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An Analysis of Dividend Policies of Listed Companies in China from the Behavioral Finance Perspective*

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〈Abstract〉

Different emotions and preferences impact people's cognitive processes, causing cognitive biases and irrational behaviors that in turn directly influence decision-making by market participants. We study the impact of the irrationality of investors and managers on cash dividends of China's listed companies from the perspective of behavioral finance, using A-share listed companies data for 2011-2019 using multiple linear regression analysis, and find: 1) Dividend distribution anomalies exist in the securities market; 2) Managers' overconfidence reduces cash dividends, investors' demand for dividends and controlling shareholders' shareholding ratio have a positive impact, and the proportion of tradable shares has a negative impact.

Keywords : Behavioral finance; China listed companies; Dividend policy; Investors' demand for dividends; Managers' overconfidence

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I. Introduction

Dividend policy is an important part of a company's financial management. The dividend policy of listed companies is closely related not only to profit distribution but to the interests of all stakeholders. It directly affects the company's stock prices, often causing their volatility. Therefore, whether the dividend policy is standardized relates not only to the internal management of listed companies, but also to the operation of the securities market. Research on dividend policy is of great significance to the healthy development of the securities market and protection of investor interests.

The traditional dividend policy theory is based on the assumption of efficient market and rational person, but since these two assumptions are far from real life, it cannot explain the irrational dividend problems in the market. The dividend policy theory based on behavioral finance breaks through the two hypothetical models in traditional dividend theory and is more applicable to an actual capital market.

The Chinese securities market is a little more than 30 years old. Compared with the mature western securities markets, it has developed rapidly since its launch in 1991, but faces challenges as well. For example, listed companies do not pay dividends or pay few dividends, and the formulation of dividend policies is relatively arbitrary. Such issues cannot be explained by the traditional dividend theory. This study uses the behavioral dividend theory to analyze and explain the characteristics of limited rationality in Chinese capital market. Previous studies have examined the influence of managers' or investors' behavioral factors on dividend payment in China.

Despite a series of previous studies, the variation in dividend payment in China is still an unanswered question. The purpose of this study is to examine an additional explanation based on combining the behavioral factors of managers and investors. In particular, we compare the impact of behavioral factors on dividends in Shanghai Stock Exchange and Shenzhen Stock Exchange. To analyze Chinese capital market, we examine the current status of dividend distribution. Based on the findings, we analyze the influencing factors of dividend distribution in China in 2011-2019.

During the sample period, we find the following characteristics of listed companies in China: (1) huge ranges of dividend payout ratio, (2) diversified payment forms, (3) coexistence of insufficient and excessive dividend distribution, and (4) lack of stability in dividend distribution. These characteristics may be derived from the behavioral factors of managers and investors. We also find that the overconfident managers in China are likely to reduce the cash dividends, while firms try to increase their dividend payment to meet the preference of investor. These two have opposite effects on dividend policy, but the catering effects is stronger in Chinese capital market. Managers' overconfidence, dominant share of their firm, and shortage of tradable shares are the main reasons for managers' limited rationality, while the main reasons for investors' irrationality are their own

immature behavioral characteristics, such as psychological and behavioral deviations.

The remaining paper is organized as follows. Section 2 examines the literature related to dividend policy. In Section 3, we explain the data and variables, Section 4 discusses the status quo of dividend distribution in China, Section 5 analyzes the impact of factors on dividend distribution and describe the results, and Section 6 explains the limited rational dividend distribution of Chinese companies using behavioral finance theory. Section 7 discusses the findings and concludes the paper.

II. Literature Review

Traditional financial theory is developed on the premise of rational persons and efficient market, but psychological research shows that actual behavior choices of people will systematically deviate from rational decision-making, and is greatly influenced by their own subjective and irrational factors. Lintner (1956) introduced the irrational factors of market participants into dividend policy research, but it was not until the 1980s that scholars such as Kahneman applied the research results of psychology to the study of finance, marking the birth of behavioral finance, a branch of finance that studies the impact of irrational behaviors of market participants on corporate financial decisions.

In “Why corporate managers pay dividends,” Lintner (1956) pointed out that investors usually have two ways to obtain investment income: one is to benefit from capital gains on stocks, and the other is to obtain income through cash dividends. As this way of benefiting from capital gains depends on the volatility of stock prices, with poor stability and high risks, investors prefer stocks that can pay dividends stably. Self-control theory considers that people always spend as much cash as they can, and that excessive spending tends to be regretted afterward (Thaler and Shefrin, 1981). The regular distribution of cash dividends enables investors to obtain a relatively stable cash flow, which can control the excessive consumption behavior of investors. Therefore, investors’ choice of stocks that pay cash dividends is a kind of self-control of their possible excessive consumption behavior. Proposing the dividend catering theory, Baker and Wurgler (2004) argue that investors have a specific preference for dividends when choosing stocks. Investors who pursue capital gains without paying attention to whether the stock pays a dividend, will value a stock that does not pay a cash dividend overvalued. Investors averse to the risks posed by stock price volatility prefer stocks with stable cash dividends and give such stocks a high premium. When managers know investors’ preference, they formulate corresponding dividend policies to meet their needs. Xie and Xiong (2013) compared the samples of A-share listed companies before and after the split share reform, using dividend premium as a proxy indicator of investor sentiment. They find that after the split share reform is completed,

the controlling shareholder intends to cater to the investor's sentiment to increase the company's stock price.

The above behavioral dividend theories can better explain problems such as "why companies pay dividends" and "why investors prefer dividends." This study analyzes the factors of dividend policy from the perspectives of managers' overconfidence and catering theory.

2.1 Research on Managers' Overconfidence and Dividend Policy

Managers' overconfidence is an important behavioral variable in the study of dividend distribution. Malmendier *et al.* (2007) believe that overconfidence will cause managers to think that the cost of internal financing is lower than the cost of external financing, leading them to hold on to corporate earnings internally rather than pay cash dividends. Cordeiro (2009) also found through empirical research that managerial overconfidence had a negative effect on cash dividends; he showed that overconfident managers paid 3.43% less cash dividends than non-overconfident managers.

However, research on whether the degree of managerial overconfidence has an impact on the dividend distribution of listed companies is inconclusive. Huang, Qu, and Fu (2011) show that while overconfident managers tend to pay no or less cash dividends than non-overconfident ones, an increase in major shareholders' stake would improve this behavior. Hu, Lu, and Zeng (2013) conclude that managers' overconfidence reduces the distribution of cash dividends, but this effect is reduced when the listed company is state-owned and the cost of external financing is low.

Some Chinese scholars have come to the opposite conclusion. Liang and Wu (2011) studied the effect of managers' overconfidence on cash dividends on listed real estate companies from 2005 to 2007. The results show that overconfident managers tend to pay cash dividends. Xiao and Han (2016) used data from 2010 to 2014 and applied logit and tobit models to find that overconfident managers tend to not only pay dividends but more cash dividends as well.

Due to the conflicting results, this study uses data for nine years after the financial crisis and combines these with investors' demand for dividends to examine the impact of current managers' overconfidence on cash dividends.

2.2 Research on Catering Theory and Dividend Policy

Baker and Wurgler (2004) proposed dividend catering theory, another breakthrough in the study of behavioral dividends. This theory's basic assumption is that rational managers exist to cater to irrational investors' preference for cash dividends. Therefore, investors' demand for cash dividends will also cause the stock price to fluctuate. The demand for dividends makes a difference between the stock prices of listed companies that pay dividends or do not, which is defined as the dividend premium.

American listed companies are divided into those paying cash dividends and those paying no cash dividends. By comparing the dividend premiums of these two types of companies to observe investors' demand for cash dividends, the dividend policy formulated by the managers of listed companies will consider investors' dividend preferences to obtain the corresponding dividend premiums.¹⁾ According to extant research, cash dividend premium has a significant positive effect on cash dividend payment in the United States. When investors are willing to pay more for the stock of a company that pays cash dividends, the company will tend to pay cash dividends to cater to investors. Kulchania (2013) believes that catering is the motivation of stock repurchase and dividend payment.²⁾ Companies tend to buy back shares when investors pay a relatively high price for the company. On their part, companies tend to pay dividends, so catering plays an important role in share repurchase and dividend payment substitution.

Jiang (2013) verifies the applicability of catering theory to stock repurchase, and the results are consistent with expectations. Listed companies cater to investors' preferences for stock repurchase. The empirical results show that the repurchase premium positively affects stock repurchase. By studying whether the dividend distribution of listed companies on the Taiwan Stock Exchange caters to investors' needs, Wang (2016) shows that listed companies choose a dividend policy that investors prefer to meet their needs. When the stock dividend has a premium, listed companies choose to issue more stock dividends instead of other forms. When the stock dividend has a discount, the listed company will choose to issue mixed or cash dividends.

Research results for catering theory in China have not reached a consistent conclusion. Some researchers believe that the catering theory has no explanatory power in China. For example, Wang and Qi (2005) used the sample data of Chinese listed companies from 1994 to 2003, and the results obtained by logistic regression and linear regression respectively showed that investors' demand for dividends did not affect the dividend payment of listed companies. Huang and Shen (2007) believed that catering theory ignores the characteristic of China's special ownership structure, and through empirical testing, found that the cash dividends issued by listed companies only cater to the needs of large shareholders, while ignoring the preferences of the small and medium shareholders who are the majority.

Others believe in the explanatory power; for example, Xiong and Liu (2007) conducted a regression of the sample data in China from 1993 to 2006 and found that catering theory has strong applicability to the stock market. The consistency of stock dividend payment propensity with investors' demand

1) The dividend premium is measured by the difference between average price-to-book ratios, that is, the difference between two types of companies that pay cash dividends or not.

2) By setting the proxy variable for the premium difference to represent the relative preference between stock repurchase and dividend payment, Kulchania (2013) verifies that whether a listed company conducts stock repurchase or pays dividends mainly depends on the premium difference.

for dividends enriches and develops applications that cater to the theory. Lin and Cao (2010) find that the dividend policies formulated by SME board-listed companies also cater to the needs of investors, and with the increase of the sample size, the explanatory power of the catering theory is more significant.³⁾

Recent studies expand the previous research ideas and make up for the shortcomings that did not consider the irrational factors of market participants. However, to consider only the impact of market participants' irrational factors on cash dividends is one-sided. As the limited rationality on both sides (managers and investors) coexist in the real capital market, we consider both factors at the same time.

