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The Largest Shareholder Holdings, Cash Dividends and Supervision of Board

—An Empirical Analysis from Chinese Market

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Abstract

Based on tunneling theory and principal-agent theory, setting 2008 to 2014 listed companies in China as samples, this paper explores the relationship between largest shareholders' shareholdings and cash dividends, and meanwhile, identifies the supervisory directors according to their office and education background to analyze the influence of supervision role of board to the relationship between the largest shareholding and cash dividends. The empirical results show that the higher the shareholdings of the largest shareholder, the more cash dividends per share. In addition, the higher the proportion of supervisory directors, the smaller the influence of the largest shareholding on cash dividends, which means supervisory directors can inhibit the tunneling behavior of the largest shareholders to a certain extent, and the board of directors play a role of supervision.

Keywords

The Largest Shareholder Holdings, Cash Dividends, Monitoring Directors, Tunneling Theory

1. Introduction

Profit distribution is one of the three core activities of enterprise financial management, affecting the capacity of continuous operation and the returns of investors. There are many scholars studying dividend policy since 1938 when William has began doing research to dividend theory, however, the conclusion is inconsistent. In the view of the complexity of dividend policy, Black (1976) put forward "a puzzle of dividend". Compared with the western countries, China's capital market started late, which leaded to the imperfect system. In addition, the ownership structure is relatively concentrated; the protection for small and medium investors is poor; cash dividends ratio is low. Therefore, China Securities Regulatory Commission (CSRC) continuously introduced policies to encourage listed companies to dispatch cash dividends. Relevant policy improves the situation of divi-

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dend payment, and the proportion of listed companies who distribute cash dividend is rising. But actually, the small and medium sized investors are keen on short-term investments in China. They are return-oriented rather than dividends-oriented. As a consequence, it seems different to ensure the medium-small investors share profits of listed firms, and cash dividends become the method of large shareholders to transfer profits instead.

Tunneling Theory was put forward by Johnson *et al.* in 2000, which reexamined the Agency Theory. They held the idea that the agency problem reflected between controlling shareholder and minority shareholders in companies whose ownership was concentrated. Then cash dividends become a major way for controlling shareholders to gain returns [1]. In fact, in addition to distributing cash dividend, the way to tunneling includes occupation of funds, connected transaction and loan in assurance. Although these means are complicated to implement, they are easy to regulation. While distributing cash dividend has dual character, it is difficult to accurately analyze the motives. So in this paper, the relationship between largest shareholding and cash dividends has been analyzed, and the motivation of distributing cash dividends of listed companies in China has been explored accordingly.

The board of directors, as the representative of the investors, is the core of corporate governance. Therefore, the board should not only safeguard the interests of large shareholders but also maintain the small and medium investors' rights. When the large shareholders tend to tunnel the company, the board should supervise and control the distribution level of cash dividends. However, current studies have not got a consensus conclusion on whether the board of directors can monitor large shareholders. Duan and Wang (2009) consider that the large shareholders can influence members of the board in listed companies. For their own interests, large shareholders would choose the members who obey them, and the board of directors becomes a "puppet" for large shareholders. In this way, the supervision of the board is failing [2]. And Chen *et al.* (2014) suggested the independent directors could constrain the tunneling behavior of large shareholders and play a positive role in supervision [3]. Based on those literatures, this paper tries to study whether the board can restrain the behavior of tunneling through analyzing the background of the board member.

