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Ownership Structure and Dividend Policy of China's Listed Companies

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School of Humanities & Social Sciences

A thesis submitted to the Nanyang Technological University
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Table of Contents

1	Introduction.....	5
2	Literature Review	11
2.1	CLASSIC THEORIES AND EMPIRICAL STUDIES ON DIVIDEND PAYOUT	11
2.1.1	MM theory.....	11
2.1.2	Behavioral Models of Dividend policy	13
2.1.3	Dividend Tax Clientele Effect.....	15
2.1.4	The Information Content of Dividends: the Signaling Hypothesis	18
2.1.5	Agency Costs and Dividends	23
2.1.6	Growth (Investment) Opportunities.....	24
2.1.7	Transaction Costs.....	26
2.1.8	Expropriation	27
2.2	DIVIDEND POLICY STUDY ON CHINA'S LISTED COMPANIES	29
3	Institutional Features of China's Stock Market & Dividend Policy	31
3.1	SUPPLY SIDE IN CHINA'S STOCK MARKET.....	34
3.1.1	Non-tradable shares: State Shares and Legal Person Shares.....	34
3.1.2	Tradable shares: A Shares, B Shares and H Shares	37
3.2	DEMAND SIDE: INSTITUTIONAL INVESTORS VS. INDIVIDUAL INVESTORS	41
3.3	OVER-DISTRIBUTION IN CHINA'S STOCK MARKET	42
4	Ownership Structure, Tunneling & Dividend Policy	45
4.1	NON-TRADABLE SHAREHOLDER BEHAVIOR AND DIVIDEND PAYOUT.....	45
4.1.1	The Dramatic Deviation of Market Value of the Circulating Shares from the Value of Non-Circulating Shares	45
4.1.2	The Deviated Interests of Different Owners	47
4.2	CONTROLLING SHAREHOLDER BEHAVIOR & TUNNELING HYPOTHESIS	50
4.3	DIFFERENT TYPES OF TRADABLE SHAREHOLDERS	52
4.4	CORPORATE GOVERNANCE AND DIVIDENDS POLICY.....	53
4.5	COEXISTENCE OF AGGRESSIVE RIGHTS OFFERING AND AGGRESSIVE DIVIDEND PAYOUT POLICY	54
4.6	MARKET REACTION TO CASH DIVIDEND PAYOUT	55
5	Modeling the Behavior in Dividend Policy of China's Listed Companies....	57
5.1	RESEARCH MODEL	57
5.2	VARIABLE DEFINITION	58
5.3	DATA AND SAMPLE DESCRIPTION.....	62
5.4	SUMMARY STATISTICS.....	66
5.5	EMPIRICAL RESULTS.....	74
5.5.1	Hypothesis 1 (Table 11)	74
5.5.2	Hypothesis 2 (Table 12)	77
5.5.3	Hypothesis 3 (Table 13)	80
5.5.4	Hypothesis 4 (Table 14)	82
5.5.5	Dividend Payout Ratio (Table 15).....	84
5.5.6	Hypothesis 5 (Table 16)	87
6	Modeling Market Reaction to Cash Dividend.....	89
6.1	METHODOLOGY	89
6.2	RESULTS—HYPOTHESIS 6 (TABLE 17, 18, 19).....	90
6.3	CROSS-SECTIONAL TEST	105
7	Conclusion	110

List of Tables and Figures

Table 1: Development of China's Stock Market (1992-2005)	32
Table 2: Who Own the Listed Companies in China?	35
Table 3: Number of China's Listed Companies and Share Types (1994-2003)	40
Table 4: Cash Dividends, Stock Dividends Payment and Over-Distribution.....	44
Table 5: Share distribution and the actual cost of shares for different types of shareholders: The case of User-Friendly Software	46
Table 6: The dividend payment and the investment return of different types of shareholders: The case of User-Friendly Software	48
Table 7: Sample Descriptions	65
Table 8: Summary Statistics of Companies' Characteristics	68
Table 9: Summary Statistics of Companies' Ownership Structure	71
Table 10: Correlation Coefficients Matrix of the Independent Variables	73
Table 11: Generalized Multinomial Logit Regression: The Dividend Policy of China's Listed Companies (Nontradable vs. Tradable Shares).....	76
Table 12: Generalized Multinomial Logit Regression: The Dividend Policy of China's Listed Companies (Shareholder Concentration).....	79
Table 13: Generalized Multinomial Logit Regression: The Dividend Policy of the Listed Companies (Different Tradable Shareholders)	81
Table 14: Generalized Multinomial Logit Regression: The Dividend Policy of the Listed Companies (Board Monitoring Mechanism)	83
Table 15 Generalized Type II Tobit Regression: The Determinants to Cash Dividend Payout Ratio of Chinese Listed Firms (Ownership Structure)	86
Table 16: Generalized Multinomial Logit Regression: The Dividend Policy of the Listed Companies (Rights Offering).....	88
Table 17: Market Reaction to Cash Dividends Announcements	93
PANEL A: Market Model, Equally Weighted Index (Abnormal Return)	93
PANEL B: Market Model, Equally Weighted Index (Cumulative Abnormal Return)	94
PANEL C: Comparison Period Adjusted Model (Abnormal Return).....	95
PANEL D: Comparison Period Adjusted Model (Cumulative Abnormal Return).....	96
Table 18: Market Reaction to Cash Dividends Announcements (Companies with Non-tradable Shareholding Larger than 50%).....	97

PANEL A: Market Model, Equally Weighted Index (Abnormal Return)	97
PANEL B: Market Model, Equally Weighted Index (Cumulative Abnormal Return)	98
PANEL C: Comparison Period Adjusted Model (Abnormal Return).....	99
PANEL D: Comparison Period Adjusted Model (Cumulative Abnormal Return).....	100
Table 19: Market Reaction to Cash Dividends Announcement (Companies with Non-tradable Shareholding Less than 50%)	101
PANEL A: Market Model, Equally Weighted Index (Abnormal Return)	101
PANEL B: Market Model, Equally Weighted Index (Cumulative Abnormal Return).....	102
PANEL C: Comparison Period Adjusted Model (Abnormal Return).....	103
PANEL D: Comparison Period Adjusted Model (Cumulative Abnormal Return).....	104
Table 20: Market Reaction to Cash Dividends Announcements-Cross Sectional	
Regression on CAARs	107
PANEL A: NONTRD	107
PANEL B: ST	107
PANEL C: LP	107
PANEL D: T1	108
PANEL E: DT12	108
PANEL F: L10	108
PANEL G: FOREIGN.....	109
PANEL H: INS	109
Figure 1: The Growth of Share Accounts 1993-2004.....	41
Figure 2: The Share Structure of Listed Companies, 2002.....	45

Abstract

This study empirically examines the causes and consequence of the dividend payout decision for China's listed companies. Empirical results show that after controlling for companies' specific characteristics, the unique ownership structure of China's listed companies contributes to the dividend payout decision. First, the cash dividend payout decision is driven by the propensity of the non-tradable shareholders, especially the Legal-Person shareholders. Controlling shareholders use cash dividend as a way to liquidate from the listed companies. Second, the probability of paying cash dividend increases with shareholder concentration. Third, companies with more shares held by external individual shareholders or foreign shareholders are less likely to pay out cash dividend. Fourth, the traditional board of director system seems to be ineffective in monitoring largest shareholder's liquidation through cash dividends behavior in China. Finally, event study results show that in general the market reacts negatively to cash dividend announcement, especially to those companies with large non-tradable shareholdings. Thus, this study partially solves the puzzling phenomenon of the coexistence of frequent refinancing and cash dividend payout behavior of China's listed companies.

1 Introduction

Corporate dividend policy is of concern because it has important practical as well as academic implications. The research on the dividend policies are mainly focused around two questions: what are the determinants of the dividend payout (Black 1976, Barclay, Smith and Watts 1995, Fama & French 2001) and what's the effect of dividend policy to firm value (Miller and Modigliani 1961, Aharony and Swary 1980, Lang 1989). Though there are various theories and empirical studies being suggested to explain corporate dividend policy, much remains to be learned.

All the traditional dividend theories are derived from Miller and Modigliani's (MM) Dividend Irrelevance Theory (1961). By relaxing the restriction on no tax difference between cash dividend and capital gain in MM Dividend Irrelevance Theory, Farrar and Selwyn (1967) and Brennan (1970) suggested that it would be optimal to pay no dividends at all because of the tax disadvantage of ordinary income over capital gains and Tax Clientele Theory appears. By relaxing the restriction of information symmetry between dividends payers and receivers, Ross (1977) proved that an increase in cash dividend payout would represent an unambiguous signal to the marketplace that the firm's prospects have improved. By relaxing the restriction of no agency cost, Rozeff (1982) suggests that cross-sectional regularities in corporate dividend payout ratios may be explained by a trade-off between the flotation costs of raising external capital and the benefit of reduced agency costs when the firm increases its dividend payout, thus Agency Cost Theory on Dividend Policy was raised. Many other theories appear after the relief of other restrictions such as no transaction cost.

However, these traditional dividend theories, such as the Tax Clientele Theory, the Signaling Theory and the Agency Cost Theory seem to be unable to satisfactorily explain the dividend payout pattern of China's listed companies.

The Tax Clientele Hypothesis indicates that the companies may set their dividend payout policy according to shareholder's tax bracket, thus maximally limit the undesirable transaction costs and reduce the clientele shifts due to dividend changes. However, according to the present tax system in China, the public must turn in 20% of their cash dividend as personal income tax^a, while the capital gain in the secondary market is tax-exempted. Similarly, the institutional investors need to pay out part of the cash dividend as taxes according to the difference of the income tax ratio between themselves and the stock issuers. There are considerable tax payment costs for all kinds of shareholders if the listed companies choose to pay cash dividend. Therefore the current "favor of cash dividend" policy in most listed companies seems to be inconsistent with the wealth maximization of majority shareholders.

The Signaling hypothesis states, although there is a close relation between dividend payout and net income condition, under asymmetric information, listed companies usually maintain the stable dividend level to convey the information of normal performance to investors. Only when the listed companies reformulate their long-term development goals, they will adjust the stable dividend policy. Yet the Signaling Theory could not explain the sudden large increase of cash dividend of the listed companies in China's stock markets since 2000 as there was no significant operating performance improvement in these companies (Sun & Tong 2003).

^a According to "Notification of Personal Income Tax Rate on Cash Dividend" (Ministry of Finance, China, June 13, 2005), the tax rate on cash dividends is cut to half of the shareholder's income tax rate.

According to the Agency Cost Theory, cash dividend is helpful to reduce the managerial agency costs and alleviate the conflict between managers and external shareholders. If this hypothesis is tenable, the more concentrated the ownership structure and the more the control power of major stockholders to the company, the less the agency cost and the less the request to cash dividend payout, vice versa. However, in China, evidence shows that the more centralized the ownership structure, the more cash dividend the firm pays out, and this obviously disobeys with the Agency Cost Theory.

Some interesting dividend payout phenomena in China are highlighted here. First, when looking at the dividend policy of China's listed companies, one may notice an increasing tendency of cash dividend payout (which will be discussed later in detail). Second, the top 10% companies ranked according to the biggest shareholder's shareholding proportion increase their cash dividend payout year by year and having large shareholders is the common characteristics of companies enthusiastic in cash dividend payout (Shen 2000). Finally, there is a coexistence of high dividend payout and high frequency of rights offering or seasoned offering with transaction costs for China's listing companies, most of which were SOEs (State Owned Enterprises) before they were listed (Lee & Xiao, 2004).

This dividend payout pattern can be considered as a phenomenon of crony capitalism, a much more complicated situation in emerging markets including China. Crony capitalism in emerging markets is well documented in the literature (Faccio, Lang and Young 2001). When we look back at the South-east Asia economic crisis beginning from 1997, the domestically grown practices of crony capitalism and weak

financial structures are considered as the major causes. Therefore as traditional theories cannot fully explain the dividend payout pattern in China, in this dissertation I study the dividend policy of China's listed companies by focusing on their unique ownership structure/shareholding structures. This is characterized by the existence of the large sum of non-tradable shares as well as a highly concentrated shareholding structure.

First China's listed companies have a large amount of non-tradable shares^b. The share's cost for non-tradable shareholders and tradable shareholders of China's listed companies are tremendously different. The cost per share for non-tradable shareholders is priced on a company's asset book value while the cost per share for tradable shareholders in IPO can be several dozens times and the price per share in the secondary market even doubles the price in IPO due to the huge demand in the market (Mok and Hui 1998; Chan, Wei and Wang 2001). Furthermore, the non-tradable shareholders can not benefit from the share price appreciation in the secondary market. The only way for them to realize their return is through earnings redistribution. Therefore, non-tradable shareholders and tradable shareholders show deviated interests in dividend payout. This deviation motivates the non-tradable shareholders to pay cash dividends as liquidation.

Second, the largest shareholder in a listed company in China usually holds a large sum of non-tradable shares. On average, the largest shareholder controls around 44% of listed companies' shares, while the second largest shareholder typically owns less than 10%. Ownership is heavily concentrated with the five largest shareholders

^b For the detail on the ownership structure of China's listed companies, please refer to Table 3.

accounted for 58% of the outstanding shares in China. This unique concentrated shareholding structure enables the large shareholders to manipulate the company's financial decisions. The transfer of resources out of listed companies into parent companies or other related parties are thus tenable through controlling shareholder's push on aggressive cash dividend policy.

Thus the objectives of the study include three aspects. The first one is to understand the determinants of dividend policy in China's listed companies, especially whether non-tradable shares have any effects on dividend policy. The second is to verify if the existence other types of shareholders will influence the dividend policy for the listed companies in China's stock market. The third is to test the market reaction to dividend announcement.

Empirical results show that non-tradable shareholders' favor for cash dividend significantly affects firms' dividend policy. Specifically, the more the shares held by non-tradable shareholders, the more likely the listed companies would pay out cash dividend. And the more concentrated the ownership structure, the more likely the company would pay cash dividend. Furthermore external individual shareholders or foreign shareholders tend to favor those firms paying less cash dividends. The traditional board of director system seems to be inefficient in monitoring largest shareholder's liquidation through cash dividends behavior in China. Finally, event study results show that in general the market reacts negatively to cash dividend announcement, especially to those companies with large non-tradable shareholdings which is consistent with the previous findings.

Above all, my study helps to solve the puzzling phenomenon of the coexistence of frequent refinancing and high cash dividend payout behavior of China's listed companies. It is this unique ownership feature of the existence of non-tradable shares in China's listed companies that leads to the unreasonable behavior of controlling large shareholders.

In addition, by empirically testing the effects of different types of shareholders on dividend payout decision, this study helps to enrich the dividend policy literature by relaxing the assumption made by MM that all shares are homogeneous and tradable. Empirical results of this study show that different types of shareholders will have different interests in cash dividends. The dividend policy is then, to a large extent, driven by the specific type of shareholders who control the firm.

Finally, by revealing that the traditional board of director monitoring system seems to be ineffective in monitoring controlling shareholders' liquidation through cash dividends behavior, this study bears practical implications to investors as well as to policy makers.

The remaining part of the dissertation is organized in the following manner. Chapter 2 examines the relevant existing theoretical and empirical literatures to see whether they can highlight the dividend payout pattern in China. Chapter 3 investigates the institutional features of China's stock market. Chapter 4 carries on hypothesis development. In Chapter 5, the determinants of dividend payout of China's listed company and empirical results are presented. Chapter 6 examines the ex-post effect which is the market reaction to cash dividend announcements. Chapter 7 completes this dissertation by providing some concluding remarks.

2 Literature Review

In this chapter, the existing theoretical and empirical research on corporate dividend policy is reviewed to see whether these theories can highlight the dividend payout pattern of China's listed companies. The first section examines behavioral models of dividend policy, dividend tax clientele effect, information content of dividends (the signaling hypothesis), agency costs and dividends, growth (investment) opportunities, transaction costs and expropriation theory. The second section reviews some empirical studies on the Chinese firms' dividend policy.

2.1 *Classic Theories and Empirical Studies on Dividend Payout*

2.1.1 MM theory

Miller and Modigliani (1961) raised the theory on the irrelevance of dividend policy when there were no taxes or transactions costs and everyone was fully informed about the distribution of the firm's future cash flows. The premise of the theory is that firm value is decided by the optimal investment policies. The dividend is only the residual of net income minus investment and won't affect the firm value. Since the dividend includes stock dividends and repurchases, companies are able to keep the dividend payout at any level by buying or selling out the tradable shares. From the aspect of investors, cash dividends can also be replaced by capital gains. To prove this, they assume there is a perfect capital market (no taxation, no transaction cost, no agency cost, and no information asymmetry).

$$V_t = \frac{Div_{t+1} + n_t P_{t+1}}{1 + \rho_{t+1}} \quad (2.1)$$

where,

V_t = the market value of the firm at time $t = n_t P_t$.

Div_{t+1} = total dollar dividend payment at time $t+1$.

n_t = total number of shares outstanding at time t .

ρ_{t+1} = the market-required rate of return during the time period t .

P_{t+1} = price per share at the beginning of time period $t+1$.

If new shares are issued, the total number of shares outstanding at the end of period, n_{t+1} , will be the sum of current shares, n_t , and new shares, m_{t+1} :

$$n_{t+1} = n_t + m_{t+1} \quad (2.2)$$

There are two major sources of funds for an all-equity firm in the ideal market.

First, it receives cash from operations, E_{t+1} . Second, it may choose to issue new shares, $m_{t+1} P_{t+1}$. There are also two major uses of funds: dividend payout, Div_{t+1} , and planned cash outlays for investment, I_{t+1} . Therefore dividend can be written as:

$$Div_{t+1} = E_{t+1} + m_{t+1} P_{t+1} - I_{t+1} \quad (2.3)$$

The value equation of (2.1) can be rewritten as:

$$V_t = \frac{E_{t+1} - I_{t+1} + V_{t+1}}{1 + \rho_{t+1}} \quad (2.4)$$

But the market is not as perfect as MM assume to be, different theories are proposed to establish the optimal dividend payout policy in an imperfect world later.

2.1.2 Behavioral Models of Dividend policy

Lintner (1956) found that dividend changes followed shifts in long-run sustainable earnings, because managers were reluctant to make dividend changes, which were likely to be unsustainable. The primary determinants of changes in dividends are most recent earnings and past dividends paid, and management sets dividend payments to adjust slowly over time toward the desired fraction of earnings.

He built the hypothesis of the relationship between dividends and earnings as following:

$$\Delta Div_{it} = a_i + c_i (Div_{it}^* - Div_{i,t-1}) + u_{it} \quad (2.5)$$

where

ΔDiv_{it} = the change in dividends

c_i = the speed of adjustment to the difference between a target dividend payout and last year's payout

Div_{it}^* = the target dividend payout

$Div_{i,t-1}$ = last period's dividend payout

Substituting γE_t for the target dividend payment Div_{it}^* in the Equation,

where Div_{it}^* is the target dividend payment for any year t , γ is the target payout ratio (current dividends divided by current net earnings), and E_t is the firm's net earnings in year t . Let $b_i = c_i \gamma$, the follow equation can be obtained:

$$\Delta Div_{it} = a_i + b_i E_t - c_i Div_{i,t-1} + u_{it} \quad (2.6)$$

Lintner estimated the above equation by employing the annual data from 1918 through 1941 and discovered that the model explains about 85 percent of the variation in the dividends. According to Lintner's viewpoint, companies usually make stable cash dividend payout on the basis of their target dividend payout ratio, which is determined by their net income and increases in incomes are transformed into increases in dividends gradually so as to avoid the necessity of future downward revisions. This lag in adjustment of current dividends to the increase in earnings is a kind of safety device designed to make dividends a function of permanent rather than transitory earnings that cannot be sustained. Thus Brittain (1966) modifies Lintner's model by employing dividends as a function of cash flow (earnings plus depreciation) rather than earnings. The author discovers that accelerated depreciation, increased cash flows, and the external cost of financing explain the dividend payout behavior of corporations quite well.