III. Data and Variables

This study takes A-share listed companies in 2011-2019 as the initial research sample. To ensure better accuracy of results, we adopt the filtering method of Zhu (2011)⁴⁾.

First, to eliminate the impact of IPOs, companies listed after December 31, 2009, are excluded. Due to the large differences in the relevant legal systems in different regions, companies' accounting policies would show a significant impact. To avoid the impact of such differences on the results, we exclude the issue of B shares or H shares among the listed company data. We exclude financial listed companies, as their capital structure and accounting standards are quite different from those of other industries; thus, their accounting robustness indicators are not representative. We also exclude ST (Special Treatment) listed companies as they do not perform well and have greater financial risks, affecting accounting stability.⁵⁾ Finally, we exclude listed companies with abnormal and missing financial data.

3) There are additional relevant studies. Gong (2010) confirms through empirical research that listed companies have the tendency to cater to investors' demand for bonus shares, and redefine the dividend premium. The dividend premium is represented by the difference between the market-to-book ratio of the listed company that only pays cash dividends and the market-to-book ratio of the listed company that distributes cash dividends, which enriches the theory of catering to a certain extent. Zhi (2014) compares samples from 2001 to 2010 to capture before and after split share reform and finds that before the split share reform, the cash dividend payment decision did not reflect investors' dividend preferences. That is, the theory of catering is not applicable before the reform, but shows a strong correlation after. Listed companies are more concerned about the preferences of small and medium investors when issuing cash dividends, enhancing the applicability of the theory of catering. Li (2015) extended his research to private listed companies to study the applicability of catering theory. Private listed companies do not have a dominant share of state-owned holding companies. Therefore, when private listed companies formulate dividend policies, the primary consideration is the dividend demand from small and medium investors. Thus, catering theory has a strong explanatory power for Chinese private listed companies.

4) We exclude the following companies from the sample: (1) companies listed in SSE or SZSE less than a year, (2) financial companies, (3) companies have a negative net asset value. In addition, we apply a 97% winsorization to dividend payouts and net asset value. The results are statistically identical.

5) ST stocks have abnormal financial conditions or other conditions that require special treatment. Usually, it is a warning to the market that the stock has investment risks.

After filtering the data, we obtained 5,414 datasets involving 1,082 listed companies on the Shanghai Stock Exchange (SSE), and 4,823 datasets involving 897 listed companies on the Shenzhen Stock Exchange (SZSE). The data are from the China Stock Market & Accounting Research (CSMAR) database.

Managers' overconfidence: Considering the special background of the Chinese securities market, this study uses the proportion of the top executives' salary as the indicator of manager overconfidence. Hayward and Hambrick (1997) propose that the higher the relative salary held by listed company executives, the more important their position in the company, and the more prone are they to overconfidence and psychological deviation. Brown and Sarma (2007) also find that the higher the relative salary of managers, the stronger their control over the company, and the more likely the psychological bias of overconfidence. Therefore, we create the relative salary index of managers to measure the degree of overconfidence⁶⁾.

$$OC = \text{Total Salary of Top Three Managers} \div \text{Total Salary of All Managers} \quad (1)$$

Investors' demand for dividends: Baker and Wurgler (2004) first used the market-to-book ratio of listed companies to represent investors' demand for dividends. They argue that managers cater to investors' demand for dividends when investors pay the dividend premium, which is measured by the difference in the average market-to-book ratios of dividend-paying firms and non-dividend paying firms. Investors' dividend demand can be defined as the difference between the log-normally distributed equally or value-weighted average market-to-book ratio of dividend-paying firms and non-dividend paying firms.

$$IDD = \ln \left(\sum_i W_{ti}^p \frac{M_{ti}^p}{B_{ti}^p} \right) - \ln \left(\sum_i W_{ti}^{np} \frac{M_{ti}^{np}}{B_{ti}^{np}} \right), \quad (2)$$

where

W_{ti}^p = Weight of firm i in the subset of dividend paying firms in a given year t ,

M_{ti}^p = Market Value of the Equity of firm i in the subset of dividend paying firms in year t ,

B_{ti}^p = Book Value of the Equity of firm i in the subset of dividend paying firms in year t ,

W_{ti}^{np} = Weight of firm i in the subset of non-dividend paying firms in a given year t ,

6) Managers' overconfidence could be measured in different ways (e.g., based on stock option, based on the words used in articles to describe the CEO, and so on). Because we are unable to get the articles about Chinese CEOs, we use the proxy which is also frequently used in many studies.

M_{ti}^{np} = Market Value of the Equity of firm i in the subset of non-dividend paying firms in year t , and
 B_{ti}^{np} = Book Value of the Equity of firm i in the subset of dividend paying firms in year t .

To more accurately reflect the influence of behavioral factors on dividend payment of listed companies, the variables reflecting corporate characteristics and Chinese special equity background are controlled. The variables are described in the Appendix.

IV. Overview of Dividends Distribution in China

Companies generally distribute some of their earnings to investors to compensate them for their initial capital investments. However, this distribution of cash dividends, although important, reduces its available cash flow, impacting its financial behavior. Chinese stock market investors are typically small- and medium-sized retail investors,⁷⁾ with marginal information and powers. It is difficult for them to supervise the company's major shareholders and managers and protect their own rights and interests (Yu, 2016). Accordingly, issuing cash dividends protects these investors to some extent.⁸⁾ From this perspective, the distribution of cash dividends plays a positive role in regulating the internal governance of listed companies in China and promoting their development. Compared to companies listed on the mature capital markets of developed countries, A-share listed companies have always shown abnormal cash dividend-distribution behaviors such as instability and non-distribution/under-distribution.⁹⁾ Therefore, the non-tradable share reform was completed in 2007 to solve these issues and align China's capital market to those of developed countries. The reform eliminated the differences between tradable and non-tradable shares' trading conditions toward a more rational, standardized development.

Cash dividend policies can also have profound impacts. Therefore, we examine 2011–2019 data, after the financial crisis and share-trading reform, to assess the current situation of cash dividends issued by listed companies. Financial statements, stock trading data, stock prices and returns, market returns and indices, and other data on equities were obtained from the CSMAR database.

China's A-share securities market refers to the ordinary RMB shares listed in China. The public

7) Wang (2019) studied the investor structure in China's stock market. In 2018, individual investors in China's stock market accounted for 99.6% of shareholdings, and institutional investors accounted for only 0.4%. In terms of the total market value structure, individual investors, institutional investors, and general legal persons accounted for 54.91%, 7.09%, and 38%, respectively.

8) Zhao (2012) examined the protection of interests of small and medium shareholders from the perspective of cash dividend payments, who benefit through capital gains as a result of the stock bid-ask spread or dividends received from the listed company. Additionally, the distribution of cash dividends helps to protect their interests. Conversely, malicious suppression and micro dividends are not conducive to their interests.

9) Stable cash dividend distribution is extremely unusual. The types mentioned are the most common. Many studies mention the characteristics of abnormal dividend distributions (e.g., Cong, 2021).

offering of A-shares is uniformly reviewed by China Securities Regulatory Commission (CSRC). Shares may be listed on either SSE or SZSE. SSE focuses on traditional industries and companies with large issuances, and SZSE on growth-oriented small- and medium-sized enterprises (SMEs). However, the basic trading rules are the same, with the one difference being the last 15 minutes of market closing, in which the trading rules allow continuous bidding on SSE and centralized bidding on SZSE. Table 1 provides the descriptive statistics of listed companies on SSE and SZSE in 2011–2019.

Due to more relaxed listing requirements, SZSE has more companies listed than SSE. Although the companies' listing years are approximately the same, the net income, earnings per share (EPS), and dividends per share (DPS) of SZSE companies are slightly lower than those of SSE companies. In terms of the number of shares outstanding and number of employees, the companies listed on the SZSE are significantly smaller.

Developed countries mainly pay cash dividends, although some companies declare stock dividends. Equity is not often converted (Che, 2012). Since the 1980s, stock repurchases have become popular as an alternative to cash dividends. In China, listed companies mainly declare cash or stock dividends or capital increases.¹⁰⁾

Table 2 shows the dividend payment rate and proportion of payment methods for China's A-share listed companies in 2011–2019, when 73.1% of the companies with net profits distributed dividends. More than 96% of companies paid cash dividends, nearly 6.4% paid stock dividends, and approximately 21% implemented capital increases. In 1998, China successively issued several regulations to limit listed companies' refinancing qualifications. Allotments and additional issuances were subject to strict requirements such as continuous profitability, reducing the number of companies declaring stock dividends. In 2011, CSRC issued new regulations, including that the proportion of cash dividends to total distribution must reach 30% (it was 20%), and most companies since have adopted cash dividends. Of the two stock exchanges, more SSE companies pay cash dividends, mainly because SMEs and technology-based companies need to reinvest their earnings to promote company development.

Although the number of companies distributing dividends has been substantially increasing on both exchanges, many listed companies refinance only superficially.¹¹⁾ The proportion of dividends distributed from retained earnings is a measure of the actual dividend distribution in China. The ratio of the dividends paid to net income, DPS/EPS, is the dividend payout ratio. The sum of the dividend payout rate and the retained profit rate is one. The lower the dividend payout rate, the higher the

10) Capital increase means that dividends are paid in assets other than cash, mainly in the form of securities of other companies, such as bonds or stocks, owned by the company paying dividends. When there is insufficient cash flow, the cash that should be distributed to shareholders is held back by the company, and the marketable securities held by the company are liquidated, increasing cash assets.

11) In 2001, CSRC issued regulations for certain levels of cash dividend payments for listed companies to obtain refinancing.

company's profit retention rate. Although non-payment of dividends has improved after the non-tradable share reform, China capital market remains immature. Additionally, non-payments directly lower China's overall dividend payout ratios.

