Did dividend tax policy changes increase Chinese financial market stability? [*]

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Abstract

The dividend tax rate has dropped dramatically (20% to 0%) for long-term investors (holding a stock for over one year) in China since 2005. However, after the change to a differentiated tax system, for short-term investors, the rate has stayed at 20%. These policies aimed to encourage long-term investment and increase the stability of the stock market. I use a difference-in-differences model to examine the impact of the 2005 policy change on stocks' turnover rates and trading volumes. Furthermore, I use a variety of matching methods to re-construct control and treatment groups to improve the accuracy of estimation. I find that, after the 2005 policy change, lowering the dividend tax decreased the trading volumes by 11.7%, and the turnover rates declined over 18%. However, when I extend this analysis to the 2012 dividend tax policy change, I find that the differentiated dividend tax has nearly contrary effects. The results also indicate that firms with a higher percentage of shares owned by top executives or government have experienced stronger effects in lowering turnover rates and trading volumes.

JEL: G35; H24; H32

Key Words: Dividend Tax Policy;China; Trading Volumes; Turnover Rate

Section I. Introduction

The dividend tax has been a long-time research focus in the fields of economics, accounting, and taxation. Different countries and regions have diversified policies on dividend taxation. For instance, Hong Kong has no dividend tax; Japan levies 20% on dividends from listed stocks. Different policies with progressive or single fixed tax rate systems affect the actual tax burden on investors in a variety of ways. Taxes on investors affect their overall wealth and the valuation of firms. For this reason, investors', firms', governments', and researchers' views are divergent after the implementation of dividend tax reforms regarding whether the dividend tax should be maintained, lowered, or even removed. For example, in 2003, United States President George W. Bush proposed the elimination of the U.S. dividend tax, saying that "double taxation is bad for our economy and falls especially hard on retired people."[1] Following Bush's speech, *The Jobs and Growth Tax Relief Reconciliation Act* (*The Act*) was passed by the United States Congress on May 23, 2003. *The Act* allowed qualified dividends to be taxed at the same rate as long-term capital gains, which is 15% at most. Though studies generally indicate that *The Act* increased dividend distribution and boosted firms' growth [Chetty and Saez (2005)], others believed the dividend tax cut didn't have any effect on the real economy.[2]

Dividends have been taxed as regular personal income in China since the Shanghai and Shenzhen Stock Exchange Markets were established. After the tax reform in the late 1990s, all dividends for all investors (institutional or individual) in the two stock exchange markets were subject to a 20% fixed tax rate. One major characteristic of China's stock markets is a large number of individual investors. Comparing to 124,587 households that own stocks directly or

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[1] "POLITICS AND THE ECONOMY; Excerpts From Bush's Speech on His Proposal to Stimulate the Economy," *New York Times*, January 3, 2003

[2] "This Isn't Proof That Dividend Tax Cuts Don't Aid The Economy," *Forbes*, January 21, 2015

indirectly in the U.S.,[3] there are over 140 million individual investors in China.[4] According to Tom Orlik, chief economist for Bloomberg Economics, among these individual investors in China, nearly 67.6% do not have a high school diploma. These individual investors, who have a disadvantage in analyzing information and lack a background in financial knowledge, would follow the signals (including dividends) generated by listed firms [Johan and Lang (1991)]. Unfortunately, the market might remain volatile if a large number of investors only focus on the changing signals and modify their stock holdings rather than investing a stock (or stocks) for a long time. To increase financial market stability, provide incentives for listed firms to distribute dividends, and encourage long-term investment, on June 13, 2005, the Ministry of Finance and State Administration of Taxation of the People's Republic of China jointly issued a document (*Caishui 2005 No. 102*) to lower the dividend tax rate from 20% to 10% for all investors. The announcement came into effect immediately. Then, in 2012, another joint document (*Caishui 2012 No. 85*) was released, changing the single tax rate to a differentiated rates system starting in 2013. Under the new document, for investors holding a stock that distributes dividends, they face a 20%, 10%, or 5% tax rate if they hold the stock for less than one month, between one month and one year, and over one year, respectively.

The goal of this paper is to identify the effects of dividend tax policy changes on financial market stability. Specifically, this study discusses whether the policy changes achieved the government's goal of lowering overall turnover rates and trading volumes and increasing financial market stability, and I extend the analysis to the 2012 policy change. These policy changes can be considered as quasi-experiments for the firms listed on the Chinese stock exchange markets, since firms could not foresee these policy changes and had no self-selection issue. I chose the China Stock Market and Accounting Research (CSMAR) database as the primary data source

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[3]Board of Governors of the Federal Reserve System Survey of Consumer Finances (SCF), *https://www.federalreserve.gov/econres/scfindex.htm*

[4]Shenzhen Stock Exchange Annual Market Data, *http://www.szse.cn/market/*

for this study. CSMAR is the primary financial research database on Chinese companies and related financial information. It provides detailed financial data and information on firms listed on the Shanghai and Shenzhen Stock Exchange Market starting from 1990.

I conducted difference-in-differences (DID) research for two samples constructed around 2005 and 2013. The results indicate that lowering the dividend tax rate could temporarily decrease the turnover rate and trading volumes while increasing stability; however, in the long run, the effect is not significant. The 2005 policy change led to a 15% drop in turnover rate, and the trading volume lowered by 11.7%. The 2012 revision has contrasting results: effects on both trading volume and turnover rate became positive. However, the endogeneity issue lay in the estimations, i.e., that firms' self-characteristics (cash holding, debt, and risk level) can affect their payout behaviors, which leads to the results of non-randomizing treatments. In order to tackle this issue, I conduct a variety of matching methods (One-to-One, k-Nearest-Neighbor, Radius, Kernel, Local Linear, and Mahalanobis Distance). I match firms that initiated or increased cash dividend distributions with those that did not distribute before and after the policy change, constructing "purer" treatment and control groups. The average treatment effects are robust compared to previous difference-in-differences estimations. Furthermore, I re-run the difference-in-differences regressions based on the newly constructed groups, and the results support the analysis above. In order to mitigate the concern that some firms might start to distribute one or two years before the policy change due to policy rumors, I eliminate that kind of firm, and the results still hold.

Also, previous literature [Murphy (1999), Smith and Watts (1992)] points out that executives have incentives to increase dividends distribution if a certain part of their compensation comes from dividend yields. Besides, in China, government-owned or -controlled enterprises have strong, solid performance since China's transition to the market economy [Lin et al. (1998)]. These are two significant factors that can affect trading volume, turnover rate, and return rate.

Therefore, I further split the samples into subsamples based on the share percentage held by top executives and the government. The results from this paper show that firms that are more government-controlled or have more executives who own a high percentage of shares have lower trading volumes and turnover rates. Investors are more likely to invest in firms with a government background, and executives would distribute more to avoid personal income tax. However, investors reacted in a contrary way for the second policy change, such that trading volumes and turnover rate increased after the 2012 change for the treatment group. This paper contributes to the current literature in three ways. First, it extends the literature on estimating the impacts of China's dividend tax reform on trading volumes and turnover rate. Previous studies [Yang and Liu (2005), Zeng and Zhang (2005), Zhang and Hu (2009)] mostly focus on the effects of policy changes on dividend distribution, stock prices, and investors' reaction. Second, this paper provides an intuitive comparison between lowered dividend tax rate policies and differentiated tax rate policies, which promises to inform further policy-making. To the best of my knowledge, this is the first paper to compare the effects of two dividend policies in China. Last but not least, the matching methods improve the traditional DID estimation by purifying the control and treatment groups and enhancing the similarity of the observations in the two groups. It can shed light on similar program or policy evaluations.

The paper is arranged as follows: Section II introduces the financial market and dividend tax background in China; Section III gives the related literature review; Section IV describes the dataset and variables used in the empirical studies; Section V discusses the empirical methodology; Section VI presents the results; Section VII concludes, summarizes key findings, and provides policy advice for further discussion.

Section II. Background

2.1 China's Stock Market, Dividends, and Dividend Distribution Patterns

The Chinese stock market is a relatively young financial market in the world. There are two stock exchange markets in Mainland China: Shanghai Stock Exchange and Shenzhen Stock Exchange.[5] They are both non-profit organizations directly administered by the China Securities Regulatory Commission. Since the last decade of the 20th century, China's stock markets have rocketed under the *Reform and Opening Up Policy*.[6] Within decades of their development, Shanghai Stock Exchange Market and Shenzhen Stock Exchange Market have successfully tapped into top exchange markets comparable in size around the world. As shown in Table A1, as of September 2018, Shanghai and Shenzhen Stock Exchange ranked fourth and eighth, respectively, in market capitalization (*World Federation of Exchanges Monthly Statistical Reports September, 2018*). The number of listed firms in the two stock markets increased from 10 to over 3,500 (*China Securities Regulatory Commission Yearly Report 2018*). Along with the prosperity of the financial markets, researchers have done extensive studies related to a variety of aspects of the markets. This paper tries to evaluate and compare policy changes in the dividend tax. Thus, in the following paragraphs, I discuss dividend distribution patterns in China.

In China, there are three main ways that a firm distributes dividends to its shareholders. The first method is cash dividends, which is money paid to stockholders normally as part of the corporation's current earnings or accumulated profits. The second is bonus share, which is also called a stock dividend. A bonus share is a dividend payment made in the form of additional

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[5]The Hong Kong Stock Exchange, based in Hong Kong Special Administrative Region of the People's Republic of China, is one of the subsidiaries of Hong Kong Exchanges and Clearing. In this paper, I concentrate on Shanghai and Shenzhen Stock Exchange Markets, which are affected by the policy changes from the Ministry of Finance of the People's Republic of China. Shanghai Stock Exchange Market was established on December 19, 1990, while Shenzhen Stock Exchange Market was opened on July 3 in the following year.

[6]Refer to the Chinese economic reform, which began in December 1978 and promoted rapid economic development in China, especially for Shanghai and Shenzhen.

shares, rather than a cash payout. Companies that decide to distribute this type of dividend to shareholders may experience short supply in liquid cash. The last is the gift dividend, which is distributed to shareholders using capital reserves in the firm. The biggest difference for this type of bonus share is the capital sources that are utilized in the process. Since gift dividends can be distributed regardless of the profitability of the firm, they cannot be considered as traditional dividends (but they will nevertheless appear as a dividend distribution in the distribution documents). In this paper, I mainly focus on cash dividend distributions.

2.2 Dividend Tax and Policies in China

A dividend tax is a tax imposed by a government or tax authority on dividends received by the shareholders of a firm. Different countries and regions have diversified tax systems on the stock market according to their economic conditions and development requirements. For instance, the United Kingdom and Australia employ the imputation system, in which some or all of the tax paid by a company may be attributed, or imputed, to the shareholders by way of a tax credit to reduce the income tax payable on a distribution [Richardson (2014)]. Another system is the dividend credit system, which allows shareholders to deduct dividends from income taxes in certain ratios. This system is used by countries such as Japan and Denmark. Besides these two tax methods, some regions, such as Hong Kong, have no tax levied on dividends.

Individuals who have a domicile or place of abode in China are subject to individual income tax (*pwc Worldwide Tax Summaries*), which is levied by 11 categories.[7] Each category has its own tax rate(s), deductions, and so on. According to the *Individual Income Tax Law of the People's Republic of China* amended in 1999, an individual is subject to a 20% tax rate on in-

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[7]The 11 categories of income are as follows: Employment income (i.e. wages and salaries); Income from the operation of sole proprietorship; Income from the operation of a business on a contract or lease basis; Payment for labor services; Author's remuneration; Royalties; Interest, dividends, and profit distribution; Rental income; Income from transfer of property; Incidental income; Other taxable income as determined by the Ministry of Finance of the State Council. Source: Ministry of Finance of the People's Republic of China

terests, dividends received from bonds, and stocks. The dividends include cash dividends, stock dividends, and bonus shares. However, capital gains from investment are exempt from personal income tax. Therefore, individual investors were taxed at 20% on dividends (including bonus and gift dividends) after the 1999 reform. Stock dividends are taxed as they appear on the document. For example, a standard announcement of dividend distribution from a firm states that it will distribute a ¥1 cash dividend, along with 10 bonus shares per share, for its shareholders. If a person holds 100 shares, they will receive 100 in cash and 1000 bonus shares. When calculating the tax levied, bonus shares are counted as 1 per share. In this case, under the 20% tax rate, shareholders will be taxed ¥100 × 20% + ¥1000 × 20% = ¥220. Thus, under this policy, the cash received by a shareholder might be negative (receiving ¥100 and paying ¥220 tax, in this case). A real-world example is that in March 2018, Minsheng Bank (China) announced a payout with two bonus shares and ¥0.3 Chinese yuan per 10 shares. The tax per 10 shares for short-term investors is (¥2 + ¥0.3) × 20% = ¥0.46, which means that these investors have to pay an extra ¥0.16 yuan in cash per 10 shares to receive the dividend package. The distribution announcement from Minsheng Bank created turbulence in discussions on the effectiveness of dividend taxation. Considering the large number of short-term individual investors in China, the dividend package decreases the return rate for the investors.

The dividend tax rate in China has been changed three times since 2005. Before June 2005, as discussed above, the government taxed all dividends as personal income at the rate of 20%. Following June 13, 2005, the tax rate was 10%, according to the Ministry of Finance and State Administration of Taxation Joint Document *2005 No. 102* (*2005#102*). This document was enacted in the fourth quarter of 2005 (2005 Q3). However, in 2012 and 2015, two other documents (*2012#85* and *2015#101*) further lowered the tax rate to zero for long-term stockholders (a stock held more than one year) and kept a high tax rate (20%) for short-term stockholders (a stock held less than one month). A summary of these tax changes is shown in Table 1. The goal of

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the differentiated tax rates for different types of investors is to encourage long-term investment and increase market stability.

2.3 Individual Investors and Trading Behavior in China

Unlike markets in other developed countries, China had over 140 million individual investors as of the end of 2018, making up 99% of market capacity. According to the national survey conducted by the China Securities Regulatory Commission, over 40% of the investors held no high school diploma, and nearly half of the individual investors were not aware of related rights (voting, etc.) when holding stock shares. The survey also points out that only 25.5% of the investors focus on long-term investment; among the rest, nearly 80% buy stocks based on news and rumors, rather than firms' fundamentals. All of these characteristics lead to repeated trading and irrational transaction behavior.

On the contrary, mature financial markets have a relatively high percentage of institutional investors. For example, in the United States, the S&P 500 has over 80% institutional investors. However, when we look back to the 1920s, still taking the United States as an example, before the Great Depression, U.S. stock markets had as high a percentage as 90% individual investors. After decades of market development, more and more people choose to invest in mutual funds or 401(k)s instead of touching the stock market individually. One reason is that, within the growth of institutional investors, institutions' knowledge base and technology are far better than those of individual investors. The other is that due to current tax laws, mutual funds and 401(k)s have an advantage in avoiding tax compared with a personal capital gain. Thus, within the maturity of the financial market, the number of individual investors decreases, and they turn to invest in financial products. One measurement method for financial market stability is the turnover rate. The turnover rate is calculated as trading volumes divided by outstanding shares. It measures

the velocity of the stock market at a specific time. Generally speaking, mature markets have lower turnover rates, while new, rising markets burden higher stock velocity. China has a high turnover rate that is nearly three times that of the U.S. Therefore, the government is expected to lower the turnover rate, increase financial market stability, and encourage long-term investment by decreasing dividend taxes.[8]

Section III. Literature Review

The dividend tax has been well studied in the United States. Several theories on dividend tax have been established. Miller and Modigliani (1961) first promoted the "clientele effect theory." The theory states that in an imperfect market, investors faced with higher dividend tax rates prefer stocks with fewer dividends, and investors buy stocks with more dividends if they have lower dividend tax rates. Jensen and Meckling (1976) introduce the theory of agency. This theory claims that firms make dividend distribution decisions based on weighing two components. One is that dividend distribution can mitigate the conflict of interest between shareholders and managers. The other is that managers need outside investments to spur the development of the firm, which increases the trading cost. Another theory is the signal theory. Lintner (1956) proposes the Lintner model for corporate dividend policy, which supports the point that firms have long-term target distribution ration to express the stable development of the firms to the investors. Fama and Babiak (1968), Leithe and Zimmermann (1993), and Kato and Loewenstein (1995) hold up this theory and prove that it works not only in the United States but also in Germany, the United Kingdom, France, Switzerland, and Japan.

However, before the 2003 Jobs and Growth Tax Relief Reconciliation Act, most of the

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[8]Sina Finance, Huatai Securities Report, Pingan Bank, Credit Suisse Global Stock Turnover Ratio Report, *https://dwz.cn/YdDtSSi2*

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empirical works use time series data rather than concentrating on estimating the effects of a policy change due to the lack of a pure "shock" event. The results remain controversial and can be divided into two categories: "old view" and "new view" [Chetty and Saez (2005), Auerbach (2003), Zodrow (1991)]. The "old view" supports that dividend tax reduces the net return of investments and reduces the supply of savings. Thus, when dividend tax is lowered, investors can save more with the effect of increasing investment, firms' profit, and firms' distribution activities. The results from Poterba (2004) support the "old view" by using data in the United States. On the other hand, the "new view" holds that marginal investments are entirely financed by retained earnings rather than new share issues. Under this view, dividend tax does not affect the investment decisions of firms, nor the decisions regarding dividend distribution behaviors. Thus, dividend tax has no relation to firms' decisions. Auerbach and Hassett (2003) present one of the many studies supporting this view that dividend payments are sensitive to changes in investment at the firm level, suggesting that retained earnings are indeed the marginal source of investment funds.

Zhonglan et al. (2008) and Hanlon and Heitzman (2010) point out that the taxation of investors has an essential effect on investors' trading behaviors. As a result, a change in dividend tax may affect stock trading actions. Research has been done on how investors react to dividend tax policy changes. For instance, Ayers et al. (2002) investigate the market reaction to the 1993 dividend tax increase in the U.S. They find that the dividend tax rate is negatively associated with stock returns. Firms with higher dividend payouts and fewer institutional investors have lower stock returns when faced with higher dividend tax rates. Dhaliwal et al. (2003) find that a firm's dividend yield has a positive impact on the corresponding stock return that is decreasing in the percentage of institutional and corporate ownership. The effect does not correlate with dividend tax rates. In China, research focuses to a much greater extent on stock price changes on an ex-dividend day.

