# An Empirical Study on the Relationship between Capital Cost and Dividend Policy of Listed Companies Based on Stock Market

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**Abstract:** Dividend policy is one of the core contents of financial activities of listed companies. In addition, whether there is correlation between ownership structure and dividend payment is an important issue in the field of financial theory research. Therefore, based on the securities market, the author makes an empirical study and analysis on the relationship between capital cost and dividend policy of listed companies. The results show that there is a positive correlation between the proportion of state-owned shares, the proportion of legal person shares, the shareholding ratio of the largest shareholder and the dividend payout ratio. The proportion of outstanding shares, asset-liability ratio and dividend payout ratio were significantly negatively correlated. It further explains that the insiders of listed companies in China have the effect of using the dividend policy to encroach on the interests of small and medium shareholders. The shareholders of tradable shares have capital gain preference and do not pay attention to the company's dividend policy.

#### 1. Introduction

The formulation of the dividend policy, especially the determination of the proportion of dividend payment, has a direct impact on the wealth of shareholders [1]. Among them, the particularity of the shareholding structure of listed companies in China and the irrational cash dividend distribution phenomenon have attracted the attention of scholars at home and abroad [2]. For a long time, the dividend policy has been highly concerned by the financial theory and practice circles in Western countries. In the past three decades, the academic community has carried out a large number of theoretical and empirical research on the company's dividend policy [3]. The company value can be regarded as the present value of a series of cash flows of the company according to the cost of capital. Therefore, the cost of capital has a great impact on the value of the company, and it is related to the main activities of financial management such as enterprise investment decision, financing decision and profit distribution [4]. Due to the imperfect governance mechanism of Listed Companies in China, some listed companies have insufficient initiative and binding force in dividend distribution, some listed companies have little or no dividend distribution, and the consciousness of returning shareholders is weak [5]. Because of the particularity of the ownership structure of Listed Companies in China and the particularly important impact on dividend policy, this paper wants to extract the ownership structure as a factor to analyze dividend policy, and the focus of the study is on theory rather than empirical [6]. For a long time, dividend policy has been highly concerned by the financial theory and practice circles in Western countries. In recent years, the dividend distribution of Listed Companies in China has become one of the hot issues in the capital market [7].

After more than 30 years of development, the rapid development of China's securities market attracts people's attention. At the same time, there are some unreasonable phenomena that affect the functioning of the securities market. Our government has gradually established the awareness of protecting the interests of investors, but due to the late start of our stock market, the relevant laws and regulations are not yet sound, and the awareness of investors and managers about the cost of

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capital is not strong [8]. China's shareholding structure is different from that of Western countries. Non-tradable state-owned shares and legal person shares account for the majority, and social circulation shares are in a minority. They have the characteristics of diversified equity, low proportion of shares in circulation, and high concentration of equity. A high-quality, responsible company must determine the reasonable dividend payout ratio based on internal investment needs, the company's stock market, and the required return rate of shareholders, ie, the cost of equity capital, thereby ensuring the realization of shareholders' wealth maximization. [9]. in recent years, the issue of dividend distribution of listed companies in China has become one of the hot issues in the capital market. Scholars explained the dividend policy from different angles by adopting different variables, and found that asset size, investment opportunities, growth, corporate supervision system and shareholding structure all have an impact on dividend policy. But little is known about the exact relationship between these variables and these variables and dividend policies, and many basic questions cannot be explained [10].

# 2. Basic Concept of Dividend Policy

The basic theory of dividend policy was founded by MM. Due to the monopoly of China's state-owned shares and the lack of corresponding regulatory mechanisms, resulting in the separation of management rights and ownership, and the absence of state-owned investment entities, the agency mechanism allows operators to control a large amount of effective information of the company, Managers may use the capital they control for their own benefit. In theory, the shareholding structure is only a reflection of the investment capital of different types of equity capital investors, and should not have a direct and obvious impact on the dividend policy, because there is no difference in the rate of return requirements between them. The dividend policy of a company should satisfy the preferences of shareholders, so the dividend policy of a company with different ownership structure is different. According to different shareholders, it can be divided into state shares, corporate shares, public shares, etc. According to liquidity, it can also be divided into non-tradable shares and tradable shares. To a great extent, the special ownership structure has resulted in the diversification of dividend distribution, the variability and inconsistency of distribution policies. In this context, it is of great significance to study the relationship between dividend policy and the rate of return required by shareholders (cost of equity capital) for formulating financial policies to protect shareholders' interests.