To reflect the composition of the dividend payout ratio of listed companies in China, we divided the dividend payout ratio into four ranges—0, 0-20%, 20-50%, and above 50%. By calculating the ratio of the number of companies in each interval to that with positive EPS in 2011-2019, we found that a large share, 30% of the companies, paid no dividends, despite making profits.

Table 3 shows that SZSE companies pay slightly less dividend than SSE companies. Overall, nearly 30% of companies pay dividends with payout ratios of less than 25%, 30% have payout ratios of 25%-50%, and approximately 14% have payout ratios exceeding 50%. Therefore, 86% have dividend payout ratios under 50%. By contrast, dividend payout ratios in developed countries are typically 50%-70% (Zhu, Wu, and Wu, 2004). While laws restrict listed companies from paying cash dividends,¹²⁾ most are unwilling to pay large-scale dividends. In recent years, the proportion of companies not paying dividends show a downward trend. However, the two segments with payout ratios exceeding 25% have also remained stable and at low levels.

To meet the allotment conditions, listed companies usually reduce their net assets through abnormal cash payments, thereby increasing the rate of return on net assets. These abnormal distributions have significantly reduced the prestige of China's regulatory authorities¹³⁾ and caused bad practices, such as speculation, in the capital market. Table 3 shows the analysis of dividend-distribution data of all companies in 2011-2019.

The actual power of a company refers to its ability to pay cash dividends when surpluses are achieved during normal operations. Therefore, we defined abnormal payments based on individual companies' circumstances. We define abnormally high payouts as when a listed company declares dividends in excess of its actual ability to pay for them from available cash flow. Although definitions for abnormally high payouts (or dividends) are inconsistent in studies, two criteria are used: whether cash DPS are greater than EPS, or greater than operating cash flow. Following Wang (2006), we define abnormally high payouts as cash dividends that meet any of these two conditions.

Normal behavior for listed companies is to not pay cash dividends when profits are low or when cash flow is insufficient; therefore, abnormal behavior is when companies have sufficient profits and

12) On October 9, 2008, the China Securities Regulatory Commission issued the "Decision on Amending the Provisions on Cash Dividends of Listed Companies." It requires a detailed disclosure of a company's cash dividend policy in the annual report. Additionally, the long-term institutional arrangements, conditions, and the proportions and types of cash dividends must be listed in the articles of association.

13) Allotment is a financing behavior in which a listed company allots a certain number of newly issued shares at a price lower than the market price to the original shareholders according to their shareholding ratios. The net return on assets is one of the necessary conditions for allotment. Gaining a return on equity in an abnormal way can disrupt the normal functioning of the securities market and lead to speculative behavior (Zhang, 2010).

cash but do not pay cash dividends, the basis of our research. Therefore, if a listed company's EPS for a year and net cash flow from operating activities are positive, and it does not declare cash dividends, we define it as abnormal non-payment behavior.

Table 4 shows that the number of companies with abnormally high payouts gradually increased on both exchanges, with a maximum of 3.86% and 3.96% on SSE and SZSE, respectively, at similar proportions. According to the signal transmission theory, a company's cash distribution is interpreted by investors as a signal that the company's business conditions are good, and its development prospects are bright (Lintner, 1956). Therefore, in the case of internal and external information asymmetry, companies tend to formulate high-payout strategies to cater to investors' preferences. Although reducing in recent years, the problem of China's abnormal non-distribution cannot be ignored. Our results show that 10-20% of companies reflected abnormal non-payment behaviors, possibly because of the high degree of equity concentration and dominant shareholding in China.¹⁴⁾ Cash distribution policies indicate that major shareholders limit or eliminate cash dividend distributions to advance their own interests.

A continuous and stable dividend-distribution policy is an important condition for the stability of the securities market. Such a policy signals the company's promising prospects to the market, enhances investor confidence, stabilizes stock price levels, attracts long-term investors, reduces speculation and turnover, and promotes the stable and orderly development of the market.

However, dividend policies in China reflect autonomy and arbitrariness. Most listed companies do not have long-term dividend policies, and dividend payment methods and payout ratios frequently change. When a company is profitable, dividends is distributed every 6/12 months, which fluctuates according to profitability, but they will still forego dividend payments for investment opportunities. When operating conditions are unfavorable, they may not pay dividends for two or three years. Consequently, it is difficult for investors to predict changes in a company's future dividends or for stock prices to stabilize. According to the data, China can do little for listed companies to pay cash dividends continuously and steadily. Table 5 shows the number of companies that continuously issued cash dividends in 2011-2019.

Approximately 2.0% of listed companies have consecutively paid cash dividends for more than seven years, and 40% have never paid dividends or only paid dividends once. Thus, dividend continuity in China is lower than in mature capital markets, as He (2012) found. These dividend policies ignore long-term investors' interests but prefer company developments, and may disrupt the stability of the capital and securities markets in the long run.

Capital structure, profitability, and financing abilities of listed companies in each industry are

14) Dominant shareholders hold a relatively large number of shares. Controlling shareholders hold stocks that account for more than 50% of the total capital. The controlling shareholder must be the dominant shareholder, but the opposite may not be true. China has a high concentration of controlling shareholders who are often dominant shareholders.

considerably different, which make their cash dividend policies different (Table 6).¹⁵⁾ For example, the construction industry has higher EPS but pay lower cash dividends due to rapid growth rates. However, the transportation industry has been developing slowly, requiring less internal and external financing, and its dividend payout ratios are higher than average.

Figure 1 shows that DPS on has shown an upward trend on SSE in recent years; the highest is about 0.2 yuan. The SZSE showed a slightly downward trend before 2015, but changed to an upward trend after 2015; DPS is about 0.1 yuan. DPS on SZSE is significantly lower than that on SSE, which mainly comprise large and medium-sized companies. The cash flow is relatively stable, so the dividend policy is relatively stable. As SZSE companies are mostly SMEs and venture capital enterprises, which use many opportunities for relatively high-risk investments, resulting in insufficient cash flow, the level of dividend distribution is relatively low.

V. Empirical Research

5.1 Research Hypothesis

Expanding on previous studies, we analyze the influence of manager and investor behavioral factors, Chinese special equity structure, and company characteristics on dividend payments.

First, because of managers' limited rationalities in dividend-distribution decisions, we analyze whether their overconfidence affects dividend distributions. Malmendier *et al.* (2007), Cordeiro (2009), Libby and Rennekamp (2012), and Deshmukh *et al.* (2013) find that overconfident managers maintain larger surpluses for internal financing and reduce cash dividends, especially in companies with low growth opportunities and cash flows. Similarly, Huang, Qu, and Fu (2011), Hu, Lu, and Zeng (2013), and Mei and Hu (2013) find that overconfident managers tend to pay less or no cash dividends. This study aims to verify this result using recent data.

Behavioral finance studies find that business managers tend to be overconfident. Overconfident executives believe that a company's value is underestimated and retain surpluses rather than distribute dividends because internal financing costs are lower than external financing costs. Higher degrees of overconfidence increase the likelihood of dividends not being declared and reduce DPS, giving us the first hypothesis.

H1: Managers' overconfidence impacts DPS negatively.

15) To save the space, only mean and standard deviation are reported. The full data are available by request.

Second, due to the limited rationality of investors, we adopted catering theory to examine whether managers are catering to investors' dividend needs. Jiang *et al.* (2013) tested the applicability of catering theory on stock repurchases and found that listed companies catered to investors' preferences regarding stock repurchases and that repurchase premiums positively affected stock repurchases. Wang *et al.* (2016) studied whether the dividend distribution of listed companies on the Taiwan Stock Exchange catered to the needs of investors, and found that listed companies chose dividend policies that investors preferred. When stock dividends generated a premium, listed companies chose to issue more stock dividends instead of other types of dividends. When stock dividends were discounted, companies declared mixed or cash dividends.

According to catering theory, when investors are willing to pay more for stock in companies that pay cash dividends, managers will pay cash dividends to cater to investors' dividend needs. Conversely, if investors prefer to pay more for stock from companies that do not pay cash dividends, managers will cater to the needs of investors and not pay cash dividends. Therefore, changes in investors' dividend preferences directly affect the formulation of managers' dividend policies. To obtain higher dividend premiums, more DPS will be issued in accordance with increased investor demands, giving the second hypothesis.

H2: Investors' demands for dividends impact DPS positively.

Third, we explored whether the concentration of equity and the proportion of tradable shares will affect the dividend distribution of listed companies in light of China's market environment where controlling shareholders and a shortage of tradable shares dominate.

Companies do not decide on financial matters in isolation, and their dividend policies should be in accordance with their investment and financing decisions. Therefore, we examined the influence of investors' sentiments and managers' overconfidence on companies' investment and financing behaviors to understand how they jointly affect cash dividend policies.

Changes in investors' demands caused fluctuations in company stock prices (Liu and Chen, 2006). Abnormal fluctuations in stock prices affected investment behaviors in terms of financing methods and costs of equity. In addition, rational catering theory holds that in capital markets, investors are often irrational, whereas managers are usually rational. Accordingly, rational managers will adjust investment and financing policies to cater to the different needs of investors (Wang and Wu, 2007). In a different perspective, regardless of whether managers started out as overconfident, increasing investors' demands for dividend will cause managers to become overconfident and expand investments.

Huang (2009) found that the optimal financing theory is applicable to the financing strategy of

Chinese listed companies. Overconfident managers prefer to use internal funds first if these are available. In considering above, we conjecture that managers' overconfidence dominate when we combine investors' sentiments and managers' overconfidence. Therefore, we hypothesize that managers will reduce the distribution of cash dividends to raise funds.

H3: The combination of managers' overconfidence and investors' demands for dividends impacts cash dividends negatively.