Formula (2.6) is employed by both Lintner and Brittain to investigate corporate dividend policy using aggregate data. Fama and Babiak (1968) employ various models to explain dividend behavior using firm-level data. They discover that Lintner's partial adjustment continues to explain dividend behavior model very well using annual data from 1947 to 1964. Consistent with the finding of Fama and Babiak(1968), Nakamura and Nakamura (1985) find that adding the lagged earnings into Lintner's model will increase the model's explanatory power. Subsequent empirical works by Pettit (1972), Watts (1973), Jalilvand and Harris (1984), Thomson and Watson (1989), also support Lintner's dividend behavioral model. For example,

Thomson and Watson (1989) estimate three different dividend behavioral models by using annual cross-sectional data from 1980 to 1981 in the United Kingdom. They find that the cross-sectional data successfully explain companies' dividend behavior; many firm tend to pay stable dividends even when their earnings are reduced; and earnings determined using historic-cost method generally provide a better explanation of the change in dividends than earning determined according to the current cost method.

While the studies reviewed above support Lintner's (1956) major findings that companies tend to pay stable dividends and dividends change with a lag to reflect permanent changes in the companies' earnings, they don't address why corporations pay out the amount of dividends they do. The following section surveys some theoretical and empirical attempts to answer this question.

2.1.3 Dividend Tax Clientele Effect

Shareholders receive and are taxed the returns to shares either as dividends or capital gains. Dividends and capital gains are taxed differently among various types of investors, individual investors, corporate investors, and tax-exempt or tax-deferred investors. The dividend clientele effect originally suggested by Miller and Modigliani (1961) indicates that different groups of investors desire different levels of dividends. For example, high-tax-bracket investors will prefer stocks with low-dividend yield and low-bracket investors will prefer high-dividend yield. The dividend clientele effect is a possible explanation for management's reluctance to change dividend policy: such changes might lead to clientele shifts and cause investors to incur undesirable transaction costs.

The best-known attempt to find the dividend clientele effect is by Elton and Gruber (1970). The authors develop a model which measures marginal stockholder tax brackets (dividend clientele effect) by examining the ex-dividend-day stock price adjustment. Using data from April 1966 to March 1967, they discover that the average price decline of stocks at the close of the ex-dividend date is lower than the amount of the dividend. Based on this result, they argue that the average decline in stock price when a stock goes ex-dividend can be explained by the tax bracket or clientele effect, which is the higher a firm's dividend payout ratio, the lower the tax bracket of its stockholders, and vice versa.

Pettit (1972) tested for dividend clientele effects by examining the portfolio positions of approximately 914 individual accounts handled by a large retail brokerage house between 1964 and 1970. He argued that stocks with low dividend yields will be preferred by investors with high income, whose ordinary and capital gains tax rates differs substantially, and by investors whose portfolios have high systematic risk. His model is

$$Div_i = a_1 + a_2\beta_i + a_3AGE_i + a_4INC_i + a_5DTR_i + u_i \quad (2.7)$$

where

Div_i = dividend yield for the i th individual's portfolio in 1970

β_i = the systematic risk of the i th individual's portfolio

AGE_i = the age of the individual

INC_i = the gross family income averaged over the 1st three years

DTR_i = the difference between the income and capital gains tax rates for the i th individual.

He finds that there is a clientele effect because a significant portion of the observed cross-sectional variation in individual portfolio dividend yields can be explained.

Consistent with the dividend clientele effect, a number of researchers including Poterba and Summers (1984), Bajaj and Vijh (1990), Ang et al. (1991), Lasfer (1995), Koski (1996), Bali and Hite (1998) also report empirical results which support the existence of a tax-induced dividend clientele effect.

By contrast, Kalay (1982) argues that the Elton and Gruber study (1970) is flawed because it ignores short-term trading by members of the exchange and tax-exempt investors. They raise the short-term trading hypothesis by showing that short-term traders will arbitrage any differences between dividends and security price changes subject to their marginal transaction costs. After refining the test of the clientele effect in the Elton and Gruber analysis, Kalay (1982) finds that the ex-dividend-day price adjustment is not significantly different from the dividend because of profit elimination by short-term traders. A number of researchers including Stickel (1991), Boyd and Jagannathan (1994), and Koski (1996) support the view that both short-term trading by tax-exempt investors and transaction costs make it impossible to infer investors' relative effective tax rates on the basis of stock-price adjustments on the ex-dividend day. Based upon the studies reviewed above, there seems to be no clear consensus on whether taxes on dividends affect ex-dividend stock prices.

Catering Theory

Catering theory is the most recent development of Clientele theory. Baker and Wurgler (2004) propose that the decision to pay dividends is driven by prevailing

investor demand from dividend payers and find that non-payers tend to initiate dividends when demand is high through constructing four stock price-based measures of investor demand for dividend payers. This theory further explores the traditional Clientele theory.

2.1.4 The Information Content of Dividends: the Signaling Hypothesis

Under information asymmetry, insiders are better informed than outside investors. If managers have information that outside investors do not have, they may use dividends as a way to signal this private information and reduce information asymmetry. The information content of dividends hypothesis was originally suggested by Miller and Modigliani (1961) who explain observed stock price reactions to changes in dividends. When a firm follows a stable dividend policy, investors usually interpret a change in the dividend payout rate as a change in the management's views of the firm's future profitability. Therefore, a change in the stock price follows a change in dividend because the latter signals information concerning a firm's future earnings prospects (future cash flows) to the capital market.

Ross (1977) was the first to apply the signaling equilibrium model to dividend policy. He argues that increases in a firm's dividend payments are signals that the firm's expected future cash flows are sufficiently large to meet both debt and dividend payments without significantly increasing the probability of bankruptcy. He suggests that implicit in the Miller-Modigliani dividend irrelevancy proposition is the assumption that the market knows the (random) return stream of the firm and values this stream to set the value of the firm. But in the real world, managers, as insiders who have monopolistic access to information about the firm's expected cash flows,

will choose to establish unambiguous signals about the firm's future if they have the proper incentive to do so. The signaling concept is easily applied to dividend policy. Therefore one possible benefit of dividends is that they provide valuable signals. This benefit can be balanced against the costs of paying dividends to establish a theory of optimal dividend policy.

Bhattacharya (1979) develops a theoretical model of dividend signaling in which dividends function as signals of future earnings. The author shows that if stockholders have imperfect information about companies' profitability, and if there is a differential tax treatment of dividends versus capital gains income for investors, then dividends will be a surrogate for a signal of expected cash flows. Miller and Rock (1985) also develop a financial signaling model that explicitly combines dividends and external financing to show that they are merely two sides of the same coin. The earnings surprise and the net dividend surprise can convey the same information as the financing surprise. The financing announcement effect is merely the dividend announcement effect, but with the sign reversed. In their model, given the information asymmetry between investors and managers of the firm, dividends provide a signal for future earnings. Furthermore, the authors show that unexpected changes in earnings, dividends, and financing announcements are closely related to stock-price changes on the announcements are closely related to stock-price changes on the announcement date.

Pettit (1972) and Ahroney and Swary (1980) find that consistent with dividend signaling, stock returns are positively correlated with dividend changes. Asquith and Mullins (1986) examine a sample of companies that either paid the first dividend in

their corporate history or initiated dividends after a 10 year period. The authors find statistically significant two-day abnormal returns (3.7%) for initial dividend announcements. Richardson et al. (1986) also discover statistically significant two-day abnormal returns (4%) for initial dividend announcements. Bajaj and Vijh (1990) find a strong positive relationship between stock price changes and dividend changes and that the price reactions to dividend changes are larger for the stocks of small companies than for large companies because a small firm's dividend announcements convey greater information than a large firm's.

A number of researchers support the hypothesis that dividend changes signal changes in management's views of the firm's future earnings prospects. For example, Aharony and Swary (1980) discover that changes in quarterly cash dividends provide useful information about changes in management's assessment of the firm's future prospects. Brickley (1983) finds that future earnings changes are statistically larger after the announcement of a dividend increase. Ofer and Siegel (1987) find that announcements of unexpected dividend changes are positively associated with changes in the earnings forecasts of the firm. Kao and Wu (1994) report that dividend changes reflect both expected and unexpected permanent earnings changes. Gombola and Liu (1999) find greater effects of favorable information for under investing companies by examining the stock price reaction to specially designated dividend announcements.

However, someone also finds that the relationship between current dividends and future earnings is positive but not very strong, e.g. Watts (1973) and Gonedes (1978). Penman (1983) finds that dividends convey very little information about a

firm's future earnings. In other words, they think there is no economically significant relationship between dividends and subsequent earnings.

Though there is no clear consensus as to whether dividends convey information on the future growth prospects of the firm or reflect an unexpected increase in net income, the overwhelming majority of empirical studies support the view that unexpected dividend changes do convey information to the market about expected future cash flow.

Firm Size Effect on Information Content

Firm-size effect is an interesting aspect of dividend theories based on the information content of dividend change. Bhushan (1989) suggests that information acquisition is less costly for shareholders of large companies than for those of small companies, as there is more information available about large companies. This suggests that the amount of information available before the earnings announcements is an increasing function of firm size. If more information is available about a firm, it is less likely to be motivated to release a signal to investors. Therefore, larger companies tend to pay a smaller dividend than smaller companies, and vice versa.

Bajaj and Vijh (1990) carry on a test for firm-size effect and find that price reactions to dividend changes are greater for small companies than for large companies, which indicates that dividend announcements for smaller companies are more informative. According to them, some of the information provided by the dividend announcement to shareholders in small companies is available to

shareholders in large companies from other sources. In the contrast, Jalilavand and Harris (1984) report that a firm size does not appear to affect dividend payout.

Furthermore, many scholars discover a positive relationship between dividend and firm size, i.e., the larger a firm, the higher the dividend payments. According to Vogt (1994), and Holder et al. (1998), larger companies tend to be more mature and thus have easier access to the capital markets, which reduces their dependence on internally generated funding and allows for higher dividend payout ratios.

Mozes and Rapaccioli (1995) investigate “the role dividend announcements play in explaining the inverse relation between the magnitude of the market reaction to earnings announcements and firm size (the size effect)”. The authors find that the firm-size effect does not exist if dividends are announced before the earnings announcement, while such an effect does exist for a sample of their companies that either do not pay dividends or announce dividends after announcing earnings.

In summary, the dividend signaling models predict that large companies tend to set a smaller size of dividends than smaller companies. Empirically, however, no consensus exists on this issue.

Empirical evidence for “dividend signaling hypothesis” is generally favorable, with most scholars providing results consistent with the hypothesis that dividend policy is used by managers to convey private information to outsiders, and that prices adjust to this information.

The Reputation Argument

The Reputation Argument states that dividend payout may strengthen the reputation of a company in the capital market which is prone to do rights offering in the future.

Handjinicolaou and Kalay (1984) examine the stock and bond price reactions to dividend changes. Consistent with the reputation hypothesis, the authors find no evidence of wealth redistribution from bondholders to stockholders, but do find evidence in favor of the reputation argument.

Long et al. (1994) test both the debt covenant and reputation hypothesis. Using a sample of the companies' dividend payout ratios, straight debt, and convertible debt from 1964 to 1977, their findings do not support the debt covenant argument, but do support the reputation argument. The authors conclude that reputation is the most plausible explanation why companies do not transfer wealth from bondholders to stockholders through dividend policy.

2.1.5 Agency Costs and Dividends

The classic agency theory developed by Jensen and Meckling (1976) points out that agency cost exists between shareholders and managers due to separation of ownership and control. There are many ways of reducing agency costs. Dividend payments serve as one means of monitoring or bonding management performance. Greater dividend payments to shareholders may force the firm both to raise capital by selling new shares and to go to the capital market more frequently. Agency costs are

reduced as a result of the increased scrutiny the capital market places on the firm, e.g. Easterbrook (1984) and Jensen (1986).

Rozeff (1982) uses a sample of 1000 non-regulated companies in 64 different industries from 1974 to 1980 to find that if a firm has a high percentage of insider stock ownership, it will pay a small dividend (a lower optimal dividend payout ratio) to reduce agency costs; and if a firm has a greater number of shareholders, it will pay a high dividend (a higher optimal dividend payout ratio) to reduce agency costs. Furthermore, Rozeff (1982) also argues that an optimal dividend policy may exist even tax considerations are ignored. According to his argument, managers with substantial free cash flow can increase dividends or repurchase stock and thereby pay out current cash that would otherwise be invested in low-return projects or wasted, therefore increased dividend payments reduce the volume of funds over which management has discretionary control; thus the costs of agency are reduced, but the transaction costs of external financing increase. Therefore, there is an optimal dividend payout which minimizes the sum of these opposing costs.

Kalay (1982), DeAngelo (1990), Jensen et al. (1992), and Long et al. (1994) find an inverse relationship between dividends and debts. On the contrary, Denis (1990), and Smith and Watts (1992) find a positive relationship between the leverages of a firm and its dividends.

2.1.6 Growth (Investment) Opportunities

The growth of a firm depends on the amount of resources retained and reinvested in the firm and the rate of return that is earned on the retained resources. If

a firm were experiencing substantial success and rapid growth, the firm would require large additions of capital. Therefore, growth companies may expect to pursue a low dividend payout policy since investments and dividends are linked through the firm's cash-flow identity.

Many studies have suggested a negative relationship between the growth (investment) opportunities of a firm and its dividends. For example, Rozeff (1982) and Schooley and Barney (1994) find that dividend payout ratio is negatively related to both past growth revenues and predicted growth revenues of the firm. Their findings imply that higher growth rates in past and future revenues require more funds to sustain growth; thus companies with more growth opportunities pay lower dividends in order to finance further growth.

Using industry-level data from 1965 to 1985, Smith and Watts (1992) also discover that various measures of growth opportunities are negatively related to corporate dividend policy. Meanwhile, Gaver (1993), using firm-level data, find an inverse relationship between investment (growth) opportunities and dividend policy. They thus conclude that the results of their firm-level data are consistent with the industry-level results reported by Smith and Watts (1992). La Porta et al. (2000), using firm-level data from 33 countries, discover that high growth companies make lower dividend payouts than low growth companies.

Using the over-investment hypothesis, Jensen (1986) argues that if a firm has more growth options than other companies, it will have lower free cash flow and will pay lower dividends. Consistent with the over-investment hypothesis, Lang and Litzenberger (1989), Howe et al. (1992), and Denis et al. (1994), using Tobin's Q as

an indicator of firm's growth (investment) opportunities, discover a negative correlation between Tobin's Q and dividend yield. Thus, their result is consistent with the findings of previous studies, which report a negative relationship between growth opportunities and dividends.

2.1.7 Transaction Costs

Transaction Cost is an important factor in a company's decision on dividend policy which is associated with the cost of refinancing (e.g. issuance of new equity).

2.1.7.1 Negative Relation with Dividend

If issuing costs are significant, then companies are likely to finance investments through retention of earnings rather than from external sources. Empirically, a number of researchers, such as Rozeff (1982), Schooley and Barney (1994), find a negative relationship between dividends and issuing costs.

Using estimates of transaction costs Kalay (1982) shows that the incentive for dividend captures (arbitrages) increases with lower transaction costs. Similarly, Karpoff and Walking (1990), Stickel (1991), and others also suggest that more dividend captures occur when transaction costs are lower.

2.1.7.2 Either Positive or Negative Relation with Dividend Payout

Levy and Sarnat (1990) argue that transaction costs can be positively or negatively related to dividends. A shareholder who desires to increase his investment in the firm would prefer not to receive cash dividend, thereby increasing his investment in the firm without paying commissions, which are proportionately high,

particularly when the amount of investment is relatively small. By contract, investors who desire to decrease their investment in the firm would prefer to receive dividends, thereby avoiding the commission fees which apply to the alternative of selling off part of their shares.

2.1.7.3 No Relation

Black (1976) argues that if investors are concerned about transaction costs, companies which pay dividends can arrange for automatic share repurchase plans or automatic reinvestment plans. Hence, transaction costs are not related to a firm's dividend policy. Huberman (1990) argues that dividend policy is irrelevant in the presence of transaction costs. Since a dividend is withdrawn from a firm's marginal project, a shareholder who receives the dividend uses the money optimally by investing it in his or her marginal project. Consequently, although there are transaction costs, the firm's dividend policy has no effect on the welfare of individual shareholders.

Based upon the studies mentioned above, there seems to be no clear consensus on whether investors' transaction costs affect a firm's dividend policy.

2.1.8 Expropriation

Expropriation theory is the most recent development of agency problem. When companies are controlled by large shareholders such as most companies in East Asia and Western Europe, a conflict may arise between the controlling shareholders and minority shareholders. The former may have both incentive and ability to expropriate minority shareholders (La Porta, Lopez-de-Silanes, and Shleifer, 1999;

Claessens, Djankov, and Lang, 2000), where “tunneling” may be one more explicit form of expropriation. The term “tunneling” refers to the expropriation of minority shareholders by the controlling shareholders, through the transferring of assets and profits out of the controlled firm for the benefit of those who control them (Johnson, La Porta, Lopez-de-Silanes, and Shleifer, 2000).

Johnson, La Porta, Lopez-de-Silanes and Shleifer (2000) is the first study to show some cases of legal tunneling in Continental Europe. They conclude that tunneling occurs more in countries with relatively ineffective corporate law enforcement, and surmise that it could be even more prevalent in emerging capital markets. Their conjecture has been supported by some other studies using indirect measures of expropriation or “tunneling”.

Faccio, Lang and Young (2001) compare European and Asian dividend payout pattern of “crony capitalism” and find that group-affiliated corporations in Europe pay higher dividends than in Asia, dampening insider expropriation.

La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2002) show that firms in countries with poor legal protection of minority shareholders rights make low dividend payouts because investors have no legal avenues to force higher payouts from these firms.

Farinha(2002), using a large sample of UK companies and two distinct periods, finds evidence of a strong U-shaped relationship between dividend payouts and insider ownership in the UK.

From the above literature review, we see that scholars tried to explain the “dividend puzzle” from several aspects. Behavioral finance theory attributes dividend payout to sustainable earnings and previous year’s dividend payout. Clientele effect theory emphasizes the influence of taxation on cash dividends (Lewellen, Stanley, Lease and Schlarbaum, 1978). Under signaling theory, changes in dividends convey information about the future profitability of the firm (Ross 1977, Bhattacharya 1979, Miller and Rock 1985). Under Agency Theory, shareholders use cash dividend to prevent managers from abusing the free cash flow of the firm (Jensen 1986, Myers 2000). However, as being discussed later, empirical evidence from China’s stock market supporting these theories is little or weak. In the next section, some Chinese domestic literatures on dividend policy are reviewed.

2.2 Dividend Policy Study on China’s Listed Companies

Dividend policy of China’s listed companies is an interesting topic to financial scholars. There are various researches emerging in recent years.

Wei (1998) compares the different market reactions towards the firm dividend policy. The effects he examines include that the companies pay dividend, don’t pay dividend, don’t pay dividend with explanation and don’t pay dividend without explanation. The conclusion is that the market prefers stock dividend to cash dividend. While Cheng and Yu (2001) empirically analyze the effect of the annual dividend announcement to stock price and trade volume; they find that the abnormal return appears to be negative when the cash dividend is a way of initial dividend payout. Comparing the abnormal return of cash dividend, stock dividend and combined dividend, they find that the abnormal return of cash dividend payout is significantly

less both in initial dividend payout and common annual dividend payout. Chen and Xu (2001) discuss the phenomenon of listed companies' profit manipulation using cash dividends to cater for the regulation by CSRC on Rights Offering.

Lee and Xiao (2004) also investigates the cash dividend paying behavior in China using a sample of firms for the period from 1996 to 1999, and they find that despite of taxation disadvantage and funds shortage, listed companies regularly pay about half of net incomes as cash dividends, while a group of companies keep stable cash dividend payments and the other keep stable payout ratio. Moreover, they find that the market reacts positively to the decline of cash dividend due to ownership and governance problem. The listed companies pay cash dividends to boost return on equity to meet the qualification for rights issuing. After rights issuing, they pay part of the cash raised as dividends.

All these studies seem to raise two interesting questions. Based on the traditional event study methodology, there is generally a negative abnormal return for the cash dividend payers in the market, indicating cash dividend decision in China is actually damaging instead of enhancing shareholders' wealth. Then why the investors react negatively to cash dividend announcements? And why these companies continue to pay out a large proportion of their earnings to the shareholders in China? These two questions motivate this research. In the following Chapters some unique China's institutional features are discussed to shed light on these two puzzling questions.