The effects of dividend tax cuts have not been studied systemically in China. Scholars in China focus more on stock prices and equity capital changes around the ex-dividend day. Mao (2002) first explores the relationship between stock prices and tax rates in China. He believes that there is no "clientele effect" in the Chinese stock market. Yang and Liu (2005) note that empirical evidence suggests that the listed companies increased cash dividends after the introduction of reducing tax by half by the Ministry of Finance and the State Administration of Taxation. Zeng and Zhang (2005) find that cumulative abnormal returns are positively correlated with dividend payments. Zhang and Hu (2009) analyze the arbitrage on the ex-dividend day using data on firms with cash dividends. They believe that arbitrage is correlated with different types of investors with different levels of dividend tax rates. Given the enormous literature on how dividend tax rates affect stock prices and returns, few papers examine how dividend tax rates affect trading volume and stock turnover rates. Zhang, Kathleen, and Brown (2008) researched the U.S. dividend tax cut in 2003. They found that tax cuts lower the excess trading volumes of firms with more dividend payouts. Chen, Chow, and Shiu (2013) found similar results in the 1989 tax reform in Taiwan. A study that is most related to this paper is the one by Jia et al. (2016), which uses data from 2011 to 2014 to study the effects of *Caishui 2012 No. 85* on the stock turnover rate. They use a relatively short time range of data (2011–2014) and find that the document did not achieve its goal effectively. However, firms with higher or more stable dividend distributions have lower turnover rates.

Section IV. Data

4.1 Database Selection

There exist several databases that have detailed firm-level data in China. Two of these databases have been adopted widely among researchers. One is the Chinese Industrial Enterprises Database (CIED) from the National Bureau of Statistics of the People's Republic of China; the other is the China Stock Market and Accounting Research (CSMAR), which is jointly produced by GTA Information Technology Co. Ltd. (a database company located in Shenzhen, Guangzhou), the University of Hong Kong, and the China Accounting and Finance Research Center of the Hong Kong Polytechnic University. CIED compiles government data collected annually, which comes from a survey of over 300,000 China's large and medium-sized manufacturing enterprises (LMEs) including all government-owned manufacturing enterprises and those non-government-owned manufacturing enterprises with an annual sales income over RMB ¥5 million yuan. The dataset contains all the main financial indicators such as assets, sales, profit, number of employees, and salary. This is a comprehensive firm-level database. However, several researchers have pointed out potential problems associated with this database. Nie, Jiang and Yang (2012) argue that despite its completeness, the database has obvious measurement error, some vague variable definitions, and sample matching errors. All of these potential issues will cost researchers more time on cleaning data, and the potential issues may even lead to biased results.

CSMAR is the primary financial research tool on Chinese companies and related financial information. Specifically, it provides detailed financial data and information on firms listed on Shanghai and Shenzhen Stock Exchange Markets starting in 1990. Following the standard of Center for Research in Security Prices (CRSP) at the University of Chicago and Compustat, the database provides professional, accurate, complete annual/interim/quarterly reports of A- and

B-share[9] companies in general and financial industries. Unlike CIED, CSMAR concentrates more on listed firms. Since this paper aims to explore the effects of dividend tax policy changes, CSMAR will help improve the accuracy of results as one of its advantages. I draw a whole sample from CSMAR dating from 1990 to 2015.

Whether political uncertainty has an effect on economic activity is currently a topic of debate. Jens (2017) examines the link between political uncertainty and firm investment using U.S. gubernatorial elections as a source of plausibly exogenous variation in uncertainty. That research finds that investment declines 5% before all elections and up to 15% for subsamples of firms particularly susceptible to political uncertainty. To capture the overall political uncertainty atmosphere, I include an uncertainty index in the regressions. Baker et al. (2016) promote a calculation for a political uncertainty index based on newspaper coverage frequency. Specifically, the index for China is constructed on a scaled frequency count of articles about policy-related economic uncertainty in the South China Morning Post (SCMP), Hong Kong's leading English-language newspaper. However, the methodology focuses on news and articles published in Hong Kong, rather than in mainland China. Following Bloom (2009), Baker et al. (2016), and Jurado et al. (2015), a new measuring method [Huang et al. (2018)] based on newspapers in mainland China and macroeconomic indicators was created to represent China's economic policy uncertainty. Thus, I use data from that paper in the empirical study.

4.2 Sample Selection

This paper aims to evaluate the effectiveness of the 2005 policy change and extend the analysis to the 2012 policy change. Therefore, two samples are constructed from the whole

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[9]A-shares are shares of mainland China-based companies and were historically only available for purchase by mainland citizens since foreign investment was restricted. B-shares are eligible for foreign investment, provided the investment account is in the proper currency: Shanghai B-shares trade in U.S. dollars, while Shenzhen B-shares trade in Hong Kong dollars.

sample. On June 3, 2005, the Ministry of Finance (MOF) and the State Administration of Taxation (SAT) jointly issued *Caishui [2005] No. 102*, which came in effect immediately. The second policy shock was released on November 16, 2012, and it was enacted on the first day of 2013. Also, worth noting is that a regulation issued by China Securities Regulatory Commission ("Administration of Offerings of New Shares by Listed Companies Procedures") in 2001 indicated that firms do not distribute during the most recent three years and the board of directors fail to provide reasonable explanations would be monitored. Therefore, for the 2005 change, I use a sample dating from 2001 to 2009 to conduct the difference-in-differences study. Only firms with detailed data (including area code and register production type) that went public before 2001 and remained listed beyond 2009 are in the sample. Besides, to avoid extreme or unusual situations, the data is winsorized[10] based on the value of trading volumes and turnover rate at the 1% level (upper and lower 1% numeric records are dropped) for comparison regressions. Similarly, I choose the fiscal year 2010 to 2015 as the time range for the second policy change, and the sample is also winsorized for comparison regressions. To explore the effects on firms with different share percentages held by the government and top executives, I further classify the sample by the ratio of shares held by the government and top executives. Figure 1 shows how the samples are drawn and classified. In addition, there are two kinds of firms, called "Special Treatment" (ST) and "Particular Transfer" (PT), existing in the Chinese stock market. Firms labeled by these two terms are regulated by the China Securities Regulatory Commission and trade under restive requirements. Thus, ST and PT firms are eliminated from the sample. The whole sample nests 20,315 observations with 12,379 located in the first policy change and 7,936 for the second.

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[10]Winsorization is the transformation of statistics by limiting extreme values in the statistical data to reduce the effect of possibly spurious outliers.

4.3 Variable Design

The goal of this paper is to evaluate firms' responses to tax policy change and to quantify the effects of dividend tax reforms on the stocks' trading volumes, turnover rate, and return rate by using a difference-in-differences method. The outcome variables are the three mentioned above. The trading volumes (vol) are calculated as quarterly averages based on the monthly data for each stock. Following Jia et al. (2016), I calculate turnover rate (tr) based on daily stock turnover (tor) rate. The calculation equation is as follows:

$$tr_{i,t} = \Sigma_{i,t}^{N} tor_{i,t}/N \tag{1}$$

where tr is the average quarterly turnover rate, tor is the daily turnover rate, while N is the number of trading days in a quarter. Return rate (rt) is the mean of the quarterly return rate after dividend distribution for a stock. Also, to better estimate the effects, I calculate the growth rate of the trading volumes, turnover rates, and return rates. The calculation equation is as follows:

$$\delta_y = (y_{i,t} - y_{i,t-1})/y_{i,t-1} \tag{2}$$

where y represents the stocks' trading volumes, turnover rate, and return rate, while δ_y is the yearly growth for each variable of each firm. Since the denominator of turnover rate is the total outstanding shares of a firm, I eliminate firms that issued new stocks to the public after policy change, which led to the change of the denominator of the outcome variable. To control for the basic firms' characteristics, market capitalization (marketcap), total assets (assets), profit (profit), financial leverage (finlev), price to earning ratio (pe), and Tobin's q (tobin) are included in the controls. Marketcap is the market capitalization, which is calculated by multiplying a company's shares outstanding by the current market price (quarterly average) of one share.

Assets and debt nest the firm's total assets and debt in a calendar year. [11] Financial leverage (Finlev) is the degree to which a company is financed by fixed-income securities such as debt and preferred equity. The price to earnings ratio (PE) is the ratio that measures its current share price relative to its per-share earnings. The Tobin's q ratio (Tobinq) is calculated as the market value of a company divided by the replacement value of the firm's assets. To control for the political atmosphere, which might affect the financial market's stability, I also include a political uncertainty index (pui) from Baker et al. (2016). To delve into the issue in depth, as mentioned in Section 5.2, I further split each of the samples into two subsamples based on the mean percentage of the shares held by the government (perstate) and top executives (perex). Appendix Table A2 provides a list of all variables used in this paper including descriptions. Tables 2 and 3 provides the summary statistics of the key variables for the samples covering 2005 and 2012 policy change. Tables 4 and 5 present the covariance for the two samples. From Tables 2 and 3, we can see the sample from the 2012 policy change has relatively higher trading volumes and turnover rate and a lower return rate. The government share percentage distributes over a large range, with a mean at 21% and 12% for each sample. Top executives have a mean share percentage of 1% in the 2005 sample, while the figure increases to 9.7% in the second policy change sample.

Section V. Estimation Methodology

Similar to the Jobs and Growth Tax Relief Reconciliation Act of 2003 in the United States, after the 2005 policy change in China, firms reacted quickly to initiate and increase cash dividend distributions. As noted in the background description, the large number of individual

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[11] According to Chinese accounting standards, the accounting period in China is set from January 1st to December 31st, which is the same as the calendar year.

investors and high trading volumes and turnover rates are special characteristics of the Chinese financial market. The increase in dividend distribution could attract more investors to lower repeatedly trading activities and increase financial market stability. Moreover, by examining the effect on return rate, we can test whether the tax cut supports the "traditional view." Therefore, exploring how the dividend tax cut affects the stock market—especially the trading volume, turnover rate, and return rate—can provide lessons and advice for further policy-making.

5.1 Difference-in-Differences

5.1.1 Model setup

To evaluate market stability, I will use a difference-in-differences model to evaluate Document *2005 No. 102*, and I will then extend the analysis to *2012 No. 85*. Difference-in-differences is widely used in policy evaluation. It attempts to mimic an experimental research design using observational study data by studying the differential effect of a treatment on a treatment group versus a control group in a natural experiment. It intends to mitigate extraneous factors and selection bias. Unlike JGTRRA, the tax reform in China was enacted immediately. However, JGTRRA had an initial proposal in early January 2003 and was approved in May 2005. In this respect, the reform in China is closer to a "natural experiment" (shock event) [Jia et al. (2016)]. Thus, in this study, the policy shock in 2005 could be considered as "quasi-experiment." In the context of this analysis, I define a firm as "treated" if a firm initiates or increases dividend distribution after the 2005 policy change, while "control" applies if a firm never pays cash dividends before or after the policy change. Thus, DID posits that the average change in the comparison group represents the counterfactual change in the treatment group if there were no treatment. The average treatment effect (ATT) on the treated can be indicated as:

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$$ATT_{DID} = E(Y_{t_1}^T - Y_{t_0}^T | D = 1) - E(Y_{t_1}^C - Y_{t_0}^C | D = 0)$$

To measure the effects on the stock market, I use three measurements: trading volumes, turnover rate, and return rate after dividend distribution. To further validate the results, I also calculate the yearly growth rate of the three outcome variables. The idea is that people prefer to hold stocks rather than repeatedly buy/sell when the dividend tax rate is low, which leads to a decrease in the turnover rate. Also, rationally speaking, people prefer to hold a stock if the return rate increases. Besides, when the new policy was enacted, the government expected to see decreases in trading volumes and turnover rates. Another scenario is that the trading volumes and turnover rates are still increasing in the stock market; however, firms that distributed dividends could enjoy a lower increase rate in trading volumes and turnover rates. I think this is also a reasonable way to evaluate the policy effect. The time dummy variable for the 2005 policy change equals zero if the financial year is from 1990 to 2003 Q3 and one if the financial year is from 2006 Q4 to 2009. The dividend dummy is set to one if firms increased or initiated dividends after the 2005 Q4 and zero otherwise. By changing the sample, in this study, I also extend the analysis to the 2012 policy change. The time dummy variable for the 2012 policy change equals zero if the financial year is from 2010 to 2012 and one if the financial year is from 2013 to 2015. The dividend dummy equals one if firms increased/initiated dividends after 2013 Q1.

Therefore, after controlling for other characteristics of the firms, the difference-in-differences regression model comes as:

$$y_{it} = \beta_0 + \beta_1 I_{policy_t} + \beta_2 I_{dividend_i} + \beta_3 I_{policy_t} \times I_{dividend_i} + X_{it}'\delta + \mu_{\mathbf{i}} + \kappa_{\mathbf{t}} + \epsilon_{\mathbf{it}} \qquad (3)$$

where y_{it} is the dependent variable or the outcome variable, namely trading volumes, turnover

rate, and return rate after dividend distribution. I_{policy} and $I_{dividend}$ are the policy and dividend dummies, and the coefficient of the interaction (β_3) between the two is the coefficient of interest. Following Li et al. (2007), X_{it} controls for an additional set of covariates that capture the characteristics of firms, including marketcap, assets, debt, finlev, tobin, pe, and pui. Marketcap is the market capitalization of a firm; assets and debt are the firm's total assets and debt; Finlev is the financial leverage and captures the risk level of a firm; PE is the price to earning ratio, which determines whether shares are correctly valued in relation to one another; Tobinq is the Tobin's q of a firm.[12] pui is the political uncertainty index from Huang et al. (2018) to control for the overall political atmosphere in China. μ_i and κ_t control for year and firm fixed effects.

5.1.2 Validity of the DID identification assumption

To establish a causal inference using a difference-in-differences method, some assumptions must hold. First, the treatments, or the policy shocks in this paper, should be exogenous. In this paper, two policy changes occurred without firms' acknowledgment, and there can be no self-selection situation for the firms to opt in initiating or increasing dividend distribution. Thus, these shocks provide quasi-experiments for the study. Second, the key identification assumption for Eq. (5) to provide a causal inference is that firms did not react to policy change provide valid counterfactual changes in trading volumes, turnover rate and return rate for firms reacted policy change (parallel path assumption). In this subsection, I examine the parallel assumption in two ways. First, I plot changes in trading volumes, turnover rate, and return rate using raw data. Figure 2 depicts the average trading volumes, turnover rate, and return rate changed by year for each policy change. The figure provides graphical support for the claim all of the three

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[12]All accounting figures are calculated on consolidated financial statements in the accounting period; marketcap is calculated by multiplying a company's shares outstanding by the current market price of one share. Financial leverage is the percentage of equity in total assets. Price to earning ratio is market value per share divided by earnings per share. Tobin's q is the ratio of the market value of a company's assets divided by the replacement cost of the company's assets.

outcome variables' trends were similar before each policy change. However, it may not be fully convincing that treatment and control groups would trend similarly in the absence of the treatment (dividend tax reform). Thus, for the second method, I modify Eq. (5) by interacting the province dummy and respective year dummies for an event-study analysis.

$$y_{it} = \beta_0 + \beta_1 I_{dividend_i} \times 1^*(year = i) + X'_{it}\delta + \mu_{\mathbf{i}} + \kappa_{\mathbf{t}} + \epsilon_{\mathbf{it}} \tag{4}$$

where all settings are similar to Eq. (5) except that 1^* is an indicator variable taking on the value of one if the year is i, which ranges from 2001–2009 and 2010–2015 for each sample. The results of coefficient β_1 are depicted in Figure 3. Comparing to the raw data plotted in Figure 2, similar patterns in the three outcome variables are indicated in this event-study analysis. Besides, coefficients beyond each policy shock are significantly (99% level) away from zero. Thus, the results from the equation above prove that the parallel path assumption is satisfied.

5.1.3 Endogeneity issue

The goal of this research is to estimate how the dividend tax cut affected the turnover rates and trading volumes of the stocks. The mechanism is that firms initiated or increased dividend distributions after the tax cut and the investors prefer to hold dividend distribute stocks rather than sell them. Thus, turnover rates and trading volumes of the stocks are expected to be lowered after the tax cut. The government encourages long-term shareholding and tries to avoid repeated trading behaviors through tax reform. Initially, I used a difference-in-differences model to estimate the effects. The treatment group is formed by firms which initiated or increased dividend distributions after tax reform. All other firms make up the control group. However, there is one crucial issue in this estimation method. The concern is that the policy change is nationwide. Comparing to a natural experiment, the treatment and control groups are not fully randomized.

Firms' self characteristics can affect their dividend payout policies, though we can assume that firms' behaviors increasing cash dividends were tax-driven. Thus, the endogeneity issue will ultimately hurt the accuracy of the estimations.

5.2 Estimation Methodology: Matching Methods

I tackle endogeneity using matching methods. For causal inferences, matching methods have become more attractive, aiming to reduce the imbalance between the treated and control groups. The basic idea in matching methods is to look for one or more observations in the control group for treated observations, based on a set of control variables. While controlling for the changing factors, we can estimate the average treatment effects (ATE) and ATE on treated (ATT) directly. Generally speaking, the most widely used matching method is propensity score matching, which was proposed by Paul Rosenbaum and Donald Rubin in 1983. To improve the accuracy of the matching process, a variety of methods were developed, from a basic one-to-one match based on the propensity score, to matching with the nearest neighbor, radius and kernel, to the most recent machine learning matching methods like lasso or support vector machine. Each method has its pros and cons. I will estimate by using the widely-used propensity score and Mahalanobis distance matching to cross-validate my results. In the following, I discuss several ways to estimate the propensity score matching and Mahalanobis distance matching and then compare the results across different specifications.

As stated above, I assign the term "treated" if a firm initiated or increased dividend distribution after the 2005 policy change, while a firm is designated as "control" if a firm never paid cash dividends before or after the policy change. To approximate random allocation between the two groups, I select from the sample only those observations that are similar in terms of their other observed characteristics. The underlying idea is that if the treatment and con-

trol groups differ only in the treatment variable, the treatment would be truly randomized and the endogeneity problem would disappear. This is the one-to-one (1:1) matching method with propensity score matching—in particular, the propensity that one observation treated, conditional on other observed characteristics, should be the same in the control and treated groups. To match the treatment group to the control group, I use the probability that a firm distributes cash dividends after 2005. I first calculate this probability by running a probit model for all firms in the sample. We have the ATT from PSM estimation defined as:

$$ATT_{PSM} = E\left\{E[Y^T|D = 1, P(X)] - E[Y^C|D = 0, P(X)]\right\}$$

Additionally, following Heckman (1997, 1998), based on the newly constructed control and treatment group, I run the regression model showed in Equation (x). Thus, the ATT of DID after PSM can be expressed as:

$$ATT_{PSM-DID} = E[Y^T_{t_1} - Y^T_{t_0}|X_{t_0}, D = 1] - E[Y^C_{t_1} - Y^C_{t_0}|X_{t_0}, D = 0]$$

where X_{t_0} nests covariates of firms' basic characteristics before the policy change. Figure 4 shows balanced matching between the treatment and control group by their propensity score. Figure 5 shows the p-score density distribution before and after propensity score matching. The bottom graph indicates that the distribution is similar for the control and treatment groups after matching.

