Assets Expropriation via Cash Dividends? Free Cash Flow or Tunneling

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Abstract

This study solves the dispute between the free cash flow and tunneling hypotheses in explaining the role of cash dividends on asset expropriation of the controlling shareholders in Chinese listed firms. Investors value more the cash dividends and the cash holdings of firms with lower ownership control than those of firms with higher ownership control. This is more consistent with the tunneling hypothesis. However, when investment opportunities are considered, the free cash flow hypothesis better explains firms' dividend policy. Investors value more the cash dividends of firms with fewer investment opportunities and higher probability of expropriation. This study indicates that investors are concerned with the potential asset expropriation through cash payouts, unless firms possess high growth opportunities.

JEL classification: G32; G34; G35

Keywords: Cash holdings; Cash dividends; Ownership control; Asset tunneling; Agency problems

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1. Introduction

Growing firms have a strong incentive to hold large amounts of cash to support investment opportunities because external financing is too costly for these firms due to the high degree of information asymmetry, especially in emerging markets (Mueller, 2006). The shareholders in these firms thus face a tradeoff between losing high-return opportunities if the firms pay out too much cash and suffering the agency problem of excess cash holdings if they retain too much cash. Agency theory thus suggests that effective corporate governance mechanisms provide investors in growing firms with better protection, meaning the shareholders in these firms will accept a higher level of cash holdings (Chen, 2008) and a lower level of cash dividends. For instance, Pinkowitz, Stulz, and Williamson (2006) find that investors place less value on the liquid assets and more value on the cash dividends of firms in countries with poor investor protection.

In the past two decades, China has demonstrated itself to be among the fastest growing economies in the world, and thus has attracted a great deal of attention from academic researchers and practitioners. Many listed firms experienced a high-growth stage during this 20-year period and raised a substantial amount of funds from capital markets to fund their projects. Even though these firms pay out a high level of cash dividends, active fund raising from the capital markets provides them with a high level of cash holdings. According to the agency theory-based literature (eg, Chen, 2008), the acceptance of large cash holdings in these firms depends on the quality of investor protection. A common proxy for such protection is insider ownership (Opler *et al.*, 1999; Ozkan and Ozkan, 2004; Pinkowitz *et al.*, 2006; Chen, 2008). Studies applying such a proxy indicate that a higher level of insider ownership represents better shareholder protection, because the interests of insiders are better aligned with those of outside shareholders when insiders own a certain percentage of the company (eg, 5% in Opler *et al.* [1999]). However, this proxy for shareholder protection may not be suitable for Chinese listed firms due to their different ownership structure.

Most listed firms in China were originally state-owned enterprises (SOEs). These firms were privatized in a partial-share-issuing fashion to maintain state control while raising funds to improve the financial position of unprofitable SOEs. Because of this state control, the performance of Chinese firms is often negatively associated with ownership concentration or state ownership (Qi, Wu, and Zhang, 2000; Chen, 2001; Wei, Xie, and Zhang, 2005), although such control sometimes offers these firms certain preferential benefits, such as easy access to external funds (Fan, Wong, and Zhang, 2005; Wang, Wong, and Xia, 2008). Given the evidence of the negative consequences of state control, however, the interests of the shareholders in Chinese firms with a higher degree of ownership control may be less protected. Accordingly, the free cash flow hypothesis of agency theory suggests that shareholders prefer more cash dividends and less cash holdings in firms in which ownership is highly concentrated. However, there is also a body of literature arguing that greater cash payouts provide evidence to support the tunneling hypothesis, because state-controlled shares are generally non-tradable and thus

cannot realize any capital appreciation from the markets (Lee and Xiao, 2004; Chen, Jian, and Xu, 2009). Tunneling company assets via large cash payouts thus allows the state to ease the financial constraints of poorly performing SOEs.

The aim of this study is to resolve the dispute between proponents of these two competing hypotheses by first identifying the problems of both in explaining cash holdings and cash dividends in Chinese listed firms, and then investigating the value of these holdings and dividends in firms with a high and low degree of ownership control and in those with a high and low probability of asset expropriation.

In China, cash dividends are required from firms intending to raise funds through equity after their initial offerings (Lee and Xiao, 2004; Chen, Jian, and Xu, 2009). Some studies have found that state-controlled firms and those with a higher ownership concentration are likely to pay out a higher level of cash dividends and, consequently, greater rights offerings (Lee and Xiao, 2004; Lin *et al.*, 2010). That is, although these firms consistently pay out substantial cash dividends, they do not necessarily face financial constraints because of their access to external financing. Thus, these firms may maintain large cash holdings while paying out large cash dividends. This argument is different in nature from the free cash flow hypothesis, which posits cash payouts as a means of reducing the agency problem of excess cash holdings.