3 Institutional Features of China's Stock Market & Dividend Policy

The last two decades have been witnessed the big change in China's economy from central planning to market mechanism, especially in the equity markets. From table 1 we could see that as at the end of year 2005, 1381 companies have issued common stocks to public while 841 got listed for trading on the Shanghai Stock Exchange (SHSE) and 536 on Shenzhen Stock Exchange (SZSE), with a total market capitalization of over 3243 billion RMB. The stock market has also become increasingly important in means of raising capital for China's state-owned enterprises (SOEs), resulting in more than RMB 188 billion new equity issuance during 2005 alone. Also from table 1 we could see that the development of China's domestic equity market experienced an astounding speed. The number of total listed companies has increased 26 times since 1992 from 52 to 1381; the number of investors has increased over 35 times from 2.2 million to over 73 million. More important, the market capitalization has expanded more than 40 times from merely 104.8 billion in year 1992 to 3243 billion in year 2005. All these statistics show a dramatic expansion in the China's stock market. Today the equity market has been playing a more and more important role in helping companies to raise capital to undertake their investment projects.

Table 1: Development of China's Stock Market^c (1992-2005)

Year	1992	1993	1994	1995	1996	1997	1998
Total No. of listed Companies	53	183	291	323	530	745	851
Capital Raised (RMB billion)^d	9.4	31.5	13.8	11.9	34.15	93.4	79.5
Market Capitalization (RMB billion)^e	104.8	353.1	369.1	347.4	984.24	1752.9	1950.6
Market Capitalization/GDP (%)	3.9	10.2	7.89	5.9	14.5	23.4	24.9
Number of Investors (million)	2.2	7.8	10.6	12.4	23.1	33.33	39.1

Year	1999	2000	2001	2002	2003	2004	2005
Total No. of listed Companies	949	1088	1160	1224	1287	1377	1381
Capital Raised (RMB billion)	88.30	151.14	119.92	96.18	135.78	233.5	188.3
Market Capitalization (RMB billion)	2647.12	4809.09	4352.22	4209.21	4245.77	3705.6	3243.0
Market Capitalization/GDP (%)	32.3	53.8	45.4	41.1	36.4	27.1	18.0
Number of Investors (million)	44.8	58.0	66.5	68.8	70.3	72.1	73.4

^c Source: CSRC's official website <http://www.csrc.gov.cn/CSRCSite/deptlistcom/stadata/stadata.htm>.
Some of the statistics were not kept by the CSRC until 1992.

^d Capital Raised is the capital raised by all listed companies' public offering during that year.

^e Market Capitalization is the total market value of all listed companies at the end of the year.

China's stock exchange was established in November 1990 when an exchange was opened and eight companies first went public in Shanghai (Chen, Lee & Li, 2003). After 5 months, another exchange was set up in Shenzhen. The initial impetus for setting up the Exchange was to provide state-owned enterprises an opportunity to raise funds. Thus, under the "corporatisation of state-owned enterprises" policy of the government, several state-owned companies were converted to limited liability companies and listed on the Exchanges.

In 1992 the State Securities Committee (SSC) and the China Securities Regulatory Commission (CSRC) was set up to provide a mechanism to regulate the securities market. The State Securities Committee was the highest governing authority of the securities market. Its duties included organizing and drafting of related laws and regulations, preparing developmental strategies and plans, guiding, coordinating, supervising, and reviewing the work of related central government agencies and local government bodies and monitoring the operations of the CSRC.

The CSRC acts as the executive arm of the State Securities Committee and therefore plays an important role in development and day-to-day management of the securities market. For example, listed companies have to file various financial reports with the CSRC and also have to disclose summaries of these reports in newspapers specified by the CSRC. These reports include the prospectus, listing report, periodic reports, current reports and reports on intended takeover. When the SSC was dissolved in 1998, the CSRC was upgraded to a level equivalent to a ministry with extensive authorities. China's first Securities Law, which took effect in July 1999, further strengthened the CSRC's supervisory power.

3.1 Supply Side in China's Stock Market

The companies listed in the China stock market have been dominated by the state-owned enterprises (SOEs). These companies were SOEs before IPOs and are effectively controlled by the “mother” SOEs or the corresponding government administrative institutions or agents after their IPOs. Since most SOEs didn't perform well due to Soft Budget Constraint (Lin et al., 1998) and Agency Problem (Zhang, 1997), the primary objective of developing equity markets in China is to help SOEs to relax the external financing constraints and regulations have been asymmetrically in favor of SOEs or companies with close ties to the government. One consequence of such policy practice is that the ownership of Chinese listed companies is highly concentrated in the hands of the government and other institutions, so-called ownership vacuum.

The shares of listed companies can be typically divided into state, legal-person and public shares. The first two categories of shares cannot be traded on the stock exchanges, and their transfer requires special approval from the China Securities Regulatory Commission (CSRC). Public shares are tradable shares issued to the public and are normally held by small individual shareholders.

3.1.1 Non-tradable shares: State Shares and Legal Person Shares

A typical listed stock company in China has a mixed ownership structure with three predominant groups of shareholders----the state, legal persons (institutions), and individuals----each holding approximately one third of the stock. In contrast to

average free-float ratios of 86% in developed markets and 78% for emerging markets, the average free-float ratio for Chinese market is only 36%.^f

State shares are held by government bodies such as central and local governments, which are represented by local financial bureaus, state asset management companies, or institutions authorized to hold shares on behalf of the state such as a wholly state-owned investment companies.

Legal person shares are shares held by any entity or institution with a legal person status, including the original SOE or a company controlled by an SOE. For example, the Shanghai China Petroleum & Chemical Company, which is listed in the Shanghai A share market, HK and NY stock exchanges, has about 56% of shares owned by its original SOE “China Petroleum & Chemical Corporation”. The owner of this corporation is eventually the Ministry of Petroleum and Chemical Industry. These legal person shares are not allowed for circulation but have the same ownership and voting right per share in terms of dividend and other related ownership benefit and responsibility.

Table 2 shows that local government controlled companies take the majority of China’s listed companies.

Table 2: Who Own the Listed Companies in China?^g

Major Ownership				Total Sample
Local Government ^h	Central Government	Town and Village ⁱ	Foreign Joint Venture	

^f See “Dow Jones Research Report: China Stock Market in Global Perspective (2002)”.

^g Source: Chen, X., Lee, J., and Li, J., “Chinese Tango: Government Assisted Earnings Management.” May, 2003.

^h The local government includes provincial government and metropolitan city government.

1993 ^j	218 (86.51%) ^k	3 (1.19%)	16 (6.35%)	15 (5.95%)	252
1994	250 (85.03%)	4 (1.36%)	20 (6.80%)	20 (6.80%)	294
1995	288 (86.49%)	5 (1.50%)	24 (7.21%)	16 (4.80%)	333
1996	496 (86.71%)	9 (1.57%)	38 (6.64%)	29 (5.07%)	572
1997	636 (85.25%)	23 (3.08%)	46 (6.17%)	41 (5.50%)	746
1998	725 (85.70%)	27 (3.19%)	47 (5.56%)	47 (5.56%)	846
1999	809 (86.16%)	29 (3.09%)	53 (5.64%)	48 (5.11%)	939
2000	952 (86.94%)	33 (3.01%)	48 (4.38%)	62 (5.66%)	1095

ⁱ Town and village enterprises are hybrid between SOE and private business. The issue of property right has not been fully resolved. These firms behave like family business in Hong Kong and Taiwan except that the local government has strong direct control over them.

^j Chinese security market began at 1990 with a couple of listed companies on experimental basis. The formal IPO started in 1993.

^k The number in bracket indicates the proportion of total sample.

Some authors, however, suggest that the distinction between state ownership and legal-person ownership can be consequential (Berkman, Cole and Fu, 2003; Sun and Tong, 2003). They find state ownership having negative impacts on firm performance and legal-person ownership having positive impacts on firm performance after SIP (share issuing privatization), which suggests that legal persons behave differently from the state government.

Though the state and legal person shares are non-circulating shares which cannot be traded on the stock exchange, these shares can be transferred to domestic institutions upon the approval of CSRC.

Besides the state and legal person shares, there are other types of non-tradable shares such as the staff shares. The staff shares are offered to workers and managers of a listed company, usually at a substantial discount. These share offerings are designed more as a benefit to employees than an incentive scheme. Staff shares are registered under the title of the labor union of the company, which represents shareholding employees. After a holding period of 6 to 12 months, the company may file with CSRC for allowing its employees to sell the shares in the open market. Many listed companies do not issue employee and foreign shares. If they do, these shares account for less than 10% of total stock. Thus they are not the focus of my study.

3.1.2 Tradable shares: A Shares, B Shares and H Shares

Tradable shares of listed companies in China are classified as domestic (A-shares) and foreign (B-, H-, N-shares and so on) according to shareholders' residency.

The listed companies in the A share markets provide on average 35% of the total shares for the public in the open bid and these shares are circulated in the secondary market after IPOs. Although they have the same ownership and voting right per share as the state or legal person shares, the market value of the circulating shares are many times of the value of the non-circulating shares.

A-shares are restricted to the domestic investors in China. It is the predominant type of the tradable shares denominated in RMB. The tradable A-shares are held and traded most by individuals (some by domestic institutions). There is no restriction on the number of shares traded or on minimum holding periods for individuals. It is required, however, that tradable A-shares account for no less than 25% of total outstanding shares when a company makes its initial public offering.

China established B-share markets in 1992 to give foreign stock investors a chance to buy Chinese stocks and to allow foreign-invested companies and other companies to list. B shares are available exclusively to foreign investors and some authorized domestic securities companies before 2001. Since February 2001, individual domestic investors have been allowed to trade B-shares if they have the foreign currency required. The B-share market is separated from the A-share market, with SHSE B-shares denominated in US dollar and SZSE B-shares in HK dollar. The information release requirements for the companies with B-shares are higher than those with A-share only. The financial statements of the B-share issuing companies must follow the International Accounting Standards (IAS) and must be audited by internationally recognized audit companies while A-share companies can be audited by domestic CPA companies following the General Accepted Accounting Principles

(GAAP). In 2003, 7% of companies listed at SHSE have offered B-share, and 11% at SZSE. According to China Securities and Futures Statistical Yearbook 2003, the average P/E ratio for the A-share is much higher than that of the B-shares.

Chinese companies are also allowed to list shares overseas, thus enabling them to conduct external financing overseas. Most Chinese offshore stocks are traded on the SEHK (H-share), although there are now some Chinese stocks traded on the New York (N-share), London (L-share), and Singapore (S-share) stock exchanges.

While most companies only issue A shares, the majority of B-share issuing companies also issue A shares. By the end of 2003, of the total 111 B-share issuing companies, only 24 issued B-shares exclusively; the rest issued both A and B shares. Among all the 111 H-share companies, 29 had also issued A-shares. Although both B- and H-shares are foreign shares, one important difference is that B-shares are listed and traded on the home market, but H-shares are not.

Table 3 shows the average ownership mix of stock companies listed in China from 1994 to 2003. The total number of companies is increasing all the time in these years, and A-share only companies contribute most to this increase. The proportion of state shares is declining while the proportion for legal person shares is increasing since 1998. The fraction of tradable A-shares also seems to be on the rise since 2001.

Table 3: Number of China's Listed Companies and Share Types (1994-2003)

This table shows the share structures of China's listed companies from 1994 to 2003.

	1994	1995	1996	1997	1998
Company Numbers					
A-share Only	227	242	431	627	727
Both A- & H-shares	6	11	14	17	18
Both A- & B-shares	54	58	69	76	80
B-share Only	4	12	16	25	26
A-share	287	311	514	720	825
B-share	58	70	85	101	106
Total	291	323	530	745	851
Share Numbers (million)					
State Shares	244.79	280.66	420.25	700.72	929.60
Legal Person Shares	205.91	256.99	343.18	507.81	651.91
Staff Shares	6.72	3.07	14.64	39.62	51.70
Others	1.10	6.27	11.60	22.87	31.47
A-share	143.76	179.94	267.32	442.68	608.03
B-share	41.46	56.52	78.65	117.31	133.96
H-share	40.82	65.00	83.88	111.45	119.95
Total	684.54	848.42	1219.54	1942.67	2526.77
Percentage					
State Shares	35.76%	33.08%	34.46%	36.07%	36.79%
Legal Person Shares	30.08%	30.29%	28.14%	26.14%	25.80%
Staff Shares	0.98%	0.36%	1.20%	2.04%	2.05%
Others	0.16%	0.74%	0.95%	1.18%	1.25%
A-share	21.00%	21.21%	21.92%	22.79%	24.06%
B-share	6.06%	6.66%	6.45%	6.04%	5.30%
H-share	5.96%	7.66%	6.88%	5.74%	4.75%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

	1999	2000	2001	2002	2003
Company Numbers					
A-share Only	822	955	1023	1085	1146
Both A- & H-shares	19	19	25	29	29
Both A- & B-shares	82	86	88	87	87
B-share Only	26	28	24	24	24
A-share	923	1060	1136	1200	1263
B-share	108	114	112	111	111
Total	949	1088	1160	1224	1287
Share Numbers (million)					
State Shares	1108.01	1340.37	1816.91	1997.07	2041.68
Legal Person Shares	826.91	1048.03	1550.27	1796.13	2093.11
Staff Shares	36.71	24.29	23.75	15.62	10.98
Others	37.87	24.74	13.64	30.00	15.38
A-share	812.89	1078.17	1318.13	1509.08	1714.60
B-share	141.92	151.51	163.09	167.61	175.35
H-share	124.54	124.54	331.94	360.08	377.62
Total	3088.95	3791.70	5218.01	5875.46	6428.46
Percentage					
State Shares	35.87%	35.35%	34.82%	33.99%	31.76%
Legal Person Shares	26.77%	27.64%	29.71%	30.57%	32.56%
Staff Shares	1.19%	0.64%	0.46%	0.27%	0.17%
Others	1.23%	0.65%	0.26%	0.51%	0.24%
A-share	26.32%	28.44%	25.26%	25.68%	26.67%
B-share	4.59%	4.00%	3.13%	2.85%	2.73%
H-share	4.03%	3.28%	6.36%	6.13%	5.87%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

3.2 Demand Side: Institutional Investors vs. Individual Investors

As for the demand side, although the majority of China’s listed companies don’t perform satisfactorily, there is still huge demand in their tradable shares. This is because the substantially increasing private savings with few investment channels in China during that period. Figure 1 shows the development of the number of investors with only 8.1 million share accounts in 1993, while over 72.1 million share accounts had been opened at the two exchanges in Shanghai and Shenzhen by the end of 2004.

Figure 1: The Growth of Share Accounts 1993-2004
(Number of Share Accounts: million)

Data sources: SHSE, SZSE websites

External institutional investors include securities companies, investment funds, trust and investment companies (TICs) and insurance funds. However, in the China’s stock markets, individual investors take up the majority. There are several reasons behind the dominance of individual investors. The first is the severe barriers to cross-border capital flows as Chinese citizens are barred from securities and money market investments overseas. Furthermore, there exists a currency shield as the RMB is non-convertible and the domestic banking system does not offer competitive products and

rates, and only a limited supply of illiquid government bonds is available. It is this asymmetry in demand and supply that has largely contributed to the dramatic underpricing of IPO and abnormal high price of circulating shares in China's stock market.

Foreign investors usually invest in the B-share or H-share. Few of them can be licensed to invest in China's local-currency Class-A share market. In 2003 the CSRC introduced small amounts of foreign funds into the stock market through QFII (Qualified Foreign Institutional Investors) scheme, which allows restricted foreign investment in the A-share market. Since the quantity of QFII is very limited, their investment in A-share as foreign will not be considered in this study.

3.3 *Over-distribution in China's Stock Market*

Table 4 shows the general dividend payout situation in China and also lists the numbers of companies over-distributing cash dividend from 1993 to 2002. Companies over-paying cash dividend is defined as companies whose DPS is larger than EPS within a specific year. Companies implementing refinancing while paying cash dividend is defined as companies which implement refinancing and pay cash dividend at the same year.

From the table we can see that the number of firms issuing rights offering is increasing generally from 1993 to 2000 and the proportion of these firms are around 13%. This trend seems to end by year 2000 when China's domestic stock market enters into a long period of bear market. In the mean time, the number of firms paying cash dividend is consistently at a high level during the whole sample period and so is

the proportion of these firms to total firms. The sharpest increase is in 2001 where the proportion increases more than double (from 28.68% to 62.76%).

This table also shows such phenomena are not rare in China that companies with low earnings pay high cash dividends or companies pay out cash dividend and issue rights offering at the same time. Both the number of firms implementing refinancing as well as paying out cash dividend and the proportion to total firms increase from 1998 to 2001. The number and the proportion of firms over paying dividend both have a steadily increasing tendency from 1996 to 2001.

This table demonstrates a very interesting phenomenon. Since the floatation cost of new equity issuance is quite higher as compared with other developed market, why does China's domestic firms, though still in their growing stage and hungering for new capital, pay out large amount of earnings as cash dividends to their shareholders? In the next chapter, some explanations to this question are proposed by focusing on the ownership/shareholding structure of these listed companies.

Table 4: Cash Dividends, Stock Dividends Payment and Over-Distribution

This table shows the general dividend payout situation in China from 1993 to 2002 and meanwhile lists the numbers of companies over-distributing cash dividend from 1998 to 2002. Companies over-paying cash dividend is defined as companies whose DPS is larger than EPS within a specific year. Companies implementing refinancing while paying cash dividend is defined as companies which implement refinancing and pay cash dividend at the same year.

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Total Sample
Total No. of Listed Firms	183	291	323	530	745	851	949	1088	1160	1224	7344
Total No. of Firms wt Rights Offering (percentage %)	72 (39.34%)	64 (21.99%)	71 (21.98%)	52 (9.81%)	117 (15.70%)	155 (18.21%)	125 (13.17%)	170 (15.63%)	106 (9.14%)	21 (1.72%)	953 (12.98%)
Total No. of Firms paying Cash Dividends (percentage %)	41 (22.40%)	152 (52.23%)	224 (69.35%)	205 (38.68%)	174 (23.36%)	233 (27.38%)	270 (28.45%)	312 (28.68%)	728 (62.76%)	695 (56.78%)	3034 (41.31%)
Firms implementing refinancing while paying cash dividend (percentage %)	17 (9.29%)	33 (11.34%)	54 (16.72%)	46 (8.68%)	52 (6.98%)	45 (5.29%)	53 (5.58%)	76 (6.99%)	87 (7.50%)	18 (1.47%)	481 (6.55%)
Firms over-paying cash dividend (percentage %)	0 (0.00%)	10 (3.44%)	18 (5.57%)	12 (2.26%)	20 (2.68%)	30 (3.53%)	33 (3.48%)	38 (3.49%)	65 (5.60%)	49 (4.00%)	275 (3.74%)

4 Ownership Structure, Tunneling & Dividend Policy

4.1 Non-tradable Shareholder Behavior and Dividend Payout

As shown in the last chapter, a unique feature of ownership structure in Chinese companies is that many companies have varying levels of non-tradable shares because they were formerly state owned enterprises (SOEs) before being listed. As figure 2 shows, by the end of 2002, non-tradable shares accounts for more than 64% of the capital.

Figure 2: The Share Structure of Listed Companies, 2002
Source: CSRC website

4.1.1 The Dramatic Deviation of Market Value of the Circulating Shares from the Value of Non-Circulating Shares

Since shares circulated in the secondary market are usually about one third of the total shares of the companies and the legal person shares have been banned from circulating in the secondary market, the major shareholders (i.e. the holders of the legal person shares) have virtually no effective market instruments (i.e. sell their shares to the market) to affect the market price of the circulating shares while the

demand for the shares is high. Speculators in the markets have hence been able to manipulate the market price of the limited circulating shares. In addition to other distortions and inefficiencies in the underdeveloped China A share market, the market prices of the circulating shares are about 3 to 10 times of the value of non-circulating legal person shares even if the performance of many listed companies have been quite unsatisfactory.

The following User-friendly Software company's (listed in May 18, 2001) share distributions and costs (or values) of different ownership shares reflect the typical situation of such deviation:

Table 5: Share distribution and the actual cost of shares for different types of shareholders: The case of User-Friendly Software

Shareholders	Value of the Asset (RMB yuan in 10,000)	No. of the Shares (in 10,000)	Cost of the Shares (RMB)
The Non-tradable Shareholders	8,850	7,500	1.18
The shareholders from IPO purchases	2,950	2,500	36.68
The shareholders from the secondary market	(2,950)*	(2,500)*	84.00

*: The same shares as from IPO.