The data in Table 1 show that the cash dividend payment ratio of manufacturing enterprises in China has remained above 60% since 2013. Only in 2017, the proportion of companies that pay cash dividends is less than 50%. The main reason for the decrease of listed companies that pay cash dividends in 2017 is the impact of the financial crisis. Listed companies, especially those in manufacturing industry, are greatly impacted. In the following year, the proportion of listed companies issuing cash dividends increased.

Year	Cash dividends		Stock dividends		Unpaid dividend	
	Company	Proportion%	Company	Proportion%	Company	Proportion%
	number		number		number	
2013	73	68.25	19	16.33	35	30.52
2014	69	60.34	16	13.57	39	34.87
2015	61	49.69	24	21.64	42	38.14
2016	86	77.48	29	25.73	37	31.42
2017	43	36.71	34	31.82	49	45.91
2018	64	57.34	39	38.37	25	21.34

Table 1 Dividend Payment of Listed Companies

The ownership structure includes two meanings: one is the shareholder composition of the company; the other is the reconstruction of the proportion of the shares held by each shareholder to the total shares of the company. The influence of ownership structure on dividend policy is also

from these two aspects. These dividend theories provide a solid theoretical basis for companies to formulate reasonable and effective dividend policies. Moreover, because of the non-circulation and inconvenience of transaction of state-owned shares, they can only be transferred by agreement, and the object and condition of the transfer by agreement are strictly limited. Finally, it must be approved by the government organs. Therefore, dividend becomes the most important way to transfer funds and embezzle interests. However, along with the academic research on the so-called major shareholder issue and the controlling shareholder issue, it has been found that the existence and nature of the major shareholder may have a great impact on the formulation of the dividend policy. This theory explains the important fact that the company's stock price will change with the increase and decrease of dividends. Due to the "path dependence" of institutional changes and the strong equity financing preference of Chinese listed companies, Chinese listed companies seldom pay cash dividends to shareholders, which is characterized by "three more and one less" in China's stock market – stock dividends and more equity. Not allocating more, less cash dividends, which to a certain extent contributed to the speculative atmosphere in China's capital market.

## 3. The shareholding structure and dividend policy of listed companies in China

The basic characteristics of the shareholding structure of listed companies in China can be summarized as two points: First, the first and second largest shareholders of listed companies in China usually hold state-owned shares or legal person shares. Because there are many factors affecting dividends, we simply Abstract out other factors, and it is not accurate to use only the proportion of state-owned shares to make a linear analysis of cash dividends. If the company's debt burden is heavier, the pressure to repay debts will be greater, and the financial risks will increase, which will affect the company's ability to continue operations. In the case of limited financing of the entire enterprise group, it is a natural choice to solve the financial difficulties through the dividend payment of the listed company. In fact, the content of corporate dividend policy includes not only whether to pay dividends, but also how much of the company's profits are used to pay dividends. With the development of China's securities market, the influence of dividend policy on investors is gradually increasing. Studying whether and how the special ownership structure affects the dividend policy of Listed Companies in China can enhance the awareness of minority shareholders' self-protection and reduce their loss of rights and interests. It is of great significance to promote the continuous maturity of listed companies and capital markets, and to the sustained, rapid and healthy development of the entire national economy.

The proportion of the first largest shareholder's shareholding declines gradually, which indicates that the controlling ability of the first largest shareholder is weakening and the equity is gradually diversified. At the same time, the decline of the mean and median of the square sum of the proportion of the first three major shareholders also shows the declining trend of ownership concentration. Figures 1 and 2.

