p value was 0.000, indicating that the correlation has statistical significance. The correlation value between HI concentration and TQ was -0.163 and the corresponding p value was 0.000, which also indicates statistical significance. Again, the control variables LEV, SIZE, and FIXED RATIO were negatively correlated.
correlated with TQ, and GROWTH and TQ were positively correlated.

The correlation analysis reflects the influence of a single variable on the dependent variable; a multiple linear regression analysis was conducted to identify the variable and its impact.

C. Regression analysis

We analyzed the results of model 1, model 2, and model 3. Results are presented in Table V.

The regression analysis results of model 1 produced a test t value of 3.364 and a P value of 0.001, indicating statistical significance. This means that the single major shareholder MLS Dummy has a significant impact on TQ. The coefficient value of 0.128 further indicates that the impact is positive. That is to say, compared with firms with only one major shareholder, the value of the firm is higher with multiple large shareholders, thus supporting hypothesis 1.

Model 2 shows the regression analysis results of model 2. The test t value of the influence coefficient of HI_differences on TQ was -3.438 with a corresponding P value of 0.001. That is to say, HI_differences has a significant influence on TQ. Further, the coefficient value was -6.767, indicating that the influence was negative. Control variables LEV, SIZE, and FIXED RATIO had significantly negative effects on TQ, while GROWTH had a significantly positive effect on TQ.

Model 3 presents the regression analysis results of model 3. The test t value of HI_concentration on TQ was -2.274 with a corresponding P value of 0.023, indicating statistical significance. Further, the coefficient value was -2.222, meaning the influence of HI_concentration on TQ was significantly negative.

In summary, the results of model 2 and 3 show that a smaller difference in shareholding ratio between the first three major shareholders is associated with better impact on corporate value, thus supporting hypothesis 2.

D. Hypothesis 3

Next, we studied whether the split share structure reform has different impacts on Tobin’s Q and market value. Results are presented in Table VI.

As shown in Table VI, the test t value was 2.361, the corresponding P value was 0.026, and the coefficient value was 1.776, meaning that single major shareholder MLS has a significant, positive impact on the explained variable Tobin’s Q before the reform.

After reform (TQ) shows that the test t value of the influence coefficient of MLS on Tobin’s Q was 0.077, P > 0.05, indicating no significant influence.

These results suggest that after the reform, the second largest shareholder did not effectively monitor the controlling shareholder. That is to say, the reform did not improve the monitoring of the second largest shareholder over the controlling shareholder.

V. Conclusions

In this study, we considered the impact of multiple major shareholders as well as the impact of competitiveness among major shareholders in a further exploration of the impact of ownership structure on corporate value. This study chose listed companies from 2008 to 2017 as samples, excluding the financial industry, and compared the results of multiple regression analyses and panel regression analyses across the characteristics of panel data, cross-sectional data, and time series data. For the main explanatory variables, MLS index was used to measure the presence of majority shareholders, and Herfindahl index was used to measure the difference between the proportion of major shareholders as HI_differences and HI_concentration.

Results show that companies with MLS have higher firm value, which indicates that they have more effective monitoring of management and controlling shareholders and thus make decisions in favor of minority shareholders. In addition, companies with majority shareholders, a smaller stock gap between the major shareholders related to a higher value of the company. This shows that the enterprise has a majority of major shareholders, and that the second or third largest shareholders had effective control over the controlling shareholders.

Finally, we examined whether the reform of non-tradable shares affected the relationship between MLS and corporate value. Results show that the reform of non-tradable shares weakened the influence of MLS on company value, perhaps by
reducing the supervision of other shareholders on the controlling shareholders.

REFERENCES

[1] La Porta, R., Lopez - de - Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. The journal of finance, 54(2), 471-517.

[2] Barca, F., & Becht, M. (2002). The control of corporate Europe. Oxford University Press.

[3] Attig, N., Guedhami, O., & Mishra, D. (2008). Multiple large shareholders, control contests, and implied cost of equity. Journal of Corporate Finance, 14(5), 721-737.

[4] W. S. Wang, & J, H. Hung (2012). Do Multiple Large Shareholders Increase Firm Value? A Study of Chinese Cross-Listed Companies.

[5] D. Yang, T. X. Wei, & J. M. Ye (2008). The Impact of Non-tradable Shares on Empirical Study of China's Capital Market and Model Revision. Economic Research, 3,73-85.

[6] Berle, A., & Means, G. (1932). The Modern Corporation and Private Property Macmillan. New York, 2(3), 45-53.

[7] Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of financial economics, 3(4), 305-360.

[8] Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. The journal of finance, 52(2), 737-783.

[9] Y. X. Sun, & Z. H. Huang (1999). Stock Ownership Structure and Performance of Listed Companies. Economic Research, No. 12.

[10] X. Y. Chen, & X. D. Xu (2001). Equity Structure, Enterprise Performance and Protection of Investors. Economic Research, No. 1.

[11] X. Y. Chen, & X. D. Xu (2003). An Analysis of the Impact of the First Major Shareholder on Corporate Governance and Corporate Performance [J], Economic Research, No. 2.

[12] S. J. Liu, Y. Sun & N. Q. Liu (2003). The Theory of Ultimate Property Rights, Ownership Structure and Corporate Performance. Economic Research, No. 4.

[13] Pagano, M., & Röell, A. A. (1991). Dually Traded Italian Equities: London vs. Milan (No. 564). CEPR Discussion Papers.

[14] X. Y. Chen, D. H. Chen, & K. Zhu (2004). Ownership Structure and Corporate Performance: Doctoral dissertation.

[15] X.Y. Chen, & H. Wang, “Shareholder checks and balances and corporate value: models and empirical evidence. Quantitative economic,” technological and economic studies, 2004, vol. 11, pp. 102-110.

[16] Y. X. Huang, Y. Sun, Y. H. Shao, & S. J. Wang (2003). Research on Equity Balance and Corporate Governance. Doctoral dissertation.

[17] R. Wu (2008). The impact of non-tradable shares reform on corporate governance of listed companies and Countermeasures. Master's thesis.

[18] Maury, B., & Pajuste, A. (2005). Multiple large shareholders and firm value. Journal of Banking & Finance, 29(7), 1813-1834.