The table shows that the cost of circulating shares in the secondary market is 84 Yuan, about 80 times of the actual cost of the non-tradable shares, which is only 1.18 Yuan. Although the market prices of many shares in the developed capital

markets are also many times of their asset value per share, shareholders in the developed market, regardless major or minor, can easily cash out their capital gain when the market share prices are substantially higher than the asset value per share. Such investors' rationale puts an effective constraint on market prices from being inflated by market speculations. However, there is no such mechanism for the non-tradable shareholders in the China A share market to participate in the formation of market price of the circulating shares in the secondary market. Hence, though the inflation of market price is huge due to limited supply and tremendous demand, the shareholders of the non-circulating shares in the China's A share market can barely benefit from it.

4.1.2 The Deviated Interests of Different Owners

Such deviation of the cost between the non-tradable shares and tradable shares significantly influences shareholders' interests to cash dividend. Because the cost of non-tradable shares is substantially lower than the cost of the circulated shares to the minor shareholders in the secondary market, these non-tradable shareholders can hence benefit tremendously from cash dividend payment. Therefore, non-tradable shareholders prefer cash dividend payout.

Take the example of the User-friendly Software company again, such deviated interests of different shareholders on cash dividend payout are clearly demonstrated.

Table 6: The dividend payment and the investment return of different types of shareholders: The case of User-Friendly Software

Shareholders Return	Asset Value (RMB in 10,000)	Dividend (RMB in 10,000)	Investment (%)
The non-tradable shareholders	8,850	4,500	50.8
The shareholders from IPO purchases	2,950	1,500	1.6
The shareholders from the secondary market	(2,950)*	(1,500)*	0.71

*: The same dividend payment as for the IPO holders.

Due to such benefit from dividend payment, the non-tradable shareholders therefore have the great incentive to distribute the company's income, as the cash dividend payout. On the other hand, the individual shareholders have very little interest on the dividend payout and hence focus on their interest almost entirely on the capital gain. Dividend policy as an effective variable and instrument in the determination of companies' capital structure and budgeting in the developed capital market has thus played a little role in the China's stock market. More importantly, the major shareholders, since having no interest from capital gain, have little direct interest on the market price of the circulating shares and hence would not take any substantial actions to defend the market price of the circulating shares. The distortions of China stock market and investors' behaviors have been deeply rooted in such deviation of interest of the different types of shareowners.

Based on the unique institutional features of China stock market, the first hypotheses is proposed for empirical testing.

H1: The cash dividend payout decision is driven by the propensity of the non-tradable shareholders, especially the legal person shareholders.

One prediction from this hypothesis is that when the firm has a large proportion of non-tradable shares in its ownership structure it will be more likely to pay cash dividends to its shareholders.

Based on the separation of ownership from control literature (Berle and Means, 1932; Blair, 1995), varying levels of government ownership are expected to affect management incentives and corporate policy choices.

According to the efficient monitoring hypothesis, institutional ownership of shares has contracting and monitoring implications and is likely to have different affections on managers' incentives (Pound 1988, Bushee 1998). For example, according to this theory, increased institutional ownership of shares serves as a monitor of managers' actions and reduces the likelihood that managers would misuse the resources of the firm. Since government ownership is a form of, or at least similar to, institutional ownership, it is likely that the monitoring hypothesis may also apply. Thus, the increase in monitoring and the reduction in incentive problems of debt lead to the prediction of a positive association between government ownership and debt. Unfortunately a prediction between government ownership and dividends is difficult. However, some anecdotal evidence suggests a positive association between government ownership and dividends since companies with government ownership have relatively less difficulty raising funds to finance investments and can therefore afford to pay dividends. On the other hand, companies with low government

ownership face more difficulties in raising funds and therefore are likely to rely on retained earnings for investments. In order to evaluate the incentive effects of government ownership of shares, a variable, which measures the percentage of shares owned by the government, is included in the regression equations.

4.2 Controlling Shareholder Behavior & Tunneling Hypothesis

Claessens et al. (2000) find that cross-holding and pyramidal ownership are common in Asian economies. This ownership arrangement allows the controlling shareholders to obtain even more control with minimal capital expense so that tunneling becomes easier. Johnson et al. (2000) refer to such expropriation as tunneling, which they define as “the transfer of resources out of a company to its controlling shareholder (who is typically also a top manager).”

Although cross-holding, pyramidal schemes and deviations from one-share-one-vote are not common in China, Chinese listed companies have an even more complicated shareholding structure. In China only around 30% of listed companies share are publicly tradable, while on average, the largest shareholder controls around 44% of listed companies' shares, while the second largest shareholder typically owns less than 10%. Ownership is heavily concentrated with the five largest shareholders accounted for about 58% of the outstanding shares in China. Hence controlling shareholders are rarely challenged by other shareholders on important issues.

This dominant position of the largest shareholder in a listed company gives them unmatched power to dominate shareholders' meetings, boards of directors and decide the firm policies, including the dividends payout policy. The transfer of

resources out of listed companies into parent or other related parties' accounts is feasible through controlling shareholders' push on aggressive cash dividend payment. Therefore, the second hypothesis of this study is:

H2: Controlling shareholders use cash dividend as a way to cash in on the listed companies.

One prediction regarding this hypothesis is that the probability of paying cash dividend increases as the listed firm is controlled by a parent firm.

The second prediction is that the probability of paying cash dividend increases with shareholding concentrations.

In addition, tunneling is inefficient for the entire group of shareholders because it wastes resources. If the largest shareholder has a sufficiently big stake to align his interest with that of the firm, the largest shareholder has no incentive to engage in inefficient tunneling. In summary, the relationship between the incentive to tunneling and the shareholding by the largest shareholders is quite complex. At first, increasing largest shareholder's holding reduces the constraint on tunneling from other shareholders. But as this shareholding approaches a very high percentage (until approaches one-hundred percent), the incentive to tunneling fades out.

Therefore the third prediction from this hypothesis is the relationship between the probability of paying cash dividend as a way of tunneling and largest shareholder's holding is expected to be a U-shape pattern.

After raising the above two hypotheses, I would like to examine whether there are any tie-down effects to the largest shareholder's behavior from other larger shareholders.

4.3 *Different Types of Tradable Shareholders*

The trading behavior and stock selection strategy between external institutional shareholders and individual shareholders are quite different. In the past literature, ownership level has been found to predict future returns (Sias and Starks 1997, Daniel, Grinblatt, Titman, and Wermers 1997, and Gompers and Metrick 1999). Their researches show that trading by institutional investors contributes to positive autocorrelation in security returns. Lakonishok, Shleifer and Vishny (1992), and Gompers and Metrick (1999) also find a positive relationship between institutional ownership and some firm characteristics such as size, past performance, and share turnover. Nofsinger and Sias (1999) made a comprehensive study of the relationship between institutional ownership changes and stock returns. For the sample of all the NYSE companies in the period 1977-1995, they find a strong monotonic relationship between institutional ownership changes and returns, with deciles of stock experiencing the largest increase in institutional ownership outperforming the deciles experiencing the largest decrease by more than 31% per year. More important, as mentioned before, the income tax on dividends received between institutional shareholders and individual shareholders are quite different. Because of the existence of favorable tax treatment for external institutional investors on cash dividend received, they may like to invest in stocks with a tradition to pay cash dividend.

Therefore, based on the investor clientele theory to dividend policy, I made the following hypothesis:

H3.1: Due to tax disadvantage of cash dividends as compared with capital gains, external individual shareholders don't prefer cash dividend.

One prediction following this hypothesis is that companies with more shares held by external individual shareholders are less likely to pay cash dividends.

Companies issuing B-shares or listed overseas must fit themselves into more strict rules. The financial statements of the B-share issuing companies must follow the International Accounting Standards (IAS) and are audited by internationally recognized audit companies. Market discipline established in the mature foreign markets could also act as a pressure to monitor the operation in those large former SOEs. Hence, the following hypothesis is raised:

H3.2: Companies with foreign shareholders will have a better corporate governance system which helps to better monitor larger shareholder's propensity of paying out large cash dividend as liquidation.

One prediction following this hypothesis is that companies with more shares held by foreign shareholders are less likely to pay cash dividends.

4.4 Corporate Governance and Dividends Policy

The board of directors is an instrument through which shareholders can exert influence on the behavior of managers to ensure that the company is run in their interests. However, this influence may be less effective when managers dominate the

board. Nonetheless, empirical findings on the relationship between board composition and firm performance are mixed. First, companies with boards containing a majority of independent directors do not perform better than companies without such boards. Second, a moderate number of inside directors is associated with greater profitability. Third, although the presence of outside directors on the board has no effect on the sensitivity of Chief Executive Office (CEO) turnover to earnings or stock-price performance, concentrated equity ownership and ties to a main bank do have a positive effect. Here, it will be fruitful to look at the board monitoring effects on the firm's cash dividends policy.

The fourth hypothesis is developed as follow:

H4: Companies with better corporate governance systems will better monitor the largest shareholder, therefore these companies will be less likely to pay large amount of cash dividends to liquidate.

The prediction is that the existence of a good corporate governance system in the listed companies could better monitor controlling shareholders behavior, which in this case could better monitor controlling shareholders' incentive to pay out large cash dividend as tunneling from the listed companies.

4.5 Coexistence of Aggressive Rights Offering and Aggressive Dividend Payout Policy

Table 4 shows that the China's listed companies have demonstrated a coexistence of aggressive right offering and aggressive dividend payout from China's listed companies. While such coexistence could hardly be explained by the conventional dividend policy, particularly, the popular residual dividend policy which

states dividend payout changes with the shift of firms' long-term earnings, it is nevertheless a meaningful reflection of impact of the unique ownership feature of China's listed companies on their financial policies. Converting SOEs to shareholding companies is one dimension of China's privatization¹ and the number of firms in which performance after privatization either deteriorated or unchanged is considerably high (Dagdeviren and Ben, 2005). While the objective of the largest shareholders is to maximize their controllable current cash flow due to the soft budget constraints which are deeply rooted in the former SOEs (Lin et al., 1998), they would try to utilize all sources to achieve such objective. By equity rights offering first and dividend payout later could be the effective source. It is hence interesting to test whether there has been coexistence between aggressive external financial and aggressive dividend payout among the China's listed firms. The formal hypothesis testing is proposed as:

H5: The dividend payout positively correlates with rights offering.

4.6 Market Reaction to Cash Dividend Payout

Since the policy of cash dividend payout, as argued above, has been largely controlled by the largest shareholder and determined according to their objective of maximizing their controllable cash flows instead of overall shareholders' value maximization, while the aggressive cash dividend payout obviously led to misusing firms' financial resources, it is expected that cash dividend payout in China's stock

¹ As in China, the state avoids the term privatization and uses 'equitization' instead.

firms could have affected share price negatively. It is thus logical to test the following hypothesis:

H6: Cash dividend payout does not contribute to shareholder value maximization, i.e. the increase of share price. Moreover, the aggressive cash dividend payout negatively affects the share price.

In summary, the above hypotheses are proposed to test whether the unique institutional features of the emerging China stock market could have been the important determinants of dividend policy in China's listed companies on the one hand, and on the other hand, the dividend payout could have systematically affected the share prices negatively.

In the following sections, a cross-sectional regression analysis is employed to examine the impacts of the ownership structure (as well as the corporate governance structure) on companies' dividend payout policy. More specifically, a generalized multinomial logit regression is used to examine the possibility of firms' cash dividends or stock dividends decision with respect to their specific firm' characteristics. A set of ownership structure (as well as corporate governance) variables are defined according to the hypothesis proposed. A detailed discussion of variable definition will be provided in section 5.

5 Modeling the Behavior in Dividend Policy of China's Listed Companies

5.1 Research Model

In this section, a multinomial Logit regression is used to examine the ex-ante determinants to the choice of paying dividend or not for Chinese companies.

Multinomial logistic regression involves nominal response variables more than two categories. Multinomial logit models are multiequation models. A response variable with k categories will generate $k-1$ equations. Each of these $k-1$ equations is a binary logistic regression comparing a group with the reference group. Multinomial logistic regression simultaneously estimates the $k-1$ logits. Furthermore, the model tests all possible combinations among the k groups although it only displays coefficients for the $k-1$ comparisons (Green 2003).

Both multinomial Logit and Probit model can be used for data in which the response is often a set of choices and is therefore measured on a nominal scale. The only difference is the logistic distribution has slightly fatter tails, while the conditional probability approaches 0 or 1 at a slower rate in logit than in probit. There is no compelling reason to choose one over the other. A Logit model is used in this study while a Probit model is used as robustness check. The results from a Probit model are qualitatively the same as the ones from the Logit model. Therefore they are not reported to save space however they are available upon request.

The regression model is specified as follow:

$$D = \alpha_i + \beta_1 \text{Size} + \beta_2 \text{Leverage} + \beta_3 \text{Liquidity} + \beta_4 \text{Efficiency} + \beta_5 \text{Profitability} + \beta_6 \text{MBR} + \beta_7 \text{Ownership Structure} + \varepsilon_i \quad (5.1)$$

More important, it is worthy of noting that the coefficients, β_1 , β_2 and β_3 etc represent the log odds of being in the target groups relative to the reference group. In multinomial logistic regression the exponentiated coefficients are not odds ratios. The coefficients can be interpreted as relative risk ratios (RRR). The relative risk in the 2x2 table was defined as:

$$rr = P(11)/P(21) \quad (5.2)$$

Therefore, in multinomial logistic regression the relative risk can be defined as,

$$rr1 = P(y=1)/P(\text{base category}) \quad (5.3)$$

$$rr2 = P(y=2)/P(\text{base category}) \quad (5.4)$$

Thus, the relative risk ratio for multinomial logit would be

$$RRR = P(y=1|x)/P(y=\text{base category}|x) \quad (5.5)$$

5.2 Variable Definition

D is the qualitative dependent variable, which takes value of 1 if the firm pays cash dividends, value of 2 if the firm pays stock dividends, and value of 3 if the firm pays neither cash dividends nor stock dividends.

The first control variable is SIZE, which is proxied by the natural logarithm of the inflation adjusted total assets. Larger companies are those companies which reach a certain stage of development. As they are in the mature phase of its life cycle, they

usually do not have many growth opportunities (Bali and Hite 1998). Therefore they tend to pay out earnings as dividends to their investors; consequently I expect that there is a positive relationship between firm size and its cash dividend payout decision.

Second, debt creation enables managers to effectively bond their promise to pay out future cash flows. Thus, debt can be an effective substitute for dividends (Jensen 1986). Using the total liability / total asset ratio as the proxy for firm leverage, the CURRENT ratio, which is defined as total current asset / total current liability, as the proxy for firm liquidity, I expect that firm's cash dividend decision should be negatively related to the LEV and CURRENT ratio (Ofer and Siegal 1987).

Third, a more profitable firm will have the resource and ability to pay out cash dividends (Brittain 1966), therefore I expect the firm's cash dividend decision will be positively related to its profitability. Therefore I also include ROS in the regression as the proxy for firm's profitability.

Lastly, MBR is used to proxy for the market valuation of the firm and its growth potential. A high MBR indicates a high market valuation of the firm, and it may due to its higher future growth potentials (Denis et al 1994). A firm with a higher growth potential will be less likely to pay cash dividends, therefore I expect the relationship between MBR and firm's cash dividends decision will be negative.

With respect to the ownership structure variables, in this study I include NONTRD, which is calculated as the proportion of non-tradable shares in the firm's ownership structure; ST, which is calculated as the proportion of state shares in the

firm's ownership structure and LP, which is calculated as the proportion of legal person shares in the firm's ownership structure (Bai et al., 2004).

To measure ownership concentration, I construct another set of variables, variable "PARENT" focuses on the absolute control. "PARENT" is a dummy variable, which takes the value of one if there exists a control shareholder holding more than 50% outstanding shares of the firm and zero otherwise. It is well known that tunneling by the controlling shareholder is a serious problem in Asia (Claessens et al., 2000), especially in China (Bai et al., 2004, Jian and Wong 2004 and Aharony et al., 2005). The large controlling shareholders in China have both incentive and ability to expropriate minority shareholders. If companies paying out cash dividends as a tunneling mechanism, then we should observe companies with a parent company more likely to pay cash dividends.

T1 measures the proportion of shares owned by the largest shareholder. Specifically, it is computed as $S1/S$, where S1 is the number of shares held by the largest shareholder and S is the total number of shares outstanding. It measures the largest shareholder's interest in the listed company and likely the largest shareholder's power in the board (Claessens, Djankov, and Lang 2000). SQRT1 is calculated as the square of T1. By including both T1 and SQRT1 into the regression, we are able to test the non-linear relationship between firm's cash dividends decision and the controlling power of the largest shareholder (Bai et al 2004).

DT12 and L10 are used to measure the ownership concentration of each listed firm. DT12 is the difference of the shareholding between the largest shareholder and the second largest shareholder. It measures the relative power of the largest

shareholder among all the largest shareholders. La Porta et al. (2002) argue that the second largest shareholder may serve as a monitor against the expropriation by the controlling shareholder. Aharony et al. (2005) also find that the presence of larger shareholders besides the controlling one enhances the quality of corporate governance in China. If DT12 is small, it means the largest shareholder has lower dominant power in the listed firm and is less likely to expropriate other shareholders. L10 is the total proportion of shares owned by the top 10 largest shareholders. It measures the relative power of the ten largest shareholders as compared with other shareholders.

INDIVIDUAL is calculated as the number of circulating shares owned by the external individual investors divided by the total number of circulating shares. FOREIGN measures the proportion of shares owned by foreign investors (B or H shares).

Following the corporate governance hypothesis, the subsequent variables are created. DUALITY is a dummy variable that takes the value of 1 if the CEO of the firm is also the chairperson of the board and 0 otherwise. Jensen (1993) suggests that agency problems are more severe when the CEO is also the chairperson of the board and a large board size is less effective in governance control. Using Tobin's Q as an approximation of market valuation, Yermack (1996) finds that companies are valued higher when the CEO and chairperson positions are separated. Thus, the existence of DUALITY in a firm corresponds with a lower corporate governance level.

NON-EXECUTIVE measures the proportion of non-executive directors in the company's board. Executive board directors are often members of the management team, or so called insiders. If the board is dominated by members of the management

team, it is not expected that the board will play an effective monitoring role. As for non-executive directors, it is a general view that they are in favor of more independent, outside directors on the board (Higgs Report 2003). As a result, a higher NONEXECUTIVE ratio will correspond to a higher corporate governance level.

BOARD SIZE is the total number of directors in the company board. It has often been criticized that a small board, especially in an emerging market, lacks in the due competences and diligence to effectively monitor the operation of a listed firm. Yet, a larger board size may yield benefits by creating a network with an external environment and securing a broader resource base (Pfeffer 1973, Pearce and Zahra 1991). This may be important for Chinese listed companies. Furthermore, Xu and Wang (1999) point out that the Chinese listed companies have the characteristics of the state being over-represented on the board, and in their sample over 50% of board positions are filled by government officials, but less than 1% of the positions are filled by public individuals. Therefore, for Chinese listed companies a larger board of directors will be more effective in successfully performing the monitoring function. As a result, a larger BOARD SIZE is interpreted as a higher corporate governance level in China.

All models are estimated using maximum likelihood method. Chi square value for each estimated parameter is stated in the bracket.

5.3 *Data and Sample Description*

The data used in this study include financial, trading and corporate governance data. These data are collected from different sources. Financial and trading data of all

China's listed companies are obtained from Datastream. The retrieved dataset is double-checked by going through the annual reports of each company and some missing data are refilled.

The data of parent companies, board size, and the largest shareholder's holding and foreign ownership are manually collected from companies' annual reports.

Lastly, the data of external individual and institutional shareholdings of all SHSE listed companies are provided by Shanghai Stock Exchange research center.

The sample consists of 1224 companies listed on the Shanghai Stock Exchange and Shenzhen Stock Exchange during the period 1991-2002. I exclude companies paying both cash and stock dividends because these companies have different initiatives with those paying cash dividend or stock dividend only and containing them in the sample may contaminate the results. In addition, financial companies are excluded because their capital structure is not comparable to other firms. The sample period spans from 1993 to 2002.