5.2 Empirical Results

Table 8 shows the descriptive statistics of each variable. Average DPS is 0.163 and 0.132 on SSE and SZSE respectively, indicating relatively low levels of dividends paid. Average OC values of managers are 0.572 and 0.576, indicating that managers' overconfidence is not much different between exchanges. Positive averages of IDD_s mean that a dividend premium has been generated. The difference between the minimum and maximum of IDD is large, resulting in a relatively large standard deviation. Ownership concentration of controlling shareholders is measured by TOP and on average they hold more than one-third of the company in both exchanges. The ratio of tradable shares, SOUT, has significantly increased after share reform, averaging 70%-80%. GROWTH measures sustainable growth rates of listed companies and shows significant gaps between exchanges and among companies¹⁶.

SSE companies are larger than SZSE companies because of stricter listing requirements. GROWTH of companies listed on SSE is slightly higher because established companies have a stable growth rate. However, the maximum growth rate of SZSE companies is much higher than that of SSE, because of fast and rapid growth for technology and games industries.

5.2.1 Multiple linear regression analysis

We first conducted a correlation analysis to test for multicollinearity problems; the second part analyzes the regression results of the correlation between the independent variables and the dependent variables to observe which factors affect dividend policy.

Correlation analysis of variables. Table 8 shows that the correlation coefficients between the variables. The coefficients are significant (except for some correlations with GROWTH) but the magnitudes are less than 20%, indicating that the relationship between the variables is small and

16) Some studies adopt Tobin's Q, M/B ratio, or growth rate of total assets to control for growth and investment opportunities. In this study, we directly measure the growth rate (described in appendix). Unlike previous studies which use logarithm of assets to control for firm size, we use the logarithm of equity and the debt ratio to capture the effect of capital structure simultaneously.

there is no multicollinearity.¹⁷⁾ The correlation between $IDD(EW)$ and $SIZE$ is relatively large, at -0.403 , and significant at the 1% level. Most correlation coefficients pass the significance test; those that fail are all close to zero—there is no obvious correlation between the independent variables.

Regression analysis of variables. Drawing on the existing related research methods to test the above hypotheses, we established the following linear regression models to test the cash dividend and dividend payout ratios.

$$DPS_{it}(or\ DPR_{it}) = \beta_0 + \beta_1 OC_{it} + \beta_2 TOP_{it} + \beta_3 SOUT_{it} + \beta_4 SIZE_{it} + \beta_5 DR_{it} + \beta_6 GROWTH_{it} + \sum industry + \sum year + \mu_1 \quad (M1)$$

$$DPS_{it}(or\ DPR_{it}) = \beta_0 + \beta_1 IDD_t + \beta_2 TOP_{it} + \beta_3 SOUT_{it} + \beta_4 SIZE_{it} + \beta_5 DR_{it} + \beta_6 GROWTH_{it} + \sum industry + \sum year + \mu_2 \quad (M2)$$

$$DPS_{it}(or\ DPR_{it}) = \beta_0 + \beta_1 OC_{it} + \beta_2 IDD_t + \beta_3 TOP_{it} + \beta_4 SOUT_{it} + \beta_5 SIZE_{it} + \beta_6 DR_{it} + \beta_7 GROWTH_{it} + \sum industry + \sum year + \mu_3 \quad (M3)$$

$$DPS_{it}(or\ DPR_{it}) = \beta_0 + \beta_1 OC_{it} + \beta_2 IDD_t + \beta_3 OC_{it} \times IDD_t + \beta_4 TOP_{it} + \beta_5 SOUT_{it} + \beta_6 SIZE_{it} + \beta_7 DR_{it} + \beta_8 GROWTH_{it} + \sum industry + \sum year + \mu_4 \quad (M4)$$

where *industry* and *year* are dummy variables. The interaction term between OC and IDD are created by product of those variables.

In Table 9, according to the adjusted R-square of the three multiple linear regression models, the model fitting effect is acceptable. In addition, the Durbin-Watson (DW) values of the four models are close to 2, which shows there is no serial autocorrelation in the four models.

Regardless of the impact of IDD on dividend policy, Model 1 shows that the regression coefficient of OC is negative and significant at the 5% level. Due to the belief that their stock price is undervalued, overconfident managers are willing to use internal financing to raise funds for excessive investment behavior instead of choosing external equity financing with higher financing costs; consequently, they reduce the number of dividends issued. *H1* is confirmed.

TOP and $SIZE$ have positive impacts on the dividend at 1% significance level. Thus, if ownership is concentrated in a few shareholders or the company size is greater, companies pay more dividends, which is partly consistent with catering theory. $SOUT$ and $GROWTH$ have negative impacts on the dividend at 1% significance level. When companies have more growth opportunities, they have the

17) The value of the variance inflation factor for multicollinearity test is not reported to save space, but can be provided on reasonable request. In short, the variance expansion factors are all less than 2. The highest is the VIF value of $SIZE$ of 1.546, which is still less than 2. The average variance inflation factor is only 1.272, so there is no severe multicollinearity in the equation. Therefore, the respective variables can be included in the multiple regression model.

propensity of holding on the profits to reinvest. Although DR shows different results, its magnitudes of regression coefficients are only 0.0004 and 0.0012, not economically significant.

In Model 2, IDD is added to examine the effect of investors' demand for dividends. The regression coefficient of IDD is positive and significant at the 5% level,¹⁸⁾ indicating that the company pays more dividends when investors pay more premium for the stocks with greater dividends; this result is consistent with catering theory in maximizing short-term stock price by offering dividends. This shows applicability of catering theory to the securities market and H2 is confirmed. TOP, SIZE, SOUT and GROWTH have the same sign as in Model 1 and are statistically not different.

In Model 3, we examine the effects of managers' overconfidence and investors' demand for dividends simultaneously. The results of OC and IDD are statistically similar to those in Model 1 and Model 2. When we consider those two variables in a model, IDD has a greater coefficient and seems to be a dominant factor on dividend payment. To determine the dominance of factors more clearly, we examine the interactive effects of managers' overconfidence and investors' demand for dividends in Model 4. The results show that the regression coefficient of OC is negative and that of IDD is positive; that is, the more investors demand dividends, the greater the amount of dividends, and overconfident managers tend to reduce cash dividends. The regression coefficient of the interaction effect of OC and IDD is negative at the 5% significance level. The negative coefficient of interaction term is interpreted as OC dominates IDD. However, Considering the similar unit size of those variables, the sign of the aggregation of those three terms is still positive, which possibly means that the overall effect of IDD and OC still increase the cash dividend payment. The remaining variables are consistent with Models 1, 2 and 3.¹⁹⁾

Robustness analysis. To test if the empirical results are credible, we reanalyze the factors affecting the dividend distribution of listed companies by dividing them into those listed on SSE and SZSE. We introduce characteristic variables that reflect behavioral factors, such as managers' overconfidence and investors' demand for dividends, to verify their existence. We also include the proportion of shares held by controlling shareholders and the proportion of tradable shares that reflect China's special equity structure. Owing to the seriousness of single-shareholder dominance and high degree of equity concentration in China, full circulation is gradually realized after the share-split reform. Company characteristics, such as size, solvency, and growth, are included to control their impacts on DPS.

The regression results reported in Table 10 are statistically identical to those of the pooled sample. Managers' overconfidence still negatively, albeit insignificantly, affects the amount of dividends

18) This result is based on the equally-weighted average of IDD. It is not reported but the result with the value-weighted average of IDD is statistically identical.

19) This result is based on the regression on DPS. It is not reported but the result of regression on DPR is statistically identical.

in SZSE sample. However, IDD significantly increases cash dividends, and the sum of OC, IDD, and interaction of the two is still positive. The result shows that IDD still affects dividends more than OC does and catering theory has more impact on the capital market.

The coefficients of TOP, SOUT, SIZE, and DR are statistically similar to those of the pooled sample. However, GROWTH shows different results for the sub samples. Unlike the pooled sample, GROWTH has a positive but insignificant effect on cash dividends for SSE companies, whereas the result for SZSE companies is consistent with the pooled sample result. One possible interpretation is that SSE companies retain profits when managers' overconfidence is greater but SZSE companies reduce dividend distribution when growth rate is higher.

The empirical results of dividend distribution over the past nine years indicate that managers have limited rationality when formulating dividend policies. What causes limited rational behaviors of managements when formulating dividend policies? As there may not be a perfect explanation for this in traditional finance, we turn to behavioral finance theory.

VI. The Behavioral Finance Explanation

Traditional finance theories cannot explain this special dividend distribution phenomenon in China; hence, we study the deep-seated reasons behind the behaviors of investors and managers who participate in the dividend policy.

6.1 Influence of Managers' Rationality on Dividend Policy

The principal participant in the formulation of the dividend policy is the manager of the listed company. They are not completely rational when formulating the policy, because they are an ordinary social person and affected by various psychological and behavioral deviations.

6.1.1 Internal reason: Overconfidence

According to the empirical research results, managers' overconfidence reduces the cash dividend payment level of listed companies. Therefore, overconfidence is the internal cause of managers' psychological deviation. Previous studies have shown that managers' overconfidence significantly impacts dividend distribution. Malmendier *et al.* (2007) and Deshmukh *et al.* (2013) believe that overconfident managers are optimistic, consider the company's prospects to be excellent and its market value is undervalued, and are reluctant to use its retained earnings for cash dividends. Consistent to our empirical results, the management's overconfidence as the primary behavioral factor affects the company's dividend payout level.

6.1.2 Immediate reason: Dominance

In China, the phenomenon of “one share dominance” is widespread. The large power of the controlling shareholder is the direct cause of managers’ limited rationality. The phenomenon of control by large shareholders is achieved through (1) direct takeover by the controlling shareholder as the management of the company, and (2) headquarters and subsidiary executives concurrently. Therefore, the management of listed companies is mostly held directly or indirectly by the controlling shareholders.

Wang and Zhou (2006) and Yang (2008) find that the controlling shareholders have an absolute power in the company, and they will protect their interests through the board of directors using this position. The dividend policy of listed companies is the main way to realize their interests. The primary factor considered by the management of the dividend policy formulated under pressure from all parties is the controlling shareholder’s interest. The controlling shareholders are mostly non-tradable shareholders. The cash dividends that shareholders of tradable shares will receive are very small. In a dominating Chinese listed company, the management often uses excess cash dividends to satisfy the controlling shareholder’s interest preferences. This kind of excessive dividend ignores the long-term development of the company. The empirical results also show that the tradable share ratio has a significant negative impact on cash dividends. The lower the tradable share ratio, the more the controlling shareholders, and the more obvious the tendency of listed companies to pay dividends.