Second is the k-Nearest Neighbors (k-NN) matching method. The k-NN algorithm is a non-parametric method used for classification and regression. Ordinary nearest neighbor matching can be carried out on most statistics software packages through a simple command (Caliendo and Kopeinig (2005)). This is generally the most effective method for settings where the goal is

to select individuals for follow-up (Stuart(2010)). Its simplest form is that the matching process selects one control observation for each treated individual with the smallest distance from the treated individual. Criticisms of this simple form are that it discards observations in the matching process and could lead to reduced power and increased standard errors. The alternative way is k-NN matching, which matches each treated unit to the k control units that are most similar, then averages or weights over the potential outcomes of the control units. The matching process can be expressed as follows:

$$S(P_i) = min_j||P_i - P_j|| \quad i, j \in I_0$$

where P_i and P_j are the selected treated and control observations, respectively, and I_0 is the dataset. The matching process can proceed with either replacement or non-replacement. However, the drawback of non-replacement is that the final estimate will depend on the initial ordering of the treated observations, which will lead to bias for observations with a lower rank. Thus, in my estimation, I use nearest neighbors matching with replacement.

k-NN matching faces the risk of inappropriate matches if the closest neighbor is too far away from the treated observation. To avoid this risk, we can impose a tolerance level on the maximum propensity score distance (caliper) as follows:

$$||P_i - P_j|| < \epsilon \quad i, j \in I_0$$

where ϵ is prespecified tolerance. Imposing a caliper works in the same direction as allowing for replacement. Bad matches are avoided, and hence the matching quality rises. However, if fewer matches can be performed, the variance of the estimates increases. Applying caliper matching means that those individuals from the comparison group chosen as a matching partner

for a treated individual that lies within the caliper (?propensity range?) and is closest in terms of the propensity score. The possible drawback of this method is that it is difficult to know a priori what choice for the tolerance level is reasonable (Smith and Todd (2005)). It embodies the tradeoff between accuracy (small ϵ) and generality (large ϵ). Dehejia and Wahba (2002) provide a variant of caliper matching which is called radius matching. The basic idea of this variant is to use not only the nearest neighbor within each caliper but rather all of the comparison members within the caliper. A benefit of this approach is that it uses only as many comparison units as are available within the caliper and therefore it allows for usage of extra (fewer) units when suitable matches are (not) available. Hence, it shares the attractive feature of oversampling mentioned above but avoids the risk of bad matches.

The matching algorithms discussed above have in common that only a few observations from the comparison group are utilized in the process of constructing the counterfactual outcome of a treated individual. Kernel matching (KM) and local linear matching (LLM) are non-parametric matching estimators that use weighted averages of all individuals in the control group to construct the counterfactual outcome.

Kernel matching Uses a weighted average of all observations within the common support region: the further away the comparison unit is from the treated unit, the lower the weight.

The kernel estimator for $E(Y_{0i}|P(X_i, D_i = 0))$ is given by the following:

$$\hat{E}(Y_{0i}|P(X_i, D_i = 0)) = \Sigma_{j=1, D_j=0}^{n_0} W_j(P(X_i)) Y_{0j}$$

where W is the weighting metric with kernel function (K) and bandwidth (h):

$$W_j(P(X_i)) = \frac{K(\frac{P(X_i) - P(X_k)}{h_n})}{\Sigma_{k=1, D_k=0}^{n_0} K(\frac{P(X_i) - P(X_k)}{h_n})}$$

Local linear matching is similar to the kernel estimator, but it includes a linear term in the weighting function, which helps to avoid bias.

King & Nielsen (2016) argue that accomplishes the opposite of its intended goal—thus increasing imbalance, inefficiency, model dependence, and bias. Thus, an alternative way of matching, Mahalanobis distance matching, was proposed. Mahalanobis matching bases itself on a distance metric (Mahalanobis distance) that measures the proximity between observations in the multivariate space of X. Statistian P.C. Mahalanobis first proposed it in 1936. The idea is to use observations that are ?close? in distance, but not necessarily equal, as matches. The Mahalanobis distance can be defined as the following metric:

$$MD(X_i, X_j) = \sqrt{(X_i - X_j)'\Sigma^{-1}(X_i - X_j)}$$

where X_i, X_j are vectors of covariates from each observation, while Σ is the covariance matrix of X. We want to minimize the Mahalanobis distance. The more similar that two observations are, the smaller the Mahalanobis distance will be, which means that the distributions of covariates are balanced and we can get better matching results.

Moreover, the original sample period for the 2005 policy change is 2001–2009. One concern is that, since the policy was carried out in 2005, the long time period (7 years) after the policy change in the sample may contain other confounding factors that can affect the outcome variables. Therefore, I shrink the sample to one year after policy change (2001–2006). However, this choice also leads to a decline in observations after the policy change. I use bootstrap to solve this problem. Besides, to deal with the concern that that firms that started to distribute one (two) year(s) might have inside information on dividend tax change, I eliminated these kinds of firms from the sample for difference-in-differences analysis.

VI. Results and Analysis

This section presents results to test whether the two dividend tax policy changes (2005 & 2012) in China achieved the government's goal to help lower the trading volumes and turnover rates, and assess how firms' reactions affected their return rates.

6.1 Main Results from Difference-in-Differences Model

Tables 6–8 provide results from baseline regressions for the 2005 policy change. Specifically, Tables 6 and 7 provide results for turnover rates, trading volumes, and return rate with the full and winsorized sample. Table 8 gives results for the growth rate of the three variables. Across these tables, the first three columns are regressions with fewer controls (market capitalization, assets, cash reserve, profit) and without the year or firm fixed effects; the last three columns are with full controls that include financial leverage, Tobin's q, price-earning ratio, political uncertainty index, and year/firm fixed effects. For each specification, the results on the interaction term ($I_{policy} \times I_{dividend}$) are coefficients of interest. From Table 6 and 7, we can see that, after the 2005 policy change, the trading volumes and turnover rates declined significantly for the "treated" firms.

Including more firm basic characteristics, including firm and year fixed effects, and winsorizing extreme values significantly improve the power of the specification. In Table 7, when using the winsorized sample with full control variables, the turnover rate for the stocks significantly dropped over 18%, and the trading volume also decreased by 11.7% with significance at the 5% level. Consistent with the results, without surprise, from Table 8, we can notice that the growth rate of the outcome variables also declined for firms that initiated or increased dividend distribution after the policy change. Also, the return rate for treated firms increased after 2005.

These results in line with the "old view" on dividend taxation that shows that dividend tax

affects the capital cost of a firm and thus the financial decisions, and in the long run, the dividend tax cut can increase the development of the economy, as well as the dividend signaling theory. Therefore, when the dividend tax was lowered in 2005, firms had more capital resources in distributing the profits. Within the increase of cash dividend distribution, firms signal investors, especially the individual investors in this case, that they are in good standing with an indication of positive future prospects. Within this prediction, individual investors prefer to hold the stocks rather than trade repeatedly for short-term returns. The results also support the dividend signal theory. The firms with signals of promising future operation enjoy an increase of share price and firms' valuation, and hence of the return rate.

6.2 Results by Share Percentage of Executives and State

To explore in detail the policy effects related to the characteristics of firms, I used two variables, the share percentage held by top executives and the government, to split the samples. Tables 9 and 10 report results obtained after separating the sample by using share percentage held by top executives, while Tables 11 and 12 report results obtained after dividing the sample by using share percentage held by the state. Across the tables, the first three columns are results for trading volumes, turnover rates, and return rate, while the last three columns are results for the growth rate of previous outcome variables. Generally speaking, the results are consistent with the baseline regressions—the trading volumes and turnover rates decreased for the treated group. Also, we notice that after the 2005 policy changes, firms with a higher percentage of shares under executives' names have a more significant effect on lowering turnover rates and trading volumes. It is the same with firms that have more stock held by the state. Some executives obtain their compensation through dividends. The results provide evidence consistent with the previous literature on executives' compensation. The lowered dividend tax rate provides an

incentive to increase the dividend distribution to avoid income tax being levied from the regular salary. Therefore, firms with more shares held by top executives distributed more after the tax rate was lowered. Hence, this kind of firm threw out the signal that they experienced better performance and experienced stronger effects in reducing turnover rates and trading volumes in the long run. Firms that are more state-controlled provide government endorsement to some degree for investors, and as a result, individual investors prefer to hold these stocks.

6.3 Results from Matching Methods

First, rather than showing how the matched treated and control observations were fitted by propensity score, I provide the firms' basic characteristics comparison. Table 13 shows t-test from the raw sample. The values here represent the mean values for each variable from the treatment and control group. %bias is the standardized percentage bias, which is the % difference of the sample means in the treated and non-treated (full or matched) subsamples as a percentage of the square root of the average of the sample variances in the treated and non-treated groups (calculated based on Rosenbaum and Rubin (1985)). Generally speaking, the larger the absolute value of the bias, the bigger the imbalance lying in that variable for the treated and control observations. Table 14 provides comparisons from the matched sample. We can see that the absolute value of percentage bias drop across the six different matching methods. For propensity score methods (1:1, k-NN, radius, kernel, local linear), from some variables, %bias even decreases to/close to zero. We should also notice that when we match the sample by minimizing Mahalanobis distance, the %bias for all control variables drops to or close to zero, indicating that this method gives us a better-matched sample based on the listed firms' characteristics and firms become more similar in other ways except for the payout distribution behaviors. Table 15 estimates the average treatment effect on treated (ATT) for the matched

samples by using different matching methods. Also, I estimate the difference-in-differences (DID) model for each matched sample and provide the coefficients of the interaction term from the DID specifications. Consistent with previous estimations, the turnover rates and trading volumes decreased significantly after the policy change. Furthermore, two related concerns were raised: 1) The effect of the policy change was affected by other shocks during years after the event date; 2) firms might initiate/increase dividend distribution one or two years before the policy change due to inside information. Table 16 presents results from a sample using only one-year data for post-policy change. As expected, the turnover rates dropped 38.76%, and the trading volumes decreased by 11.7%. Table 17 and 18 uses a sample by eliminating firms that initiated or increased dividend distribution before 2005, respectively. The results became a little bit weaker when more treated firms are removed from the sample. However, they still bear our previous findings. To summarize, the matching methods prove the effectiveness of the 2005 policy change and increases the credibility of the difference-in-differences estimations.

6.3.4 Discussion of results stemming from 2012 policy change

The 2005 policy change purely lowered the dividend tax rate from 20% to 10% for all investors. To further the reform, after the 2012 reform, the dividend tax changed to a differentiated tax system. The two policy changes shared the same goal: to encourage long-term investment. As mentioned in the background, the 2012 tax policy change was similar to the JGTRRA tax break for dividends. Under JGTRRA, the dividend was divided into an ordinary one and qualified one. To be eligible for the qualified dividend rate, the payee must own the stock for a long enough time: generally 60 days for common stock and 90 days for preferred stock (Investment Income and Expenses, IRS 2018). Since most of the investors are institutional ones, the tax reform was generally considered a tax cut. However, the 2012 China dividend tax policy change, compared with the 2005 reform, might represent a tax increase for those short-term individual

investors.

I extend the previous model to test the 2012 policy change. Tables 19–21 report results from the full sample and winsorized sample estimations on the six outcome variables. We can see the results are varied across specifications. Though the coefficients on the growth rate of turnover rates and trading volumes are slightly negative, the turnover rates increased over 50% and the trading volumes increased by 9.8%. The results obtained by separating samples by share percentage held by top executives and state (Tables 22–25) are consistent with the analysis in the previous subsection. Firms with more shares held by managerial personnel and the state enjoyed lower trading volumes and turnover rates. The 2012 policy change received nearly contrary effects comparing to the 2005 revision, which means that the second policy yielded a result in the opposite direction from the perspective of the government document. One possibility is that, following the first change, investors held the stocks because of a lower dividend tax and expected a higher return. However, the savings on dividend tax may not be more significant than buying/selling repeatedly. Thus, after the second change, investors would prefer to focus on yields from stock transactions.

6.4 Robustness Check

In this subsection, robustness checks are conducted for the main results in two ways. First, I extend Eq. (5) by a control for the firm-specific linear time trend using the following specification:

$$y_{it} = \beta_0 + \beta_1 I_{policy_t} + \beta_2 I_{dividend_i} + \beta_3 I_{policy_t} \times I_{dividend_i} + X'_{it}\delta + \mu_{\mathbf{i}} + \kappa_{\mathbf{t}} + \gamma_{\mathbf{i}} \times \mathbf{t} + \epsilon_{\mathbf{it}} \quad (5)$$

where all settings are similar with Eq. (5), except that γ_i is firm-specific trend, and the time trend variable, t. The specification controls for any effects through differential trends across

firms. Such modified regression can help show that the treatment effect is robust to treatment group-specific time trends. The unreported results shows consistency in the numbers, sign and significance level with the main results.

Besides Eq.(6), I add an industry-specific time trend to control for any effects arising through differential trends across provinces and industries.

$$y_{ist} = \beta_0 + \beta_1 I_{policy_t} + \beta_2 I_{province_i} + \beta_3 I_{policy_t} \times I_{province_i} + X'_{it}\delta + \mu_{\mathbf{i}} + \kappa_{\mathbf{t}} + \gamma_{\mathbf{i}} \times \mathbf{t} + \eta_{\mathbf{s}} \times \mathbf{t} + \epsilon_{\mathbf{it}} \quad (6)$$

where η_s is the industry-specific trend, and all other settings are same with Eq. (5). The specification controls for any effects through differential trends across industries. The results for the estimations from Eq. (7) are shown in Tables 26 and 27. The magnitude of the results for the coefficients on the interaction term is consistent with the baseline model. Using this specification, I run regressions for the classified samples based on the share percentage held by top executives and government; the results are reported in Appendix Tables A3–A8. Also, the coefficients are similar to previous estimations.

Section VII. Conclusion

The importance of dividend tax reform, especially the effects on firms' distribution behaviors, has attracted much attention in recent literature in China. This paper contributes to the literature by examining firms' responses to tax cuts, evaluating and comparing the effects of two dividend tax policy changes on market stability in China. The two policy changes provide quasi-experiments to study the effects on the stock trading volumes, turnover rate and return rate after dividend distribution. This paper implements a difference-in-differences model for the 2001–2015 China Stock Market and Accounting Research database, which covers a longer

time range than previous literature has considered. To my knowledge, this paper is the first to explore and compare the effects driven by the two similar policy changes, and hence contributes to these related studies on dividend tax reforms.

Following the 2005 dividend tax cut, I find that firms responded quickly to initiate or increase cash dividend distribution. The overall cash value distributed and distribution activities in the stock market increased significantly after the dividend tax cut. The findings indicate that the first policy change, dating back to 2005, did lower the turnover rate and the trading volume. Besides, firms with more dividend distributions had a higher return rate. This finding provides evidence that, in the long run, dividend tax cuts could potentially increase the return of investors. This goes hand-in-hand with the prediction of the "traditional view." However, after differentiating the dividend tax rate in 2012, we observe the opposite result: the turnover rate and trading volumes increased. Also, in the case of firms that are more government-controlled or with more executives who have larger percentages of shares, investors preferred to hold these stocks, even with a relatively lowered return rate after dividends. This, as analyzed in Section II, may be due to investors' faith in firms with a government background and with executives who have more of an incentive to distribute more for a higher portion of untaxed compensation.

The results suggest that lowering dividend tax rates or differentiating the dividend tax rates can increase market stability and encourage long-term investments to some degree. In the long run, a single tax instrument may not yield the optimal policy expectations. The most significant characteristic of the Chinese stock market is the presence of a large number of individual investors, and the most significant difference between individual and institutional investors is the required financial knowledge background. Starting in September 2015, the dividend tax for individuals who hold a dividend distribution stock for over one year dropped to zero. This led to the elimination of "double taxation" on dividends for long-term investors, but based on the results from this study, the effect of the 2015 policy change in lowering turnover rates in the

financial market remains in question. There is currently much discussion on the tax system of the Chinese financial market. For instance, scholars in China are discussing the possibility of levying a capital gains tax in the financial market to increase stability. Thus, a combination of policy instruments should be considered in further studies and policy-making.

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Figure 1: Sampling Tree

2001-
2009
Sample

sub-sample • Classified by shares held by top executives

sub-sample • Classified by shares held by government

2005 shock

Whole

Sample

2012 shock

2010-
2015
Sample

sub-sample • Classified by shares held by top executives

sub-sample • Classified by shares held by government
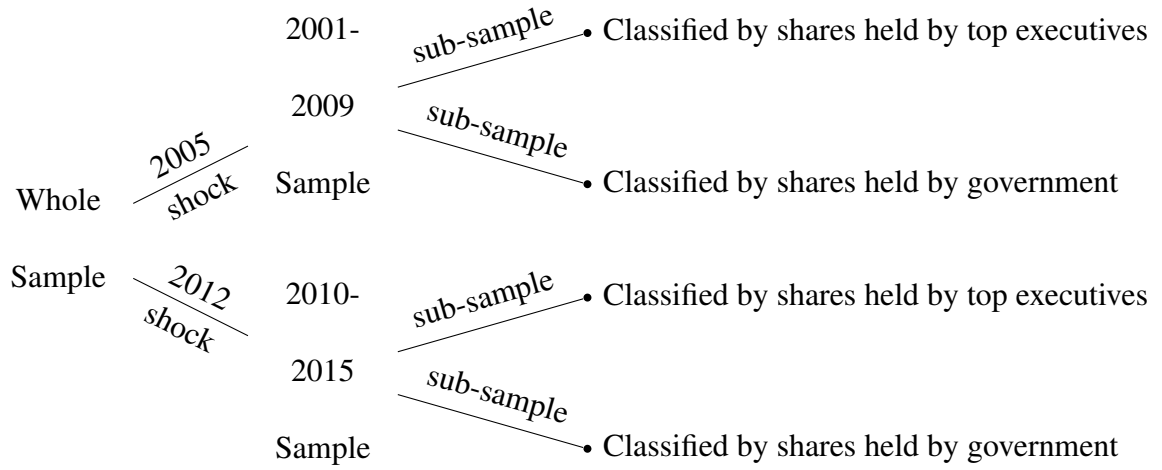
Figure 2: DID Model Validation 1
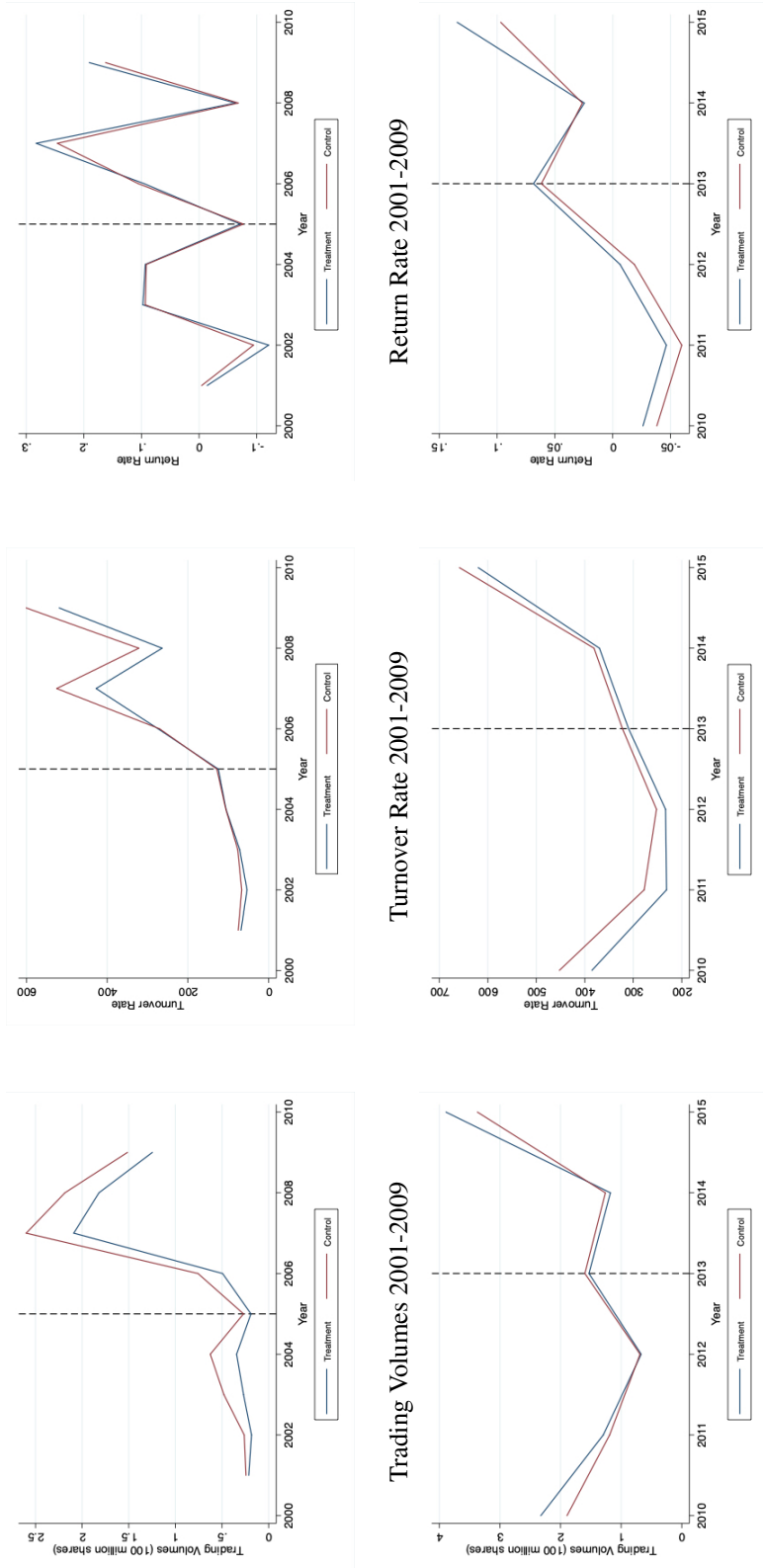
Trading Volumes 2010-2015   Turnover Rate 2010-2015   Return Rate 2010-2015

