

The Impact of Differentiated Dividend Tax Reduction on Cash Dividend Policies of Listed Companies

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Abstract. In the Chinese capital market, the low cash dividend payout rate and low dividend stability of listed companies have been widely criticized by investors. Therefore, China's regulatory authorities have successively issued a series of policies aiming at regulating and guiding listed companies to conduct scientific and reasonable dividend distribution, one of which is the Differentiated Dividend Tax Reduction Reform in 2015. This thesis aims to study its impact on the dividend payment level and dividend stability of listed companies, and explore its effectiveness in safeguarding investor interests. The empirical results show that after the differentiated dividend tax reduction, compared to companies with lower shareholding ratio of natural major shareholders, companies with higher shareholding ratio of natural major shareholders significantly improved the dividend payment level and dividend stability. Further research has found that there are differences in the impact of Differentiated Dividend Tax Reduction Reform on cash dividend policies between state-owned and non-state-owned companies. This thesis provides a theoretical basis for further deepening dividend tax reform in China and has important practical guidance significance for regulatory authorities to improve dividend regulatory policies.

Keywords: Differentiated Dividend Tax Reduction, Dividend Payment Level, Dividend Stability

1 Introduction

As early as in 1994, China promulgated the Individual Income Tax Law, which stipulated that the dividends obtained by individuals from listed companies should be taxed at a 20% tax rate, which means that after paying the corporate income tax, the profits obtained by the company should be distributed to the shareholders, and the individual income tax should be paid again, thus resulting in the problem of double taxation. This is considered to be one of the reasons why the listed companies in China have not paid enough cash dividends for a long time. The lack of cash dividend of listed companies in China not only harms the interests of investors, but also gives birth to the short-term speculative transactions of many investors, which seriously damages the healthy development of China's capital market. Therefore, in order to promote the dividend distribution of the listed companies in China and improve the stability of the dividend distribution so as to better protect investors' interests, the securities and Exchange Commission has promulgated a series of cash dividend reform policies in succession from 2001. Table 1 shows three adjustments to the dividend tax rate for individual investors.

Table 1. China's dividend tax reform process.

Timing of reform	Dividend tax rate
June 13, 2005	10%
January 1, 2013	Holding period >1 year —5% 1 month < Holding period < 1 year —10% Holding period < 1 month—20%
September 8, 2015	Holding period >1 year 0% 1 month < Holding period < 1 year— 10% Holding period < 1 month—20%

Existing literatures have conducted sufficient studies on the tax reform in 2012, and believe that 2015 is just a continuation of 2012. However, this paper argues that the tax reform in 2015 has different characteristics. Therefore, starting from the Differentiated Dividend Tax Reduction Reform in 2015, this paper examines its impact on the dividend payment level and dividend stability of listed companies.

2 Theoretical Analysis and Research Hypothesis

At present, a large number of literatures have confirmed that the company will adjust its dividend payment level accordingly in response to the change of the dividend tax rate of investors. Brown et al. (2007)^[1] found that after the implementation of the tax reduction Act in the United States in 2003, enterprises greatly increased cash dividends; Desai and Jin (2007)^[2] found that institutional investors with lower dividend tax rate prefer to invest in companies with higher dividend policy.

In China's capital market, individual investors account for the largest proportion and occupy a dominant position. Therefore, enterprises are likely to adjust the dividend payment level according to the changes in the personal dividend tax rate. The specific content of the Differentiated Dividend Tax Reduction Reform in 2015 is to reduce the dividend tax rate of individual investors who hold shares for more than one year from 5% to 0. However, major shareholders who hold shares for more than 1 year based on the holding need or the limited sales clearly enjoy the preferential benefits of dividend tax. At the same time, Huang et al. (2011)^[3], Wei et al. (2009)^[4] found that major shareholders such as management or controlling shareholders can significantly affect the tendency and intensity of dividend distribution. Jiao Jian et al. (2017)^[5] also pointed out that shareholders influence corporate decisions through voting in general meetings and board of directors. The higher the shareholding ratio, the more they can manipulate the formulation of dividend policy, so that the decision of dividend policy will serve their interests more. These lead to the first hypothesis:

H1: After the differentiated dividend tax reduction, compared to companies with lower shareholding ratio of natural major shareholders, companies with higher shareholding ratio of natural major shareholders significantly improved the dividend payment level

Based on the theory of major shareholder hollowing out, major shareholders seize the interests of small and medium investors by influencing the formulation of dividend policies, that is, they use high cash dividends to transfer interests. (Zhang Lu et al., 2015^[6]; Chen Xinyuan et

al., 2003^[7]; Lu Zhengfei et al., 2010^[8]). The dividend tax reform in 2015 reduced the tax cost of dividends earned by natural major shareholders, which may further promote major shareholders to use cash dividends to liquidate. To be specific, the hollowing out of major shareholders is the behavior of major shareholders to maximize their own interests. Therefore, maintaining a high level of dividend stability must not be the first choice of major shareholders, because a high level of dividend stability means that a large amount of cash continues to flow out of the company to minority shareholders, and major shareholders cannot get all cash dividends. The resulting reduction in the company's financial flexibility may also hinder major shareholders from further emptying through other means such as related party transactions (Chen Yanli et al., 2020^[9]). Therefore, the non-stable dividend policy meets the realistic needs of major shareholders' hollowing out. So, the dividend differentiation tax reduction reform in 2015 is likely to further promote the hollowing behavior of major shareholders, thereby reducing the dividend stability of this branch.