6.1.3 External reason: Short supply of outstanding shares

After the share-trading reform, the proportion of tradable shares in the Chinese capital market has crossed 90%. Shareholders of tradable shares may prefer capital gains to cash dividends, and as a result, the distribution of cash dividends is restricted. Due to the imperfect development of the Chinese securities market and the single investment channel for investors, it is difficult to reverse the situation that the demand for tradable shares in the market exceeds supply for a while. When demand exceeds supply, even if a listed company does not pay dividends, it would not bring down the stock price, thus condoning the arbitrariness of the management in formulating dividend policies (Chen, 2013). China has introduced some compulsory dividend plans in recent years, such as linking cash dividends with refinancing policies. Listed companies may carry out dividend distribution behaviors when operating conditions are poor. This is one of the reasons for the limited rational dividend policy in China.

These external reasons lead managements to formulate dividend policies with limited rationality. In addition, the relevant laws on the formulation of dividend policies are imperfect, and supervision is not in place. Other reasons include such shortage of tradable shares caused by the general environment of Chinese securities market and the lack of supervision.

6.2 Influence of Investors' Rationality on Dividend Policy

Various psychological behaviors of investors produce a preference for dividend policies and lead the managements to formulate dividend policies convincing investors of paying dividend premiums. Therefore, investors' limited rationality is closely related to the formulation of dividend policies. The following introduces the effect of investors' limited rationality on dividends.

6.2.1 Characteristics of investors' behavior

The characteristics of Chinese investors' behavior are mainly as follows. Jiang, Qian, and Gong (2017) find that they are mostly retail, young, and less educated, and prefer speculation. Those aged less than 40 account for nearly one-half of the total investors, concentrated in short-term operations in stock trading. The average holding period of Chinese investors is 105.77 days. The transaction frequency is too high, and noise transaction is strong. About 87.47% of Chinese investors had an education below college level in 2010, which translates into a lack of systematic financial risk awareness, often ignoring stocks' own value. They pursue capital gains from stocks, relying on personal luck. Frequent buying and selling transactions have caused turbulence in the stock market, due mainly to investors' lack of professionalism and trust in their own decision-making.

6.2.2 Analysis of investors' psychological deviation

Loomes and Sugden (1982) introduced "regret theory" that people often do things outside the scope of rationality; this is the well-known psychology of regret and aversion. For example, some investors will buy stocks that everyone has been chasing for gains and give up the stocks of their choice. To avoid regrets caused by making a wrong choice, they are more inclined to accept short-term capital gains from stocks rather than long-term stable cash dividends. Such investors are prone to fluctuating emotions, and they severely regret even one mistake, making them hesitant to make better choices. To avoid regret, they often make investment decisions following the trend and form a herd phenomenon.

Herd mentality is a psychological deviation of limited rationality from following the masses. People make behaviors consistent with most people due to external influences. Herd mentality in the stock market can easily lead to the behavior of investors following the trend of buying and selling under the influence of the public, ignoring their own true ideas, and thus accepting the public's investment decisions. The main reason for this kind of public psychological deviation is that investors are not confident in their decision-making, and a professional analysis of stocks is not in place. Following the public is to seek psychological support. This phenomenon of following the trend can easily lead to serious speculation and affect the normality of the market run.

The Chinese stock market is developing rapidly. Insider information has become more transparent and it is almost impossible for stockholders to get rich overnight by buying and selling stocks. However, the speculative psychology has become a major feature of Chinese stockholders. Because investors want to obtain huge returns through the stock market and ignore the huge risks and the dividend policy and operating conditions of listed companies, compared with capital gains with large risks and large returns, cash dividends with stable returns are not favored by investors. They are more keen on stock appreciation rather than a negligible cash dividend. Chinese tax law stipulates that capital gains are not taxed, and cash dividends are subject to a 20% dividend tax. The low level of cash dividend becomes even more insignificant after dividend tax. All these reasons lead shareholders to ignore cash dividends.

6.2.3 Analysis of investors' behavior deviation

In recent years, investor herd behavior has become the focus of domestic and foreign scholars. Zhou and Anderson (2013) researched the US REIT market to find that herding effect is widespread in a turbulent market, and investors tend to show herding behavior. Xue (2013), through the establishment of the Chang, Cheng, and Khorana model (2000), confirmed a more obvious herd effect in the Chinese market, which becomes more serious when the stock market shows a decline. On the one hand, the herding effect has increased the stock market's volatility; on the other hand, the volatility of the stock market will intensify the herding behavior. Wang and Wu (2015) established the VAR model to confirm herd behavior caused by trading volume in the China Growth Enterprise Market. As investors pay more attention to changes in stock trading volume, the herding effect should originally be reflected in investors' herd behavior, which in turn is reflected in the stock market as changes in trading volume.

The disposal effect states that investors tend to hold long-term loss-making stocks, are unwilling to accept that the investment has already lost money, and continue to hope for a price increase for gains. People tend to sell as soon as possible to lock in profits, called the disposal effect. The limited rationality of investors causes the disposal effect.²⁰⁾ The disposal effect can also explain the limited rational dividend policy in China. For example, listed companies that have not issued cash dividends for many years, have reduced their stock prices in disguise through bonuses and allotments. Under this circumstance, investors are willing to continue holding the company's stock and are unwilling to sell the shares they hold to not realize a loss. They do not pay too much attention to the number of dividends or even the lack of dividends.

20) The falling price of stocks proves that the investors' previous decisions were wrong, and loss aversion makes investors continue to hold loss-making stocks waiting for a revival. Once the stock rises, investors want to sell as soon as possible to prove that their early investment decisions were correct.

Noise trading often exists in most short-term investment because investors ignore the basic value of stocks information. Still, the noise information causes the price of stocks to distort to a certain extent. The impact of noise trading on the stock market has two sides. Moderate noise trading can promote the liquidity of the securities market, but once it exceeds a certain level, it will cause deviation in price and value of stock in the short term, forming a bubble and disrupting the order of the financial market.

The Chinese securities market turnover rate has always been one of the highest globally, and its liquidity ranks at the top. Excessive noise trading in Chinese securities market is mainly manifested in serious stock market speculation, high systemic risks, and strong liquidity. A large number of immature stock market transactions leads Chinese investors to earn mainly from the price difference of stock trading rather than stable cash dividends. The bond market's liquidity remains high, which causes the stock price to deviate from its basic value, and the bubble phenomenon is serious. Therefore, the high liquidity has caused excessive market systemic risk, which is a necessary condition to promote the development of the securities market while maintaining moderate market liquidity. However, beyond a certain level, it will hinder the healthy operation of the securities market.

VII. Conclusion

The Chinese securities market remains emerging and transforming. The market is not mature enough and adversely affected by irrational factors that may spell more harm than good to most investors and listed companies.

This study finds that Chinese listed companies have the characteristics of not distributing or under distributing dividends, and a lack of stability in dividend distribution, which hinders the healthy development of the securities market. The empirical results of examining the factors of dividend distribution behavior in China in 2011-2019 show that overconfident managers reduce the cash dividends, while firm set the dividend policy and increase the cash dividend payment to meet the preference of investors. In addition, when we consider those factors simultaneously, overconfident managers are still likely to reduce the cash dividend despite overall effects increasing the size of dividend distribution. We also find that firm pays more dividends, when controlling shareholders hold more share and the tradable shares are less in the market.

The research conclusions suggest that investor sentiment or managerial overconfidence will affect the cash dividend policy of listed companies, making it deviate from its original role. Therefore, we recommend that the relevant regulatory authorities address the abnormal situation of the prevalence of irrational factors in the Chinese securities market from two aspects: investors and managers.

The manager is the direct maker of the dividend policy and the first participant to contact the dividend policy. Therefore, regulating company managers who formulate the dividend policy should be the core task. There are three main reasons behind managers' limited rational behavior: overconfidence, a dominant share, and a shortage of tradable shares.

Investors are the participants affected by dividend policy, and investor behavior will in turn affect the formulation of the dividend policy. Therefore, dividend policy has an important relationship with the limited rationality of investors. An analysis of the reasons behind the investors' limited rational behavior finds the main causes to be investors' own shortcomings, and psychological and behavioral bias.

To ameliorate the limited rationalities of managers and investors, we recommend, among others: (1) improve corporate governance structure, (2) strengthen self-learning procedure, (3) overcome psychological bias, and (4) learn from foreign mature investment strategies. Future research can explore such improvements in detail.

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Appendix

The independent variables reflecting behavioral factors, Chinese special equity background, control variables reflecting corporate characteristics and one dependent variable were combined to establish a multiple linear regression model for analysis. The model is as follows.

$$DPS_{it} = \beta_0 + \beta_1 OC_{it} + \beta_2 IDD_{it} + \beta_3 OC \times IDD + \beta_4 TOP_{it} + \beta_5 SOUT_{it} + \beta_6 SIZE_{it} + \beta_7 DR_{it} + \beta_8 GROWTH_{it} + \mu$$

Variable Type	Variable Name	Variable Symbol	Calculation Method
Dependent Variable	Cash dividend per share	DPS	Total cash dividends ÷ Total equity
	Dividend payout ratio	DPR	DPS ÷ Earnings per share
Independent Variables	Managers' overconfidence	OC	Total Salary of Top Three Managers ÷ Total Salary of All Managers
	Investors' demand for dividends	IDD	$IDD = \ln \left(\sum i W_{ti}^p \frac{M_{ti}^p}{B_{ti}^p} \right) - \ln \left(\sum i W_{ti}^{np} \frac{M_{ti}^{np}}{B_{ti}^{np}} \right)$
	Ownership concentration	TOP	The ownership concentration is measured by the shareholding ratio of the controlling shareholder. According to Article 216 (2) of China's Company Law, controlling shareholder refers to a shareholder whose capital contribution accounts for more than 50% of the company's total capital or whose shares hold more than 50% of the company's total capital. TOP = Number of shares held by the controlling shareholders ÷ Total number of shares
	Ratio of outstanding shares	SOUT	The shareholding structure is classified according to liquidity, divided into tradable and non-tradable shares. Due to the differences in investment cost, shareholder rights, and investment objectives, the two types of shareholders have different dividend policy preferences. Number of Outstanding Shares ÷ Total Number of Shares
Control Variables	Company size	SIZE	The company's size is represented by the natural logarithm of the market equity SIZE = Ln(Market value of equity)
	Solvency of a company	DR	The solvency of a company is represented by the asset-liability ratio. DR = Total Liabilities ÷ Total Assets
	Company growth	GROWTH	The company's growth capacity is represented by the sustainable growth rate GROWTH = ROE × RR ÷ (1 - ROE × RR), where ROE is return on equity, and RR is retention ratio

Table 1. Descriptive statistics of the sample

This table provides descriptive statistics of listed companies on the SSE and the SZSE in 2011–2019. Size is the log value of the market value of equity. Number of Shares Outstanding is in million shares and Net Income is in millions of Chinese Yuan.