Note: This figure provide comparison of the three outcome variables between control and treatment group for two time period samples. Trading volumes are calculated as annually average based on the monthly data. Turnover rate is calculated from daily stock turnover ($tr_{i,t} = \Sigma_{i,t}^{N} tor_{i,t}/N$, where tr is annually turnover rate, tor is the daily turnover rate, N is the number of trading days in a year). Return rate is a stock mean annually return rate after dividend distribution.

Figure 3: DID Model Validation 2

Coefficients for trading volumes 2001-2009   Coefficients for turnover rate 2001-2009   Coefficients for return rate 2001-2009
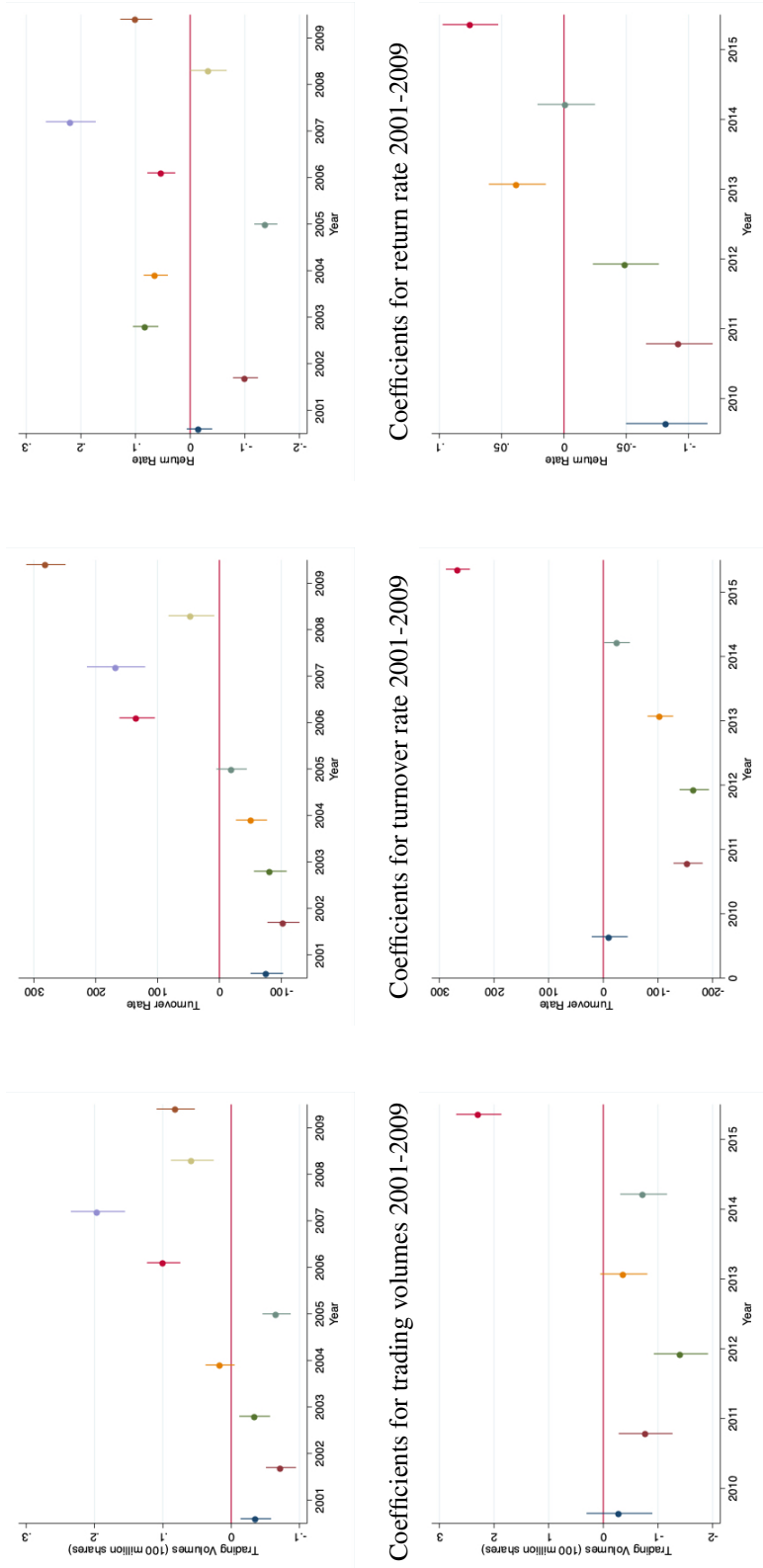
Coefficients for trading volumes 2010-2015   Coefficients for turnover rate 2010-2015   Coefficients for return rate 2010-2015

Note: Coefficients are calculated based on: $y_{it} = \beta_0 + \beta_1 I_{dividend_i} \times 1^*(year = i) + X'_{it}\delta + \mu_i + \kappa_t + \epsilon_{it}$, where y includes trading volumes, turnover rate, return rate; $I_{dividend}$ equals 1 if a firm initiate/increase cash dividend distribution after each policy change; X_{it} nests all the controls, including market capitalization, assets, profit, financial leverage, tobin's q, price earning ration and political uncertainty index. μ_i and κ_t are year and firm's fixed effects respectively.

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Figure 4: Propensity Score Matching Graph I
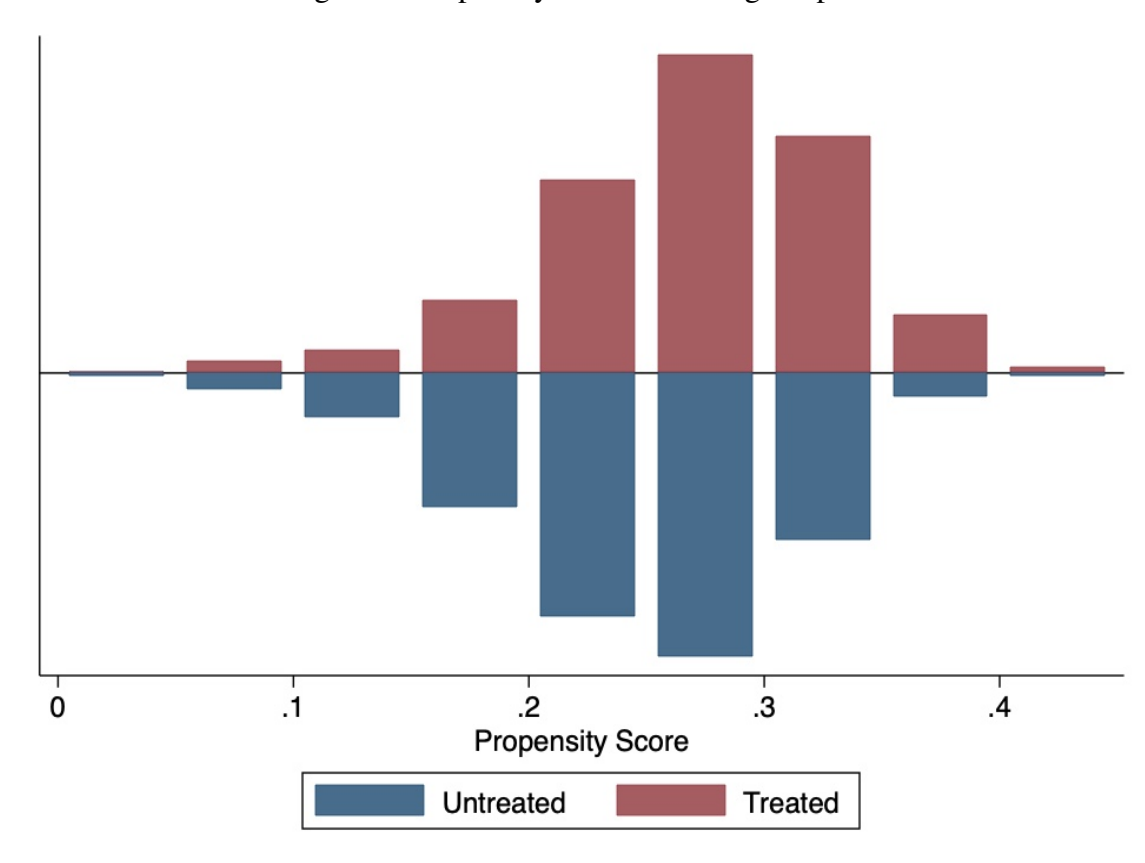
Note: This figure graphs the propensity score histogram by treatment status.

Figure 5: Propensity Score Matching Graph II
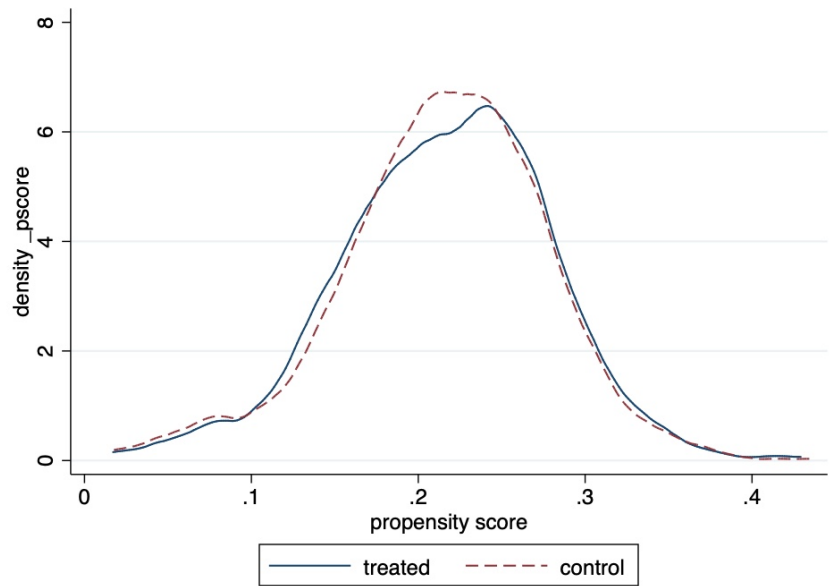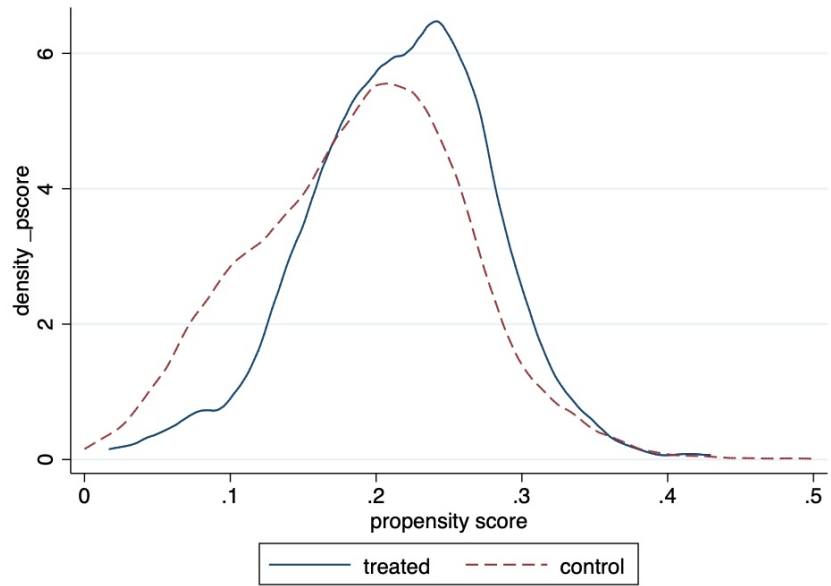
Note: This graph shows the density of p-socre for treatment and control group. Top of the figure shows groups before matching; while bottom shows groups after matching.

Table 1: Qualified dividend tax rates change with policies' variation in China

Dividend Tax Rates

Stock-holding Time	≤ 1mon	1mon to 1yr	≥ 1 yr
1999.09.01- 2005.06.12	20%	20%	20%
2005.06.13- 2012.12.31	10%	10%	10%
2013.01.01- 2015.09.07	20%	10%	5%
2015.09.08- now	20%	10%	0%

Note: The tax rates in this table are calculated based on three government documents: Ministry of Finance and State Administration of Taxation Joint Document 2005 No.102, 2012 No.85, and 2015 No.101. Sources are from the websites of China Ministry of Finance and State Administration of Taxation.

Table 2: 2005 Policy Chang Sample Summary Statistics

Variable Name	Unit	Obs	Mean	S.E.	Min.	Max.
vol	100 Million shares	12,379	7.53	2.13	2.26×10^{-3}	41.8
tr	%	12,379	261.95	255.94	4.04	1692.16
return	%	12,379	0.061	0.23	-0.51	7.75
marketcap	100 Million Yuan	12,379	98.9	826	0.92	31500
assets	100 Million Yuan	12,379	72	463	0.18	12300
debt	100 Million Yuan	12,379	361	211	0	4300
finlev	%	12,379	0.56	2.62	-.0012	98.96
tobinq	%	12,379	1.95	1.83	0.19	54.59
pe	%	12,379	75.56	413.72	-8214.93	14115.09
pui	N/A	12,379	108.53	36.09	64.96	179.04
perstate	%	12,379	0.21	0.16	0	0.71
perex	%	12,379	0.01	0.037	0	0.43

Note: This table provides summary statistics for key variables from 2001 to 2009. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index; perstate is the share percentage held by government in a firm; perex is the share percentage held by top executives. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

Table 3: 2012 Policy Chang Sample Summary Statistics

Variable Name	Unit	Obs	Mean	S.E.	Min.	Max.
vol	100 Million shares	7,936	8.99	5.23	3.78×10^{-4}	131
tr	%	7,936	386.15	273.8	2.16	2303.28
return	%	7,767	0.029	0.26	-0.37	12.75
marketcap	100 Million Yuan	7,936	126	837	0.92	31500
assets	100 Million Yuan	7,936	116	765	0.096	20300
debt	100 Million Yuan	7,936	60.9	384	0	9060
finlev	%	7,936	0.43	1.27	0.00054	66.78
tobinq	%	7,936	2.47	3.36	0.083	154.12
pe	%	7,936	92.86	1181.31	-52702.09	35878.78
pui	N/A	7,936	158.14	48.64	98.89	244.40
perstate	%	7,652	0.12	0.16	0	0.76
perex	%	7,652	0.097	0.14	0	0.66

Note: This table provides summary statistics for key variables from 2001 to 2009. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index; perstate is the share percentage held by government in a firm; perex is the share percentage held by top executives. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

Table 4: Correlation - 2005 policy change Sample

	vol	tr	return	marketcap	assets	cash	profit	finleva	tobin	pe	pui
vol	1										
tr	0.282***	1									
return	0.147***	0.397***	1								
marketcap	0.374***	-0.0419***	-0.00875	1							
assets	0.372***	-0.0423***	-0.00950	0.999***	1						
cash	0.301***	-0.0526***	0.00790	0.0992***	0.0953***	1					
profit	0.374***	-0.0546***	-0.00341	0.894***	0.888***	0.226***	1				
finlev	-0.00223	-0.00223	0.00145	-0.000406	-0.000175	-0.000372	-0.00141	1			
tobin	-0.00190	-0.00182	0.00229	-0.000899	-0.000902	-0.00217	-0.00114	-0.000254	1		
pe	-0.00855	0.0000234	0.00776	-0.00415	-0.00406	-0.00836	-0.00615	0.00299	-0.0000895	1	
pui	0.0774***	0.0727***	-0.266***	0.0363***	0.0354***	0.0843***	0.0411***	-0.0105*	-0.00227	-0.0157***	1

$* \ p < 0.05, \ ** \ p < 0.01, \ *** \ p < 0.001$

Note: This table provides correlation for all variables from 2001 to 2015. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Assets, profit and cash are a firm's financial year end's total assets, after tax profit, and cash holding. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

