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An Empirical Research on Information Disclosure Quality and Cash Dividend Policy

---Empirical Evidence from A-share Listed Companies of China Shenzhen Stock Exchange

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Abstract

The information disclosure system and dividend system of listed companies are of great significance to the healthy development of the securities market. In this study, the 2001-2017 China Shenzhen Stock Exchange A-share listed companies were selected as the research sample, and select 11226 observation data for empirical analysis. Under the control of relevant variables, it was found that listed companies with higher information disclosure quality will formulate higher Cash dividend policy, information disclosure quality and cash dividend policy have a significant positive correlation, indicating that the quality of information disclosure of listed companies will have a positive impact on dividend policy. Based on this, it is recommended that market supervisors should increase the transparency of listed companies in the securities market and reduce information asymmetry, which can help to increase the dividend payment of listed companies, thereby replacing the direct intervention.

Keywords

Quality of Information Disclosure, Cash Dividend Policy, Listed Company.

1. Introduction

Dividend policy refers to the income distribution system formulated by the enterprise, which can be regarded as a return of equity funds. From the perspective of investors, its income mainly includes gains obtained from buying and selling stocks in the securities market and dividends distributed by listed companies. Dividend policy not only affects the rate of return of investors, but also affects the financing costs and corporate value of listed companies. Many researchers have conducted research on dividend policy, and the MM theory proposed by Miller and Modigliani in 1961 is the cornerstone of modern dividend policy. Under the strict premise assumption, MM theory believes that the dividend policy has nothing to do with the value of the company; it only distributes the company's shareholders 'income, and does not affect the total shareholders' income. But the premise of MM theory is very strict, and it lacks explanatory power to reality. Western economists have developed a dividend policy tax effect theory, transaction cost theory, life cycle theory, etc. based on MM theory. Some of these economists believe that dividend policy is closely related to the information of listed companies. Bhattachary (1979)[1] put forward the theory of dividend signals, thinking that listed companies can pass the company’s prospect signals to the market through dividend policies; Michael S. Rozeff (1982) [2] combines the dividend policy and the principal-agent theory, and believes that dividend play an important role in the conflict of owner and manager; Easterbrook (1984) [3] believes that by issuing cash dividends to limit internal financing, companies are

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encouraged to finance in external markets subject to strict supervision, thereby solving the problem of information asymmetry.

This article studies the dividend policy of China Shenzhen Stock Exchange A-share listed companies from the perspective of information disclosure quality. The main contributions are: First, analyze the dividend distribution policy from the perspective of information disclosure quality, and improve the relevant factors that affect the dividend distribution; second, explore the supervision methods of China's securities market supervisors based on empirical analysis, and choose scientific and reasonable management style.

2. Theoretical Review and Research Hypothesis

There are two different views on the relationship between information disclosure quality and cash dividend policy:

The first view: The higher the quality of information disclosure, the more likely a listed company is to formulate a high cash dividend policy, that is, the quality of information disclosure and cash dividend policy are positively related. Duan (2017) [4] conducted regression analysis using data from Shenzhen-listed companies with dividend distribution from 2012 to 2016, proving the positive correlation between information disclosure quality and cash dividend distribution, as well as the adjustment effect of agency costs. Li (2014) [5] used the A-share listed company of Shenzhen Stock Exchange as a research sample from 2008 to 2010 and found that the quality of information disclosure of listed companies is significantly positively correlated with cash dividend policy. Tong (2014) takes listed companies in high-risk industries as the research object, and through regression analysis, it is concluded that the higher the level of security information disclosure in high-risk industries, the higher the company's tendency to pay dividends. The theoretical basis of the above scholars' research can be attributed to the theory of dividend results model proposed by LaPorta et al. (2000) [6]-high dividend policy is the result of high information disclosure quality.