2. Literature Review and Hypothesis Development

2.1. Largest Shareholders and Cash Dividends

Several researches show that there are interest conflicts between large shareholders and minority shareholders in the enterprise whose equity is highly concentrated. In order to maintain their own rights and interests, the large shareholders tend to sacrifice the interests of minority shareholders (La Partch *et al.*, 1999; Pagano and Roel, 1998) [4] [5]. But the conclusions are not unified about whether cash dividend is the way to cash for large shareholders. Tang and Xie (2006) argue that cash dividend may not be best choice for major shareholders to empty the company, but with the constant improvement of regulatory policy, it is more and more difficult to use other ways, the controlling shareholders inclined to tunneling by distributing cash dividend [6]. But Xiao and Su's (2012) research has shown that ultimate controlling shareholder take advantage of cash dividend to cover tunneling instead of tunneling [7]. China has become one of the most competitive capital markets around the world. But there is no denying that related system about capital system is not perfect; investors' diathesis is not well, and they usually have speculative purposes but the demand for cash dividend is low. Therefore, cash dividend may become a mean for large shareholders to cash. Based on these analyses, propose the following hypotheses:

H1: Higher the shareholding of the largest shareholder, the more cash dividends distribute, that is the share ratio of the largest shareholder is positively associated with cash dividend per share.

2.2. The Supervision of the Board of Directors

The board of directors, with the advent of modern enterprise system, is the core of corporate governance. The main idea of principal-agent theory is that the function of board is to monitor (Jensen and Meckling, 1976; Hermalin and Weisbach, 2014) [8] [9]. In terms of the board of directors' supervision function, most research focused on the executive pay, the quality of accounting information. Only few studies concerned about the supervision on the dividend policy and the large shareholders' behavior of tunneling. On the respect of the relationship between the board and large shareholders' tunneling behavior, Ye, Lu and Zhang (2007) suggest that independent directors can inhibit the tunneling behavior of large shareholders, and curb the occupation of funds by the major shareholders [10]. On the respect of the relationship between the board and cash dividend, Chen and

Lin (2011) found the companies which have dual role of the board chairman don't tend to distribute cash dividend, while the companies which have large, high independence board are more likely to distribute cash dividend [11]. Feng and Ma (2013) argued that relationship-network and stability of the board of directors has a positive influence on cash dividend distribution [12]. However, above studies only analyzed large shareholders' behavior of tunneling or cash dividends separately, and didn't explore the relationship between the two. Therefore, this paper tries to analyze whether the board of directors can supervise the tunneling behavior using cash dividends by large shareholders.

Most previous studies draw a conclusion that the board independence is the key factor to ensure that the board can supervise effectively (Faleye, Hoitash and Hoitash, 2011; Ye, Zhu and Lu *et al.*, 2011; Li and Xu, 2014) [13]-[15]. Few studies analyze the personal background of board members. But in fact, education and work experience has vital effects on individual ability. Hileman and Dalziel (2003) suggest the board members' experience and professional knowledge is crucial for the function of board [16]. Hence, the paper based on the directors' individual background, identified the supervisory directors and analyzed the board supervision function. As the representative of all shareholders, the board of directors should curb the tunneling behaviors of large shareholders to preserve the right of minority shareholders. Hereby propose the following hypothesis:

H2: Supervisory directors can restrain large shareholders' tunneling behaviors, supervisory directors weaken the positive correlativity between the shareholding ratio of first major shareholder and cash dividends.

3. Empirical Study Design

3.1. Sample Selection

This paper chooses the Chinese A-share companies listed on the Shenzhen and Shanghai stock exchanges from 2008 to 2014 as samples. Firstly, drop financial companies. Secondly, drop Special Treatment (ST) and Particular Transfer (PT) companies because these companies are in financial difficulties and could no longer issuing cash dividends. Finally, drop firm-years missing data. As a result, 12,335 firm-years data are left. All the data in this paper come from the China Stock Market Trading Database (CSMAR).

3.2. Variable Definition

3.2.1. Dependent Variable

Most extensive literature analysis cash dividends from two aspects, one is the willingness to pay cash dividends; the second is the actual payment level of cash dividends. With the constantly improvement of the CSRC for cash dividend policy, an increasing number of listed companies start distributing cash dividends. Hence, this paper chooses the level of cash dividends as dependent variable, in particular, cash dividends per share is the explained variable.

3.2.2. Independent Variable

Reference to the study of Xie (2006) [17] and Gul (2010) [18], regard the shareholding ratio of largest shareholder as independent variable.