Table 5: Correlation - 2012 policy change Sample

	vol	tr	return	marketcap	assets	cash	profit	finleva	tobin	pe	pui
vol	1										
tr	0.0891***	1									
return	0.0581***	0.112***	1								
marketcap	0.286***	-0.110***	-0.00854	1							
assets	0.280***	-0.141***	-0.0183	0.904***	1						
cash	-0.0425***	0.0828***	0.00269	-0.250***	-0.329***	1					
profit	0.277***	-0.150***	-0.0195	0.788***	0.967***	-0.372***	1				
finlev	0.0225*	-0.0200	0.0450***	0.00471	0.0132	-0.0131	0.0208	1			
tobin	-0.0679***	0.0257*	0.0523***	-0.0308**	-0.0630***	0.0402***	-0.0725***	0.360***	1		
pe	-0.00125	-0.00899	0.0154	-0.00655	-0.00982	0.000973	-0.0111	-0.000676	0.0253*	1	
pui	-0.0203	-0.0574***	-0.0169	-0.0000979	0.00334	0.0159	0.00576	-0.0166	0.0191	-0.0102	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: This table provides correlation for all variables from 2001 to 2015. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Assets, profit and cash are a firm's financial year end's total assets, after tax profit, and cash holding. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

Table 6: Main Results: 2005 policy change - Full sample

	vol	tr	return	vol	tr	return
I_{policy}	1.011***	209.324***	1.203***	3.154***	105.770***	0.689***
	(10.32)	(23.22)	(23.30)	(0.45)	(5.70)	(4.02)
$I_{dividend}$	-0.012	-0.767	-0.020	3.283***	312.964***	1.875***
	(-0.42)	(-0.17)	(-0.73)	(2.34)	(9.60)	(6.31)
$I_{policy} \times I_{dividend}$	-0.089	-61.084***	0.515***	-0.139**	-17.275***	0.092
	(-0.43)	(-4.75)	(-7.08)	(1.40)	(-1.41)	(-1.16)
lgmktcap	0.919***	97.371***	1.021***	0.205**	-97.802***	0.352*
	(9.51)	(9.08)	(13.44)	(-0.01)	(-5.32)	(2.46)
lgassets	0.027	-73.291***	-0.863***	0.252***	45.822*	-0.187
	(-1.84)	(-7.93)	(-12.46)	(1.45)	(2.55)	(-1.07)
lgcash	-0.239***	-30.648***	-0.074***	-0.069**	-4.815	0.007
	(-5.26)	(-8.83)	(-3.58)	(0.49)	(-0.92)	(0.19)
lgprofit	-0.047**	-8.078*	0.090***	-0.051*	5.700	0.230***
	(2.92)	(-2.00)	(4.61)	(0.12)	(0.90)	(5.84)
finlev				-0.001***	0.095***	-0.000*
				(2.92)	(11.17)	(-2.12)
tobin				-0.001	-0.114	0.000
				(-1.62)	(-1.03)	(0.37)
pe				0.001	0.042*	0.001**
				(0.60)	(2.00)	(2.82)
pui				-0.014***	28.356***	0.060***
				(4.96)	(17.58)	(5.60)
cons	4.245***	301.544***	-3.902***	10.867***	-884.309***	-14.446***
	(-9.79)	(5.17)	(-10.27)	(-4.11)	(-3.62)	(-5.15)
Year f.e.	No	No	No	Yes	Yes	Yes
Firm f.e.	No	No	No	Yes	Yes	Yes
Obs.	12,131	12,125	11,106	11,980	11,974	10,968

Note: This table provides main results for the first policy change in 2005 using full sample. year is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗∗∗ Significant at 1 percent.

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Table 7: Main Results: 2005 policy change - Winsorized sample

	vol	tr	return	vol	tr	return	vol	tr	return
I_{policy}	1.015***	213.194***	1.207***	3.130**	101.722***	0.670***			
	(16.81)	(23.37)	(23.20)	(3.06)	(5.40)	(3.82)			
$I_{dividend}$	-0.022	-0.613	-0.020	3.098**	326.038***	-2.810***			
	(-0.49)	(-0.14)	(-0.72)	(3.29)	(10.15)	(-17.10)			
$I_{policy} \times I_{dividend}$	-0.108***	-66.469***	0.525***	-0.117**	-18.881**	0.084			
	(-3.94)	(-5.09)	(-7.13)	(-0.74)	(-1.19)	(-1.04)			
lgmktcap	0.853***	95.280***	1.032***	0.176*	-102.718***	0.349*			
	(12.25)	(8.79)	(13.42)	(0.93)	(-5.58)	(2.42)			
lgassets	0.029*	-73.397***	-0.862***	0.247***	49.893**	-0.173			
	(-2.36)	(-7.89)	(-12.38)	(1.44)	(2.76)	(-0.98)			
lgcash	-0.237***	-30.971***	-0.079***	-0.060*	-4.630	0.005			
	(-8.19)	(-8.88)	(-3.82)	(0.65)	(-0.88)	(0.14)			
lgprofit	-0.044*	-6.953	0.097***	-0.054*	6.158	0.230***			
	(1.08)	(-1.71)	(4.91)	(-0.20)	(0.97)	(5.80)			
finleva				-0.000***	0.096***	-0.000*			
				(13.79)	(10.19)	(-2.19)			
tobin				-0.001	-0.120	0.000			
				(-1.52)	(-1.09)	(0.35)			
pe				0.000	0.042*	0.001**			
				(0.96)	(2.02)	(2.82)			
pui				-0.014***	28.938***	0.061***			
				(8.06)	(17.51)	(5.57)			
cons	5.611***	257.700***	-2.082***	11.603***	1200.202***	-2.260			
	(18.09)	(4.78)	(-5.93)	(10.48)	(5.98)	(-1.31)			
Year f.e.	No	No	No	Yes	Yes	Yes			
Firm f.e.	No	No	No	Yes	Yes	Yes			
Obs.	11,916	11,910	10,934	11,772	11,766	10,802			

Note: This table provides main results for the first policy change in 2005 using winsorized sample. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗ ∗ ∗ Significant at 1 percent.

Table 8: Main Results: 2005 policy change - Winsorized sample (Variable Growth Rate)

	volg	trg	returng	volg	trg	returng
I_{policy}	0.998***	0.963***	-0.045	2.369***	2.364***	-8.010
	(7.63)	(9.04)	(-0.01)	(10.04)	(11.66)	(-0.71)
$I_{dividend}$	-0.211	-0.144	-2.167	2.068***	1.660***	-9.114
	(-1.68)	(-1.48)	(-1.22)	(3.78)	(4.68)	(-1.03)
$I_{policy} \times I_{dividend}$	-0.523***	-0.495***	6.212	-0.071*	-0.038*	4.124
	(-3.36)	(-3.97)	(1.57)	(-0.45)	(-0.29)	(0.78)
lgmktcap	-0.714***	-0.644***	1.722	-0.560*	-0.866***	8.711
	(-4.07)	(-4.25)	(0.63)	(-2.25)	(-4.22)	(1.05)
lgassets	0.474***	0.475***	-3.531	0.481*	0.494*	-4.984
	(3.82)	(5.57)	(-1.43)	(2.06)	(2.52)	(-0.76)
lgcash	-0.166***	-0.099**	0.047	0.004	0.006	1.292
	(-3.50)	(-2.69)	(0.05)	(0.06)	(0.11)	(0.65)
lgprofit	0.374*	0.251	2.538	0.091	0.072	5.928
	(2.24)	(1.62)	(1.36)	(1.05)	(1.07)	(1.29)
finleva				0.000	0.000**	0.001
				(1.68)	(3.04)	(0.21)
tobin				-0.002	-0.002	0.017
				(-1.35)	(-1.53)	(0.82)
pe				0.000	0.000	0.002
				(0.97)	(0.42)	(0.78)
pui				-0.076***	-0.045**	-0.759
				(-3.88)	(-2.78)	(-0.87)
cons	2.251	1.451	-9.185	4.194	8.763***	-163.245
	(1.75)	(1.31)	(-0.49)	(1.70)	(4.39)	(-1.42)
Year f.e.	No	No	No	Yes	Yes	Yes
Firm f.e.	No	No	No	Yes	Yes	Yes
Obs.	10,918	11,910	10,934	10,787	10,784	10,030

Note: This table provides main results for the first policy change in 2005 using full sample with the growth rate as outcome variables. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage. Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗ ∗ ∗ Significant at 1 percent.

Table 9: Main Results: 2005 policy change - More executives' holdings

	vol	tr	return	volg	trg	returng
I_{policy}	2.854***	61.089*	0.487*	1.871***	1.769***	18.315
	(3.91)	(1.97)	(2.02)	(4.39)	(4.98)	(0.76)
$I_{dividend}$	-0.949*	33.009	0.454	-0.554	-0.559	-36.781**
	(-2.13)	(0.78)	(1.87)	(-1.13)	(-1.25)	(-2.97)
$I_{policy} \times I_{dividend}$	-0.115**	-20.022*	0.056	-0.034	-0.070	1.044
	(-2.60)	(0.06)	(0.57)	(0.14)	(0.35)	(-0.13)
lgmktcap	0.187	-75.714**	0.166	-0.611	-0.850*	-0.750
	(0.14)	(-2.77)	(1.07)	(-1.52)	(-2.31)	(-0.11)
lgassets	0.361**	61.730**	-0.117	0.475	0.527	1.097
	(1.05)	(2.60)	(-0.80)	(1.42)	(1.73)	(0.17)
lgcash	-0.023	-0.937	0.004	0.216*	0.170*	2.816
	(-0.01)	(-0.15)	(0.12)	(2.56)	(2.44)	(1.70)
lgprofit	-0.037	5.074	0.127**	0.009	0.037	-1.247
	(0.72)	(0.70)	(2.72)	(0.09)	(0.42)	(-0.62)
finleva	-0.005	1.576	-0.002	-0.007	0.010	-0.384
	(0.59)	(0.45)	(-0.16)	(-0.25)	(0.40)	(-0.80)
tobin	-0.001	-0.154	-0.000	-0.003*	-0.003*	-0.005
	(-1.37)	(-1.58)	(-0.48)	(-2.07)	(-2.15)	(-0.25)
pe	0.000	0.016	0.000	-0.000	-0.000	0.002
	(1.20)	(1.38)	(1.10)	(-0.30)	(-0.22)	(1.21)
pui	-0.014***	20.644***	0.071***	-0.077*	-0.043	-2.023
	(2.89)	(6.92)	(3.46)	(-1.97)	(-1.29)	(-1.02)
cons	10.503***	-1032.320**	-8.685***	4.379	6.106*	117.441
	(-3.86)	(-2.90)	(-3.30)	(1.13)	(1.97)	(1.08)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	7,470	8,802	8,252	8,249	8,246	7,592

Note: This table provides main results for the first policy change in 2005 with firms have higher percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; TobinQ is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗ ∗ ∗ Significant at 1 percent.

Table 10: Main Results: 2005 policy change - Less executives' holdings

	vol	tr	return	volg	trg	returng
I_{policy}	3.147***	173.156***	0.936**	3.344***	3.237***	-44.591
	(1.54)	(4.23)	(2.62)	(5.20)	(6.52)	(-1.19)
$I_{dividend}$	3.297***	220.045***	-2.579***	2.260***	1.870***	-22.803
	(2.15)	(3.84)	(-7.05)	(3.36)	(4.21)	(-0.66)
$I_{policy} \times I_{dividend}$	-0.133	-18.345	-0.250	-0.016	-0.015	-4.899
	(0.37)	(-0.80)	(-1.33)	(-0.03)	(-0.04)	(-0.36)
lgmktcap	0.799***	40.839	-0.338	-1.294	-1.539	32.144
	(0.86)	(0.64)	(-0.64)	(-1.10)	(-1.74)	(0.84)
lgassets	-0.464*	-166.309**	-0.135	0.682	0.687	-33.403
	(-0.56)	(-2.68)	(-0.23)	(0.71)	(0.94)	(-0.99)
lgcash	-0.075	-9.927	0.026	-0.188	-0.152	5.908
	(0.21)	(-0.75)	(0.23)	(-0.89)	(-0.89)	(0.66)
lgprofit	-0.046	45.541*	0.848***	0.490	0.371	20.600
	(0.90)	(2.16)	(4.35)	(1.30)	(1.30)	(1.12)
finleva	0.014	6.407	0.050	0.193	0.107	5.543
	(0.13)	(0.90)	(0.45)	(1.03)	(0.68)	(0.70)
tobin	-0.153***	-45.932***	-0.011	0.046	0.039	-4.181
	(-0.99)	(-3.49)	(-0.11)	(0.25)	(0.26)	(-0.92)
pe	-0.000*	0.709**	0.009**	0.003	0.003	-0.039
	(1.38)	(2.88)	(3.07)	(1.15)	(1.07)	(-0.52)
pui	-0.012***	29.462***	0.054**	-0.053	-0.017	-1.259
	(4.45)	(10.98)	(2.74)	(-1.05)	(-0.47)	(-0.58)
cons	13.175***	56.766	-8.113	9.282	13.777**	-376.493
	(-3.20)	(0.12)	(-1.64)	(1.34)	(2.77)	(-1.08)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	5,105	5,307	5,025	5,111	5,217	5,101

Note: This table provides main results for the first policy change in 2005 with firms have have lower percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. * * * Significant at 1 percent.

Table 11: Main Results: 2005 policy change - More State's holdings

	vol	tr	return	volg	trg	returng
I_{policy}	3.055***	64.317**	0.411	2.217***	2.242***	0.163
	(2.29)	(3.11)	(1.88)	(8.23)	(9.75)	(0.01)
$I_{dividend}$	-0.441*	-163.415***	0.460*	-0.654	-0.251	3.503
	(3.56)	(-4.31)	(2.26)	(-1.93)	(-0.86)	(0.17)
$I_{policy} \times I_{dividend}$	-0.093*	-5.614*	0.017	-0.029	-0.033	4.202
	(-0.58)	(-0.43)	(0.19)	(0.16)	(0.21)	(0.64)
lgmktcap	0.098	-105.928***	0.196	-0.822**	-1.078***	2.472
	(0.07)	(-5.54)	(1.13)	(-2.65)	(-4.17)	(0.24)
lgassets	0.289***	72.177***	0.005	0.703*	0.689**	0.605
	(2.47)	(3.73)	(0.02)	(2.41)	(2.85)	(0.07)
lgcash	-0.042	-6.252	0.025	0.036	0.030	2.750
	(0.42)	(-1.24)	(0.64)	(0.52)	(0.50)	(1.09)
lgprofit	-0.035	10.060	0.198***	0.164	0.121	3.747
	(0.02)	(1.69)	(4.88)	(1.62)	(1.52)	(0.61)
finleva	-0.000***	0.122***	-0.000	0.000***	0.001***	-0.001
	(11.56)	(14.72)	(-1.38)	(3.51)	(6.04)	(-0.32)
tobin	-0.001	-0.138	-0.000	-0.002	-0.003	0.012
	(-1.49)	(-1.61)	(-0.31)	(-1.64)	(-1.79)	(0.50)
pe	-0.000	0.032*	0.000*	0.000	0.000	0.001
	(0.31)	(2.07)	(2.34)	(0.97)	(0.30)	(0.33)
pui	-0.014***	24.995***	0.070***	-0.086***	-0.056**	-0.990
	(6.55)	(13.87)	(5.11)	(-3.51)	(-2.74)	(-0.79)
cons	14.297***	-910.582***	-13.514***	4.836	9.299***	-103.077
	(-6.54)	(-3.47)	(-3.99)	(1.57)	(3.80)	(-0.67)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	9,874	9,674	9,523	9,763	9,531	9,596

Note: This table provides main results for the first policy change in 2005 with firms have higher percentage share percentage held by state. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; TobinQ is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. * * * Significant at 1 percent.

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Table 12: Main Results: 2005 policy change - Less state's holdings

	vol	tr	return	volg	trg	returng
I_{policy}	3.093***	245.920***	0.717***	0.938***	0.792***	12.377
	(6.83)	(25.25)	(11.24)	(6.74)	(7.31)	(1.38)
$I_{dividend}$	1.600***	10.757	0.041	0.149	0.129	0.173
	(-1.56)	(0.86)	(0.49)	(0.79)	(0.93)	(0.03)
$I_{policy} \times I_{dividend}$	-0.179	-9.934	-0.111	-0.386	-0.292	-6.310
	(1.53)	(-0.52)	(-1.07)	(-1.89)	(-1.88)	(-0.87)
lgmktcap	1.317***	320.367***	0.329***	-1.025***	-0.646***	-21.755
	(8.78)	(8.78)	(3.34)	(-4.83)	(-5.02)	(-1.09)
lgassets	-0.830**	-273.907***	-0.327**	0.563*	0.309*	7.666
	(-1.49)	(-6.35)	(-2.92)	(2.41)	(2.20)	(0.57)
lgcash	-0.129	-41.477***	-0.087**	0.199**	0.110*	8.276
	(-0.07)	(-5.75)	(-2.69)	(3.10)	(2.32)	(1.20)
lgprofit	-0.091	-43.345***	0.103**	0.051	0.029	7.801
	(-3.39)	(-5.63)	(2.72)	(0.72)	(0.53)	(1.90)
finlev	-0.015	-0.002	0.016	-0.010	-0.006	0.132
	(-1.75)	(-0.00)	(1.19)	(-0.65)	(-0.45)	(0.44)
tobin	-0.212***	-59.688***	-0.017	0.097	0.010	1.533
	(-4.02)	(-5.66)	(-0.55)	(1.49)	(0.27)	(0.60)
pe	0.002	0.094*	0.000	-0.000**	-0.000	-0.005
	(0.27)	(2.38)	(0.96)	(-2.77)	(-1.27)	(-0.85)
pui	-0.013***	-0.641***	-0.008***	-0.006***	-0.006***	-0.000
	(-6.57)	(-8.57)	(-19.86)	(-8.41)	(-11.52)	(-0.02)
cons	13.650***	796.385***	0.419	6.279***	5.569***	-4.208
	(-9.86)	(7.62)	(0.93)	(6.33)	(7.27)	(-0.03)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	4,040	4,021	3,975	4,061	3,890	3,921

Note: This table provides main results for the first policy change in 2005 with firms have higher percentage share percentage held by state. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

Table 13: Firms' Characteristics Comparison (Before Matching)

	t-test		
Firms' Characteristics	T	C	%bias
MktCap	21.86	21.7	6.4
Assets	21.55	21.41	10.9
Cash	19.58	19.4	12.0
FinLev	1.38	1.96	-2.3
Tobin's Q	1.85	2.43	-8.2
P/E	48.74	63.8	-9.7

Notes: This table compares firms' basic characteristics before matching (full sample). MktCap is the market capitalization; Assets is the total assets of a firm; Cash is the cash reserved in a firm; FinLev is the financial leverage; Tobin'Q and P/E are a firm's Tobin's Q value and P/E ratio. T and C represent treatment and control group. %bias is the the standardized percentage bias(Rosenbaum and Rubin(1985)).