Table 7 details the sample composition of this study. The first row shows the total number of listed firm at the end of each year from 1993 to 2002. While the second row reports the number of listed firms paying both cash dividends and stock dividends. In total it accounts for 939 out of 7344 company/year observations. 55 observations related to financial firms are further excluded. Another 196 observations are excluded because there are missing values for some of the measure variables.

In summary, my sample contains 6154 firm/year observations. Among these observations, there are 2095 companies pay cash dividend only over the sample

period, 1043 companies pay stock dividend only over the sample period, and 3016 companies neither pay cash dividend nor stock dividend during the whole sample period.

Table 7: Sample Descriptions

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Total Sample
Total No. of Listed Companies	183	291	323	530	745	851	949	1088	1160	1224	7344
-No. of Companies Paying Both Cash & Stock Dividends	18	105	106	99	75	75	77	80	167	137	939
-Finance Firms	2	5	5	5	5	5	6	7	7	8	55
-Firms with Missing Values	41	0	6	0	0	26	28	37	24	34	196
No. of Sample Companies	122	181	206	426	665	745	838	964	962	1045	6154
No. of Companies Paying Only Cash Dividends (Percentage)	23 (18.85%)	47 (25.97%)	118 (57.28%)	106 (24.88%)	99 (14.89%)	158 (21.21%)	193 (23.03%)	232 (24.07%)	561 (58.32%)	558 (53.40%)	2095 (34.04%)
No. of Companies Paying Only Stock Dividends (Percentage)	19 (15.57%)	64 (35.36%)	46 (22.33%)	115 (27.00%)	274 (41.20%)	197 (26.44%)	162 (19.33%)	105 (10.89%)	31 (3.22%)	30 (2.87%)	1043 (16.94%)
No. of Companies Not Paying any Dividends (Percentage)	80 (65.57%)	70 (38.67%)	42 (20.39%)	205 (48.12%)	292 (43.91%)	390 (52.35%)	483 (57.64%)	627 (65.04%)	370 (38.46%)	457 (43.73%)	3016 (49.01%)

5.4 Summary Statistics

Table 8 presents the results from a Univariate Test on firm characteristics of three sample groups -- CASH DIV, STOCK DIV, and NON DIV. Sample CASH DIV includes all companies that only pay cash dividends during the sample period. Sample STOCK DIV includes all companies that only pay stock dividends during the sample period. The sample NON DIV includes all the companies that pay neither cash dividends nor stock dividends during the sample period. The sample period is from 1993 to 2002. The firm characteristics of each sample firm are analyzed with respect to six categories, which are size, leverage, liquidity, efficiency, profitability, and market valuation. Within each category, several comparable measures are used. T-test is used to test the mean difference between the CASH DIV group (STOCK DIV group) and the NON DIV group on each measure.

First, regarding the size measures of these three groups of companies, univariate test results show that as compared with NON DIV group, companies in the CASH DIV group tend to have larger size (both in terms of total asset and sales). While companies in the STOCK DIV group are much smaller, t statistics are 3.78 and -3.27 respectively, both significant at 1% level.

Second, two dividends paying groups are having lower leverage measures than the NON DIV group. On average, the total liability / total asset ratios for CASH DIV and STOCK DIV companies are 0.406 and 0.422 respectively, while it is 0.456 for the NON DIV group. t statistics in testing the mean difference between each of them and

the non-dividend group are negative and significant, which indicates that companies with a lower leverage level tend to pay cash or stock dividends.

Third, the liquidity of CASH DIV companies is generally lower than NON DIV companies. The mean value of current ratio of CASH DIV group is 1.833 while the value of NON DIV companies is 1.951. The mean difference is -0.118 with a significant t-value of -2.15. Results on QUICK ratio show the similar pattern. These results are interesting because it indicates that in China those companies with even lower operation liquidity will tend to pay cash dividend, a phenomenon which has seldom been observed in the developed market. However, the liquidity measures between STOCK DIV group and NON DIV group are not statistically different.

Fourth, t statistic on the efficiency measure is positive and significant for both CASH and STOCK DIV groups, indicating companies with high efficiency will have higher tendency to pay cash or stock dividend.

Fifth, t statistics on all profitability measures are positive and significant at 1% level for both CASH DIV and STOCK DIV group, indicating that more profitable listed companies more likely to pay cash or stock dividend.

Last, t statistics on MBR are negative and significant for both two dividend paying groups, indicating that dividends paying companies are not highly valued companies. These are consistent with the views that dividends paying companies are generally mature companies with less growth opportunities.

Table 8: Summary Statistics of Companies' Characteristics

The table presents the summary statistics of firm characteristics for three sample groups. The sample CASH DIV includes all the companies that pay cash dividends during the sample period. The sample STOCK DIV includes all the companies that pay stock dividends during the sample period. And the sample NON DIV includes all the companies that do not pay cash dividends or stock dividends during the sample period. The sample period is from 1993 to 2002. The firm characteristics of each sample firm are analyzed with respect to six categories, which are size, leverage, liquidity, efficiency, profitability, and market valuation. Within each category, several comparable measures are used. T-test is used to test the mean difference between the CASH DIV group (or the STOCK DIV group) and the NON DIV group for each measure.

Category	Variables		N	Mean	Median	Std Dev	Mean Difference	t test
Size ('000)	Total Asset	Cash Div	2095	2661219	1314751	1186653	1112580	3.78***
	('000)	Stock Div	1043	1084026	754792	1182168	-464613	-3.27***
		Non Div	3016	1548639	845545	7272930		
	Sales	Cash Div	2095	1661063	603627	1027387	844688	3.38***
	('000)	Stock Div	1043	607856	304726	984745	-208519	-1.88*
		Non Div	3016	816375	317586	565136		
Leverage	TL/TA	Cash Div	2095	0.406	0.405	0.161	-0.050	-10.20***
		Stock Div	1043	0.422	0.427	0.164	-0.034	-5.50***
		Non Div	3016	0.456	0.449	0.517		
	TL/TE	Cash Div	2095	0.895	0.707	0.693	-1.016	-6.73***
		Stock Div	1043	0.953	0.794	0.785	-0.958	-6.30***
		Non Div	3016	1.911	0.835	0.982		
Liquidity	Current	Cash Div	2095	1.833	1.476	1.407	-0.118	-2.15**
		Stock Div	1043	2.011	1.573	1.921	0.06	0.81
		Non Div	3016	1.951	1.456	2.627		
	Quick	Cash Div	2095	1.407	1.075	1.302	-0.125	-2.41**
		Stock Div	1043	1.557	1.145	1.709	0.025	0.36
		Non Div	3016	1.532	1.083	2.481		
Efficiency	Asset	Cash Div	2095	0.575	0.463	0.420	0.089	7.30***
	Turnover	Stock Div	1043	0.546	0.446	0.415	0.06	4.02***
		Non Div	3016	0.486	0.390	0.403		
Profitability	ROA	Cash Div	2095	0.044	0.042	0.041	0.022	12.47***
		Stock Div	1043	0.062	0.058	0.057	0.04	17.19***
		Non Div	3016	0.022	0.037	0.411		
	ROE	Cash Div	2095	0.075	0.077	0.089	0.136	7.47***
		Stock Div	1043	0.106	0.106	0.119	0.167	9.04***
		Non Div	3016	-0.061	0.072	0.992		
	ROS	Cash Div	2095	0.124	0.082	0.366	0.148	6.13***
		Stock Div	1043	0.179	0.122	0.938	0.203	5.48***
		Non Div	3016	-0.024	0.076	1.817		
Market Valuation	MBR	Cash Div	2095	3.746	3.281	1.934	-2.32	-16.25***
		Stock Div	1043	5.175	4.393	2.959	-0.891	-5.41***
		Non Div	3016	6.066	4.394	4.296		

* * * * * denotes 10% 5% 1% Significant level based two-tail critical value

In table 9 ownership structure variables are examined for three groups of companies with different dividend policies. First, when we look at the proportion of shares held by non-tradable shareholders, univariate test results show that as compared with non-paying group, companies in the cash dividend group tend to have more shares held by non-tradable shareholders, since the mean value of CASH DIV group equals to 0.615 as compared with 0.594 of the NON DIV group. While companies in the stock dividend group tend to have fewer shares held by the non-tradable shareholders, the mean value is 0.583 as compared with 0.594 of the NON DIV group.

When I further separate the non-tradable shares into state shares and legal person shares, I find that companies in the CASH DIV group do not have higher proportion of state shares while they do have higher proportion of shares held by legal person (0.272 versus 0.255). Furthermore companies in the STOCK DIV group tend to have less state shares but more legal person shares as compared with the companies in the NON DIV group.

Second, when ownership concentration measures are concerned, they all consistently indicate that companies in the CASH DIV group tend to have a higher concentrated ownership. Specifically, the largest shareholder tends to hold more shares, and the holding difference between the top two shareholders is larger and the top 10 shareholders all together hold more shares. On the contrary, the companies in the STOCK DIV group tend to have a much more dispersed ownership as compared with the companies in the NON DIV group.

Third, regarding the profile of the external investors for these three groups of listed companies, results show that both CASH DIV and STOCK DIV paying companies tend to have less external individual investors and foreign investors. This is the first preliminary evidence to show that local individual investors generally do not prefer dividends in the Chinese equity markets.

Table 9: Summary Statistics of Companies' Ownership Structure

The table presents the summary statistics of firm's ownership structure for three sample groups. The sample CASH DIV includes all the companies that pay cash dividends during the sample period. The sample STOCK DIV includes all the companies that pay stock dividends during the sample period. And the sample NON DIV includes all the companies that do not pay cash dividends or stock dividends during the sample period. The sample period is from 1993 to 2002. Non-tradable is the proportion of non-tradable shares in the firm's ownership structure. ST is the proportion of state shares in the firm's ownership structure. LP share is the proportion of legal person shares in the firm's ownership structure. T1 is the proportion of shares owned by the largest shareholder. DT12 is the difference of the shareholding between the largest shareholder and the second largest shareholder. L10 is the total proportion of shares owned by the top 10 largest shareholders. Institution is calculated as the number of circulating shares owned by the financial institutions divided by the total number of circulating shares. Foreign measures the proportion of shares owned by foreign investors (B or H shares). T-test is used to test the mean difference between CASH DIV group (or STOCK DIV group) and NON DIV group for each measure.

Category	Variables		N	Mean	Median	STD Dev	Mean Difference	t test
Non-Circulation Shares	Non-Tradable	Cash Div	2095	0.615	0.632	0.107	0.021	2.78***
		Stock Div	1043	0.583	0.619	0.009	-0.011	-2.16**
		Non Div	3016	0.594	0.624	0.112		
	State Shares	Cash Div	2095	0.377	0.374	0.127	0.004	0.81
		Stock Div	1043	0.327	0.352	0.123	-0.027	-4.88***
		Non Div	3016	0.373	0.418	0.121		
	LP Shares	Cash Div	2095	0.272	0.242	0.093	0.017	1.62*
		Stock Div	1043	0.271	0.208	0.095	0.016	2.01**
		Non Div	3016	0.255	0.144	0.010		
Concentration	T1	Cash Div	2095	0.469	0.475	0.078	0.024	4.69***
		Stock Div	1043	0.421	0.416	0.085	-0.024	-3.66***
		Non Div	3016	0.445	0.433	0.083		
	DT12	Cash Div	2095	0.387	0.392	0.063	0.025	3.76***
		Stock Div	1043	0.349	0.351	0.058	-0.013	-1.53***
		Non Div	3016	0.362	0.351	0.060		
	L10	Cash Div	2095	0.633	0.645	0.059	0.013	3.47***
		Stock Div	1043	0.590	0.610	0.054	-0.030	-6.07***
		Non Div	3016	0.620	0.635	0.055		
External Investors	Institutional	Cash Div	1212	0.088	0.057	0.027	0.014	3.82***
		Stock Div	588	0.087	0.048	0.029	0.013	2.89***
		Non Div	1477	0.074	0.043	0.022		
	Individual	Cash Div	1212	0.912	0.943	0.085	-0.013	-3.82***
		Stock Div	588	0.913	0.952	0.098	-0.012	-2.87**
		Non Div	1477	0.925	0.957	0.115		
	Foreign	Cash Div	2095	0.036	0.000	0.017	-0.001	-0.58
		Stock Div	1043	0.022	0.000	0.019	-1.556	-4.17***
		Non Div	3016	0.037	0.000	0.013		

*** denotes 10% 5% 1% Significant level based two-tail critical value.

Table 10 shows the correlation coefficient matrix between different firm characteristics and ownership structure variables. Pearson correlation results show that the correlations between the ownership structure variables are highly correlated, e.g., the pairwise correlation coefficients between NONTRD and T1, NONTRD and L10, ST and LP, ST and T1, ST and DT12, ST and L10, D1 and DT12, T1 and L10, DT12 and L10 are all significantly larger than 0.5. Therefore, NONTRD, ST, LP, T1, DT12 and L10 are put into different models to avoid the multicollinearity problem.

Table 10: Correlation Coefficients Matrix of the Independent Variables
Pearson Correlation Coefficients between different ownership and firm characteristics variables are reported in this table. Variables are the same ones as defined in table 8 and table 9.

Prob > |r| under H0: Rho=0

	LEV	CURRENT	EFF	ROS	MBR	NONTRD	ST	LP	T1	DT12	L10	OFF	IND
SIZE	-0.0271 0.0320	-0.1195 <.0001	0.0667 <.0001	0.0799 <.0001	-0.2372 <.0001	-0.0254 0.0478	0.2368 <.0001	-0.2666 <.0001	0.2222 <.0001	0.1853 <.0001	0.1978 <.0001	0.2993 <.0001	-0.1348 <.0001
LEV		-0.2631 <.0001	-0.0154 0.2219	-0.3732 <.0001	0.2974 <.0001	-0.0559 <.0001	-0.0613 <.0001	0.0357 0.0053	-0.0928 <.0001	-0.0770 <.0001	-0.0993 <.0001	0.0163 0.2029	0.0668 0.0001
CURRENT			-0.0733 <.0001	0.0715 <.0001	-0.0731 <.0001	0.0440 0.0006	0.0221 0.0839	-0.0002 0.9870	0.0298 0.0193	0.0287 0.0242	0.02170 0.0885	-0.0498 0.0001	-0.0338 0.0520
EFF				0.0368 0.0041	-0.0288 0.0237	0.0714 <.0001	0.0978 <.0001	-0.0665 <.0001	0.1164 <.0001	0.1128 <.0001	0.0963 <.0001	-0.0179 0.1633	-0.0774 <.0001
ROS					-0.1744 <.0001	0.0549 <.0001	0.0684 <.0001	-0.0441 0.0007	0.0778 <.0001	0.0659 <.0001	0.0911 <.0001	-0.0005 0.9700	-0.0638 0.0002
MBR						0.0487 0.0002	-0.0880 <.0001	0.1198 <.0001	-0.0757 <.0001	-0.0922 <.0001	-0.0494 0.0001	-0.0016 0.9009	0.0107 0.5424
NONTRD							0.3747 <.0001	0.1325 <.0001	0.5202 <.0001	0.4001 <.0001	0.5473 <.0001	-0.2770 <.0001	0.0096 0.5859
ST								-0.8693 <.0001	0.6455 <.0001	0.6063 <.0001	0.5740 <.0001	-0.0294 0.0217	-0.0428 0.0150
LP									-0.4117 <.0001	-0.4340 <.0001	-0.3208 <.0001	-0.1162 <.0001	0.0505 0.0041
T1										0.9430 <.0001	0.9271 <.0001	-0.0406 0.0017	-0.0269 0.1239
DT12											0.8035 <.0001	-0.0921 <.0001	-0.0225 0.2006
L10												-0.0186 0.1498	-0.0093 0.5944
OFF													0.0584 0.0009

5.5 Empirical Results

5.5.1 Hypothesis 1 (Table 11)

The empirical results on testing hypothesis 1 are presented in Table 11.

The regression results on cash dividends payout decision show that after controlling the size, leverage, efficiency, liquidity profitability and growth effects, NONTRD has a coefficient of 0.706 for cash dividend and -0.842 for stock dividend. Both are highly significant at any significance level with a Chi square value of 7.93 and 8.40 respectively. These results indicate a positive effect on the cash dividend payout decision and a negative effect on the stock dividend payout decision as the proportion of non-tradable shares increases. The coefficient of LP for cash dividend is 0.214, which is positive and significant at 10% level. However, the Chi square value for the ST measure of the cash dividend is too small to claim any statistical significance. All the other parameters for control variables bear reasonable signs and are significant at 1% level. For example, the coefficients of TA, Efficiency, and ROS are positive, indicating larger, more efficient and more profitable companies tend to pay cash dividends. While the coefficients of Leverage, MBR are significantly negative, suggesting less leveraged, and more slowly growing companies tend to pay cash dividends. One interesting finding is that the coefficient of Current is negative and significant, which suggests that in China those less liquid firms are more likely to pay cash dividends. This is evidence that cash dividends decision may not be made solely based on the financial conditions of the company.

Hence, these results generally support the first hypothesis that the cash dividend payout decision is driven by the propensity of the non-tradable shareholders, especially the legal person shareholders; while on the contrary, the state shareholders don't have much incentive to influence the dividend policy.

Second, with respect to companies' decisions to pay stock dividends, regression results show that the smaller, less leveraged, more efficient, more profitable and slowly growing firms are more likely to pay stock dividends. Most importantly, the coefficient of NONTRD is significantly negative in the regression results, indicating that in contrast to those firms paying cash dividends, firms paying stock dividends generally have less non-tradable shares. Based on these results, it seems that the motivations behind firms' decision to cash or stock dividends are quite different in China. The focus of this study is on the cash dividends payout decisions of Chinese listed companies, hence the rationale behind firms' decision to pay out stock dividends are left for other researchers to further explore.

Table 11: Generalized Multinomial Logit Regression: The Dividend Policy of China's Listed Companies (Nontradable vs. Tradable Shares)

This table presents the results of the cross-sectional regression on companies' dividends policy using the following multinomial Logit model:
 $D = \alpha_i + \beta_1 \text{Size} + \beta_2 \text{Leverage} + \beta_3 \text{Liquidity} + \beta_4 \text{Efficiency} + \beta_5 \text{Profitability} + \beta_6 \text{MBR} + \beta_7 \text{Ownership Structure} + \epsilon_i$
 D is the qualitative dependent variable which takes value of 1 if the firm pays cash dividends, value of 2 if the firm pays stock dividends, and value of 3 if the firm pays neither cash dividends nor stock dividends. SIZE is proxied by the natural logarithm of the inflation adjusted total assets. LEVERAGE measure is proxied by the total liability / total asset ratio. CURRENT ratio is used to proxy for the short-term liquidity of the firm, and ROS is used to proxy for the profitability. MBR is used to proxy for the market valuation of the firm. NONTRD is the proportion of non-tradable shares in the firm's ownership structure. ST is the proportion of state shares in the firm's ownership structure. LP share is the proportion of legal person shares in the firm's ownership structure.
All models are estimated using maximum likelihood method. Chi square value for each estimated parameter is stated in the bracket.

Variables	Model 1		Model 2		Model 3	
Intercept	Cash Div -10.08*** (135.23)	Stock Div 4.587*** (19.74)	Cash Div -9.768*** (130.34)	Stock Div 3.390*** (11.48)	Cash Div -10.09*** (132.63)	Stock Div 3.110*** (9.04)
TA	0.541*** (175.45)	-0.240*** (23.42)	0.546*** (179.39)	-0.192*** (17.67)	0.559*** (180.64)	-0.198*** (15.49)
Leverage	-2.71*** (110.05)	-0.518* (3.56)	-2.752*** (113.07)	-0.537** (3.87)	-2.762*** (114.65)	-0.507** (3.46)
Current	-0.180*** (37.27)	-0.022 (1.17)	-0.180*** (37.88)	-0.021*** (1.27)	-0.179*** (37.09)	-0.021 (1.15)
Efficiency	0.595*** (54.98)	0.460*** (25.47)	0.609*** (57.39)	0.477*** (26.51)	0.616*** (59.32)	0.458*** (25.36)
ROS	0.459*** (19.45)	0.615*** (34.48)	0.476*** (21.76)	0.609*** (34.92)	0.472*** (21.51)	0.601*** (34.70)
MBR	-0.177*** (127.18)	-0.035*** (10.30)	-0.169*** (119.19)	-0.040*** (13.45)	-0.170*** (121.17)	-0.042*** (13.91)
NONTRD	0.706*** (7.93)	-0.842*** (8.40)				
ST			-0.006 (0.00)	-0.733*** (24.91)		
LP					0.214* (3.44)	0.585*** (14.43)
No. Obs	6154		6154		6154	
Likelihood Ratio	10879.82		10876.21		10889.59	

Note: *, **, and *** denote significance at the 10, 5 and 1 percent level, respectively (two-tails).