3.2.3. Moderator Variable

Reference to the study of Faleye *et al.* (2011), Gong and Mao (2014) [19], recognizing supervisory directors from three aspects includes committee service, work experience and knowledge background, as follows:

1) Supervision Committees: directors who are responsible for the audit, compensation and nomination committees.
2) Supervision Experience: directors who resume contains "director", "audit", "supervisor" and "patrol", etc.
3) Supervision Knowledge: directors who resume contains "the economist", "assets appraisal", "accountant", "tax" and "auditors", etc.

Define director as supervision director if the one is meet the above three conditions. On this basis, calculating the proportion of the supervisory directors for each company every year, and regarding it as moderator variable.

3.2.4. Control Variable

The control variables include the firm asset size (SIZE), the board size (BOARDSIZE), earnings per share

(EPS), operating cash flow per share (CFPS), long-term asset liability ratio (LEV), quick ratio (QUICKR), property right (SOE), Industry (IND) and year (YEAR).

All variables are listed in **Table 1**.

3.3. Measurement Models

In order to test H1, this paper builds the following model:

$$\begin{aligned} \mathrm{DIV}_{i,t} = {} & \alpha_0 + \alpha_1 \mathrm{SHRCR1}_{i,t} + \alpha_2 \mathrm{SIZE}_{i,t} + \alpha_3 \mathrm{BOARDSIZE}_{i,t} \\ & + \alpha_4 \mathrm{EPS}_{i,t} + \alpha_5 \mathrm{CFPS}_{i,t} + \alpha_6 \mathrm{LEV}_{i,t} + \alpha_7 \mathrm{QUICKR}_{i,t} \\ & + \alpha_8 \mathrm{SOE}_{i,t} + \alpha_9 \mathrm{IND}_{i,t} + \alpha_{10} \mathrm{YEAR}_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (1)$$

In order to test H2 which analyses whether the board can supervise the tunneling behavior of large shareholders, all samples are sorted by the proportion of supervisory directors, and divide all samples into 5 groups from high to low according to the proportion. In the end, make regression based on each subsample.

4. Empirical Outcome and Analyzing

4.1. Descriptive Statistics

Table 2 presents the result of descriptive statistics. According to **Table 2**, the mean of cash dividend per share is 0.1094, which indicates that cash dividends of listed companies in China are still not high. The mean of shareholdings of largest shareholder is 36.5162%, which shows the shareholdings of controlling shareholder are high, equity is relatively concentrated. In terms of the board structure, percentage of supervisory directors is 63.1474%, more than half of the directors are supervisory one.

4.2. Correlation Analysis

In order to test the relationship between the variables, estimate whether the model is multicollinearity, the correlation analysis is carried out in this paper. **Table 3** lists the result of correlation analysis. The autocorrelation coefficient between the variables is less than 0.6, which declares there is no collinearity condition. Among them, DIV is positively correlated which SHRCR1 at the 1% significance level, which is a preliminary validation of the hypothesis 1.

Table 1. The definition and description of main variables.

Variable Type	Variable Symbol	Name	Definition
Dependent Variable	DIV	Cash dividends per share	Cash dividends per share
Independent Variable	SHRCR1	Shareholding ratio of largest shareholder	Shareholding ratio of largest shareholder
Moderator Variable	MON	The proportion of the supervisory directors	The number of supervisory directors/total number of the board
Control Variable	SIZE	Firm asset size	Natural logarithm of total assets of the company
	BOARDSIZE	Board size	Total number of the board
	EPS	Corporate profitability	After-tax profit/total stock issue
	CFPS	Cash flow	Net cash flows generated from operating activities/total stock issue
	LEV	Long term debt ratio	Non-current liability/total asset
	QUICKR	Quick ratio	Quick assets/current liabilities
	SOE	Property right	Assign "state-owned firms" to 1, otherwise assign to 0
	IND	Industry	Industry dummy variables
	YEAR	Year	Year dummy variables

Table 2. Descriptive statistics of major variables.