Table 14: Firms' Characteristics Comparison (After Matching)

Firms' Characteristics	One-to-One			k-Nearest			Radius		
	T	C	%bias	T	C	%bias	T	C	%bias
MktCap	22.13	22.21	-6.6	22.13	22.18	-3.8	22.13	22.05	7.0
Assets	21.83	21.92	-6.8	21.83	21.88	-4.0	21.83	21.70	10.4
Cash	19.77	19.91	-11.0	19.77	19.891	-9.1	19.77	19.66	8.4
FinLev	1.457	1.45	0	1.457	1.4303	0.1	1.457	2.57	-4.5
Tobin's Q	1.618	1.63	-0.3	1.618	1.625	-0.1	1.618	2.22	-8.5
P/E	48.9	50.15	-0.8	48.90	51.79	-1.9	48.90	58.95	-6.5
Firms' Characteristics	Kernel			Local linear			Mahalanobis		
	T	C	%bias	T	C	%bias	T	C	%bias
MktCap	22.13	22.1	3.2	22.13	22.23	-8.1	22.13	22.13	0.0
Assets	21.83	21.79	3.4	21.8	21.92	-6.6	21.83	21.83	0.2
Cash	19.77	19.73	2.8	19.7	19.82	-3.8	19.77	19.77	-0.2
FinLev	1.457	1.63	-0.7	1.45	1.45	0	1.45	1.314	0.6
Tobin's Q	1.618	1.66	-0.7	1.61	1.63	-0.2	1.618	1.678	-0.8
P/E	48.90	52.17	-2.1	48.901	53.62	-3.0	48.90	46.98	1.2

Notes: This table compares firms' basic characteristics before matching (full sample). MktCap is the market capitalization; Assets is the total assets of a firm; Cash is the cash reserved in a firm; FinLev is the financial leverage; Tobin'Q and P/E are a firm's Tobin's Q value and P/E ratio. T and C represent treatment and control group. %bias is the the standardized percentage bias(Rosenbaum and Rubin(1985)).

Table 15: Matching Results

Outcome Vars	Estimators	One-to-One	k-Nearest	Radius	Kernel	Local Linear	Mahalanobis
			Full Time Period				
lgtr	ATT	-0.009	-0.017	-0.163	-0.054	-0.066	-0.048
	Diff-in-Diffs	-0.132*	-0.227**	-0.187*	-0.188	-0.264*	-0.204*
		(-2.32)	(-3.29)	(-2.33)	(-1.77)	(-2.42)	(-2.01)
to	ATT	-9.89	-13.3	-9.99	-5.48	-9.67	-14.74
	Diff-in-Diffs	-39.050**	-51.254***	-27.982	-41.676	-73.158**	-36.166
		(-3.28)	(-3.49)	(-1.65)	(-1.83)	(-2.94)	(-1.58)
return	ATT	0.04	0.075	0.007	0.033	0.013	0.026
	Diff-in-Diffs	-0.405***	-0.353***	-0.265***	-0.206*	-0.414***	-0.252*
		(-7.44)	(-5.71)	(-3.57)	(-2.05)	(-3.89)	(-2.55)
			One Year After				
lgtr	ATT	-0.063	-0.052	-0.21	-0.108	-0.037	-0.09
	Diff-in-Diffs	-0.203*	-0.266***	-0.276**	-0.339***	-0.158	-0.121
		(-2.03)	(-3.60)	(-3.19)	(-3.32)	(-0.98)	(-0.85)
to	ATT	-9.91	-3.29	-8.93	-8.17	-9.31	-9.63
	Diff-in-Diffs	-27.827	-43.370***	-42.010**	-42.892**	-60.449*	-21.290
		(-1.84)	(-4.11)	(-3.24)	(-2.97)	(-2.49)	(-0.87)
return	ATT	0.009	-0.026	0.018	0.031	0.0015	0.02
	Diff-in-Diffs	-0.301**	-0.472***	-0.437***	-0.441***	-0.464**	-0.285
		(-3.13)	(-6.95)	(-5.45)	(-4.35)	(-3.05)	(-1.93)

Notes: This table provides results from different matching method of average treatment effects on treated (ATT) and difference-in-differences estimators. lgtr is the log of trading volumes; to is the turnover rates of a stock; return is the return rate. Diff-in-Diffs indicates coefficients of interaction term from difference-in-difference estimation.

Table 16: Difference-in-differences after Propensity Score Matching (1 year post)

	vol	tr	return	volg	trg	returng
I_{policy}	3.130***	110.693***	0.897***	0.681***	0.649***	-2.144
	(3.68)	(12.99)	(16.76)	(4.03)	(5.11)	(-0.45)
$I_{dividend}$	3.098***	-7.939*	-0.016	-0.219**	-0.167**	-4.123
	(0.05)	(-2.10)	(-0.71)	(-2.80)	(-2.59)	(-1.19)
$I_{policy} \times I_{dividend}$	-0.117*	-38.762*	-0.431***	-0.589***	-0.564***	9.216
	(0.15)	(-3.69)	(-6.32)	(-3.88)	(-4.38)	(1.49)
lgmktcap	0.176*	152.914***	0.647***	0.643	0.431	16.672
	(5.40)	(8.08)	(4.15)	(1.91)	(1.59)	(1.70)
lgassets	0.247***	-177.061***	-0.650***	-0.500	-0.309	-20.675*
	(-2.59)	(-9.61)	(-4.02)	(-1.46)	(-1.11)	(-2.03)
lgcash	-0.060*	0.695	-0.019	-0.042	-0.052	-0.457
	(-1.10)	(0.22)	(-0.97)	(-0.79)	(-1.15)	(-0.27)
lgprofit	-0.054*	6.841	0.144***	0.030	0.005	5.545
	(-0.05)	(1.71)	(5.34)	(0.44)	(0.09)	(1.38)
finleva	-0.000***	-0.624*	0.003	-0.037**	-0.038**	0.102
	(-2.85)	(-2.05)	(1.11)	(-3.12)	(-3.09)	(0.25)
tobin	-0.001	-40.776***	-0.017	-0.112	-0.122	-3.236
	(0.55)	(-10.89)	(-0.44)	(-1.50)	(-1.96)	(-1.50)
pe	0.000	0.013	0.000*	0.000	0.000	0.003
	(2.17)	(0.62)	(2.00)	(0.44)	(0.84)	(0.38)
pui	-0.014***	-0.634***	-0.001	-0.014***	-0.010***	0.043
	(-2.68)	(-4.91)	(-1.13)	(-4.02)	(-4.00)	(0.56)
cons	11.603***	564.180***	-2.367***	-0.794	-0.144	-8.768
	(-6.12)	(9.87)	(-5.38)	(-0.80)	(-0.18)	(-0.35)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	4,678	4,721	4,218	4,513	4,408	4,129

Note: This table provides main results for the first policy change in 2005 with matched sample after propensity score matching (with only 1 year after policy change). I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗ ∗ ∗ Significant at 1 percent.

Table 17: Eliminating 1yr prior policy change

	vol	tr	return	volg	trg	returng
I_{policy}	3.112***	105.965***	0.684***	2.371***	2.342***	-8.096
	(0.36)	(5.65)	(3.95)	(10.12)	(11.66)	(-0.72)
$I_{dividend}$	3.110***	315.103***	1.854***	-7.877***	-8.495***	-16.595
	(2.33)	(9.56)	(6.18)	(-14.22)	(-24.30)	(-1.46)
$I_{policy} \times I_{dividend}$	-0.117*	-19.468*	-0.055	-0.131	-0.078	5.403
	(1.62)	(-1.53)	(-0.67)	(-0.80)	(-0.57)	(0.97)
lgmktcap	0.185*	-96.309***	0.365*	-0.573*	-0.876***	8.725
	(0.01)	(-5.21)	(2.54)	(-2.26)	(-4.22)	(1.04)
lgassets	0.246***	45.089*	-0.198	0.474*	0.483*	-4.623
	(1.45)	(2.48)	(-1.12)	(2.01)	(2.45)	(-0.70)
lgcash	-0.061*	-4.574	0.006	0.017	0.023	1.067
	(0.53)	(-0.85)	(0.18)	(0.26)	(0.41)	(0.55)
lgprofit	-0.054*	5.684	0.230***	0.065	0.053	5.827
	(0.16)	(0.91)	(5.79)	(0.75)	(0.77)	(1.26)
finleva	-0.000***	0.095***	-0.000*	0.000	0.000**	0.001
	(2.94)	(11.08)	(-2.05)	(1.35)	(2.72)	(0.23)
tobin	-0.001	-0.111	0.000	-0.002	-0.002	0.017
	(-1.59)	(-1.00)	(0.39)	(-1.41)	(-1.60)	(0.86)
pe	0.000	0.042*	0.001**	0.000	0.000	0.002
	(0.62)	(1.98)	(2.81)	(0.83)	(0.30)	(0.72)
pui	-0.014***	28.258***	0.060***	-0.071***	-0.040*	-0.755
	(4.89)	(17.32)	(5.53)	(-3.62)	(-2.48)	(-0.88)
cons	11.434***	-901.539***	-14.476***	14.024***	18.780***	-165.310
	(-4.13)	(-3.65)	(-5.10)	(5.42)	(8.97)	(-1.48)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	4,109	3,987	4,095	4,079	3,956	3,643

Note: This table provides main results for the first policy change in 2005 with matched sample after propensity score matching (with eliminating 1 year before policy change). I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗ ∗ ∗ Significant at 1 percent.

Table 18: Eliminating 2 yr prior policy change

	vol	tr	return	volg	trg	returng
I_{policy}	3.100***	104.894***	0.659***	2.371***	2.348***	-8.528
	(0.10)	(5.36)	(3.56)	(9.74)	(11.23)	(-0.72)
$I_{dividend}$	2.924***	304.701***	1.915***	-7.987***	-8.558***	-17.520
	(2.01)	(8.11)	(5.24)	(-11.59)	(-19.52)	(-1.33)
$I_{policy} \times I_{dividend}$	-0.111	-20.862	-0.073	-0.022	-0.041	7.442
	(1.79)	(-1.23)	(-0.65)	(0.11)	(0.26)	(1.05)
lgmktcap	0.178*	-107.171***	0.349*	-0.544*	-0.836***	6.678
	(0.30)	(-5.48)	(2.24)	(-2.02)	(-3.91)	(0.72)
lgassets	0.269***	50.096**	-0.184	0.409	0.427*	-2.696
	(1.16)	(2.61)	(-0.97)	(1.64)	(2.08)	(-0.38)
lgcash	-0.058*	-1.803	0.024	0.046	0.049	-0.236
	(0.45)	(-0.32)	(0.63)	(0.63)	(0.82)	(-0.12)
lgprofit	-0.063*	4.705	0.230***	0.055	0.034	7.935
	(0.04)	(0.69)	(5.22)	(0.55)	(0.45)	(1.50)
finleva	-0.000***	0.093***	-0.000*	0.000	0.000**	0.002
	(2.84)	(10.21)	(-2.23)	(1.45)	(2.72)	(0.40)
tobin	-0.001	-0.121	0.000	-0.002	-0.002	0.024
	(-1.53)	(-1.11)	(0.33)	(-1.40)	(-1.59)	(1.07)
pe	0.000	0.042	0.001**	0.000	0.000	0.004
	(0.70)	(1.87)	(2.76)	(0.79)	(0.22)	(1.12)
pui	-0.014***	28.990***	0.063***	-0.074***	-0.042*	-0.776
	(4.71)	(16.97)	(5.44)	(-3.51)	(-2.51)	(-0.85)
cons	11.144***	-846.079**	-15.026***	14.662***	19.182***	-175.346
	(-4.02)	(-3.25)	(-4.94)	(5.28)	(8.60)	(-1.44)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	3,939	3,798	3,763	3,604	3,708	3,328

Note: This table provides main results for the first policy change in 2005 with matched sample after propensity score matching (with eliminating 2 years before policy change). I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗∗∗ Significant at 1 percent.

Table 19: Main Results: 2012 policy change - Full sample

	vol	tr	return	vol	tr	return
I_{policy}	0.574***	207.956***	0.118***	-0.949**	-120.063	0.133*
	(-0.02)	(7.16)	(8.38)	(-1.54)	(-1.38)	(2.55)
$I_{dividend}$	-0.119	-45.601	0.026	1.550***	79.601	0.059
	(-0.49)	(-1.77)	(1.52)	(0.66)	(0.61)	(0.85)
$I_{policy} \times I_{dividend}$	0.251	10.172	-0.038	0.089	55.669	-0.026
	(1.36)	(0.25)	(-1.76)	(-0.15)	(0.67)	(-0.68)
lgmktcap	0.380***	70.729***	0.036***	0.748**	118.520	0.079
	(3.55)	(3.62)	(4.22)	(1.22)	(1.23)	(1.31)
lgassets	0.059	-175.231***	-0.068***	0.284	-151.343	-0.041
	(2.26)	(-5.58)	(-5.24)	(-1.20)	(-1.24)	(-0.71)
lgcash	-0.015	-3.137	-0.003	3 0.067	-17.679	-0.013
	(1.39)	(-0.42)	(-0.84)	(0.70)	(-1.20)	(-1.75)
lgprofit	0.142*	46.919**	0.025***	-0.063	2.068	0.012
	(-1.36)	(2.73)	(3.68)	(0.68)	(0.05)	(0.64)
finlev				-0.276	255.855	0.107
				(-0.99)	(0.98)	(0.74)
tobin				-0.335**	-25.159	0.016
				(-1.50)	(-0.68)	(0.77)
pe				0.001***	0.061	0.000
				(0.24)	(0.89)	(0.65)
pui				0.010*	4.060***	-0.000
				(1.57)	(4.03)	(-0.65)
cons	-7.259e+09***	1609.440***	0.178	-2.478e+09	538.565	-1.066
	(-3.59)	(9.16)	(1.77)	(-0.42)	(0.34)	(-0.85)
Year f.e.	No	No	No	Yes	Yes	Yes
Firm f.e.	No	No	No	Yes	Yes	Yes
Obs.	7,860	7,636	7,328	7,819	7,293	7,190

Note: This table provides main results for the first policy change in 2012 using full sample. year is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.

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Table 20: Main Results: 2012 policy change - Winsorized sample

	vol	tr	return	vol	tr	return
I_{policy}	0.590***	209.703***	0.117***	-0.859**	-124.913	0.132*
	(1.40)	(7.09)	(8.22)	(-1.41)	(-1.41)	(2.47)
$I_{dividend}$	-0.140	-43.163	0.028	1.547***	84.135	0.061
	(-1.58)	(-1.66)	(1.63)	(1.21)	(0.65)	(0.88)
$I_{policy} \times I_{dividend}$	0.226	4.189	-0.039	0.098	52.246	-0.032
	(1.44)	(0.10)	(-1.79)	(0.61)	(0.61)	(-0.85)
lgmktcap	0.385***	68.430***	0.036***	0.707*	113.349	0.082
	(4.44)	(3.42)	(4.25)	(1.47)	(1.16)	(1.36)
lgassets	-0.011	-177.839***	-0.068***	0.342	-154.729	-0.044
	(1.67)	(-5.55)	(-5.14)	(-0.83)	(-1.26)	(-0.75)
lgcash	-0.019	-4.352	-0.003	0.061	-15.755	-0.014
	(-0.52)	(-0.57)	(-0.84)	(0.44)	(-1.07)	(-1.80)
lgprofit	0.168**	47.507**	0.026***	-0.078	3.833	0.012
	(0.32)	(2.72)	(3.78)	(0.23)	(0.10)	(0.60)
finlev				-0.081	246.729	0.109
				(0.38)	(0.93)	(0.74)
tobin				-0.304**	-25.173	0.014
				(-2.23)	(-0.67)	(0.65)
pe				0.001***	0.060	0.000
				(3.38)	(0.86)	(0.63)
pui				0.009*	4.177***	-0.000
				(1.41)	(3.99)	(-0.55)
cons	6.249***	1726.817***	0.140	-5.944	647.209	-1.040
	(-6.13)	(9.10)	(1.29)	(-0.87)	(0.41)	(-0.83)
Year f.e.	No	No	No	Yes	Yes	Yes
Firm f.e.	No	No	No	Yes	Yes	Yes
Obs.	6,982	6,845	6,763	6,921	6,782	6,654

Note: This table provides main results for the first policy change in 2012 using winsorized sample. year is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.

Table 21: Main Results: 2012 policy change - Winsorized sample (Variable Growth Rate)

	volg	trg	returng	volg	trg	returng
I_{policy}	1.694***	0.903***	-0.888	1.240	1.531***	1.074
	(4.57)	(8.67)	(-0.55)	(1.27)	(3.51)	(0.60)
$I_{dividend}$	-0.156	0.001	-0.412	7.231	-1.097	-6.758
	(-0.84)	(0.01)	(-0.61)	(1.71)	(-0.49)	(-0.76)
$I_{policy} \times I_{dividend}$	0.935*	-0.050	2.733	0.751	-0.006	-1.080
	(1.97)	(-0.31)	(0.76)	(0.83)	(-0.02)	(-0.75)
lgmktcap	0.251	0.033	1.916	1.877	-0.118	-2.862
	(1.07)	(0.36)	(1.42)	(1.35)	(-0.18)	(-0.99)
lgassets	0.103	0.247	-3.078	-0.670	-0.258	0.467
	(0.29)	(1.85)	(-1.49)	(-0.47)	(-0.45)	(0.14)
lgcash	-0.191	0.002	0.828	0.144	-0.097	0.165
	(-1.14)	(0.08)	(1.45)	(0.64)	(-1.41)	(0.48)
lgprofit	0.172	-0.094	0.293	-0.188	-0.066	-0.264
	(1.16)	(-1.60)	(0.42)	(-0.28)	(-0.40)	(-0.31)
finlev				0.698	0.388	-0.927
				(0.18)	(0.25)	(-0.15)
tobin				-1.508*	-0.160	0.873
				(-2.54)	(-0.64)	(0.74)
pe				0.003***	-0.001	0.001
				(3.75)	(-1.05)	(0.39)
pui				0.042*	0.013*	0.024
				(2.23)	(2.35)	(0.75)
cons	-8.119	-4.396***	3.014	-36.138	10.954	57.828
	(-1.40)	(-5.60)	(0.34)	(-0.97)	(0.53)	(0.65)
Year f.e.	No	No	No	Yes	Yes	Yes
Firm f.e.	No	No	No	Yes	Yes	Yes
Obs.	6,813	6,899	6,735	6,763	6,521	6,591

Note: This table provides main results for the first policy change in 2012 using full sample with the growth rate as outcome variables. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.

