

A STUDY ON THE RELATIONSHIP BETWEEN PLEDGES OF MAJOR SHAREHOLDERS' SHARES AND THE PERFORMANCE OF LISTED COMPANIES

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ABSTRACT: With the vigorous development of China's capital market, the equity pledge of large shareholders of listed companies has greatly increased, becoming one of the important ways for listed companies to raise funds. However, with the volatility of the pledged stock market, the equity pledge of the major shareholder of the listed company began to face the risk of mandatory liquidation, which became the focus of market attention, and the high proportion of pledge may cause greater damage to the listed company. Therefore, this article takes the listed company with major shareholder pledge of A shares on the Shanghai and Shenzhen Stock Exchanges as the research object, uses the listed company's data from 2013 to 2016 as a research sample, and establishes a multiple linear regression model to show the performance of the listed company. The empirical analysis of the relationship between the shareholder's equity pledge rate and its change, the proportion of major shareholders' shareholdings and the nature of equity, the growth rate of the listed company's scale, and the asset-liability ratio found that there exists a large shareholder's equity pledge rate and its changes and company performance. When small and medium-sized listed companies with significant negative correlations and total assets of less than RMB 5 billion pledged shares of major shareholders, the ratio of major shareholders' shareholdings was significantly positively correlated with company performance, and the relationship between the shareholder's equity pledge and the performance of listed companies was obtained showed a steady state.

Keywords: major shareholder; equity pledge; corporate performance; shareholding percentage.

I. INTRODUCTION

The pledge of major shareholders' equity has become increasingly frequent in China's financial market. As of the end of 2016, 41% of the listed company's major shareholders had equity pledges. However, the development of China's equity pledge system for equity pledges is relatively backward. Therefore, in-depth study of the behavior of major shareholder equity pledges, a comprehensive understanding of the possible risks of the financing method, and to explore its existing relationship with corporate performance, can provide an improvement direction for the government system, the company's internal governance system, and better support Investor rational decision.

II. RESEARCH DESIGN AND EMPIRICAL ANALYSIS

(A) Sample Selection and Data Sources

This article takes the 2011-2016 listing of companies listed on the Main Board of the Shanghai and Shenzhen Stock Exchanges as the original research sample. The data on the shareholder's equity pledge of the first largest shareholder comes from the RESSET financial database, which has statistics on the number of shareholder pledges at a certain point in time. The financial data of listed companies comes from the annual reports of listed companies. Due to the particularity of the financial industry, financial firms are excluded from the sample data in the empirical study of this paper. After screening the original data, the total number of samples was 2377, including 459 data sets in 2011, 552 data sets in 2012, 604 data sets in 2013, and 762 data sets in 2016. This article uses excel to process data, use spss for statistical analysis, and use eviews for empirical regression analysis.

(B) Variable Definition and Model Establishment

In order to verify the three hypotheses proposed in the previous section, the following linear regression models are established in this paper: To verify the hypothesis of the relationship between equity pledge rate and corporate performance, and to establish a linear regression model:

$CP = \beta_0 + \beta_1 \text{pledge} + \beta_2 \text{lev} + \beta_3 \text{stake} + \beta_4 \text{growth} + \beta_5 \text{type} + \epsilon$

Verify the hypothesis 2 that the relationship between equity pledge rate changes and company performance, establish a linear regression model 2:

$$CP = \beta_0 + \beta_1 \text{pledge} + \beta_2 \text{change} + \beta_3 \text{lev} + \beta_4 \text{stake} + \beta_5 \text{growth} + \beta_6 \text{type}$$

The explanatory variables in the above two linear regression models all contain the shareholding ratio of the major shareholders, so they can be used to verify the hypothesis in this paper and there is no need to establish a regression model.

The model specific variables are: the explained variable is the company performance (CP), net profit/net assets are represented by roe1, (net profit - non-recurring gain/loss)/net assets are represented by roe2; the explanatory variables are the equity pledge rate (Pledge), shareholding ratio of major shareholders (Stake), equity pledge change (Change), company growth rate (Growth), asset-liability ratio (Lev), and shareholder nature (Type), among which equity pledge ratio is shares pledged by major shareholders. The total number of shares of listed companies held by the number/major shareholder, the proportion of major shareholders holding shares of the listed company held by major shareholders/the total share capital of the listed company, and the change in shareholding pledged at the time of the major shareholder's stock pledge rate - large shareholder of the same period last year Equity pledge rate, company scale growth rate (book value of total assets - book value of total assets in the previous year y book value of total assets in the previous year, asset-liability ratio is the carrying value of listed company's liabilities book value / total assets book value In the nature of shareholders, 0 is used to indicate non-state ownership, 1 is state-owned, and the control variable is the year and the size of the company. The size of the company divides the sample data into two groups according to whether the company's assets exceed 5 billion yuan.

III. EMPIRICAL ANALYSIS CORRELATION ANALYSIS

After correlation analysis, it was found that under a 10% confidence level, the ratio of large shareholders' shareholding, the growth rate of listed company's scale, asset-liability ratio, and the nature of large shareholders' equity were all significantly related to the ROE. At a 15% confidence level, the previous year's large shareholder's equity pledge rate and the change in equity pledge rate were all significantly related to net asset returns after deducting non-recurring gains and losses. It shows that the explanatory variables chosen in this paper are reasonable, and they are related to the explanatory variables to some extent. The relatively small correlation coefficient values are mainly due to the large number of factors that affect company performance, so the correlation between one of them and performance is not particularly strong.