Variable	Obs.	Mean	Std.	Min	Max
DIV	12,335	0.10940	0.14902	0.00000	0.80000
SHRCR1	12,335	0.36516	0.15401	0.09000	0.76440
MON	12,335	0.63147	0.19847	0.09091	1.00000
SIZE	12,335	21.86671	1.28368	18.87095	25.64768
BOARDSIZE	12,335	9.23186	2.11266	1.00000	26.0000
EPS	12,335	0.43370	0.74304	−3.91608	23.82430
CFPS	12,335	−0.63285	0.85222	−4.45547	0.73673
LEV	12,335	0.14394	0.17239	0.00000	0.72675
QUICKR	12,335	2.02831	3.02139	0.13639	19.71859
SOE	12,335	0.41337	0.49246	0	1

Table 3. Correlation analysis.

	DIV	SHRCR1	SIZE	BOARD SIZE	EPS	CFPS	LEV	QUICKR	SOE
DIV	1								
SHRCR1	0.137*** (0.000)	1							
SIZE	0.125*** (0.000)	0.267*** (0.000)	1						
BOARDSIZE	0.027*** (0.003)	0.025*** (0.005)	0.308*** (0.000)	1					
EPS	0.556*** (0.000)	0.116*** (0.000)	0.238*** (0.000)	0.044*** (0.000)	1				
CFPS	−0.250*** (0.000)	−0.067*** (0.000)	−0.239*** (0.000)	−0.058*** (0.000)	−0.284*** (0.000)	1			
LEV	−0.171*** (0.000)	0.093*** (0.000)	0.125*** (0.000)	0.197*** (0.000)	−0.066*** (0.000)	−0.174*** (0.000)	1		
QUICKR	0.276*** (0.000)	−0.034*** (0.000)	0.290*** (0.000)	0.137*** (0.000)	0.095*** (0.000)	0.016* (0.075)	0.304*** (0.000)	1	
SOE	0.082*** (0.000)	0.203*** (0.000)	0.375*** (0.000)	0.270*** (0.000)	−0.004 (0.629)	0.023** (0.011)	0.283*** (0.000)	−0.243*** (0, 0)	1

*Denotes significance at the 10% level two-tailed. **Denotes significance at the 5% level two-tailed. ***Denotes significance at the 1% level two-tailed.

4.3. Regression Analysis

Table 4 represents the whole sample and grouped sample regression results of the largest shareholder's shareholding and cash dividends. In the whole samples regression between largest shareholder's shareholding and cash dividend, adjusted R-squared is 0.4011, which suggest the fitting degree of the model is high. The regression coefficient is significantly positive at the 1% significance level. It shows that the shareholding of largest shareholder is positively correlated to cash dividend. The higher the shareholding of largest shareholder, the more the cash dividends per share, hence, the hypothesis 1 is substantiated. It also suggests that listed companies' major shareholders in China tunneling by distributing cash dividends.

In order to further inspect whether supervisory directors can play a supervision role in inhibiting the tunneling behaviors of the large shareholders, divide all the samples into 5 groups according to the percentage of supervisory directors, and then, test supervision effects by group regression.

Table 4. Regression results.