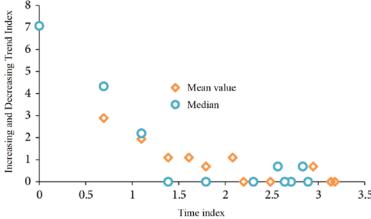


Fig. 1 Trend Map of Shareholding Proportion of the First Major Shareholder

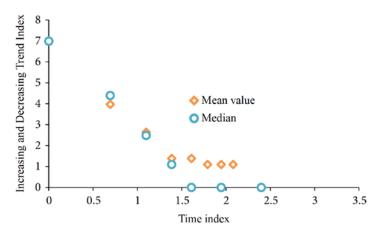


Fig. 2 Trend Map of Square Sum Mean of Shareholding Proportion of the First Three Major Shareholders

The more sTable the dividend payment is, the more sTable the company's business is. The continuous payment indicates that the company's profitability is sTable and the risk is small. As a kind of compensation, tradable shareholders can enjoy market appreciation opportunities that non-tradable shareholders do not have because they have the right of circulation. Therefore, non-tradable shareholders with control rights will choose to distribute more cash dividends to compensate for the opportunity cost caused by the lack of circulation rights. Before the reform of non-tradable shares was implemented, the proportion of circulating shares in China was generally low. In this case, on the one hand, due to the limited capacity of equity checks and balances, on the other hand, because the losses caused are not large and there is an opportunity to get compensation from the market, tradable shareholders can obtain capital gains through frequent trading. Although cash dividends may not be the best choice for controlling shareholders to implement tunneling. However, for a period of time, due to the existence of non-tradable shares and tradable shares in China's listed companies. The first major shareholder or controlling shareholder is mainly state or legal person. They often hold a large number of stocks that are not in circulation but have the same rights at a price far lower than the price of the shares of the outstanding shares. This resulted in the phenomenon of split shareholdings of "same stocks with different prices". Therefore, under the current shareholding structure in China, the distribution of cash dividends is in line with the interests of major shareholders. That is, cash dividends are negatively correlated with the proportion of state-owned shares.

#### 4. Summary

The relationship between dividend policy and corporate equity capital cost has always been one of the hot issues in the financial sector. The real shareholders of China's state-owned shares are the broad masses of the people, but the people have no way to exercise their equity. Therefore, they entrust governments at all levels to exercise their equity on behalf of them, and then the government sends representatives to the board of directors and managers of the listed companies to represent the shares. However, in the regression analysis, the regression coefficient of the regression coefficient is still positively correlated with the dividend payout ratio. This shows that state-owned shareholders tend to issue cash dividends rather than stock dividends, which is consistent with previous assumptions. The relationship between dividend policy and corporate equity capital cost has always been one of the hot issues in the financial sector. The real shareholders of China's state-owned shares are the broad masses of the people, but the people have no way to exercise their equity. Therefore, they entrust governments at all levels to exercise their equity on behalf of them, and then the government sends representatives to the board of directors and managers of the listed companies to represent the shares. However, in the regression analysis, the regression coefficient of the regression coefficient is still positively correlated with the dividend payout ratio. This shows that state-owned shareholders tend to issue cash dividends rather than stock dividends, which is

consistent with previous assumptions. State-owned enterprises should avoid the traditional "one-size-fits-all" dividend allocation, and try to reduce or even eliminate the manifestation of the will of the government in dividend decision-making. The particularity of ownership structure determines the particularity of dividend policy of Listed Companies in China. The existing dividend policy theory cannot fully explain the dividend policy of Listed Companies in China. Dividend policy is not only conducive to increasing shareholders' wealth, but also conducive to the rational and healthy development of the stock market. Therefore, the majority shareholders of Listed Companies in China expect more cash dividends. Therefore, from the perspective of dividend customer effect theory, we also draw the conclusion that "cash dividend is positively correlated with the proportion of state-owned shares".

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