Panel A: Listed Companies on the Shanghai Stock Exchange

(Unit: Million, Years, Million Yuan, Yuan)

Name	Mean	Std.	Min	Q1	Med	Q3	Max
No. of Companies	1,093	207	894	953	995	1,182	1,450
Size	10.02	0.54	8.80	9.63	9.95	10.33	12.49
No. of Shares Outstanding	1,766	6,348	50	369	702	1,378	121,071
No. of Employees	9,031	29,335	2	1,141	2,789	6,672	552,810
Age	12.56	9.01	1.00	3.00	15.00	21.00	27.00
Net Income	526.87	3,327.54	-22,327.60	14.04	79.50	285.07	150,675.00
EPS	0.22	0.67	-9.57	0	0.08	0.31	41.62
DPS	0.16	0.39	0.00	0.02	0.10	0.20	17.03

Panel B: Listed Companies on the Shenzhen Stock Exchange

Name	Mean	Std.	Min	Q1	Med	Q3	Max
No. of Companies	1,679	315	1,169	1,536	1,618	1,870	2,134
Size	9.84	0.44	8.64	9.53	9.80	10.09	12.26
No. of Shares Outstanding	1,181	1,711	25	283	644	1,347	11,293
No. of Employees	4,687	10,467	5	1,021	2,077	4,431	229,154
Age	4.68	2.70	1.00	2.00	4.00	8.00	8.00
Net Income	192.26	939.42	-55,779.30	9.75	51.96	158.32	55,131.61
EPS	0.19	0.43	-16.46	0.00	0.09	0.28	13.72
DPS	0.13	0.22	0.00	0.01	0.06	0.15	4.00

Data source: CSMAR Database

Table 2. Dividend payment methods

This table describes the dividend payment methods of China's A-share listed companies in 2011–2019. Companies with missing net profit or dividend data for the next year, companies with missing annual data, and companies that were delisted were excluded from the calculation. The total number of companies and the number of companies with net profit > 0 are from the data for the current year, and the dividend data are from the data for the previous year. The proportion of distributing companies is calculated by dividing the number of companies distributing dividends by the number of companies whose net profit is greater than 0. The proportion of different dividend methods is calculated by dividing the number of companies with different dividend methods by the number of distributing companies. Cash dividends are pre-tax dividends per share.

Panel A: Listed companies on the Shanghai Stock Exchange

Year	No. of Listed Companies	No. of Companies (EPS > 0)	No. of Companies Distributing Dividend	Proportion of Distributing Companies	Proportion of Companies with Different Dividend Methods (Mutual Exclusion)				Proportion of Companies with Different Dividend Methods		
					Cash Dividend	Stock Dividend	Capital Increase	Mixed Dividend	Cash Dividend	Stock Dividend	Capital Increase
2011	894	753	431	48.21%	47.78% (206)	4.37% (19)	12.37% (53)	35.48% (153)	95.29% (411)	9.24% (40)	19.23% (83)
2012	931	786	526	56.50%	44.99% (237)	7.23% (38)	16.73% (88)	31.05% (163)	93.95% (494)	12.82% (67)	23.93% (126)
2013	954	802	533	55.87%	46.29% (247)	7.87% (42)	18.09% (96)	27.75% (148)	94.77% (505)	11.57% (62)	26.85% (143)
2014	953	798	550	57.71%	51.34% (283)	3.46% (19)	17.72% (97)	27.48% (151)	97.24% (535)	7.13% (39)	24.13% (133)
2015	995	824	637	64.02%	53.02% (337)	2.02% (13)	14.68% (94)	30.28% (193)	98.18% (625)	3.48% (22)	20.34% (130)
2016	1,081	916	757	70.03%	50.77% (384)	2.29% (17)	15.68% (119)	31.26% (237)	98.04% (742)	4.01% (30)	21.71% (164)
2017	1,182	972	779	65.91%	47.37% (369)	1.95% (15)	17.34% (135)	33.34% (260)	96.97% (755)	3.28% (26)	23.76% (185)
2018	1,396	1,193	920	65.90%	49.33% (454)	2.01% (18)	16.39% (151)	32.27% (297)	97.37% (896)	3.76% (35)	21.62% (199)
2019	1,450	1,274	1,035	71.38%	49.64% (514)	1.27% (13)	13.26% (137)	35.83% (371)	99.04% (1,025)	2.34% (24)	16.37% (169)
Mean	1,093	924	685	61.73%	48.95% (337)	3.61% (22)	15.81% (108)	31.64% (220)	96.76% (665)	6.40% (38)	21.99% (148)
Stdev.	207	189	202	7.60%	2.57% (104)	2.42% (11)	2.00% (30)	2.97% (78)	1.71% (205)	3.94% (16)	3.11% (35)

Panel B: Listed companies on the Shenzhen Stock Exchange

Year	No. of Listed Companies	No. of Companies (EPS > 0)	No. of Companies Distributing Dividend	Proportion of Distributing Companies	Proportion of Companies with Different Dividend Methods (Mutual Exclusion)				Proportion of Companies with Different Dividend Methods			
					Cash Dividend	Stock Dividend	Capital Increase	Mixed Dividend	Cash Dividend	Stock Dividend	Capital Increase	
2011	1,169	934	531	45.42%	48.92% (260)	7.59% (40)	12.23% (65)	31.26% (166)	90.29% (479)	10.02% (53)	17.23% (91)	
2012	1,411	1,178	717	50.82%	39.61% (284)	8.36% (60)	16.73% (120)	35.30% (253)	91.35% (655)	11.43% (82)	24.13% (173)	
2013	1,540	1,279	799	51.88%	43.40% (347)	7.39% (59)	18.28% (146)	30.93% (247)	94.37% (754)	10.17% (81)	26.05% (208)	
2014	1,536	1,298	849	55.27%	53.05% (451)	3.56% (30)	15.56% (132)	27.83% (236)	94.24% (800)	5.06% (43)	25.11% (213)	
2015	1,618	1,329	941	58.16%	53.67% (505)	2.14% (20)	14.85% (140)	29.34% (276)	97.27% (915)	3.34% (31)	19.78% (186)	
2016	1,746	1,497	1,190	58.16%	46.43% (553)	2.26% (27)	16.97% (202)	34.34% (408)	97.24% (1,157)	3.00% (36)	22.34% (266)	
2017	1,870	1,534	1,229	65.72%	44.81% (551)	3.06% (38)	18.39% (226)	33.74% (414)	94.27% (1,159)	4.38% (54)	25.96% (320)	
2018	2,089	1,729	1,299	62.18%	48.77% (633)	1.89% (24)	16.98% (221)	32.36% (421)	95.87% (1,245)	3.36% (47)	23.78% (309)	
2019	2,134	1,791	1,419	66.49%	51.37% (729)	1.01% (14)	12.37% (175)	35.25% (501)	97.24% (1,380)	1.92% (27)	16.77% (238)	
Mean	1,679	1,397	997	58.23%	47.78% (479)	3.73% (35)	15.71% (159)	32.26% (325)	94.68% (949)	5.85% (50)	22.35% (223)	
Stdev.	315	270	300	7.96%	4.67% (159)	2.73% (16)	2.18% (53)	2.64% (113)	2.55% (302)	3.64% (20)	3.60% (71)	

Data source: CSMAR database

Table 3. Dividend payout ratios

This table describes the dividend payment rate, payment methods, and dividend payout ratios (cash dividend per share/earnings per share) of China's A-share listed companies in 2011-2019.

Panel A: Listed companies on the Shanghai Stock Exchange

Year	Number of Companies whose EPS > 0	Dividend Payout Ratio			
		0%	0%-25%	25%-50%	50%<
2011	753	42.45%	29.34%	18.15%	10.06%
2012	786	38.82%	25.39%	19.45%	16.34%
2013	802	36.56%	26.21%	21.94%	15.29%
2014	798	31.27%	34.32%	22.73%	11.68%
2015	824	23.56%	37.89%	24.26%	14.29%
2016	916	20.23%	36.24%	27.85%	15.68%
2017	972	23.46%	36.23%	25.52%	14.79%
2018	1,193	24.34%	37.29%	24.35%	14.02%
2019	1,274	18.34%	38.27%	26.72%	16.67%
2011-2019	8,319	27.47%	34.10%	23.91%	14.53%
Mean		28.78%	33.46%	23.44%	14.31%
Stdev.		8.74%	5.10%	3.22%	2.17%

Panel B: Listed companies on the Shenzhen Stock Exchange

Year	Number of Companies whose EPS > 0	Dividend Payout Ratio			
		0%	0%-25%	25%-50%	50%<
2011	934	45.55%	30.74%	13.85%	9.86%
2012	1,178	40.72%	27.29%	16.85%	15.14%
2013	1,279	36.96%	26.31%	22.35%	14.38%
2014	1,298	32.29%	35.12%	21.67%	10.92%
2015	1,329	24.26%	36.89%	24.96%	13.89%
2016	1,497	20.93%	35.74%	28.68%	14.65%
2017	1,534	23.96%	36.92%	25.43%	13.69%
2018	1,729	25.39%	37.39%	23.40%	13.82%
2019	1,791	19.28%	38.57%	26.91%	15.24%
2011-2019	12,569	28.52%	34.45%	23.33%	13.70%
Mean		29.93%	33.89%	22.68%	13.51%
Stdev.		9.34%	4.59%	4.75%	1.87%

Data source: CSMAR database

Table 4. Abnormal cash distribution

This table describes the abnormal cash distribution of China's A-share listed companies in 2011-2019. Listed companies are allocated to Abnormally High Payout if their cash dividend per share (DPS) is greater than their earnings per share (or operating cash flow), and to abnormally no payout if they pay no dividend even when their earnings per share is greater than 0.