However, if we start from the investor expectation catering theory, listed companies with a higher proportion of natural majority shareholders, which are more affected by the tax reform, are inclined to maintain a stable dividend payment level to continuously meet investors' expectations, in order to enhance the confidence of existing investors, attract new investment and enhance corporate value after increasing the dividend payment level, so as to convey the information that the company has abundant cash flow, stable operation and good development prospects. These lead to the following hypotheses:

H2a: The theory of major shareholder hollowing out is dominant. After differentiated dividend tax reduction, compared to companies with lower shareholding ratio of natural major shareholders, companies with higher shareholding ratio of natural major shareholders significantly improved the dividend stability

H2b: The theory of investor expectation catering is dominant. After differentiated dividend tax reduction, compared to companies with lower shareholding ratio of natural major shareholders, companies with higher shareholding ratio of natural major shareholders significantly reduced the dividend stability

3 Research Design

3.1 Sample Selection and Data Explanation

Since the differentiated dividend tax reduction policy came into effect on September 8, 2015, this paper selects the data from 2009 to 2021, that is, the data of A-share listed companies in Shanghai and Shenzhen in the six years before and after the reform. In addition, in order to prevent the impact of abnormal data on this study, the following firms are excluded:(1) financial listed firms; (2) firms with missing data. (3) S, ST, *ST, S*ST, PT, etc.:(4) firms with asset-liability ratio greater than 1; (5) firms with negative net profit. These leave a final sample of 20,653 observations from 3315 companies. All the continuous variables are winsorized with the upper and lower 1 quartile. The data used in this empirical test are all from CSMAR database. The data sorting and screening, statistical analysis and regression test were all completed by stata.

3.2 Model Setting and Variable Definition

In order to test hypothesis H1, H2a and H2b, the benchmark regression model set by this paper is as follows:

$$\text{Diveps}_{i,t} = \alpha + \beta_0 \text{Treat}_t * \text{Post}_i + \beta_1 \text{Treat}_t + \beta_2 \text{Post}_i + \beta_3 \text{Size}_{i,t} + \beta_4 \text{Lev}_{i,t} + \beta_5 \text{Roe}_{i,t} + \beta_6 \text{Boa}_{i,t} + \beta_7 \text{Mst}_{i,t} + \beta_8 \text{Idi}_{i,t} + \sum \text{Year} + \sum \text{Ind/Firm} + \varepsilon_{i,t} \quad (1)$$

$$\text{Divs}_{i,t} = \alpha + \beta_0 \text{Treat}_t * \text{Post}_i + \beta_1 \text{Treat}_t + \beta_2 \text{Post}_i + \beta_3 \text{Size}_{i,t} + \beta_4 \text{Lev}_{i,t} + \beta_5 \text{OS}_{i,t} + \beta_6 \text{Lnp}_{i,t} + \beta_7 \text{Age}_{i,t} + \beta_8 \text{Idi}_{i,t} + \sum \text{Year} + \sum \text{Ind/Firm} + \varepsilon_{i,t} \quad (2)$$

Table 2 shows the definitions and calculation methods of each variable.

Table2. Variable Definition.

Variable Type	Variable Name	Definition
Dependent Variable	Diveps	Dividend per share/earnings per share
	Divs	Standard deviation of dividend per share in the past three years/Standard deviation of earnings per share in the past three years
Independent Variable	Treat	If the proportion of natural personal shareholders in the top ten shareholders is higher than the average, take 1. Otherwise, take 0.
	Post	If the year to which the sample belongs is greater than or equal to 2015, take 1; otherwise, take 0
	Treat*Post	Product of Treat and Post
Controlling Variable	Size	The natural logarithm of total assets at the end of the year
	Lev	Total liabilities/total assets
	Roe	Net profit/net assets
	Boa	The natural logarithm of the number of board members
	Mst	Number of shares held by management/total share capital
	Idi	Number of independent directors/number of board members
	OS	Number of outstanding shares/total share capital
	Lnp	The natural logarithm of the total salary of the top three executives
Age	Years of listing	

4 Empirical Results and Analysis

4.1 Descriptive Statistics

This paper makes descriptive statistics on the sample, and the specific results are shown in Table 3. As can be seen from Table 3, the average dividend payout ratio (Diveps) is 31%. Dividend stability (Divs) is a negative indicator, and the larger the value, the more volatile and unstable the dividend is. The mean and median of the dividend stability are 0.567 and 0.30.