The second view: The higher the quality of information disclosure, the more likely a listed company is to formulate a low cash dividend policy, that is, the quality of information disclosure and cash dividend policy are negatively related. The well-known research is put forward by LaPorta et al. (2000) [6]. Its research believes that dividend payments can be divided into result models and alternative models. These two models provide research paradigms for studying dividend policy and information disclosure quality. According to its alternative model, in the case of poor information disclosure, listed companies will formulate a higher dividend policy as a means of signal transmission in order to continue to raise funds from the capital market. In other words, when the quality of information disclosure is high, the listed company may make a lower dividend policy, because the higher quality of information disclosure has achieved the purpose of information transmission.

Based on the above analysis, the following assumptions are made:

H1a: The quality of information disclosure is positively related to the cash dividend policy. Companies with higher information disclosure quality have more cash dividends.

H1b: The quality of information disclosure is negatively related to the cash dividend policy. Companies with higher information disclosure quality have less cash dividends.

3. Research Design

(1) Variable definition

The explained variable in this paper is the cash dividend per share. Since the dividend payment of listed companies in china is generally determined and announced in the next year. That is to

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say, the data of dividend in 2017 is the cash dividend data announced in 2018, and so on in other years.

The explanatory variable is the quality of information disclosure (QOID), which is based on the results of the evaluation of the quality of information disclosure published by the Shenzhen Stock Exchange. The quality of company information disclosure is divided into four levels: A, B, C, and D. According to the four ratings of the information disclosure quality of listed companies on the Shenzhen Stock Exchange, this article assigns values of 4, 3, 2, and 1 to A, B, C, and D.

In addition, control the relevant variables that affect the cash dividend policy. Refer to Xu (2013) [7] empirical research on information disclosure and cash dividends, and set the control variables as: profitability, free cash flow, growth, asset-liability ratio, equity concentration, company size, year, and industry were controlled. The main source of variable data in the study was from RESSET database. The continuous variable data was processed using Winsorize and processed according to the 1% standard. Variable definitions are in table 1 as below.

Table 1. Variable names and definitions

Type of Variable	Variable	Variable symbol	Variable description
Explained Variable	Cash dividend per share	CDPS	Cash dividend / total number of shares
Explanatory Variable	Degree of information asymmetry	QOID	The four levels A, B, C, and D are assigned 4, 3, 2, and 1, respectively
Controlled Variable	Profitability	ROA	Net profit / total assets
	Cash flow	CASH	Free cash flow per share
	Growth	TOBINQ	Tobin's q
	Debt level	ALR	Total liabilities / total assets
	Equity concentration	QC	Shareholding ratio of the largest shareholder
	Company asset scale	LNCS	Natural logarithm of total assets
	Year	YEAR	Year dummy variable
	Industry	INDU	Industry dummy variables

(2) Model design

According to Hypothesis H1a and Hypothesis H1b, and taking into account cash dividend data is censored data, so the TOBIT model was applied for analysis:

$$TOBIT(CDPS_{it}) = \beta_0 + \beta_1 QOID_{it} + \beta_2 EPS_{it} + +\beta_3 CPS_{it} + \beta_4 RGR_{it} + \beta_5 ALR_{it} + \beta_6 QC_{it} + \beta_7 CS_{it} + \sum_j \alpha_j YEAR_{it} + \sum_k \alpha_k INDU_{it} + \mu_{it}$$

The above model uses unbalanced panel data for regression analysis. For panel data regression, we consider whether to choose mixed regression, random effect regression or fixed effect regression. The mixed regression and random effect regression of the panel Tobit model are very mature, but the fixed effect regression of the panel Tobit model is more difficult. The

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semiparametric estimation method published by Honore (1992) [8] in Econometrica is adopted. This estimation method can not only get a consistent estimate, but also does not require the random error terms to follow a normal distribution, even if the observed data has heteroskedasticity, it can also get a consistent estimate. This study uses the panel Tobit mixed regression model, the panel Tobit random effect model and the panel Tobit fixed effect model to estimate the observation data, and compares and tests it. The panel Tobit fixed effect model is the most suitable, so only the results of the fixed effects model are shown.