5.5.2 Hypothesis 2 (Table 12)

The empirical results on testing hypothesis 2 are presented in Table 12.

First, the regression results show that after controlling the size, leverage, efficiency, liquidity profitability and growth potential effects, the coefficient of the T1 for cash dividend payout is 0.506, which is positive and significant at 10% level. The coefficient of SqrtT1 for is -1.988 , which is negative at 5% level. This is evidence to support the inverse U-shape non-linear relationship between cash dividend decision and the largest shareholder's shareholding. Specifically, the likelihood of paying cash dividends increases as the largest shareholder's holding increases, and then decreases when the largest shareholder shareholding reaches a certain high level. There is no similar pattern for stock dividend payout decision.

Second, Parent has a coefficient of 0.167 for cash dividend which is significant at 5% significance level. It shows that the likelihood of a firm's choice to pay cash dividend increases with the existence of a parent company. This evidence supports the first prediction of hypothesis 2 that when the listed company is controlled by another parent company, it becomes more likely to pay out cash dividends. The parent company uses cash dividend as a way to cash in on the listed companies and as a way to expropriate minority shareholders.

The empirical results on testing the second prediction of hypothesis 2 are also presented in Table 12. Consistent with the second prediction of Hypothesis 2, the coefficient of L10 for cash dividend payout is 0.433, which is positive and significant at 10% level. The coefficient of L10 is -1.757 in stock dividend regression, which is

negative and significant at 1% level. These results indicate that the probability of paying cash dividend increases as more shares are held by the top 10 largest shareholders and the probability of paying stock dividend decreases as more shares are held by the top 10 largest shareholders. In addition, the coefficient of DT12 is not significant in either the cash dividend regression or the stock dividend regression indicating the relative power of the largest shareholder over the second largest shareholder has no impact on firms' decision to pay dividends.

Table 12: Generalized Multinomial Logit Regression: The Dividend Policy of China's Listed Companies (Shareholder Concentration)

This table presents the results of the cross-sectional regression on companies' dividends policy using the following multinomial Logit model:
 $D = \alpha_i + \beta_1 \text{Size} + \beta_2 \text{Leverage} + \beta_3 \text{Liquidity} + \beta_4 \text{Efficiency} + \beta_5 \text{Profitability} + \beta_6 \text{MBR} + \beta_7 \text{Ownership Structure} + \epsilon_i$
D is the qualitative dependent variable, which takes value of 1 if the firm pays cash dividends, value of 2 if the firm pays stock dividends, and value of 3 if the firm pays neither cash dividends nor stock dividends. SIZE is proxied by the natural logarithm of the inflation adjusted total assets. LEVERAGE measure is proxied by the total liability / total asset ratio. CURRENT ratio is used to proxy for the short-term liquidity of the firm, and ROS is used to proxy for the profitability. MBR is used to proxy for the market valuation of the firm. PARENT is a dummy variable, which takes value of 1 if the largest shareholder of the firm is another firm, which holds more than 50% of the total share outstanding of the listed firm. T1 is the proportion of shares owned by the largest shareholder. SQR T1 is calculated as the square of T1. DT12 is the difference of the shareholding between the largest shareholder and the second largest shareholder. L10 is the total proportion of shares owned by the top 10 largest shareholders. LL10 is the log transformation of L10, which is calculated as $\log(L10/(1-L10))$. All models are estimated using maximum likelihood method, and Chi square value for each estimated parameter is stated in the bracket.

Variables	Model 1		Model 2		Model 3		Model 4	
Intercept	Cash Div -10.12*** (127.23)	Stock Div 4.457*** (17.31)	Cash Div -7.195*** (30.73)	Stock Div -5.195*** (8.53)	Cash Div -9.892*** (128.53)	Stock Div 4.453*** (18.05)	Cash Div -9.576*** (121.79)	Stock Div 5.291*** (24.94)
TA	0.548*** (170.22)	-0.238*** (21.10)	0.431*** (48.36)	0.207** (5.67)	0.552*** (172.44)	-0.254*** (23.95)	0.522*** (153.86)	-0.247*** (22.76)
Leverage	-2.663*** (104.50)	-0.449 (2.59)	-2.502*** (57.74)	-2.128*** (18.39)	-2.719*** (107.65)	-0.441 (2.55)	-2.643*** (100.84)	-0.598 (4.60)
Current	-0.187*** (39.22)	-0.026 (1.51)	-0.171*** (21.12)	-0.109* (3.71)	-0.172*** (33.78)	-0.020 (1.01)	-0.176*** (34.38)	-0.022 (1.26)
Efficiency	0.606*** (57.55)	0.489*** (29.41)	0.585*** (36.59)	0.446*** (11.04)	0.646*** (62.33)	0.494*** (28.76)	0.632*** (59.75)	0.504*** (29.99)
ROS	0.474*** (21.66)	0.615*** (36.14)	0.279*** (7.26)	0.319*** (8.88)	0.478*** (21.49)	0.617*** (35.41)	0.478*** (20.40)	0.634*** (35.68)
MBR	-0.167*** (115.45)	-0.038*** (11.72)	-0.213*** (119.22)	0.020** (4.98)	-0.170*** (118.88)	-0.041*** (13.07)	-0.179*** (125.18)	-0.030*** (8.10)
T1	0.506* (2.90)	-1.289 (1.61)						
SQR T1	-1.988** (4.36)	0.448 (0.16)						
Parent			0.167** (4.06)	-0.207 (2.14)				
DT12					-0.188 (1.67)	-0.279 (2.64)	0.433* (3.04)	-1.757*** (38.03)
L10								
No. Obs	6154		6154		6154		6154	
Likelihood Ratio	11005.24		10303.23		10680.55		10629.88	

Note: *, ** and *** denote significance at the 10, 5 and 1 percent level, respectively (two-tails).

5.5.3 Hypothesis 3 (Table 13)

The empirical results on testing hypothesis 3 are presented in Table 13. INDIVIDUAL is calculated as the number of circulating shares owned by the external individual investors divided by the total number of circulating shares. FOREIGN measures the proportion of shares owned by foreign investors (B or H shares). .

From the regression results of Model 1, the coefficient of the INDIVIDUAL is -1.012 for cash dividend and -1.508 for stock dividend which is significant at 5% and 1% level respectively. This result shows that individual investors in China generally don't like to invest in firms paying cash dividend or stock dividend. Hence it is consistent with hypothesis 3.1, that due to the tax disadvantage of cash dividends, external individual shareholders generally do not prefer cash dividends.

From the regression results of Model 2, the estimated coefficient of Foreign is -0.007 for cash dividend and -0.013 for stock dividend, which is significant at 5% level for cash dividend regression and at 1% level for stock dividend regression, showing a decreasing likelihood of a firm's choice to pay cash or stock dividend with the increasing proportion of shares held by foreign investors. All the other control variables bear reasonable signs.

These results are consistent with hypothesis 3.2, suggesting that with the increasing of foreign shareholders, the larger shareholders' propensity of paying out large cash dividends as liquidation are better monitored.

Table 13: Generalized Multinomial Logit Regression: The Dividend Policy of the Listed Companies (Different Tradable Shareholders)

This table presents the results of the cross-sectional regression on companies' dividends policy using the following multinomial Logit model:

$$D = \alpha_i + \beta_1 \text{Size} + \beta_2 \text{Leverage} + \beta_3 \text{Liquidity} + \beta_4 \text{Efficiency} + \beta_5 \text{Profitability} + \beta_6 \text{MBR} + \beta_7 \text{Ownership Structure} + \epsilon_i$$

D is the qualitative dependent variable which takes value of 1 if the firm pays cash dividends, value of 2 if the firm pays stock dividends, and value of 3 if the firm pays neither cash dividends nor stock dividends. SIZE is proxied by the natural logarithm of the inflation adjusted total assets. LEVERAGE measure is proxied by the total liability / total asset ratio. CURRENT ratio is used to proxy for the short-term liquidity of the firm, and ROS is used to proxy for the profitability. MBR is used to proxy for the market valuation of the firm. INDIVIDUAL is calculated as the number of circulating shares owned by the external individual investors divided by the total number of circulating shares. FOREIGN measures the proportion of shares owned by foreign investors (B or H shares).

All models are estimated using maximum likelihood method, Chi square value for each estimated parameter is stated in the bracket.

Variables	Model 1		Model 2	
	Cash Div	Stock Div	Cash Div	Stock Div
Intercept	-4.711*** (14.71)	7.525*** (25.41)	-10.46*** (137.52)	2.830*** (7.66)
TA	0.361*** (49.16)	-0.336*** (25.77)	0.580*** (183.27)	-0.174*** (12.08)
Leverage	-2.572*** (53.31)	-0.068 (0.03)	-2.797*** (117.27)	-0.568** (4.31)
Current	-0.255*** (35.10)	-0.026 (0.55)	-0.181*** (37.68)	-0.025 (1.48)
Efficiency	0.510*** (26.76)	0.341*** (9.02)	0.607*** (59.34)	0.399*** (20.16)
ROS	0.684*** (16.08)	0.716*** (17.00)	0.462*** (20.67)	0.593*** (33.78)
MBR	-0.180*** (89.60)	-0.059* (12.19)	-0.163*** (113.47)	-0.034*** (9.90)
Individual	-1.012** (4.61)	-1.508*** (8.00)		
Foreign			-0.007** (5.25)	-0.013*** (7.94)
No. Obs	2774		5833	
Likelihood Ratio	6224.32		10908.22	

Note: *, ** and *** denote significance at the 10, 5 and 1 percent level, respectively (two-tails).

5.5.4 Hypothesis 4 (Table 14)

The empirical results on testing hypothesis 4 are presented in Table 14. As defined before, DUALITY is a dummy variable that takes the value of 1 if the CEO of the firm is also the chairperson of the board and 0 otherwise. NON-EXECUTIVE is the ratio of the number of non-executive directors to the total number of directors in the board. BOARD SIZE is the total number of directors in the company board.

Regression results show that the coefficient of the Non-Executive measure for cash dividend is 1.635, which is significant at 1% level, indicating a positive impact on the cash dividend payout as the proportion of non-executive directors in the company increases. The coefficient of the Non-Executive measure for stock dividend is -5.301, significant at 1% level, indicating a negative impact on the stock dividend payout as the proportion of non-executive directors in the company increases. The coefficients for Duality and Board Size are not significant in the regression results.

These findings are not supportive to the fourth hypothesis. It seems to suggest that the board of director monitoring systems may not be very effective in monitoring larger shareholders' behavior under the China's case. This is generally consistent with the findings from some other corporate governance studies on China's listed companies (Bai et al 2004). The controlling power of the largest shareholder in China's listed companies is unmatched high, and the lack of effective monitoring mechanism on these largest shareholders is probably one of the major causes of the poor corporate governance system in China.

Table 14: Generalized Multinomial Logit Regression: The Dividend Policy of the Listed Companies (Board Monitoring Mechanism)

This table presents the results of the cross-sectional regression on companies' dividends policy using the following multinomial Logit model:

$$D = \alpha_i + \beta_1 \text{Size} + \beta_2 \text{Leverage} + \beta_3 \text{Liquidity} + \beta_4 \text{Efficiency} + \beta_5 \text{Profitability} + \beta_6 \text{MBR} + \beta_7 \text{Ownership Structure} + \epsilon_i$$

D is the qualitative dependent variable which takes value of 1 if the firm pays cash dividends, value of 2 if the firm pays stock dividends, and value of 3 if the firm pays neither cash dividends nor stock dividends. SIZE is proxied by the natural logarithm of the inflation adjusted total assets. LEVERAGE measure is proxied by the total liability / total asset ratio. CURRENT ratio is used to proxy for the short-term liquidity of the firm, and ROS is used to proxy for the profitability. MBR is used to proxy for the market valuation of the firm. DUALITY is a dummy variable that takes the value of 1 if the CEO of the firm is also the chairperson of the board and 0 otherwise. NON-EXECUTIVE is the ratio of the number of non-executive directors to the total number of directors in the board. BOARD SIZE is the total number of directors in the company board.

All models are estimated using maximum likelihood method, Chi square value for each estimated parameter is stated in the bracket.

Variables	Cash Div	Stock Div
Intercept	-7.097*** (29.03)	-4.009*** (4.44)
TA	0.409*** (42.31)	0.147 (2.51)
Leverage	-2.549*** (56.08)	-1.380*** (7.01)
Current	-0.151*** (15.91)	-0.075 (1.70)
Efficiency	0.612*** (30.81)	0.521*** (10.85)
ROS	0.313** (6.10)	0.330** (5.82)
MBR	-0.183*** (79.87)	0.008 (0.54)
Duality	-0.080 (0.77)	0.097 (0.44)
Non-Executive Board Size	1.635*** (24.86)	-5.301*** (38.01)
No. Obs	-0.014 (0.68)	-0.015 (0.30)
Likelihood Ratio		3662 6241.54

Note: *, ** and *** denote significance at the 10, 5 and 1 percent level, respectively (two-tails).

5.5.5 Dividend Payout Ratio (Table 15)

In this section, I further test the effect of ownership structure on cash dividend payout ratio. A generalized type II Tobit model is used to find out the determinants to the cash dividend payout ratio of Chinese listed firms. The model specification is as follow:

$$\text{Div} = \alpha_i + \beta_1 \text{Size} + \beta_2 \text{Leverage} + \beta_3 \text{Liquidity} + \beta_4 \text{Efficiency} + \beta_5 \text{Profitability} + \beta_6 \text{MBR} + \beta_7 \text{Ownership Structure} + \varepsilon_i \quad (5.6)$$

The dependent variable Div is the dividend payout ratio, which is calculated as the ratio of dividend per share over earnings per share. All the control variables and ownership variables are the same as defined before.

From the results in table 15, we can see that that the coefficient of NONTRD takes the value of 0.439, which is significantly positive at 1% level, implying that the larger the proportion of non-tradable shares to total shares, the more the company will pay out cash dividend. ST takes the value of 0.145, and is also significant. This finding is interesting. It may be due to the fact that for firms with a large state ownership, they can easily raise capital from the bank or other sources; hence they could afford to pay large amounts of earnings as cash dividends. The coefficient of Parent takes the value of 0.072 and is significant at 1% level, indicating that when the listed firm is controlled by another parent firms, it not only has a higher probability of paying out cash dividends, but also it tends to pay more as cash dividends as compared with other cash dividend paying companies. This finding is consistent with hypothesis 2, the tunneling hypothesis.

Finally, all the other ownership variables are not significant in determining the cash dividend payout ratio for Chinese listed firms.

Table 15 Generalized Type II Tobit Regression: The Determinants to Cash Dividend Payout Ratio of Chinese Listed Firms (Ownership Structure)

This table presents the results of the cross-sectional regression on companies' dividend payout ratio using the following generalized type II Tobit model:

$$\text{Div} = \alpha_i + \beta_1\text{Size} + \beta_2\text{Leverage} + \beta_3\text{Liquidity} + \beta_4\text{Efficiency} + \beta_5\text{Profitability} + \beta_6\text{MBR} + \beta_7\text{Ownership Structure} + \epsilon_i$$

Div is the dividend payout ratio which is the ratio of dividend per share to earnings per share. SIZE is proxied by the natural logarithm of the inflation adjusted total assets. LEVERAGE measure is proxied by the total liability / total asset ratio. CURRENT ratio is used to proxy for the short-term liquidity of the firm, and ROS is used to proxy for the profitability. MBR is used to proxy for the market valuation of the firm. All the ownership structure variables are the same as defined before. All models are estimated using maximum likelihood method, Chi square value for each estimated parameter is stated in the bracket.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	-3.139*** (-7.57)	0.598 (1.08)	-2.938*** (-6.96)	0.351 (0.66)	-3.146*** (-7.16)	0.751 (1.52)	0.417 (0.78)	-1.609*** (-4.17)
TA	0.163*** (8.43)	-0.001 (0.01)	0.166*** (8.41)	0.012 (0.46)	0.167*** (8.25)	-0.001 (-0.05)	0.012 (0.48)	0.113*** (7.24)
Leverage	-1.192*** (-9.75)	-0.407*** (-2.75)	-1.231*** (-10.09)	-0.454*** (-3.29)	-0.179*** (-9.43)	-0.364*** (-2.74)	-0.432*** (-3.07)	-0.939*** (-8.47)
Current	-0.076*** (-5.88)	-0.027** (-2.03)	-0.077*** (-5.93)	-0.019 (1.61)	-0.079*** (-5.96)	-0.025 (-1.94)	-0.027** (-2.08)	-0.087*** (-6.31)
Efficiency	0.184*** (4.90)	0.003 (0.08)	0.196*** (5.24)	0.004 (0.12)	0.187*** (4.91)	0.001 (0.01)	0.007 (0.18)	0.147*** (4.90)
ROS	0.164*** (4.24)	0.066* (1.64)	0.181*** (4.74)	0.113 (1.62)	0.175*** (4.54)	0.068* (1.69)	0.073* (1.80)	0.149*** (4.75)
MBR	-0.058*** (-6.98)	-0.008 (-0.88)	-0.052*** (-6.36)	0.003 (0.33)	-0.053*** (-6.49)	-0.011 (-1.22)	-0.008 (-0.83)	-0.048*** (-7.45)
NONTRD	0.439*** (3.51)							
ST		0.145*** (2.63)						
LP			-0.029 (-0.43)					
Parent				0.072*** (2.66)				
T1					0.651 (1.44)			
SQRT1					-0.634 (-1.32)			
DT12						-0.065 (-0.58)		
L10						0.042 (1.62)		
OFF							-0.039 (-0.32)	
IND								-0.222 (-1.51)
No. Obs	4808	4808	4808	3336	4874	4871	4808	2682
Log Likelihood	-4548	-4824	-4551	-3031	-4565	-4841	-4826	-1928

5.5.6 Hypothesis 5 (Table 16)

In this section, I test the relation between rights offering and dividend payout.

Generalized Multinomial Logit Regression is employed here. The model specification is as follow:

$$D = \alpha_i + \beta_1 \text{Size} + \beta_2 \text{Leverage} + \beta_3 \text{Liquidity} + \beta_4 \text{Efficiency} + \beta_5 \text{Profitability} + \beta_6 \text{MBR} + \beta_7 \text{DMRO} + \varepsilon_i \quad (5.7)$$

DMRO is a dummy variable which takes value of 1 if the firm issuing rights offering at the year and 0 if not. Other variables are the same as that having been defined before.

The regression results show that after controlling the size, leverage, efficiency, liquidity profitability, growth potential and ownership effects, the coefficients of the DMRO for cash dividend payout are 0.3718, 0.3494 and 0.3499 respectively, which are all significantly positive at 1% level. This indicates the positive correlation between the rights offering and dividend payout is positive in China's case. The implication is the coexistence of aggressive right offering and aggressive dividend payout that have been resulted from the large shareholders' objective of achieving current cash flow maximization by utilizing whatever financial source available.

Table 16: Generalized Multinomial Logit Regression: The Dividend Policy of the Listed Companies (Rights Offering)

This table presents the results of the cross-sectional regression on companies' dividends policy using the following multinomial Logit model:

$D = \alpha_i + \beta_1 \text{Size} + \beta_2 \text{Leverage} + \beta_3 \text{Liquidity} + \beta_4 \text{Efficiency} + \beta_5 \text{Profitability} + \beta_6 \text{MBR} + \beta_7 \text{DMRO} + \epsilon_i$

D is the qualitative dependent variable which takes value of 1 if the firm pays cash dividends, value of 2 if the firm pays stock dividends, and value of 3 if the firm pays neither cash dividends nor stock dividends. SIZE is proxied by the natural logarithm of the inflation adjusted total assets. LEVERAGE measure is proxied by the total liability / total asset ratio. CURRENT ratio is used to proxy for the short-term liquidity of the firm, and ROS is used to proxy for the profitability. MBR is used to proxy for the market valuation of the firm. NONTRD is the proportion of non-tradable shares in the firm's ownership structure. ST is the proportion of state shares in the firm's ownership structure. LP share is the proportion of legal person shares in the firm's ownership structure. DMRO is a dummy variable which takes value of 1 if the firm issues rights offering during the year, and 0 otherwise. All models are estimated using maximum likelihood method. Chi square value for each estimated parameter is stated in the bracket.