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Table 22: Main Results: 2012 policy change - More executives' holdings

	vol	tr	return	volg	trg	returng
I_{policy}	0.249	-92.688	0.138	1.976	1.718	-5.885
	(0.13)	(-0.28)	(0.93)	(0.78)	(1.15)	(-0.63)
$I_{dividend}$	0.242	-677.391	-0.259	-4.500	-4.245	-8.812
	(-0.71)	(-1.49)	(-1.30)	(-1.25)	(-1.80)	(-0.64)
$I_{policy} \times I_{dividend}$	0.095	134.601	0.032	-0.640	0.247	-2.680
	(-0.11)	(0.74)	(0.43)	(-0.33)	(0.23)	(-0.41)
lgmktcap	2.188*	-39.764	0.020	0.367	-1.609	-10.098
	(2.14)	(-0.09)	(0.11)	(0.09)	(-0.49)	(-0.68)
lgassets	-0.058	-231.390	-0.063	-2.864	0.698	0.609
	(-1.66)	(-0.43)	(-0.32)	(-0.73)	(0.34)	(0.05)
lgcash	0.110	-28.548	-0.017	-0.132	-0.228	0.250
	(0.87)	(-0.91)	(-1.23)	(-0.61)	(-1.71)	(0.30)
lgprofit	0.184	-146.250	0.034	1.332	-0.084	-0.358
	(0.50)	(-0.77)	(0.61)	(1.16)	(-0.08)	(-0.08)
finlev	-2.630	2341.026	0.090	13.800	5.613	30.886
	(0.86)	(1.43)	(0.15)	(1.12)	(0.80)	(0.63)
tobin	-0.264	14.948	0.037	-0.707	0.012	3.449
	(-1.64)	(0.13)	(0.73)	(-0.88)	(0.01)	(1.04)
pe	-0.000	0.401	0.000	-0.014	-0.001	0.055
	(1.32)	(0.79)	(1.29)	(-1.26)	(-0.25)	(0.78)
pui	-0.004	4.676	-0.001	0.037	0.018	-0.001
	(-0.25)	(1.68)	(-0.66)	(1.15)	(0.84)	(-0.02)
cons	-32.873	8634.714	0.536	20.037	22.588	202.599
	(-0.04)	(1.57)	(0.13)	(0.19)	(0.31)	(0.63)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	2,198	2,176	2,097	2,165	2,143	2,001

Note: This table provides main results for the first policy change in 2012 with firms have higher percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.

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Table 23: Main Results: 2012 policy change - Less executives' holdings

	vol	tr	return	volg	trg	returng
I_{policy}	-1.143***	-165.284*	0.083	1.604	1.666***	1.764
	(-1.60)	(-2.19)	(1.59)	(1.49)	(3.72)	(0.84)
$I_{dividend}$	1.589***	88.181	0.037	6.277	-1.798	-6.586
	(-0.14)	(0.68)	(0.52)	(1.45)	(-0.75)	(-0.68)
$I_{policy} \times I_{dividend}$	0.071	71.951	-0.010	0.741	-0.199	-1.568
	(0.06)	(0.88)	(-0.27)	(0.73)	(-0.44)	(-1.00)
lgmktcap	0.548	130.377	0.101	1.133	-0.158	-2.720
	(0.76)	(1.37)	(1.64)	(0.73)	(-0.24)	(-0.86)
lgassets	0.521	-103.885	-0.027	0.033	-0.388	1.092
	(-0.88)	(-0.96)	(-0.46)	(0.02)	(-0.69)	(0.33)
lgcash	0.069	-13.433	-0.012	0.243	-0.103	-0.038
	(0.60)	(-1.00)	(-1.76)	(0.72)	(-1.08)	(-0.10)
lgprofit	-0.233	-12.406	-0.000	-0.432	-0.125	-0.584
	(0.58)	(-0.37)	(-0.01)	(-0.63)	(-0.88)	(-0.83)
finlev	-0.704	11.809	0.064	-0.777	-0.266	-4.899
	(-1.11)	(0.05)	(0.45)	(-0.23)	(-0.16)	(-0.73)
tobin	-0.429***	-45.066	0.001	-1.467*	-0.063	0.716
	(-1.45)	(-1.15)	(0.04)	(-2.18)	(-0.31)	(0.54)
pe	0.001***	0.045	0.000	0.003***	-0.001	-0.000
	(-0.16)	(0.93)	(0.64)	(4.72)	(-1.13)	(-0.01)
pui	0.011**	4.025***	-0.000	0.051*	0.013	0.042
	(1.60)	(4.24)	(-0.01)	(1.99)	(1.86)	(1.21)
cons	-2.875	-434.815	-1.610	-31.772	17.000	49.064
	(-0.43)	(-0.31)	(-1.38)	(-0.84)	(0.79)	(0.50)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	4,393	4,299	4,192	4,291	4,293	4,083

Note: This table provides main results for the first policy change in 2012 with firms have lower percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobin is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.

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Table 24: Main Results: 2012 policy change - More state's holdings

	vol	tr	return	volg	trg	returng
I_{policy}	-1.400***	-176.566	0.066	2.438	1.744**	1.903
	(-1.55)	(-1.51)	(1.00)	(1.35)	(3.05)	(0.68)
$I_{dividend}$	-1.426	-921.530*	-0.194	3.258	3.599	10.323
	(0.16)	(-2.51)	(-1.11)	(0.39)	(0.85)	(0.56)
$I_{policy} \times I_{dividend}$	0.141	113.522	0.007	0.499	-0.441	-1.838
	(0.06)	(1.38)	(0.18)	(0.39)	(-0.79)	(-0.80)
lgmktcap	0.742*	138.436	0.054	1.806	-0.417	-3.460
	(0.67)	(1.12)	(0.60)	(0.81)	(-0.46)	(-0.71)
lgassets	0.315	-64.543	-0.030	-0.433	-0.613	1.119
	(-0.71)	(-0.63)	(-0.41)	(-0.25)	(-0.76)	(0.24)
lgcash	0.105*	-17.817	-0.002	0.228	-0.101	0.063
	(0.36)	(-1.01)	(-0.30)	(0.67)	(-0.97)	(0.19)
lgprofit	-0.126	23.440	0.002	-0.239	-0.170	-0.506
	(0.60)	(0.46)	(0.12)	(-0.32)	(-0.81)	(-0.46)
finlev	-0.357	566.774	0.043	0.090	1.567	-1.145
	(-1.07)	(1.74)	(0.24)	(0.02)	(0.66)	(-0.12)
tobin	-0.437**	-16.335	0.004	-1.228	-0.545	0.545
	(-1.14)	(-0.41)	(0.17)	(-0.77)	(-0.91)	(0.21)
pe	0.001**	0.041	-0.000	0.002*	-0.001	0.001
	(-1.01)	(0.79)	(-0.32)	(2.12)	(-1.47)	(0.73)
pui	0.014**	4.123**	0.001	0.069	0.017	0.046
	(1.64)	(2.96)	(1.03)	(1.64)	(1.52)	(1.03)
cons	-4.183	-2017.705	-0.751	-41.055	25.967	51.395
	(-0.36)	(-0.83)	(-0.45)	(-0.73)	(0.88)	(0.40)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	1,987	1,887	1,897	1,955	1,865	1,796

Note: This table provides main results for the first policy change in 2012 with firms have higher percentage share percentage held by state. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗ ∗ ∗ Significant at 1 percent.

Table 25: Main Results: 2012 policy change - Less state's holdings

	vol	tr	return	volg	trg	returng
I_{policy}	-0.185	161.711**	0.070***	1.984***	1.513***	-1.392
	(0.05)	(3.05)	(4.13)	(3.42)	(6.66)	(-1.10)
$I_{dividend}$	1.773**	-28.652	-0.018	0.301	0.132	-0.036
	(0.09)	(-0.70)	(-0.75)	(0.84)	(0.96)	(-0.04)
$I_{policy} \times I_{dividend}$	0.143	21.450	0.045	1.464	0.072	-0.393
	(1.21)	(0.35)	(1.41)	(1.91)	(0.28)	(-0.29)
lgmktcap	0.432	127.586**	0.024	2.341***	-0.073	-0.308
	(3.67)	(2.71)	(1.31)	(3.67)	(-0.27)	(-0.31)
lgassets	0.521	-181.756**	-0.032	-2.050**	0.362	0.121
	(-2.11)	(-2.74)	(-1.22)	(-2.80)	(1.29)	(0.09)
lgcash	-0.019	-2.614	-0.004	-0.024	-0.028	0.545
	(1.00)	(-0.23)	(-1.31)	(-0.18)	(-0.78)	(1.95)
lgprofit	-0.127	3.416	0.001	0.429	-0.111	0.073
	(0.41)	(0.10)	(0.05)	(1.16)	(-1.33)	(0.08)
finlev	-0.337	206.195	0.045	1.107	-0.047	-6.117
	(0.17)	(1.89)	(0.75)	(0.75)	(-0.09)	(-1.55)
tobin	-0.152	-20.696	-0.005	-1.052**	-0.018	-0.075
	(-2.93)	(-0.78)	(-0.49)	(-3.28)	(-0.17)	(-0.13)
pe	-0.000	0.255*	0.000	0.003***	0.000	-0.000
	(0.88)	(2.06)	(1.11)	(4.31)	(0.50)	(-0.15)
pui	0.005	1.241**	0.001***	0.019**	0.006***	-0.014
	(1.91)	(3.13)	(4.16)	(3.21)	(3.68)	(-1.35)
cons	-1.401	1148.755***	0.083	-19.042**	-5.128***	-2.400
	(-3.56)	(5.20)	(0.65)	(-2.83)	(-4.87)	(-0.29)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	5,108	5,125	5,097	5,021	5,032	4,972

Note: This table provides main results for the first policy change in 2012 with firms have lower percentage share percentage held by state. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
$*$ Significant at 10 percent. $**$ Significant at 5 percent. $***$ Significant at 1 percent.

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Table 26: Robustness Check: 2005 policy change - Winsorized sample

	vol	tr	return	volg	trg	returng
I_{policy}	8.348***	-248.007	-3.143**	10.624***	8.806***	147.686
	(-7.90)	(-1.62)	(-2.87)	(4.17)	(4.14)	(1.21)
$I_{dividend}$	9.985***	-374.692	-10.614***	22.805***	18.622***	363.115
	(-6.27)	(-1.02)	(-4.70)	(3.75)	(3.82)	(1.12)
$I_{policy} \times I_{dividend}$	-0.090 ***	-10.010	0.056	-0.025	0.048	2.727
	?-5.27?	(-0.49)	(0.38)	?0.17?	(0.14)	(0.17)
lgmktcap	0.156**	-56.091	0.584**	-0.972	-1.233*	18.259
	(-3.10)	(-1.87)	(2.61)	(-1.38)	(-2.19)	(0.91)
lgassets	0.045	-14.453	-0.235	1.151	1.033	-16.621
	(2.49)	(-0.54)	(-1.08)	(1.56)	(1.76)	(-1.33)
lgcash	-0.018	4.803	-0.009	0.076	0.051	5.924
	(-0.52)	(0.77)	(-0.16)	(0.53)	(0.44)	(1.34)
lgprofit	0.028	28.054**	0.295***	0.406	0.299	10.781
	(0.74)	(3.15)	(3.89)	(1.87)	(1.82)	(0.64)
finleva	-0.004	2.567	0.018	0.073	0.059	-3.034
	(1.76)	(0.77)	(0.87)	(1.20)	(1.01)	(-0.57)
tobin	-0.0034**	-0.394*	-0.001	-0.006	-0.006	0.123
	(3.07)	(-2.34)	(-0.51)	(-1.20)	(-1.22)	(0.78)
pe	0.000	0.014	0.000**	0.000	0.000	0.004
	(0.62)	(0.69)	(2.69)	(0.42)	(0.09)	(0.35)
pui	-0.022***	21.298***	-0.013	0.047*	0.057***	0.039
	(4.47)	(21.90)	(-1.81)	(2.42)	(3.61)	(0.06)
cons	11.092***	-259.172	-5.282	-27.828*	-15.355	-536.027
	(2.53)	(-0.46)	(-1.40)	(-2.45)	(-1.71)	(-0.73)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	11,873	11,902	10,928	11,654	11,632	10,686

Note: This table provides robustness check for the first policy change in 2005 using winsorized sample. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗ ∗ ∗ Significant at 1 percent.

Table 27: Robustness Check: 2012 policy change - Winsorized sample

	vol	tr	return	volg	trg	returng
I_{policy}	-1.508	-552.153	0.142	24.348	9.691	-21.307
	(-0.66)	(-0.57)	(0.19)	(0.58)	(0.45)	(-0.40)
$I_{dividend}$	0.688	-137.028	0.085	12.768	2.311	20.286
	(-0.42)	(-0.22)	(0.20)	(0.47)	(0.20)	(0.47)
$I_{policy} \times I_{dividend}$	0.299	16.035	0.019	4.887	2.096	-0.067
	(0.27)	(0.04)	(0.07)	(0.54)	(0.28)	(-0.00)
lgmktcap	0.989	133.276	0.016	-0.130	0.379	3.152
	(0.66)	(0.30)	(0.06)	(-0.01)	(0.05)	(0.15)
lgassets	-1.194	-89.571	0.056	2.802	0.190	1.484
	(-0.72)	(-0.18)	(0.17)	(0.14)	(0.02)	(0.08)
lgcash	0.187	39.831	-0.023	1.534	0.372	0.190
	(0.95)	(0.64)	(-0.52)	(1.00)	(0.38)	(0.07)
lgprofit	0.624	73.098	-0.075	-3.885	-0.826	3.717
	(0.70)	(0.25)	(-0.37)	(-0.28)	(-0.15)	(0.30)
finlev	-1.788	846.122	0.358	25.003	7.322	-19.262
	(0.00)	(0.63)	(0.44)	(0.55)	(0.30)	(-0.29)
tobin	-0.630	-25.434	0.040	-0.871	-0.067	-1.310
	(-0.60)	(-0.14)	(0.31)	(-0.19)	(-0.03)	(-0.15)
pe	0.000	-0.115	0.000	0.001	-0.003	0.003
	(0.98)	(-0.84)	(0.31)	(0.33)	(-1.17)	(0.66)
pui	0.012	3.571	0.000	0.130	0.040	-0.097
	(-0.47)	(0.77)	(0.13)	(0.72)	(0.42)	(-0.46)
cons	6.738	-3211.208	-0.102	-63.847	-20.405	-163.849
	(-0.23)	(-0.33)	(-0.02)	(-0.20)	(-0.19)	(-0.43)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	6,812	6,823	6,784	6,812	6,709	6,619

Note: This table provides robustness check for the first policy change in 2012 using winsorized sample. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3. $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).

$*$ Significant at 10 percent. $**$ Significant at 5 percent. $***$ Significant at 1 percent.

Appendix Table A1: Top 10 Stock Exchange Market with Market Capitalization

Rank	Stock Exchange Name	Country/Region	Location	Market Cap (USD Millions)
1	NYSE	U.S.A.	New York	24,223,206
2	Nasdaq	U.S.A.	New York	11,859,513.51
3	Japan Exchange Group Inc.	Japan	Tokyo	6,180,043.05
4	Shanghai Stock Exchange	P.R.China	Shanghai	4,386,030.56
5	Euronext	European Union	Amsterdam/Brussels/ Dublin/Lisbon/Paris	4,377,263.33
6	London Stock Exchange Group	United Kingdom/Italy	London/Milan	4,236,193.87
7	Hong Kong Exchanges and Clearing	Hong Kong	Hong Kong	4,111,111.69
8	Shenzhen Stock Exchange	P.R.China	Shenzhen	2,691,604.54
9	TMX Group	Canada	Toronto	2,288,165.37
10	Deutsche Börse AG	Germany	Frankfurt	2,108,114.45

Note: Data is from World Federation of Exchanges (*https://www.world-exchanges.org*) Monthly Report, September, 2018.

Appendix Table A2: List of Variables Used with Description

Variable Name	Variable Label
Outcome Variables:[1]	
vol	Trading Volumes
tr	Turnover Rate
returng	Return Rate
volg	Trading Volumes
trg	Turnover Rate
returng	Return Rate
Dummy Variables:[2]	
I_{policy}	Time Dummy
$I_{dividend}$	Dividend Policy Dummy (Treatment)
Control Variables:[3]	
marketcap	Market Capitalization
assets	Assets
profit	Profit
Cash	Cash holding
finlev	Financial Leverage
tobinq	Tobin's q
pe	Price earning ratio
pui	Political Uncertainty Index
Classification Variables:[4]	
perstate	Government share percentage
perex	Top executives share percentage

Note: 1. The trading volumes (vol) are calculated as quarterly average based on the monthly data. Following Jia et al. (2016), I calculate turnover rate (tr) based on daily stock turnover (tor) rate. The calculation equation is as follows: $tr_{i,t} = \Sigma_{i,t}^{N} tor_{i,t}/N$, where tr is average quarterly turnover rate, tor is the daily turnover rate, N is the number of trading days in a quarter. Return rate (rt) is the mean of quarterly return rate after dividend distribution for a stock. volg, trg and returng are the annual growth rate of the three variables.

2. Dummy variables includes time (policy) dummy and dividend dummy. Time dummy equals one if it is after 2005 or 2013, and zero otherwise; dividend dummy equals one if a firm initiates or increases dividend distribution after each policy change, and zero other wise.

3. Marketcap is the market capitalization, which is calculated by multiplying a company's shares outstanding by the current market price (quarterly average) of one share. Assets and debt nest firm?s total assets and debt in a calendar year. Financial leverage (Finlev) is the degree to which a company is financed by fixed-income securities such as debt and preferred equity. The price to earnings ratio (PE) is the ratio that measures its current share price relative to its per-share earnings. The Tobin?s Q Ratio (Tobinq) is calculated as the market value of a company divided by the replacement value of the firm?s assets. political uncertainty index (pui) is from Huang et al. (2018).

4. Mean percentage of the shares held by government (perstate) and top executives (perex).

Appendix Table A1: Robustness Check - 2005 policy change, more executives' holdings

	vol	tr	return	volg	trg	returng
I_{policy}	-5.703***	359.828**	1.196	-0.413	-1.317	-313.376
	(0.16)	(2.86)	(1.41)	(-0.20)	(-0.89)	(-1.82)
$I_{dividend}$	7.682***	-237.469	-0.281	1.364	2.090	285.167
	(-1.67)	(-1.55)	(-0.39)	(0.62)	(1.12)	(1.93)
$I_{policy} \times I_{dividend}$	-0.189*	-19.233	0.030	-0.213*	-0.074*	-5.496
	(-0.34)	(-0.54)	(0.17)	(-0.31)	(-0.14)	(-0.27)
lgmktcap	0.203	-69.422	-0.052	-1.454	-1.439	18.016
	(-1.36)	(-0.95)	(-0.13)	(-0.94)	(-1.02)	(0.62)
lgassets	-2.884e+07	27.670	-0.179	1.170	1.042	-31.961
	(-0.11)	(0.58)	(-0.58)	(1.07)	(1.03)	(-1.25)
lgcash	0.000	2.668	-0.001	0.246	0.173	5.607
	(0.38)	(0.26)	(-0.01)	(1.13)	(0.92)	(1.05)
lgprofit	-0.001	5.357	0.188	0.146	0.111	-3.334
	(0.73)	(0.45)	(1.65)	(0.52)	(0.47)	(-0.42)
finleva	-0.006	3.458	0.012	0.002	0.017	-1.338
	(0.92)	(0.64)	(0.35)	(0.02)	(0.29)	(-0.67)
tobin	-0.007**	-0.456	-0.003	-0.007	-0.007	-0.031
	(2.93)	(-1.87)	(-0.79)	(-1.13)	(-1.11)	(-0.40)
pe	-0.003	0.001	0.000	-0.000	-0.000	-0.004
	(0.09)	(0.06)	(1.13)	(-0.17)	(-0.24)	(-0.51)
pui	-0.001**	30.780***	0.066	-0.156	-0.118	-8.692
	(2.83)	(3.83)	(0.95)	(-0.99)	(-0.87)	(-1.05)
cons	16.777***	-1257.510	-3.334	10.709	12.193	920.088
	(0.33)	(-1.34)	(-0.41)	(0.57)	(0.73)	(1.75)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	7,390	8,079	8,011	8,111	7,926	7,431

Note: This table provides robustness check for the first policy change in 2005 with firms have higher percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗∗∗ Significant at 1 percent.