Variables	DIV					
	Whole sample	Sub-sample				
		MON1	MON2	MON3	MON4	MON5
Cons	−0.3434496*** (0.000)	0.0216018 (0.791)	−0.1686605*** (0.003)	−0.1015744 (0.220)	−0.1783506*** (0.001)	−0.4735121*** (0.000)
SHRCR1	0.0717196*** (0.000)	0. 101198*** (0.000)	0 .0832168*** (0.000)	0 .0754893*** (0.006)	0.0682887*** (0.000)	0. 0405905*** (0.005)
SIZE	0.0155869*** (0.000)	−0.0017611 (0.641)	0.0061198** (0.021)	0.0067327* (0.081)	0.0067257*** (0.006)	0.0219523*** (0.000)
BOARD SIZE	0.0021572*** (0.000)	0 .0002717 (0.878)	0..0022271* (0.065)	−0.0018966 (0.253)	0.0025613* (0.035)	.00392877*** (0.001)
EPS	0.0928612*** (0.000)	0 .2249186*** (0.000)	0 .1506725*** (0.000)	0 .1625447*** (0.000)	0 .2249186*** (0.000)	0 .0755978*** (0.000)
CFPS	−0.016266*** (0.000)	−0. 0001624 (0. 954)	−0.0038388** (0.012)	−0. 0000951 (0.998)	−0.0021143 (0.399)	−0.0179305*** (0.000)
LEV	−0.1277663*** (0.000)	−0. 0200223 (0.474)	−0.0829265*** (0.000)	−0.0911302*** (0.001)	−0.081807*** (0.000)	−0.1569675*** (0.000)
QUICKR	0.0102746*** (0.000)	0. 0048115*** (0.000)	0.003459 *** (0.000)	0.0020963** (0.017)	0. .0050305*** (0.000)	0.0051429*** (0.000)
SOE	−0.0173747*** (0.000)	−0.0267864*** (0.002)	−0.0209*** (0.000)	−0.0127069 (0.167)	−0.0134982** (0.010)	−0.0086376* (0.062)
IND	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
YEAR	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Obs	12335	2466	2382	990	2999	3498
Adjust R2	0.4011	0. 6446	0.4631	0.5330	0.4525	0.2989

*Denotes significance at the 10% level two-tailed. **Denotes significance at the 5% level two-tailed. ***Denotes significance at the 1% level two-tailed.

The result of sub-sample regression shows that the regression coefficients are all significantly positive in every sub sample, which further validates hypothesis 1. Meanwhile with the rising of the percentage of supervisory directors, SHRCR1's regression coefficient dropped from 0.01012 to 0.0406, which indicate the more supervisory directors in the board, the less the impact of largest shareholder's shareholding on cash dividends. In other word, the supervisory directors can suppress the tunneling behaviors of largest shareholder, and they play a role of supervision to a certain extent. Therefore, the hypothesis 2 is proved.

5. Robustness Test

In order to ensure the robustness of the results, this paper makes a robustness test by replacing the key variable. In terms of the measurement of cash dividends, this paper uses cash dividends payout to take place of cash dividend per share. **Table 5** presents the result of robustness test. As shown in the table, in addition to slightly different about the significant of control variables, the results of robustness test and above regression are basically identical.

6. Conclusion and Suggestion

In this paper, author analyses the relationship between the shareholding of largest shareholders and cash dividends firstly. It is found that the higher the shares of largest shareholder of listed companies, the more cash dividends. Thus, largest shareholders tend to tunnel listed companies by paying cash dividends in China. By joining the variable of supervisory directors' proportion, the results show that supervisory directors' proportion can

Table 5. Robustness test.

Variables	DIVRATE	
	Coefficient	P−value
Cons	−0.486193***	0.000
SHRCR1	0.1605625***	0.000
SIZE	0.0264162***	0.000
BOARDSIZE	0.0064308	0.000
EPS	0.0018997	0.614
CFPS	−0.0148366***	0.000
LEV	−0.2483967***	0.000
QUICKR	0.0174419***	0.000
SOE	−0.0459653***	0.000
IND	Fixed	
YEAR	Fixed	
Obs	12,335	
Adjust R2	0.08	

*Denotes significance at the 10% level two-tailed. **Denotes significance at the 5% level two-tailed. ***Denotes significance at the 1% level two-tailed.

weaken the correlativity of largest shareholders' shareholding and cash dividends. Specifically, the higher the proportion of supervisory directors, the less impact of largest shareholder on cash dividends. It indicates that supervisory directors can play an effect role to supervise and restrain the largest shareholder behaviors of tunneling. In China, the capital market system is not perfect, and the protection degree of small investors is low. After the analysis of this paper, the listed companies can increase the numbers of the directors who have supervisory background to make the governance of the board of directors more effective. Ultimately, it can give some advice to listed companies in China on inhibiting the tunneling behavior of largest shareholders.

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