Variables	Model 1		Model 2		Model 3	
Intercept	Cash Div -9.9414*** (129.48)	Stock Div 5.6148*** (26.86)	Cash Div -9.6177*** (122.88)	Stock Div 4.4840*** (17.77)	Cash Div -9.9553*** (127.18)	Stock Div 4.1551*** (14.69)
TA	0.5308*** (166.58)	-0.3079*** (34.98)	0.5358*** (164.49)	-0.2610*** (24.55)	0.5499*** (172.20)	-0.2633*** (24.73)
Leverage	-2.6674*** (105.53)	-0.1938 (0.48)	-2.7172*** (109.62)	-0.2259 (0.66)	-2.7274*** (110.60)	-0.1957 (0.50)
Current	-0.1800*** (37.21)	-0.0165 (0.70)	-0.1796*** (37.02)	-0.0157 (0.64)	-0.1791*** (37.06)	-0.0160 (0.67)
Efficiency	0.6058*** (56.39)	0.4790*** (26.94)	0.6207*** (59.22)	0.4949*** (28.71)	0.6276*** (60.92)	0.4775*** (26.84)
ROS	0.4365*** (17.98)	0.5961*** (32.90)	0.4542*** (20.02)	0.5917*** (33.59)	0.4496*** (19.94)	0.5846*** (33.22)
MBR	-0.1774*** (126.96)	-0.0330*** (9.64)	-0.1694*** (119.76)	-0.0375*** (11.57)	-0.1706*** (120.79)	-0.0392*** (12.28)
NONTRD	0.7314*** (8.39)	-0.7207** (5.83)				
ST			-0.00521 (0.00)	-0.6777*** (20.63)		
LP					0.2195* (2.58)	0.5564*** (12.72)
DMRO	0.3718*** (13.38)	1.0436*** (92.71)	0.3494*** (11.89)	1.0416*** (92.52)	0.3499*** (11.94)	1.0627*** (96.61)
No. Obs	5814		5814	5814	5814	5814
Likelihood Ratio	10750.06		10748.17		10758.31	

Note: *, ** and *** denote significance at the 10, 5 and 1 percent level, respectively (two-tails).

6 Modeling Market Reaction to Cash Dividend

Under the Signaling Hypothesis, firms pay dividends to signal a message that the firm is anticipated to do better. In this chapter I want to empirically test the effect of the announcement of dividend and dividend changes to share value.

6.1 Methodology

In the PANEL A and B of Table 17 to 19, Market Model is employed to calculate the return benchmark. This is an event-time methodology documented in Dodd and Warner (1983):

Using market model and estimation period data, we can obtain the estimated $\hat{\beta}_i$ by formula 6.1 and 6.2.

$$R_{it} = \text{Log}(P_{it} / P_{it-1}) \quad (6.1)$$

$$R_{it} = \hat{\alpha}_i + \hat{\beta}_i R_{mt} + \varepsilon_{it} \quad (6.2)$$

R_{it} = the two-way return on security i in day t

$\hat{\alpha}_i$ = the estimated intercept term

$\hat{\beta}_i$ = the parameter estimate

R_{mt} = the equally-weighted two-way return on the market

ε_{it} = the error term

Using the estimated $\hat{\beta}_i$, we can get the estimated $\hat{R}_{it}$ in the event period. The abnormal returns (AR_{it}) are generated from the market model estimated by ordinary

least squares over the period $t = -267$ to $t = -11$. The estimation period is 256 days which is the average trading days within a year. The announcement period is defined as the period $t = -5$ to $t = +5$. Average abnormal returns (AAR) are calculated cross-sectionally over the interval -5 through +5 relative to the announcement date $t = 0$ and cumulative average abnormal returns ($CAAR$) for a specified event period surrounding the announcement date are calculated by summing AAR over time for various time spans. Test statistics for $CAAR$ are denoted by Z .

$$AR_{it} = R_{it} - \hat{R}_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt}) \quad (6.3)$$

$$AAR_i = \frac{1}{N} \sum_{t=1}^N AR_i \quad (6.4)$$

$$CAR_i = \sum_{t=-T}^T AR_{it} \quad (6.5)$$

$$CAAR_i = \frac{1}{N} \sum_{i=1}^N CAR_i \quad (6.6)$$

In the PANEL C and D of Table 17 to 19, I use Comparison Period Adjusted Model instead of Market Model to calculate the return benchmark. All the calculations are the same with those of the Market Model except for:

$$\hat{R}_i = \text{Avg}(R_{it}) \quad (6.7)$$

6.2 Results—Hypothesis 6 (Table 17, 18, 19)

Table 17 shows cumulative abnormal returns for all companies along with relative test statistics, associated with 2298 cash dividend announcements in the sample. The results strongly suggest that the dividend announcements are associated

with significant negative mean abnormal returns in the period after the announcement. In panel A of table 17, using Market Model we obtain the abnormal mean return on the announcement date which is -0.11%, statistically significant under any reasonable significance level. This negative return continues until five days after the announcement date. We can see from the results in panel B that the cumulative abnormal returns around the announcement date are consistently negative. For example, the cumulative abnormal return of $[-5,+5]$ window period is -1.53%, with a significant Z value of 4.108. Moreover, the cumulative abnormal return of $[-3,+3]$ and $[-1,+1]$ window periods are -1.03% and -0.55% respectively, both indicating a large negative cumulative abnormal return throughout the dividend announcement period in the Market Model. In addition, results from panel B and panel C in the Comparison Period Adjusted Model imply the similar conclusion.

Table 18 shows cumulative abnormal returns for companies whose non-tradable share holding is larger than 50% of the total shares. I set the threshold at 50% because if non-tradable shareholders hold more than 50%, they are sure to be at the controlling position, which enable them to manipulate the financial decision of a listed company. There are 1925 cash dividend announcements in the sample. The results in Panel A suggest that the dividend announcements are associated with an even large negative mean abnormal returns in period during and after the announcement using Market Model. Specifically the mean abnormal return on the announcement date is -0.15% compared with -0.11% for the whole sample reported previously. Moreover, there appears to be a large negative cumulative abnormal return throughout most of the post-announcement period using Market Model. The cumulative abnormal return of $[-5,+5]$ window period is -1.76%, with a significant Z

value of 3.522. Moreover, the cumulative abnormal return of $[-3,+3]$ and $[-1,+1]$ window periods are -1.26% and -0.69% respectively. All are larger than the results reported for the whole sample, indicating the market react even more adversely for the cash dividend announcement by those firms controlled by larger shareholders. In addition, results in panel C and panel D of the Comparison Period Adjusted Model shows a similar pattern.

However, the results change when we come to the less-than-50% non-tradable shareholding group. Table 19 shows abnormal returns for companies whose non-tradable shareholding is lower than 50% of the total shares. There are in total 361 cash dividend announcements in the sample. The mean abnormal return on the announcement date is mere -0.02%, slightly significant under 10 percent significance level. However the abnormal return after the announcement date is no longer negatively significant, while the abnormal return is even significantly positive (0.12%) for the third day after the dividend announcement day. If we look at the results on cumulative abnormal return in Panel B, the cumulative abnormal returns of $[-1,+1]$ and $[-3,+3]$ window periods are both significantly positive, indicating a positive market reaction to the dividend announcement of this group of companies. The results in panel C and panel D of Comparison Period Adjusted Model shows a similar pattern.

All these results seems to imply that the circulating shareholders regard cash dividend announcements as favorable signals of superior operating performance if the company's non-tradable shareholding is less than 50% while consider cash dividend announcements by a more-than-50% non-tradable shareholding company as signals of tunneling.

Table 17: Market Reaction to Cash Dividends Announcements

Abnormal returns around the cash dividends announcement day are reported in this table. Estimation period ends 11 days before the event date; 256 days in length. Total number of events is 2399 while events with usable returns are 2298. Minimum return data required for estimation is 60; therefore 90 events are dropped because the estimation period is less than 60.

NOTE: Any non-trading dates were converted to the next trading date.

PANEL A: Market Model, Equally Weighted Index (Abnormal Return)

Day	N	Mean Abnormal Return	Median Abnormal Return	Positive: Negative	Z	Generalized Sign Z
-5	2103	-0.18%	-0.21%	914:1189	0.231	1.101
-4	2275	-0.13%	-0.24%	958:1317	-0.121	-0.16
-3	2274	0.02%	-0.26%	931:1343	-0.445	-1.288
-2	2248	-0.20%	-0.29%	894:1354	-0.791	-2.406*
-1	2270	-0.33%	-0.24%	938:1332	0.423	-0.92
0	2252	-0.11%	-0.01%	1113:1139	5.537***	6.866***
1	2291	-0.11%	-0.13%	1043:1248	3.148**	3.150**
2	2296	-0.16%	-0.18%	1025:1271	1.767S	2.296*
3	2291	-0.14%	-0.13%	1039:1252	1.179	2.980**
4	2292	-0.05%	-0.11%	1069:1223	2.487*	4.230***
5	2289	-0.15%	-0.19%	1009:1280	0.134	1.748S

The symbols S, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL B: Market Model, Equally Weighted Index (Cumulative Abnormal Return)

Cumulative average abnormal returns (*CAAR*) around cash dividends announcement day are presented in this panel. Window periods include 5 days before and 5 days after the event period..

Days	N	Cumulative Abnormal Return	Mean Precision Weighted CAAR	Median Cumulative Abnormal Return	Positive: Negative	Z	Generalized Sign Z
(-5,-5)	2103	-0.18%	0.01%	-0.21%	914:1189	0.231	1.101
(-5,-4)	2275	-0.30%	0.00%	-0.26%	994:1281	0.068	1.368
(-5,-3)	2298	-0.28%	-0.01%	-0.40%	983:1315	-0.208	0.486
(-5,-2)	2298	-0.48%	-0.04%	-0.46%	957:1341	-0.579	-0.612
(-5,-1)	2298	-0.80%	-0.03%	-0.58%	963:1335	-0.324	-0.358
(-5,0)	2298	-0.91%	0.19%	-0.43%	1015:1283	1.980*	1.837\$
(-5,+1)	2298	-1.03%	0.32%	-0.36%	1047:1251	3.040**	3.189**
(-5,+2)	2298	-1.18%	0.39%	-0.33%	1059:1239	3.473***	3.696***
(-5,+4)	2298	-1.38%	0.53%	-0.30%	1086:1212	4.271***	4.836***
(-5,+5)	2298	-1.53%	0.54%	-0.38%	1069:1229	4.108***	4.118***
(-3,+3)	2298	-1.03%	0.43%	-0.32%	1061:1237	4.089***	3.780***
(-1,+1)	2297	-0.55%	0.36%	-0.06%	1116:1181	5.247***	6.122***

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL C: Comparison Period Adjusted Model (Abnormal Return)

Day	N	Abnormal Return	Mean Abnormal Return	Median Positive: Negative	Z	Generalized Sign Z
-5	2298	-0.18%	-0.16%	1028:1270	0.496	-0.464
-4	2275	-0.23%	-0.27%	1000:1275	0.026	-1.208
-3	2274	-0.26%	-0.30%	959:1315	-0.8	-2.917**
-2	2248	-0.18%	-0.21%	1001:1247	0.201	-0.656
-1	2270	-0.19%	-0.21%	1019:1251	-0.262	-0.313
0	2252	0.00%	0.03%	1138:1114	4.027***	5.069***
1	2291	-0.13%	-0.12%	1075:1216	1.533	1.641
2	2296	-0.08%	-0.14%	1064:1232	2.715**	1.083
3	2291	-0.10%	-0.09%	1097:1194	1.910S	2.564*
4	2292	0.00%	0.00%	1143:1149	3.450***	4.475***
5	2289	-0.13%	-0.15%	1063:1226	1.022	1.176

The symbols S, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL D: Comparison Period Adjusted Model (Cumulative Abnormal Return)

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Median Cumulative Abnormal Return	Positive: Negative	Z	Generalized Sign Z
(-5,-5)	2298	-0.18%	0.05%	-0.16%	1028:1270	0.496	-0.464
(-5,-4)	2298	-0.41%	0.05%	-0.30%	1032:1266	0.371	-0.297
(-5,-3)	2298	-0.66%	-0.03%	-0.60%	973:1325	-0.157	-2.770**
(-5,-2)	2298	-0.84%	-0.01%	-0.63%	972:1326	-0.037	-2.811**
(-5,-1)	2298	-1.02%	-0.03%	-0.75%	959:1339	-0.15	-3.356***
(-5,0)	2298	-1.02%	0.38%	-0.59%	1034:1264	1.494	-0.213
(-5,+1)	2298	-1.15%	0.54%	-0.43%	1051:1247	1.966*	0.5
(-5,+2)	2298	-1.23%	0.82%	-0.46%	1066:1232	2.805**	1.128
(-5,+4)	2298	-1.33%	1.37%	-0.56%	1068:1230	4.210***	1.212
(-5,+5)	2298	-1.46%	1.47%	-0.79%	1026:1272	4.321***	-0.548
(-3,+3)	2298	-0.93%	0.96%	-0.45%	1058:1240	3.527***	0.793
(-1,+1)	2297	-0.31%	0.55%	-0.25%	1088:1209	3.047**	2.070*

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

Table 18: Market Reaction to Cash Dividends Announcements (Companies with Non-tradable Shareholding Larger than 50%)

Estimation period ends 11 days before the event date; 256 days in length. Total number of events is 1993 while events with usable returns are 1925. Minimum return data required for estimation is 60; therefore 64 events are dropped because the estimation period is less than 60.
NOTE: Any non-trading dates were converted to the next trading date.

PANEL A: Market Model, Equally Weighted Index (Abnormal Return)

Day	N	Mean Abnormal Return	Median Abnormal Return	Positive: Negative	Z	Generalized Sign Z
-5	1770	-0.20%	-0.20%	773:997	0.533	1.32
-4	1905	-0.14%	-0.25%	802:1103	-0.123	-0.021
-3	1907	0.06%	-0.25%	780:1127	-0.106	-1.08
-2	1880	-0.25%	-0.30%	745:1135	-1.223	-2.191*
-1	1903	-0.41%	-0.25%	777:1126	-0.035	-1.142
0	1890	-0.13%	-0.04%	923:967	5.216***	5.911***
1	1921	-0.15%	-0.15%	865:1056	2.794**	2.579**
2	1923	-0.19%	-0.16%	865:1058	1.282	2.539*
3	1919	-0.19%	-0.14%	861:1058	0.445	2.435*
4	1921	-0.04%	-0.10%	901:1020	2.421*	4.243***
5	1919	-0.15%	-0.17%	857:1062	0.425	2.250*

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL B: Market Model, Equally Weighted Index (Cumulative Abnormal Return)

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Median Cumulative Abnormal Return	Positive: Negative	Z	Generalized Sign Z
(-5,-5)	1770	-0.20%	0.02%	-0.20%	773:997	0.533	1.32
(-5,-4)	1905	-0.32%	0.02%	-0.26%	843:1062	0.273	1.882\$
(-5,-3)	1925	-0.26%	0.01%	-0.39%	835:1090	0.158	1.114
(-5,-2)	1925	-0.50%	-0.04%	-0.47%	797:1128	-0.48	-0.64
(-5,-1)	1925	-0.91%	-0.04%	-0.59%	811:1114	-0.444	0.006
(-5,0)	1925	-1.04%	0.18%	-0.44%	839:1086	1.740\$	1.299
(-5,+1)	1925	-1.19%	0.31%	-0.41%	871:1054	2.683**	2.776**
(-5,+2)	1925	-1.38%	0.36%	-0.36%	881:1044	2.965**	3.237**
(-5,+4)	1925	-1.61%	0.49%	-0.34%	899:1026	3.562***	4.068***
(-5,+5)	1925	-1.76%	0.51%	-0.40%	889:1036	3.522***	3.607***
(-3,+3)	1925	-1.26%	0.36%	-0.36%	873:1052	3.168**	2.868**
(-1,+1)	1924	-0.69%	0.35%	-0.11%	919:1005	4.595***	5.012***

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL C: Comparison Period Adjusted Model (Abnormal Return)

Day	N	Mean Abnormal Return	Median Abnormal Return	Positive: Negative	Z	Generalized Sign Z
-5	1925	-0.14%	-0.14%	869:1056	1.183	0.039
-4	1905	-0.27%	-0.28%	835:1070	-0.031	-1.111
-3	1907	-0.25%	-0.30%	810:1097	-0.344	-2.303*
-2	1880	-0.22%	-0.23%	824:1056	-0.194	-1.106
-1	1903	-0.23%	-0.21%	852:1051	-0.475	-0.287
0	1890	0.00%	0.00%	944:946	3.993***	4.236***
1	1921	-0.16%	-0.15%	889:1032	1.341	1.038
2	1923	-0.09%	-0.15%	882:1041	2.429*	0.676
3	1919	-0.11%	-0.09%	913:1006	1.913\$	2.181*
4	1921	-0.01%	0.00%	958:963	2.644**	4.202***
5	1919	-0.11%	-0.14%	902:1017	1.042	1.677\$

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL D: Comparison Period Adjusted Model (Cumulative Abnormal Return)

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Median Cumulative Abnormal Return	Positive: Negative	Z	Generalized Sign Z
(-5,-5)	1925	-0.14%	0.14%	-0.14%	869:1056	1.183	0.039
(-5,-4)	1925	-0.40%	0.13%	-0.26%	882:1043	0.819	0.634
(-5,-3)	1925	-0.65%	0.09%	-0.53%	828:1097	0.472	-1.839\$
(-5,-2)	1925	-0.87%	0.07%	-0.59%	818:1107	0.315	-2.297*
(-5,-1)	1925	-1.10%	0.02%	-0.74%	812:1113	0.069	-2.572*
(-5,0)	1925	-1.09%	0.47%	-0.57%	867:1058	1.683\$	-0.053
(-5,+1)	1925	-1.26%	0.63%	-0.40%	890:1035	2.067*	1.001
(-5,+2)	1925	-1.35%	0.91%	-0.39%	903:1022	2.797**	1.596
(-5,+4)	1925	-1.47%	1.43%	-0.51%	894:1031	3.948***	1.184
(-5,+5)	1925	-1.58%	1.55%	-0.76%	866:1059	4.078***	-0.099
(-3,+3)	1925	-1.06%	1.00%	-0.49%	875:1050	3.279**	0.314
(-1,+1)	1924	-0.39%	0.56%	-0.27%	910:1014	2.794**	1.938\$

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

Table 19: Market Reaction to Cash Dividends Announcement (Companies with Non-tradable Shareholding Less than 50%)

Estimation period ends 11 days before the event date; 256 days in length. Total number of events is 393 while events with usable returns are 361. Minimum return data required for estimation is 60; therefore 25 events are dropped because the estimation period is less than 60.

NOTE: Any non-trading dates were converted to the next trading date.