Panel A: Listed companies on the Shanghai Stock Exchange

(Unit: yuan)

Year	No. of Listed Companies	Abnormally High Payout		Abnormally No Payout	
		No. of Companies (DPS)	Proportion to Listed Companies	No. of Companies	Proportion to Listed Companies
2011	894	14 (0.21)	1.62%	141	15.78%
2012	931	19 (0.15)	2.05%	200	21.46%
2013	954	23 (0.16)	2.37%	185	19.34%
2014	953	29 (0.19)	3.04%	130	13.67%
2015	995	29 (0.25)	2.92%	102	10.27%
2016	1,081	36 (0.45)	3.37%	101	9.34%
2017	1,182	33 (0.37)	2.76%	120	10.12%
2018	1,396	54 (0.50)	3.86%	143	10.24%
2019	1,450	54 (0.43)	3.69%	131	9.02%

Panel B: Listed companies on the Shenzhen Stock Exchange

Year	No. of Listed Companies	Abnormally High Payout		Abnormally No Payout	
		No. of Companies (DPS)	Proportion to Listed Companies	No. of Companies	Proportion to Listed Companies
2011	1,169	15 (0.34)	1.28%	203	17.38%
2012	1,411	31 (0.27)	2.17%	328	23.24%
2013	1,540	47 (0.11)	3.06%	315	20.45%
2014	1,536	39 (0.24)	2.57%	207	13.45%
2015	1,618	48 (0.22)	2.98%	184	11.35%
2016	1,746	54 (0.37)	3.07%	179	10.23%
2017	1,870	67 (0.29)	3.58%	202	10.78%
2018	2,089	68 (0.46)	3.27%	230	11.00%
2019	2,134	85 (0.27)	3.96%	218	10.23%

Data source: CSMAR database

Table 5. Continuity of Cash Dividends

This table describes the continuity of cash distribution for China's A-share listed companies in 2011-2019.

	No. of Consecutive Years	0	1	2	3	4	5	6	7	8	9
SSE	No. of Companies	300	287	213	166	121	75	48	41	30	36
	Proportion to Listed Companies	20.7%	19.8%	14.7%	11.5%	8.4%	5.2%	3.3%	2.8%	2.1%	2.5%
SZSE	No. of Companies	495	392	275	217	166	111	104	45	38	43
	Proportion to Listed Companies	23.2%	18.4%	12.9%	10.2%	7.8%	5.2%	4.9%	2.1%	1.8%	2.0%

Data source: CSMAR dividend distribution database of Chinese listed companies.

Table 6. Dividend characteristics by industry

This table describes the dividend payment characteristics (Mean and Stdev.) of Chinese A-share listed companies in various industries in 2011–2019. Dividend payout ratio (DPR) is calculated by dividing dividend per share (DPS) by earnings per share (EPS). Average DPS and EPS are measured by the equally-weighted average of those. Average growth rate is the ratio of the difference between the Closing Value and Initial Value of Total Assets for the current period to the Initial Value of Total Assets for the current period. The 2012 Industry Classification Guidelines of the China Securities Regulatory Commission divide listed companies into 19 major categories. We excluded financial industry and industries with small sample size. A total of 10 representative industries were selected and characteristics of cash dividends by industries were analyzed.

(Unit: Yuan)

Industry		No. of Listed Companies	Average DPS	Average EPS	Average DPR	Average Growth Rate
Agriculture	Mean	27	0.0945	0.2135	27.10%	12.68%
	Stdev.	3	0.0331	0.1570	5.98%	5.97%
Mining	Mean	62	0.1133	0.2837	27.52%	12.40%
	Stdev.	3	0.0396	0.2168	5.49%	10.16%
Manufacturing	Mean	1,520	0.1322	0.3872	28.23%	14.94%
	Stdev.	238	0.0292	0.0661	3.37%	4.58%
Electricity	Mean	99	0.0949	0.2377	24.27%	10.95%
	Stdev.	11	0.0122	0.0521	2.27%	3.22%
Construction	Mean	75	0.0831	0.3924	17.34%	22.17%
	Stdev.	13	0.0111	0.0355	3.16%	7.40%
Retail	Mean	135	0.1208	0.3994	25.32%	18.86%
	Stdev.	9	0.0131	0.0364	4.34%	16.07%
Transportation	Mean	93	0.1192	0.3554	39.06%	11.10%
	Stdev.	10	0.0169	0.0880	37.97%	6.52%
Information	Mean	123	0.1093	0.2371	24.36%	31.37%
	Stdev.	14	0.0350	0.1682	5.99%	8.70%
Estate	Mean	103	0.1234	0.4849	23.33%	16.69%
	Stdev.	2	0.0436	0.0940	5.75%	2.18%
Complex	Mean	10	0.0420	0.1344	18.25%	10.53%
	Stdev.	1	0.0145	0.0931	5.59%	13.33%
Full market	Mean	2,245	0.1246	0.3708	27.43%	15.96%
	Stdev.	297	0.0256	0.0538	2.55%	4.42%

Data source: CSMAR database

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Table 7. Descriptive statistics of variables

This table (Panel A and B) provides each variable with descriptive statistics of listed companies on the SSE and the SZSE in 2011-2019. IDD(EW) is the equally-weighted average of market-to-book ratio and IDD(VW) is the value-weighted average of market-to-book ratio. Panel C shows the difference of variables between two exchanges. *, **, *** represent the significance test levels of 10%, 5%, and 1% respectively.

Panel A: Listed Companies on the Shanghai Stock Exchange

Variable	Mean	Std.	Min	Q1	Med.	Q3	Max
DPS	0.163	0.392	0.000	0.020	0.098	0.200	17.025
DPR	0.239	0.213	0.000	0.000	0.245	0.341	1.000
OC	0.572	0.152	0.163	0.457	0.560	0.682	0.892
IDD(EW)	0.014	0.025	-0.037	0.010	0.017	0.025	0.053
IDD(VW)	0.029	0.044	-0.028	-0.005	0.034	0.069	0.094
TOP	0.393	0.160	0.010	0.273	0.382	0.505	0.990
SOUT	0.804	0.283	0.012	0.672	0.996	1.000	1.000
SIZE	10.022	0.541	8.799	9.630	9.948	10.335	12.495
DR	0.493	0.458	0.008	0.321	0.480	0.637	28.548
GROWTH	0.057	0.843	-16.852	0.019	0.053	0.092	50.464

Panel B: Listed Companies on the Shenzhen Stock Exchange

Variable	Mean	Std.	Min	Q1	Med.	Q3	Max
DPS	0.132	0.218	0.000	0.011	0.060	0.150	4.000
DPR	0.219	0.224	0.000	0.000	0.172	0.337	1.000
OC	0.576	0.136	0.187	0.474	0.575	0.681	0.826
IDD(EW)	0.063	0.043	-0.013	0.030	0.081	0.092	0.110
IDD(VW)	0.073	0.061	-0.015	0.036	0.052	0.102	0.183
TOP	0.359	0.153	0.002	0.240	0.341	0.459	0.905
SOUT	0.746	0.262	0.037	0.553	0.829	0.996	1.000
SIZE	9.839	0.443	8.640	9.533	9.794	10.089	12.258
DR	0.438	0.342	0.007	0.257	0.416	0.584	13.397
GROWTH	0.020	1.143	-77.067	0.016	0.047	0.087	8.108

Panel C: Mean difference between two exchanges

Variable	Difference (SSE - SZSE)
DPS	0.031***
DPR	0.020
OC	-0.004
IDD(EW)	-0.049***
IDD(VW)	-0.044***
TOP	-0.034***
SOUT	0.058***
SIZE	0.183***
DR	0.055***
GROWTH	0.037***

Data source: CSMAR Database

Table 8. Correlation coefficient of model variables
This table describes the correlation between the DPS(DPR) and the independent variables.

Variable	DPS	DPR	OC	IDD(EW)	Top	Outs	Ln(size)	Debt
DPS	1.000							
DPR		1.000						
OC	-0.042***	-0.067***	1.000					
	0.000	0.000						
IDD(EW)	0.070***	0.053**	0.147***	1.000				
	0.000	0.000	0.000					
Top	0.151***	0.185***	-0.001*	-0.074***	1.000			
	0.000	0.021	0.864	0.000				
Outs	-0.018***	-0.028***	-0.028***	-0.105***	-0.121***	1.000		
	0.000	0.000	0.001	0.000	0.000			
Ln(size)	0.162***	0.129***	-0.257***	-0.403***	0.255***	0.192***	1.000	
	0.000	0.000	0.000	0.000	0.000	0.000		
Debt	-0.177***	-0.124***	-0.002	-0.101***	-0.006	0.189***	0.160***	1.000
	0.000	0.000	0.823	0.000	0.484	0.000	0.000	
Growth	0.016**	0.012**	-0.004	0.003	0.008	-0.015*	0.124***	-0.041***
	0.049	0.052	0.637	0.750	0.311	0.070	0.003	0.000

Note: *, **, *** represent the significant test levels of 10%, 5%, and 1% respectively

Table 9. Regression results of the models

This table describes the regression results of the model on DPS with pooled sample. Figures in parentheses are p-values. *, **, *** represent the significance test levels of 10%, 5%, and 1% respectively.