Table 3. Descriptive Statistics.

Variables	N	Mean	Median	Std	Min	Max
Diveps	20653	0.310	0.251	0.317	0.000	2.000
Divs	20653	0.567	0.303	0.854	0.000	5.487
Big4	20653	0.061	0.000	0.239	0.000	1.000
Size	20653	22.290	22.120	1.245	20.060	26.270
Lev	20653	0.411	0.406	0.187	0.059	0.826
Roe	20653	0.097	0.083	0.070	0.004	0.364
Boa	20653	2.138	2.197	0.197	1.609	2.708
Mst	20653	0.126	0.004	0.189	0.000	0.667
Idi	20653	0.374	0.333	0.053	0.333	0.571
OS	20653	0.790	0.865	0.228	0.219	1.000
Lnp	20653	2.676	2.675	0.048	2.552	2.802
Age	20653	10.460	9.000	6.911	2.000	27.000

4.2 Baseline Regression Results

Table 4 shows the baseline regression results of model (1), estimating the impact of differentiated dividend tax reduction policy on the cash dividend payment level of listed companies. The coefficients of Treat*Post in the results of both columns are significantly positive at the level of 5%, verifying hypothesis H1.

Table 4. Regression results of differentiated dividend tax reduction and dividend payout ratio.

Variables	(1)	(2)
	Diveps	Diveps
Treat*Post	0.089**	0.051**
Variables	(1)	(2)
	Diveps	Diveps
	(2.18)	(2.26)
Treat	0.159	0.076
	(1.06)	(2.42)
Post	0.129	0.024
	(1.13)	(1.73)
Controls	yes	yes
_cons	1.777	0.063
	(1.03)	(0.36)
Year Fixed Effects	yes	yes
Firm Fixed Effects	yes	-
Ind Fixed Effects	-	yes
N	20653.000	20653.000
The adjusted R	0.161	0.013

Significance at the 10%, 5%, and 1% level is indicated by *, **, and ***, respectively.

The regression results of the relationship between differentiated dividend tax reduction reform and dividend stability of listed companies are shown in Table 5. The coefficients of Treat*Post in the two columns are significantly negative at the level of 1%, which verify hypothesis H2b, can not verify the hypothesis H2a.

Table 5. Regression results of differentiated dividend tax reduction and dividend stability.

Variables	(1) Divs	(2) Divs
Treat*Post	0.058 (6.56)	0.054 (5.61)
Treat	1.004 (1.54)	0.027*** (3.08)
Post	0.539** (2.02)	0.028 (2.05)
_cons	0.588 (1.30)	1.131 (8.16)
Variables	(1) Divs	(2) Divs
Year Fixed Effects	Controls	Controls
Firm Fixed Effects	Controls	-
Ind Fixed Effects	-	Controls
N	20557.000	20573.000
Adjusted R	0.830	0.052

Significance at the 10%, 5%, and 1% level is indicated by *, **, and ***, respectively.

4.4 Parallel Trend Test

In this paper, the parallel trend test is carried out by using the time trend method. Fig 1 indicates that before the impact of differentiated dividend tax reduction in 2015, the two groups had a parallel development trend and passed the parallel trend test.

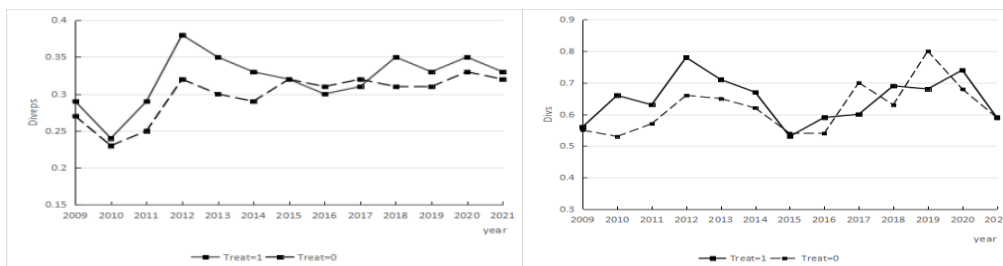


Fig. 1. Parallel Trend Test: Time Trend.

5 Conclusion

Taking the data of China's Shanghai and Shenzhen A-share listed companies from 2009 to

2021 as samples, we analyze the impact of China's differentiated dividend tax reduction reform in 2015 on the cash dividend policy of listed companies, and draws the following conclusions: (1) After the differentiated dividend tax reduction in 2015, compared with the companies with lower shareholding ratio of natural major shareholders, the companies with higher shareholding ratio of natural major shareholders significantly improved the dividend payment level. (2) After the differentiated dividend tax reduction in 2015, compared with the companies with lower proportion of natural majority shareholders, the companies with higher proportion of natural majority shareholders significantly improved the dividend smoothness.

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