PANEL A: Market Model, Equally Weighted Index (Abnormal Return)

Day	N	Mean Abnormal Return	Median Abnormal Return	Positive: Negative	Z	Generalized Sign Z
-5	321	-0.11%	-0.24%	136:185	-0.559	-0.287
-4	358	-0.09%	-0.22%	153:205	0.07	-0.162
-3	355	-0.18%	-0.35%	146:209	-0.687	-0.774
-2	356	0.03%	-0.23%	144:212	0.774	-1.033
-1	355	0.12%	-0.18%	158:197	1.204	0.512
0	350	-0.02%	0.09%	184:166	1.758\$	3.554***
1	358	0.06%	-0.08%	171:187	1.153	1.759\$
2	361	-0.01%	-0.24%	153:208	1.165	-0.299
3	360	0.12%	-0.07%	173:187	1.867\$	1.875\$
4	359	-0.18%	-0.17%	161:198	0.212	0.645
5	358	-0.20%	-0.30%	144:214	-0.779	-1.122

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL B: Market Model, Equally Weighted Index (Cumulative Abnormal Return)

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Median Cumulative Abnormal Return	Positive: Negative	Z	Generalized Sign Z
(-5,-5)	321	-0.11%	-0.05%	-0.24%	136:185	-0.559	-0.287
(-5,-4)	358	-0.19%	-0.05%	-0.23%	145:213	-0.321	-1.016
(-5,-3)	361	-0.36%	-0.12%	-0.52%	144:217	-0.667	-1.255
(-5,-2)	361	-0.33%	-0.04%	-0.37%	156:205	-0.177	0.02
(-5,-1)	361	-0.21%	0.08%	-0.47%	149:212	0.39	-0.724
(-5,0)	361	-0.23%	0.26%	-0.29%	172:189	1.075	1.720\$
(-5,+1)	361	-0.17%	0.37%	-0.16%	171:190	1.437	1.614
(-5,+2)	361	-0.18%	0.49%	-0.25%	171:190	1.761\$	1.614
(-5,+4)	361	-0.24%	0.70%	-0.01%	180:181	2.238*	2.570*
(-5,+5)	361	-0.44%	0.62%	-0.22%	174:187	1.894\$	1.933\$
(-3,+3)	361	0.12%	0.72%	-0.11%	180:181	2.736**	2.570*
(-1,+1)	361	0.16%	0.41%	0.14%	191:170	2.372*	3.739***

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL C: Comparison Period Adjusted Model (Abnormal Return)

Day	N	Mean Abnormal Return	Median Abnormal Return	Positive: Negative	Z	Generalized Sign Z
-5	361	-0.40%	-0.20%	156:205	-1.335	-1.021
-4	358	-0.03%	-0.25%	161:197	0.189	-0.349
-3	355	-0.30%	-0.30%	144:211	-1.12	-2.014*
-2	356	0.07%	-0.03%	174:182	1.01	1.131
-1	355	0.08%	-0.16%	165:190	0.688	0.223
0	350	0.02%	0.16%	189:161	0.97	3.045**
1	358	0.03%	0.01%	180:178	0.771	1.667\$
2	361	-0.01%	-0.05%	177:184	1.201	1.198
3	360	-0.06%	0.01%	180:180	0.385	1.565
4	359	0.04%	-0.01%	179:180	2.398*	1.51
5	358	-0.22%	-0.23%	154:204	0.324	-1.091

The symbols \$, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

PANEL D: Comparison Period Adjusted Model (Cumulative Abnormal Return)

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Median Cumulative Abnormal Return	Positive: Negative	Z	Generalized Sign Z
(-5,-5)	361	-0.40%	-0.31%	-0.20%	156:205	-1.335	-1.021
(-5,-4)	361	-0.42%	-0.26%	-0.42%	147:214	-0.814	-1.971*
(-5,-3)	361	-0.71%	-0.52%	-0.80%	141:220	-1.309	-2.605**
(-5,-2)	361	-0.64%	-0.29%	-0.71%	152:209	-0.632	-1.443
(-5,-1)	361	-0.56%	-0.13%	-0.75%	145:216	-0.26	-2.182*
(-5,0)	361	-0.54%	0.09%	-0.65%	165:196	0.152	-0.07
(-5,+1)	361	-0.52%	0.27%	-0.57%	158:203	0.433	-0.809
(-5,+2)	361	-0.53%	0.55%	-0.71%	160:201	0.834	-0.598
(-5,+4)	361	-0.54%	1.19%	-0.58%	171:190	1.63	0.564
(-5,+5)	361	-0.76%	1.26%	-0.95%	157:204	1.651S	-0.915
(-3,+3)	361	-0.16%	0.90%	-0.06%	179:182	1.479	1.409
(-1,+1)	361	0.13%	0.56%	-0.15%	175:186	1.402	0.986

The symbols S, *, **, and *** denote statistical significance at the 10%, 5%, 1% and 0.1% levels, respectively, using a 2-tail test.

6.3 Cross-sectional Test

In the previous section, I provide some preliminary evidence on different market reactions to dividend announcement issuing by different groups of companies. In this section, I further examine the market reaction to cash dividend announcements by doing a cross-sectional test using individual company's CAR around the dividend announcement date as the dependant variable. The regression model is hence specified as follow:

$$CAR_i = \beta_0 + \beta_1 AMOUNT + \beta_2 SURPRISE + \beta_3 INITIATOR + \beta_4 OWNERSHIP \quad (6.8)$$

AMOUNT = dividend per share for each firm.

SURPRISE = the change of dividend per share.

INITIATOR = dummy variable representing whether the firm pays cash dividends to its shareholders at the first time.

Ownership structure variables are the same as defined before, among them are NONTRD which is the proportion of non-tradable shares to total shares, ST which is the proportion of state shares to total shares, LP which is the proportion of legal-person shares to total shares, T1 which is the largest shareholder's shareholding to total shares, DT12 which is the difference proportion between the largest shareholding and the second largest shareholding to total shares, L10 which is the proportion of the 10 largest shareholders' shareholding to total shares, FOREIGN, which is the proportion of foreign shareholding to total shares and INS which is the institutional tradable shareholding to total shares. The sample includes all listed firms with data available. [-1,+1], [-3,+3], and [-5,+5] are window periods for the dependent variable,

cumulative abnormal return around the cash dividend announcement date, for each individual firm.

Table 20 reports the regression results. First in Panel A the regression results show that the coefficients of INITIATOR and NONTRD are significantly negative, indicating those companies which pay cash dividends for the first time and whose non-tradable shareholdings are large will induce severer negative market reaction when they announce their cash dividends payout decision. Also interestingly in China, the absolute dividend payout amount and the change of dividend per share will have insignificant market impact on their share prices.

Second, from Panel B we could see that state shareholding has no impact on the cumulative abnormal return around the dividend announcement for each individual company, and all coefficients are positive but not significant at any statistical level. However for Panel C and Panel F, the coefficients of LP and L10 variables are all significantly negative, which suggests that the more the legal-person shares, or the more the shares held by larger shareholders, the more the negative cumulative abnormal returns for these companies around their dividend announcement date. This is consistent with the tunneling hypotheses proposed in Chapter 5.

Finally, the other ownership variables including T1, DT12, Foreign, INS are all insignificant in the regression results, suggesting that under these ownership structures, investors do not react actively to companies dividend announcement.

Table 20: Market Reaction to Cash Dividends Announcements-Cross Sectional Regression on CAARs

This table shows the market reaction to firms' cash dividend announcement with the panel data from 1993 to 2002. The dependent variable is CAAR. $CAAR_t = \sum \tau AR_{it}$, where AR is calculated with a market adjusted model. AMOUNT represents dividend per share for each firm. SURPRISE represents the change of dividend per share. INITIATOR is a dummy variable representing whether the firm pays cash dividends to its shareholders at the first time. All ownership structure variables are the same as defined before. The sample includes all listed firms with data available. [-1,+1],[-3,+3], and [-5,+5] are windows around the cash dividend announcements. T-statistics are in parentheses.

PANEL A: NONTRD

Window	INTERCEPT	AMOUNT	SURPRISE	INITIATOR	NONTRD	Adj-R2	Obs	F
[-1,+1]	0.02081 (1.11)	0.01324 (0.31)	-0.02636 (-0.62)	-0.01596* (-1.68)	-0.03063 (-1.12)	0.0033	2323	2.94**
[-3,+3]	0.02231* (1.74)	0.04332 (1.50)	-0.04027 (-1.39)	-0.02587*** (-3.98)	-0.03939** (-2.11)	0.0241	2323	15.35
[-5,+5]	0.02510* (1.69)	0.02801 (0.84)	-0.04808 (-1.44)	-0.03764*** (-5.03)	-0.03844* (-1.79)	0.0342	2323	21.53

PANEL B: ST

Window	INTERCEPT	AMOUNT	SURPRISE	INITIATOR	ST	Adj-R2	Obs	F
[-1,+1]	-0.00524 (-0.55)	0.01342 (0.32)	-0.02835 (-0.67)	-0.01603* (-1.69)	0.01743 (1.36)	0.0036	2323	3.09
[-3,+3]	-0.00676 (-1.03)	0.04399 (1.52)	-0.04253 (-1.47)	-0.02586*** (-3.97)	0.01133 (1.29)	0.0229	2323	14.63
[-5,+5]	-0.00392 (-0.52)	0.02860 (0.86)	-0.05033 (-1.51)	-0.03764*** (-5.03)	0.01267 (1.26)	0.0335	2323	21.11

PANEL C: LP

Window	INTERCEPT	AMOUNT	SURPRISE	INITIATOR	LP	Adj-R2	Obs	F
[-1,+1]	0.00829 (0.96)	0.01210 (0.29)	-0.02720 (-0.64)	-0.01624* (-1.71)	-0.02942** (-2.09)	0.0047	2323	3.72
[-3,+3]	0.00320 (0.54)	0.04277 (1.48)	-0.04166 (-1.44)	-0.02605*** (-4.01)	-0.02435** (-2.52)	0.0249	2323	15.84
[-5,+5]	0.00688 (1.01)	0.02734 (0.82)	-0.04939 (-1.48)	-0.03784*** (-5.06)	-0.02572** (-2.31)	0.0351	2323	22.09

Note: *, ** and *** denote significance at the 10, 5 and 1 percent level, respectively (two-tails)

PANEL D: T1

Window	INTERCEPT	AMOUNT	SURPRISE	INITIATOR	T1	Adj-R2	Obs	F
[-1,+1]	-0.00441 (-0.37)	0.01311 (0.31)	-0.02875 (-0.68)	-0.01556* (-1.64)	0.01315 (0.69)	0.0030	2323	2.72**
[-3,+3]	-0.00661 (-0.81)	0.04366 (1.51)	-0.04312 (-1.49)	-0.02532*** (-3.90)	0.00932 (0.72)	0.0222	2323	14.18
[-5,+5]	-0.00362 (-0.39)	0.02906 (0.87)	-0.05208 (-1.56)	-0.03678*** (-4.92)	0.00965 (0.65)	0.0326	2323	20.60

PANEL E: DT12

Window	INTERCEPT	AMOUNT	SURPRISE	INITIATOR	DT12	Adj-R2	Obs	F
[-1,+1]	-0.00461 (-0.48)	0.01004 (0.24)	-0.02768 (-0.65)	-0.01585* (-1.67)	0.01780 (1.20)	0.0034	2323	2.97**
[-3,+3]	-0.00764 (-1.16)	0.04087 (1.41)	-0.04224 (-1.46)	-0.02556*** (-3.94)	0.01516 (1.49)	0.0229	2323	14.62
[-5,+5]	-0.00549 (-0.73)	0.02561 (0.77)	-0.05107 (-1.53)	-0.03705*** (-4.96)	0.01799 (1.54)	0.0334	2323	21.11

PANEL F: L10

Window	INTERCEPT	AMOUNT	SURPRISE	INITIATOR	L10	Adj-R2	Obs	F
[-1,+1]	0.02302 (1.21)	0.01069 (0.25)	-0.02541 (-0.60)	-0.01634* (-1.72)	-0.03240 (-1.24)	0.0034	2323	2.99**
[-3,+3]	0.02068 (1.59)	0.04060 (1.40)	-0.03962 (-1.37)	-0.02614*** (-4.02)	-0.03486* (-1.95)	0.0236	2323	15.02
[-5,+5]	0.02778* (1.86)	0.02535 (0.76)	-0.04800 (-1.44)	-0.03773*** (-5.04)	-0.04086** (-1.99)	0.0341	2323	21.52

PANEL G: FOREIGN

Window	INTERCEPT	AMOUNT	SURPRISE	INITIATOR	FOREIGN	Adj-R2	Obs	F
[-1,+1]	0.00115 (0.14)	0.01436 (0.34)	-0.02779 (-0.66)	-0.01566* (-1.64)	0.00891 (0.33)	0.0028	2323	2.65
[-3,+3]	-0.00372 (-0.66)	0.04506 (1.56)	-0.04197 (-1.45)	-0.02521*** (-3.87)	0.02280 (1.25)	0.0229	2323	14.60
[-5,+5]	0.00035981 (0.06)	0.02943 (0.88)	-0.04986 (-1.49)	-0.03723*** (-4.96)	0.01205 (0.57)	0.0330	2323	20.78

PANEL H: INS

Window	INTERCEPT	AMOUNT	SURPRISE	INITIATOR	INS	Adj-R2	Obs	F
[-1,+1]	0.00012624 (0.03)	0.02284 (1.12)	0.00380 (0.19)	-0.01623*** (-3.88)	-0.00533 (-0.26)	0.0234	1346	9.06
[-3,+3]	0.00158 (0.25)	0.05619* (1.67)	-0.01039 (-0.31)	-0.03103*** (-4.49)	-0.06040* (-1.78)	0.0390	1346	14.64
[-5,+5]	0.00236 (0.27)	0.03337 (0.70)	-0.00108 (-0.02)	-0.04617*** (-4.74)	-0.06127 (-1.28)	0.0368	1346	13.84

7 Conclusion

This study empirically examines the causes and consequence of the dividend payout decision for China's listed companies by focusing on the unique ownership structure in these companies.

The extant dividend theories are derived from Miller and Modigliani's (MM) Dividend Irrelevance Theory (1961). By relaxing the restriction on no tax difference between cash dividend and capital gain in MM Dividend Irrelevance Theory, Farrar and Selwyn (1967) and Brennan (1970) suggested that it would be optimal to pay no dividends at all because of the tax disadvantage of ordinary income over capital gains and Tax Clientele Theory appears. By relaxing the restriction of information symmetry between dividends payers and receivers, Ross (1977) proved that an increase in cash dividend payout would represent an unambiguous signal to the marketplace that the firm's prospects have improved. By relaxing the restriction of no agency cost, Rozeff (1982) suggests that cross-sectional regularities in corporate dividend payout ratios may be explained by a trade-off between the flotation costs of raising external capital and the benefit of reduced agency costs when the firm increases its dividend payout, thus Agency Cost Theory on Dividend Policy was raised. Many other theories appear after the relief of other restrictions such as no transaction cost.

However, these traditional dividend theories, such as the Tax Clientele Theory, the Signaling Theory and the Agency Cost Theory seem to be unable to satisfactorily explain the dividend payout pattern of China's listed companies.

In this study, it has been verified that there is a strong linkage between the dividend payout decision of the Chinese listed companies and the unique ownership structure of listed companies in China's stock market. Such linkage explains the seemingly puzzle of the coexistence of aggressive right offering and aggressive cash dividend payout in the emerging China market, an abnormal situation that could be hardly explained by the conventional financial theory and could hardly be observed in the developed capital market.

Over 90% of listed companies in China's stock market were SOEs before IPOs which suffered from soft budget constraints (Lin et al, 1998) and agency problems (Zhang, 1997). One special characteristics in these companies is that about two thirds of the ownership is held by the government agencies and other SOEs as non-tradable shares. Due to the fact that the cost of these non-tradable shares are significantly different from that of the tradable shares and these shares are not allowed to be sold in the secondary market, non-tradable shareholders benefit more from and favor more cash dividends than external tradable shareholders. This provides an incentive for these non-tradable shareholders to push on aggressive cash dividends. Furthermore, a highly concentrated shareholdings structure in these listed companies entitled them to manipulate listed companies' financial decisions, especially the dividends payout decision.

Therefore by relaxing the assumption made by MM that all shares are homogeneous and tradable, I use regressions to empirically examine the effect of ownership structure on the distorted dividend payout decision of China's listed companies. Some important findings are summarized as follow.

First, by using a multinomial logit regression, I examine the driving factors to dividend payout decision. After controlling other factors documented in the literature, I find supporting evidence that the cash dividend payout decision is driven by the propensity of the non-tradable shareholders. Controlling shareholders, especially parent companies, use cash dividend as a way to cash in on the listed companies and expropriate the minority shareholders, an objective that is consistent with the agency theory, that this type of shareholders try to maximize their controllable current cash flows instead of the wealth of the listed companies. Cash dividends policy therefore is a means of tunneling by the largest shareholder in China in a sense that the objective of maximizing the controllable cash flows could be effectively achieved. As well, the empirical finding reveals the probability of paying cash dividend increases with shareholder concentration. By the same logic, companies with more shares held by external individual shareholders are less likely to pay dividends while companies with more shares held by foreign shareholders are also less likely to pay out cash dividends.

Secondly, I find that the traditional board of director system seems to be ineffective in monitoring largest shareholder's tunneling behavior in China. The board of director system in China, as many people argue, could be just a logo instead of a truly effective corporate governance system.

Thirdly, I find that firm conducting rights offering pays out cash dividend at the same time. Given the high floatation cost of rights offering in the emerging market, this finding can not be explained by the previous study on rights offering and cash dividend payout. However my argument is that this phenomenon is strong evidence to

the tunneling hypothesis, which indicates a distorted dividend payout decision of China's listed companies.

Lastly, when I examine the ex-post effect of cash dividend announcements, I find that the market in general react negatively to cash dividend announcement, especially for those companies with a large non-tradable shareholdings. This again indicates that dividend payout, instead of playing a role to increase firm's (shareholders') value, is in fact damaging the interests of external tradable shareholders.

The potential contributions of this study are thus three-fold. First, by looking at the unique ownership structure in China, I partially solve the puzzle of the coexistence of frequent refinancing through right offering and aggressive cash dividend payout behavior of China's listed companies. It is the unique feature, the existence of large amount of non-tradable shares, which leads to such irrational financial behavior of controlling large shareholders. The finding has direct implications for both investors and policy makers in the emerging China stock market. Second, by empirically testing the effects of different types of shareholders on dividend payout decision, this study helps to enrich the dividend policy literature by relaxing the assumption made by MM that all shares are homogeneous and tradable. Third, by looking at the aspect of the corporate governance in China's listed companies, I find that the board established according to the western-style company laws can't effectively monitor the tunneling behavior of large shareholders through cash dividend payout. It is the special ownership structure of listed companies in

China that has distorted the corporate governance in the Chinese companies and led to the tunneling behavior of large controlling shareholders.

Hence this study relates to an interesting topic on how to exert effective corporate governance on China's listed companies. This is one of the real challenges for the emerging China market to compete for finance from the world market. Research on this topic should follow the traditional agency cost theory, and help to design a system to align the interests of different type of shareholders. Corporate governance in China, though lacking, is indeed most important, and the research on this direction is called for attention and the study on it would be fruitful.

Lastly, the Chinese security regulatory authority (the CSRC) starts to recognize the importance of these deviated interests between non-tradable shareholders and tradable shareholders fortunately. Recently, a series of reforms have been conducted to solve this "same share different rights" problem. This unique ownership structure in China, indeed, not only has impacts on dividends decision, but is also considered as one of the ultimate causes of other inefficiencies in the China's stock market (e.g. earnings management of listed companies, technical instead of fundamental investing style etc). Some of the China's listed SOEs are chosen by CSRC to do some pioneer tests in solving the circulating problem of the existing "non-tradable" shares. The CSRC has repeatedly stated in public that it has made up its minds to solve this problem within a few years. One important policy change took place in December year 2004, the CSRC in its new document "Relevant Regulations to Further Protect the Interests of Public Investors" starts to explicitly require that if a listed company intends to undertake re-finance (for example, right offerings or

seasoned issuings) in the domestic equity market, it must pay cash dividends to external investors for at least consecutively three years. This policy aims to push listed companies to distribute more profits to investors and hence increase stockholder's returns from the equity market. However, the effect of this policy still remains largely untested. In this study due to data availability problem, I only study the dividends policy for China's listed firms from the year 1993 to 2002, therefore the effect of the new policy is not covered by this study.

On a final note, I believe that the phenomenon of tunneling through cash dividend payout by large nontradable shareholders in China will gradually diminish in future. The reason is two-fold. First, with the integration of China's stock market into the world's capital market, the corporate governance practice in China will get more and more strengthened; larger shareholders will feel much more difficult to manipulate small individual investors. Second, through the reform of the "Share Rights Separation", the interests between nontradable shareholders and tradable shareholders will become largely aligned; the agency problem between these two groups of investors will be significantly mitigated, leading to less tunneling practice in the listed companies. Hence the follow up research on this topic will be able to generate new insights into the theoretical and empirical literature of financial economics and will be an interesting topic to work on.

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