However, the correlation coefficient table also shows that the degree of relationship between equity pledge rate and company performance is not very close. This may be due to the fact that when the correlation analysis was carried out, all the samples were not categorized and put into the sample pool for Pearson correlation. The analysis makes the correlation be diluted by a certain type of weak correlation sample, leading to a lack of correlation results. In the following regression analysis, samples of listed companies of different years and different sizes will be classified and multiple linear regressions will be conducted separately to avoid being affected by annual effects, scale effects, etc., and the results will be more reasonable and reliable.

Multiple linear regression analysis

The regression results show that the proportion of large shareholders' shareholdings is significantly positively correlated with company performance, and it is consistent with the hypothesis that H3 is positively related to the shareholding ratio of major shareholders under the equity pledge of major shareholders.

The nature of equity is the most important variable in this study. The equity pledge rate is equal to the previous year's equity pledge rate plus the change in equity pledge rate. The three are significant algebraic relationships and are used to verify equity. Whether there is a lag effect on the impact of the pledge rate on the company's performance, the equity pledge ratio in Model 1 is the value of the stock pledge ratio at the end of the year before fiscal year. The results show that the coefficients are all negative, which means that the effect of the shareholder pledge rate of the previous year on the performance of the company is negative. This effect is significant.

Table 1 Model Regression Results

	2013		2014		2015		2016	
Variable	Roe	Roe1	Roe	Roe1	Roe	Roe1	Roe	Roe1
C	0.1641 (2.3731) (0.0183)	0.0070 (0.1650) (0.8690)	0.0623 (1.0215) (0.3077)	0.0264 (0.4122) (0.6804)	0.0120 (0.3229) (0.7469)	0.1235 (1.9614) (0.0506)	-0.0250 (-0.4498) (0.6530)	-0.0230 (-0.3945) (0.6934)
Pledge1	-0.0708 (-4.2661) (0.0064)	-0.0305 (-3.8931) (0.0725)	-0.0724 (-4.4500) (0.0465)	-0.0664 (-4.2711) (0.0045)	-0.0287 (-3.9768) (0.0293)	-0.0068 (-3.1368) (0.0912)	-0.0071 (-3.1299) (0.0967)	-0.0208 (-3.3642) (0.0158)
Growth	0.0884 (5.9158) (0.000)	0.0400 (4.3876) (0.000)	0.0175 (1.5983) (0.1109)	0.0175 (1.5234) (0.1285)	0.0055 (4.1180) (0.000)	0.0049 (2.1673) (0.308)	0.2713 (4.9579) (0.000)	0.2572 (4.4891) (0.000)
Stake	0.0571 (0.4590) (0.6466)	0.2087 (2.7500) (0.0063)	0.1207 (1.0570) (0.2912)	0.1542 (1.2865) (0.1991)	0.2211 (3.5716) (0.0004)	0.2468 (2.3464) (0.0195)	0.0140 (0.1259) (0.8999)	-0.0291 (-0.2493) (0.8032)
Type	-0.0709 (1.6786) (0.0942)	-0.0733 (-2.8459) (0.0047)	-0.0109 (-0.2726) (0.7853)	-0.0499 (-1.1912) (0.2344)	-0.0319 (1.2686) (0.2053)	-0.0235 (-0.5503) (0.5824)	-0.1087 (-2.1441) (0.0325)	-0.0148 (-0.2781) (0.2810)
Lev	-0.1156 (-2.4878) (0.0134)	-0.0964 (-3.4005) (0.0008)	-0.0365 (-1.4149) (0.1580)	-0.0427 (-1.5756) (0.1160)	-0.1240 (-2.9423) (0.0035)	-0.4743 (-6.6216) (0.0000)	0.0008 (0.1061) (0.9156)	0.0015 (0.1809) (0.8565)
R-squared	0.1173	0.1257	0.0262	0.0300	0.1080	0.1454	0.0625	0.428
Adjusted R-squared	0.1031	0.1116	0.0126	0.0165	0.0964	0.1343	0.0529	0.0330
F-statistic	8.2413	8.9150	1.9279	2.2180	9.2984	13.0682	6.4840	4.3466
Prob (F- statistic)	0.0000	0.0000	0.0890	0.0520	0.0000	0.0000	0.0000	0.0007

IV. THE CONCLUSION OF THE STUDY

Through empirical research, the results show that:

- (1) There is a significant negative correlation between the shareholder's equity pledge rate and the company's performance.
- (2) There is a significant negative correlation between the change in the shareholder's equity pledge rate and the company's performance.
- (3) For small and medium-sized listed companies with total assets of less than 5 billion yuan, when major shareholders have equity pledges, the proportion of major shareholders holding shares has a significant positive correlation with company performance. The higher the proportion of major shareholders holding shares, the greater the impact of the company's profit and loss, and its equity pledged to obtain funds will be more inclined to choose to invest in the normal business activities of listed companies to increase the company's profits, so that major shareholders own more profit. On the other hand, although the negative impact of equity pledges on the performance of listed companies is not significant, the larger the shareholding ratio of major shareholders, the lower the degree of separation of

control rights and cash flow rights from the perspective of separation of powers. The performance of listed companies is less affected.

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