(3) Sample and data source

The 2001-2017 A-share listed companies of Shenzhen Stock Exchange were selected as the research sample, excluding companies with incomplete data and companies marked with ST (Special treatment), a total of 11,226 observations were obtained; the quality of information disclosure was sourced from the official website of Shenzhen Stock Exchange; other variable data derived from RESSET database.

4. Empirical Analysis

(1) Descriptive statistical analysis of variables

From the descriptive statistical analysis of the collected 11,226 sample data, it can be seen that the average value of the information disclosure evaluation of listed companies is 2.04, that is, the average rating is slightly higher than C, and the quality of information disclosure needs to be improved. The average cash dividend is 0.08 yuan per share, the maximum value is 0.7, the minimum value is 0, and the gap is large.

Table 2. Descriptive statistical analysis of main variables

Variables	Mean	Standard deviation	Minimum	Maximum	Observations
CDPS	0.08	0.12	0	0.7	11226
QOID	2.04	0.66	1	4	11226

(2) Regression analysis

Table 3 shows the regression results of the Tobit fixed-effects model. From the regression results, it can be concluded that the effect of explanatory variable information disclosure quality (QOID) on the explained variable cash dividend policy (CDPS) is significantly positive at a significant level of 1%, that is, the higher the level of disclosure quality, the higher the cash dividend. Support the hypothesis H1a, that is, support the "result model"-cash dividend policy is the result of information disclosure. The higher the quality of information disclosure, investors can mine the information disclosed by listed companies to analyze the company's operating status and investment status and profitability. It will increase the risk of managers "over-investing", thereby managers will choose to distribute dividends.

Among other control variables, the ROA (Return on assets) coefficient and the LNCS (natural logarithm of asset) coefficient are significantly positive at a 1% significance level, that is, the higher the asset profit margin and the larger asset size, the more the cash dividend distribution; ALR (asset-liability ratio) coefficient is significantly negative at a significant level of 1%, that is, the higher the asset-liability ratio, the less cash dividend distribution.

Table 3. Results of regression

Variables	Coefficient and P value in parentheses
QOID	0.013 *** (0.001)
ROA	0.014 *** (0.000)
CASH	0.004 * (0.057)
TOBINQ	-0.003 (0.358)
ALR	-0.000 *** (0.007)
QC	0.034 (0.494)
LNCS	0.035 *** (0.000)
N	11226

p-values in parentheses * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

(3) Robustness test

In order to test the robustness of the conclusion of the paper, the research adopts the following methods for the robustness test. One is to change the assignment method of QOID (information disclosure quality), and use the dichotomy method to assign values to the QOID, that is, A, B, and C are assigned a value of 1, D rating is assigned a value of 0; the second is to replace the control variable and replace Tobin's q with the growth rate of total assets. Through the robustness test, the conclusion of this article remains unchanged, that is, the higher the quality of information disclosure, and the more cash dividends distribution.

5. Conclusion

Taking the Shenzhen Stock Exchange's 2001-2017 A-share listed companies as a research sample, and using the analysis method of unbalanced panel data modeling, the cash dividend policy of listed companies was analyzed from the perspective of information disclosure quality. The higher the quality of information disclosure, the more cash dividends is distributed, and the quality of information disclosure is positively related to cash dividend. Research conclusions show that, in the context of China's securities market promoting the dividends of listed companies, market supervisors should increase the transparency of listed companies in the securities market and reduce information asymmetry, which can help increase the dividend payment of listed companies and replace the direct intervention by supervisors. Based on this,

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it is recommended to improve the information disclosure system of listed companies to reduce information asymmetry. At the same time, the supervisors should strictly supervise the listed companies, requiring listed companies to disclose company information in a timely, true and complete manner in accordance with laws and regulations. The regulators should avoid direct interference in formulating the dividend policy of listed companies, and can achieve the purpose of intervening in the dividend policy of listed companies by constructing a complete information disclosure mechanism.

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