Variable	Expected sign	Model 1	Model 2	Model 3	Model 4
Constant		0.048** (2.441)	-0.023 (-1.156)	-0.011 (-0.443)	-0.009 (-0.412)
OC	-	-0.013** (-4.480)		-0.017** (-4.820)	-0.016** (-4.820)
IDD	+		0.031** (6.301)	0.032** (6.318)	0.032** (6.382)
OC×IDD	-				-0.026** (-1.978)
TOP		0.0011*** (10.022)	0.0008*** (8.054)	0.0009*** (9.802)	0.0009*** (9.803)
SOUT		-0.063*** (-13.485)	-0.060*** (-12.934)	-0.061*** (-12.831)	-0.060*** (-12.793)
SIZE		0.0703*** (3.205)	0.0941*** (3.400)	0.0880*** (3.367)	0.0860*** (3.382)
DR		-0.0004** (-5.411)	-0.0071*** (-5.901)	-0.0071*** (-6.008)	-0.0072*** (-6.012)
GROWTH		-0.0045*** (-6.972)	-0.0045*** (-7.022)	-0.0045*** (-7.022)	-0.0045*** (-7.023)
<i>industry</i>		Yes	Yes	Yes	Yes
<i>year</i>		Yes	Yes	Yes	Yes
Adj. R-sq.		0.467	0.468	0.468	0.469
Obs.		10,237	10,237	10,237	10,237
DW		1.658	1.658	1.701	1.724
F-value		856.32	849.27	876.84	880.23
Prob>F		0.000	0.000	0.000	0.000

Table 10. The Robustness Test

This table describes the regression results of the model on DPS with sub samples. Figures in parentheses are p-values. *, **, *** represent the significance test levels of 10%, 5%, and 1% respectively.

Panel A: SSE

Variable	Expected sign	Model 1	Model 2	Model 3	Model 4
Constant		-0.182*** (-8.610)	-0.205*** (-10.030)	-0.199*** (-8.854)	-0.202*** (-9.820)
OC	-	-0.004** (-2.420)		-0.008** (-2.876)	-0.005** (-2.630)
IDD	+		0.036*** (6.340)	0.037*** (6.387)	0.042*** (6.390)
OC×IDD	-				-0.031** (-2.034)
TOP		0.047*** (6.330)	0.048*** (6.400)	0.049*** (6.444)	0.049*** (6.444)
SOUT		-0.019*** (-3.420)	-0.018*** (-3.180)	-0.018 (-3.180)	-0.018*** (-3.180)
SIZE		0.016*** (3.430)	0.015*** (3.290)	0.014*** (3.139)	0.013*** (3.020)
DR		-0.016*** (-5.340)	-0.018*** (-5.890)	-0.018*** (-5.879)	-0.017*** (-5.860)
GROWTH		0.0002 (0.320)	0.0003 (0.360)	0.0003 (0.372)	0.0002 (0.320)
industry		Yes	Yes	Yes	Yes
year		Yes	Yes	Yes	Yes
Adj. R-sq.		0.460	0.467	0.469	0.487
Obs.		5,414	5,414	5,414	5,414
Prob>F		0.000	0.000	0.000	0.000

Panel B: SZSE

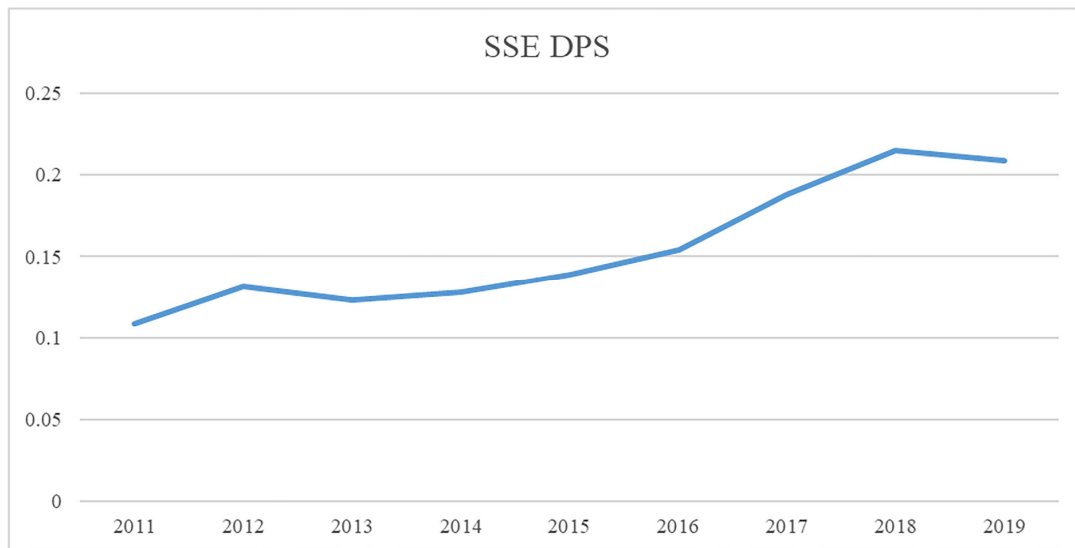
Variable	Expected sign	Model 1	Model 2	Model 3	Model 4
Constant		-0.054** (-2.820)	-0.099*** (-4.670)	-0.098*** (-4.403)	-0.081*** (-4.310)
OC	-	-0.031 (-0.390)		-0.031 (-0.287)	-0.032 (-0.394)
IDD	+		0.033*** (5.407)	0.033*** (5.407)	0.033*** (5.407)
OC×IDD	-				-0.028** (-1.982)
TOP		0.036*** (5.060)	0.035*** (4.930)	0.035*** (4.930)	0.035*** (4.930)
SOUT		-0.079*** (-19.580)	-0.078*** (-19.410)	-0.078*** (-19.360)	-0.078*** (-19.360)
SIZE		0.007*** (7.870)	0.010*** (9.520)	0.010*** (9.400)	0.010*** (9.400)
DR		-0.070*** (-16.150)	-0.067*** (-15.500)	-0.070*** (-15.490)	-0.070*** (-15.490)
GROWTH		-0.003*** (-6.420)	-0.003*** (-6.240)	-0.003*** (-6.240)	-0.003*** (-6.240)
industry		Yes	Yes	Yes	Yes
year		Yes	Yes	Yes	Yes
Adj. R-sq.		0.453	0.452	0.455	0.458
Obs.		4,823	4,823	4,823	4,823
Prob>F		0.000	0.000	0.000	0.000

Figure 1. Cash Dividend Trends

This chart provides the trends of dividend per share for listed companies on the SSE and the SZSE in 2011-2019.

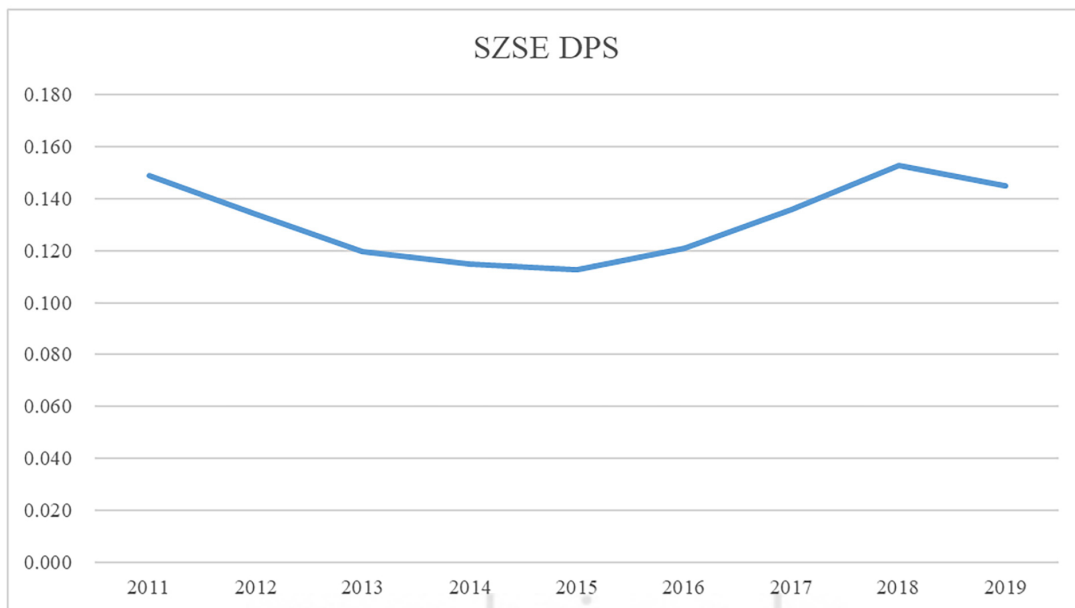
Panel A: Listed companies on the Shanghai Stock Exchange

(Unit: Yuan)



Panel B: Listed companies on the Shenzhen Stock Exchange

(Unit: Yuan)



중국 상장기업의 배당정책 연구: 행태재무적 관점으로*

왕완기** · 이관영***

〈요 약〉

서로 다른 감정과 선호도는 사람들의 인지 과정에 영향을 미치고 인지적 편향과 비합리적인 행동을 유발하여 시장 참여자의 의사 결정에 직접적인 영향을 미친다. 본 연구는 2011-2019년의 중국 상장 기업 A-share 자료를 사용하여 행태재무 관점에서 분석하였다. 다중 선형 회귀 분석을 통해 투자자 및 경영자의 비합리성이 중국 상장 기업의 현금 배당금에 미치는 영향을 연구하였고 다음과 같은 결과를 발견하였다. 1) 비정상적인 배당금 분배 현상(dividend distribution anomalies) 증권시장에 존재한다. 2) 경영자 과신은 현금 배당금을 감소시키고, 투자자의 배당 수요와 지배주주의 지분율은 현금 배당금을 증가시키며, 거래가능주식 비율은 현금 배당금을 감소시킨다.

키워드 : 행태재무; 중국 상장기업; 배당정책; 투자자의 배당 수요; 경영자 과신

* 본 연구는 왕완기의 석사논문을 발전시킨 논문이다.

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