Appendix Table A2: Robustness Check - 2005 policy change, less executives' holdings

	vol	tr	return	volg	trg	returng
I_{policy}	17.843***	-117.677	-2.159	14.419	11.066	1.456
	(-2.00)	(-0.18)	(-0.56)	(0.91)	(0.90)	(0.02)
$I_{dividend}$	23.002***	-390.380	-13.772	28.433	23.143	48.072
	(-2.13)	(-0.26)	(-1.79)	(0.86)	(0.88)	(0.31)
$I_{policy} \times I_{dividend}$	0.067	-11.083	0.042	-1.611	-0.298	-10.708
	(0.93)	(-0.09)	(0.04)	(-0.25)	(-0.08)	(-0.52)
lgmktcap	0.237	-112.518	-0.692	-2.052	-2.971	21.715
	(-0.76)	(-0.69)	(-0.46)	(-0.24)	(-0.45)	(0.75)
lgassets	-0.178	-111.726	-1.125	1.688	2.488	-3.611
	(-0.15)	(-0.66)	(-0.55)	(0.22)	(0.43)	(-0.12)
lgcash	0.042	15.488	0.111	-0.080	-0.102	-2.805
	(0.43)	(0.29)	(0.18)	(-0.05)	(-0.10)	(-0.29)
lgprofit	0.091	111.708	0.636	0.524	0.552	2.436
	(0.67)	(1.72)	(1.39)	(0.20)	(0.30)	(0.22)
finleva	0.090*	62.596	0.466	2.504	1.822	17.005
	(-0.25)	(0.69)	(0.49)	(0.81)	(0.79)	(1.04)
tobin	-0.071	-9.119	0.083	0.001	0.120	-4.112
	(0.14)	(-0.24)	(0.20)	(0.00)	(0.13)	(-0.59)
pe	-0.000	0.529	0.004	-0.001	-0.000	-0.009
	(0.69)	(1.29)	(1.26)	(-0.09)	(-0.05)	(-0.22)
pui	-0.036***	23.245***	0.026	0.065	0.084	-0.234
	(1.26)	(4.64)	(0.56)	(0.32)	(0.53)	(-0.26)
cons	2.502e+10	1171.674	30.125	-21.823	-16.573	-399.736
	(0.88)	(0.36)	(1.12)	(-0.20)	(-0.24)	(-0.66)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	5,011	5,198	4,936	5,001	5,176	4,826

Note: This table provides robustness check for the first policy change in 2005 with firms have less percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.

Appendix Table A3: Robustness Check - 2005 policy change, more state's holdings

	vol	tr	return	volg	trg	returng
I_{policy}	8.742***	-46.979	-4.428***	12.368***	10.494***	219.916
	(-6.79)	(-0.27)	(-3.39)	(3.61)	(3.65)	(1.09)
$I_{dividend}$	-4.326***	-53.126	5.244***	-12.395***	-9.612**	-218.231
	(7.79)	(-0.28)	(4.15)	(-3.49)	(-3.22)	(-1.29)
$I_{policy} \times I_{dividend}$	-0.179*	-20.001*	0.148	-0.177	-0.109	12.486
	(-0.11)	(-0.91)	(0.89)	(-0.34)	(-0.27)	(0.56)
lgmktcap	0.094	-75.607*	0.327	-1.394	-1.509*	28.577
	(-3.24)	(-2.16)	(1.15)	(-1.59)	(-2.09)	(0.70)
lgassets	0.028	0.564	0.005	1.653	1.282	-28.077
	(2.76)	(0.02)	(0.02)	(1.67)	(1.61)	(-1.33)
lgcash	0.005	10.064	0.012	0.080	0.057	10.367
	(0.30)	(1.39)	(0.21)	(0.46)	(0.39)	(1.41)
lgprofit	0.069	28.780**	0.228**	0.499	0.375	15.231
	(0.57)	(3.17)	(2.99)	(1.73)	(1.69)	(0.64)
finleva	0.010	4.758	0.017	0.104	0.102	0.866
	(1.39)	(1.29)	(0.75)	(1.37)	(1.45)	(0.31)
tobin	-0.003**	-0.379*	-0.002	-0.007	-0.007	0.088
	(2.88)	(-2.29)	(-0.64)	(-1.26)	(-1.31)	(0.42)
pe	-0.000	0.023	0.000*	0.000	0.000	0.008
	(0.56)	(1.50)	(2.10)	(0.37)	(0.12)	(0.44)
pui	-0.023***	22.077***	-0.004	0.058*	0.065**	-0.113
	(4.27)	(18.44)	(-0.46)	(2.21)	(2.94)	(-0.08)
cons	17.345***	-445.391	-10.940**	-21.436	-8.716	-490.100
	(0.79)	(-0.85)	(-2.76)	(-1.51)	(-0.76)	(-0.48)
Year f.e.	Yes	Yes	Ye	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Ye	Yes	Yes	Yes
Obs.	9,651	9,532	9,421	9,327	9,441	9,032

Note: This table provides robustness check for the first policy change in 2005 with firms have higher percentage share percentage held by state. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.

Appendix Table A4: Robustness Check - 2005 policy change, less state's holdings

	vol	tr	return	volg	trg	returng
I_{policy}	8.742***	-46.979	-4.428***	12.368***	10.494***	219.916
	(-6.79)	(-0.27)	(-3.39)	(3.61)	(3.65)	(1.09)
$I_{dividend}$	-4.326***	-53.126	5.244***	-12.395***	-9.612**	-218.231
	(7.79)	(-0.28)	(4.15)	(-3.49)	(-3.22)	(-1.29)
$I_{policy} \times I_{dividend}$	-0.179	-20.001	0.148	-0.177	-0.109	12.486
	(-0.11)	(-0.91)	(0.89)	(-0.34)	(-0.27)	(0.56)
lgmktcap	0.094**	-75.607*	0.327	-1.394	-1.509*	28.577
	(-3.24)	(-2.16)	(1.15)	(-1.59)	(-2.09)	(0.70)
lgassets	0.028**	0.564	0.005	1.653	1.282	-28.077
	(2.76)	(0.02)	(0.02)	(1.67)	(1.61)	(-1.33)
lgcash	0.005	10.064	0.012	0.080	0.057	10.367
	(0.30)	(1.39)	(0.21)	(0.46)	(0.39)	(1.41)
lgprofit	0.069	28.780**	0.228**	0.499	0.375	15.231
	(0.57)	(3.17)	(2.99)	(1.73)	(1.69)	(0.64)
finleva	0.010	4.758	0.017	0.104	0.102	0.866
	(1.39)	(1.29)	(0.75)	(1.37)	(1.45)	(0.31)
tobin	-0.003**	-0.379*	-0.002	-0.007	-0.007	0.088
	(2.88)	(-2.29)	(-0.64)	(-1.26)	(-1.31)	(0.42)
pe	-0.000	0.023	0.000*	0.000	0.000	0.008
	(0.56)	(1.50)	(2.10)	(0.37)	(0.12)	(0.44)
pui	-0.023***	22.077***	-0.004	0.058*	0.065**	-0.113
	(4.27)	(18.44)	(-0.46)	(2.21)	(2.94)	(-0.08)
cons	11.12*	-445.391	-10.940**	-21.436	-8.716	-490.100
	(0.79)	(-0.85)	(-2.76)	(-1.51)	(-0.76)	(-0.48)
Year f.e.	Yes	Yes	Ye	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	3,976	3,964	3,911	3,876	3,807	3,702

Note: This table provides robustness check for the first policy change in 2005 with firms have higher percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018). ∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗∗∗ Significant at 1 percent.

Appendix Table A5: Robustness Check - 2012 policy change, more executives' holdings

	vol	tr	return	volg	trg	returng
I_{policy}	-1.236	245.180***	0.196***	0.748	1.538***	2.096
	(1.55)	(3.76)	(6.41)	(1.11)	(5.61)	(0.54)
$I_{dividend}$	0.271	1.370	0.097**	-0.702	-0.248	0.626
	(0.43)	(0.02)	(3.31)	(-1.00)	(-0.52)	(-0.32)
$I_{policy} \times I_{dividend}$	0.012	21.959	-0.134***	0.705	0.191	-2.667
	(0.35)	(0.27)	(-3.39)	(0.75)	(0.38)	(-0.84)
lgmktcap	1.256	180.857	0.025	1.592	0.141	1.346
	(1.43)	(1.76)	(0.75)	(1.41)	(0.56)	(0.51)
lgassets	-0.178	-190.012	-0.090	-2.996	0.074	-5.492
	(-1.04)	(-1.38)	(-1.76)	(-1.39)	(0.22)	(-0.87)
lgcash	-0.221	-8.512	0.000	-0.293	-0.044	0.197
	(-0.60)	(-0.66)	(0.07)	(-1.96)	(-1.05)	(0.48)
lgprofit	-0.195	-69.348	0.038	1.232	-0.045	1.924
	(-0.07)	(-1.20)	(1.64)	(1.60)	(-0.24)	(0.75)
finlev	0.000	718.928*	0.025	-4.641	-0.718	-1.768
	(1.49)	(2.18)	(0.22)	(-1.52)	(-0.85)	(-0.21)
tobin	-1.021	-43.695	0.011	-0.325	-0.109	0.023
	(-1.21)	(-1.43)	(1.02)	(-1.26)	(-1.60)	(0.04)
pe	0.002*	0.263*	0.000	0.002	0.001**	-0.010
	(2.37)	(2.39)	(1.32)	(1.51)	(2.66)	(-0.97)
pui	0.001	1.613**	0.000	-0.007	0.011***	0.003
	(1.19)	(3.33)	(1.49)	(-0.78)	(4.94)	(0.09)
cons	-11.236**	1464.034**	0.416	13.392	-5.046***	45.537
	(-2.62)	(2.74)	(1.54)	(0.93)	(-3.48)	(1.12)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	2,097	2,124	2,097	2,018	1,923	1,908

Note: This table provides robustness check for the first policy change in 2012 with firms have higher percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ∗∗ Significant at 5 percent. ∗∗∗ Significant at 1 percent.

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Appendix Table A6: Robustness Check - 2012 policy change, less executives' holdings

	vol	tr	return	volg	trg	returng
I_{policy}	-1.821	-787.263	-0.082	7.715	5.128	1.486
	(-0.32)	(-1.24)	(-0.17)	(0.51)	(0.37)	(0.05)
$I_{dividend}$	0.639	-111.417	0.103	20.622	11.522	36.785
	(-0.09)	(-0.16)	(0.23)	(0.35)	(0.37)	(0.42)
$I_{policy} \times I_{dividend}$	0.483	89.083	0.026	-5.069	-3.274	-5.370
	(-0.03)	(0.24)	(0.09)	(-0.46)	(-0.29)	(-0.21)
lgmktcap	1.009	181.002	0.029	1.717	0.072	3.032
	(0.77)	(0.41)	(0.09)	(0.14)	(0.01)	(0.18)
lgassets	-1.175	-144.164	0.063	0.465	0.636	-2.290
	(-0.64)	(-0.29)	(0.19)	(0.02)	(0.05)	(-0.09)
lgcash	0.094	39.915	-0.031	1.336	0.623	1.043
	(0.61)	(0.62)	(-0.80)	(0.53)	(0.47)	(0.25)
lgprofit	0.604	81.672	-0.089	-2.915	-0.486	11.219
	(0.59)	(0.25)	(-0.40)	(-0.12)	(-0.05)	(0.51)
finlev	-2.991	409.248	0.166	22.113	15.635	11.161
	(-0.44)	(0.29)	(0.16)	(0.27)	(0.38)	(0.10)
tobin	-0.685	-41.044	0.022	-1.152	0.214	-0.255
	(-0.72)	(-0.23)	(0.18)	(-0.23)	(0.08)	(-0.04)
pe	0.000	-0.122	0.000	0.002	-0.003	0.002
	(1.25)	(-1.05)	(0.35)	(0.37)	(-1.08)	(0.43)
pui	0.014	1.848	-0.000	0.042	0.012	-0.027
	(0.15)	(0.44)	(-0.10)	(0.34)	(0.18)	(-0.16)
cons	-3.831e+09	-2654.848	0.369	-44.680	-36.933	-310.062
	(-0.54)	(-0.33)	(0.07)	(-0.15)	(-0.29)	(-0.76)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	4,212	4,198	4,023	4,109	4,111	4,029

Note: This table provides robustness check for the first policy change in 2012 with firms have lower percentage share percentage held by top executives. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.

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Appendix Table A7: Robustness Check - 2012 policy change, more state's holdings

	vol	tr	return	volg	trg	returng
I_{policy}	62.251	-292.713	0.186	5.200	0.686	0.606
	(0.63)	(-0.67)	(0.41)	(1.19)	(0.11)	(0.02)
$I_{dividend}$	-131.126	-754.978	0.486	3.922	2.820	-20.504
	(0.66)	(-0.52)	(0.29)	(0.34)	(0.10)	(-0.27)
$I_{policy} \times I_{dividend}$	0.011	36.212	0.072	-2.788	-1.260	6.095
	(-0.54)	(0.11)	(0.23)	(-1.11)	(-0.20)	(0.34)
lgmktcap	-29.932	83.516	-0.046	-7.429	3.000	-8.714
	(0.20)	(0.19)	(-0.13)	(-2.20)	(0.32)	(-0.39)
lgassets	-0.024	-78.936	-0.152	2.568	-1.719	2.997
	(-1.32)	(-0.17)	(-0.26)	(1.02)	(-0.22)	(0.20)
lgcash	0.123	86.277	-0.018	1.861	0.052	1.445
	(0.69)	(0.98)	(-0.28)	(3.05)	(0.04)	(0.65)
lgprofit	0.002	16.184	0.072	-1.262	-0.253	7.756
	(1.52)	(0.07)	(0.21)	(-0.47)	(-0.03)	(0.62)
finlev	0.000	806.244	0.254	15.584	5.800	-50.758
	(0.16)	(0.84)	(0.21)	(1.17)	(0.17)	(-0.74)
tobin	-0.001	58.144	0.165	-0.441	-0.690	3.515
	(-0.13)	(0.26)	(0.63)	(-0.20)	(-0.14)	(0.41)
pe	0.002	-0.219	0.000	0.001	-0.003	0.002
	(0.89)	(-1.60)	(0.22)	(0.70)	(-1.36)	(0.79)
pui	0.023	5.638	-0.001	0.089*	-0.009	0.038
	(0.69)	(1.17)	(-0.17)	(6.91)	(-0.22)	(0.33)
cons	12.24	-2911.254	2.695	87.379	-29.381	-35.219
	(0.23)	(-0.31)	(0.28)	(1.87)	(-0.22)	(-0.12)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	1,912	1,845	1,807	1,901	1,833	1,742

Note: This table provides robustness check for the first policy change in 2012 with firms have higher percentage share percentage held by state. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; TobinQ is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
∗ Significant at 10 percent. ∗∗ Significant at 5 percent. ∗∗∗ Significant at 1 percent.

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Appendix Table A8: Robustness Check - 2012 policy change, less state's holdings

	vol	tr	return	volg	trg	returng
I_{policy}	-1.369***	224.539***	0.145***	2.194**	1.355***	-5.330
	(3.39)	(8.43)	(7.37)	(3.09)	(14.28)	(-1.46)
$I_{dividend}$	-0.249*	18.336	0.032*	0.019	0.073	-14.162
	(-2.41)	(0.63)	(2.32)	(0.05)	(0.50)	(-1.04)
$I_{policy} \times I_{dividend}$	0.717	-11.428	-0.046*	-1.199	-0.205	15.658
	(1.17)	(-0.31)	(-2.10)	(-1.07)	(-1.31)	(1.13)
lgmktcap	0.573***	49.636**	0.067***	-0.205	-0.107*	1.460
	(4.07)	(2.96)	(4.16)	(-1.02)	(-2.02)	(0.90)
lgassets	-1.051	-148.343***	-0.091***	-0.724	0.220**	0.186
	(-0.25)	(-5.73)	(-4.32)	(-0.67)	(2.72)	(0.10)
lgcash	0.191	-1.010	0.002	-0.342	0.004	0.009
	(-0.07)	(-0.17)	(0.25)	(-1.51)	(0.21)	(0.01)
lgprofit	0.585***	43.913***	0.021***	0.454	-0.041	-1.387
	(3.99)	(4.03)	(3.31)	(0.89)	(-1.04)	(-1.40)
finlev	-0.242	-3.207	0.011***	-0.013	0.059***	-0.042
	(0.60)	(-1.42)	(10.66)	(-0.25)	(12.81)	(-0.16)
tobin	-0.432	-8.183**	-0.004***	-0.032	0.003	-0.009
	(-1.00)	(-3.22)	(-3.54)	(-0.89)	(0.90)	(-0.13)
pe	-0.000***	0.090***	0.000	-0.001	0.000	-0.007
	(4.04)	(4.41)	(1.67)	(-1.05)	(1.29)	(-1.53)
pui	0.022	0.996***	0.000*	-0.010	0.009***	-0.075
	(-0.93)	(4.35)	(2.56)	(-1.17)	(10.09)	(-1.63)
cons	11.884***	1328.216***	-0.119	19.276	-3.594***	7.432
	(-6.02)	(5.93)	(-0.77)	(1.10)	(-4.02)	(0.46)
Year f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Firm f.e.	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	5,091	5,027	4,978	5,011	4,999	4,907

Note: This table provides robustness check for the first policy change in 2012 with firms have lower percentage share percentage held by state. I_{policy} is the time dummy, which equals to 1 if after 2005 Q3; $I_{dividend}$ is the policy dummy, which equals to 1 if a firm initiate/increase dividend distribution after 2005 Q3. Vol is the trading volumes; tr is the turnover rate; return is the return rate; volg, trg and returng are the growth rate of outcome variables; Marketcap is a stock's market capitalization. Finlev is the financial leverage; Tobinq is the Tobin's Q; pe is the price earning ratio; pui is the political uncertainty index. Data is from China Stock Market and Accounting Research Database and Huang et al. (2018).
* Significant at 10 percent. ** Significant at 5 percent. *** Significant at 1 percent.