This study contends that the positive relationship between state ownership or ownership concentration and cash dividends does not necessarily indicate that controlling shareholders appropriate private benefits through a high level of cash dividends. Although the controlling shareholders (often the state or a state agency) of listed firms have the incentive to extract more liquid assets from these firms (Jian and Wong, 2010), other investors (including the holders of tradable shares) receive the same level of cash dividends as do controlling shareholders. In addition, other tunneling methods such as related party transactions provide controlling shareholders with better access to valuable company assets and the more effective appropriation of private benefits (Jian and Wong, 2010). Another argument against the tunneling hypothesis is that state control may not always have a negative influence on firms, as the state sometimes offers special support to certain strategic industries (Mueller, 2006).

Hence, to distinguish the free cash flow hypothesis from the tunneling hypothesis in explaining the dividend policy of Chinese listed firms, this study investigates the association between ownership control and the value of cash holdings and cash dividends. If the free cash flow hypothesis dominates (as it does in Pinkowitz *et al.* [2006] and Dittmar and Mahrt-Smith [2007]), then investors will place a higher value on the dividends, and a lower value on the cash holdings, of firms with a higher degree of ownership control than those of firms with a lower degree of such control. If, in contrast, the tunneling hypothesis dominates (as it does in Lee and Xiao [2004] and Chen *et al.* [2009]), then the value of dividends and cash holdings will be less in firms with a higher degree of ownership control than in firms with a lower degree of such control. According to the free cash flow hypothesis, the value of dividends should be higher in firms with greater ownership control and fewer investment opportunities, which implies

a greater likelihood of expropriation. An interesting question is whether the dominance of either hypothesis is related to the firm's growth stages. Accordingly, this study further investigates the dominance of the two hypotheses in firms with different types of investment opportunities and ownership structures.

The study examines these research issues in a sample of Chinese listed firms from 1998 to 2006. The empirical evidence obtained shows that investors value both cash dividends and cash holdings more highly in firms with a low degree of ownership control relative to those with a high degree of such control, which appears to be more consistent with the tunneling than the free cash flow hypothesis. However, when investment opportunities are taken into account, the latter hypothesis holds greater explanatory power in firms with fewer investment opportunities; that is, investors place greater value on the cash dividends of firms with fewer investment opportunities and a high degree of ownership control than they do on those of firms with fewer such opportunities and less ownership control. Interestingly, investors tend to value the cash dividends of firms with more investment opportunities and less ownership control more highly than they do on those of firms with more investment opportunities and greater ownership control. This finding may be related to the special nature of the Chinese market, in which firms are required to pay out dividends to raise capital from markets. In other words, investors believe that firms with less ownership control and more investment opportunities have a lower probability of expropriation and truly need funds to support future investment projects; hence, these firms have brighter prospects.

This study contributes to the literature of both agency theory and international corporate governance. By investigating the value of cash holdings and cash dividends for firms with high and low degree of ownership control, it aims to resolve the debate surrounding the role played by cash dividends in asset expropriation by the controlling shareholders of Chinese listed firms. The findings of this study show that dividends are the major means by which the controlling shareholders of state-controlled firms extract company assets for their own private benefit. The study also contributes to the literature of cash holdings and corporate governance. In a rapidly growing economy, Chinese listed firms have a high level of capital demand to support their growth, and the most essential determinant of whether these firms can maintain a high level of cash holdings is the quality of investor protection. The results of this study consistently support the free cash flow hypothesis of agency theory in explaining the cash holdings and cash dividend payouts of Chinese listed firms with few growth opportunities. This study also serves as an example of the applicability of Anglo-Saxon theory to emerging markets.

The remainder of the paper is organized as follows. The following section reviews the literature related to cash, dividends, and shareholder protection, and develops the study's hypotheses. The next section first describes the data set and sample selection and then discusses the methodology employed and defines the variables. The paper then proceeds to a discussion of the empirical evidence on the value of cash holdings and cash dividends in firms with and without a high degree of ownership concentration and with and without good investment opportunities. Conclusions are drawn in the last section.

2. Cash Holdings, Dividends, and Shareholder Protection

The free cash flow hypothesis of agency theory suggests that a high level of cash holdings increases managerial discretion and provides managers with the incentive to engage in expropriation for their own private benefit. Papaioannou *et al.* (1992) suggest that managers tend to retain more cash as a privilege, and Myers and Rajan (1998) argue that they can obtain more private benefits from liquid assets. Opler *et al.* (1999) also document managers' preference for the control that comes with holding cash rather than paying dividends to stockholders. When firms have limited investment opportunities, retaining a high level of cash increases the likelihood of asset expropriation by managers because excess cash may effectively force them to overinvest, thereby damaging the interests of shareholders (Easterbrook, 1984; Jensen, 1986; Dittmar *et al.*, 2003). Paying dividends decreases both cash holdings and the agency cost of overinvestment (Jensen, Solberg, and Zorn, 1992; Kalcheva and Lins, 2007).

Nevertheless, holding a high level of cash is essential to firms with strong growth opportunities, because the greater business risks they face make them subject to higher external financing costs (Mueller, 2006). Consequently, rapidly growing firms have the incentive to retain large cash holdings, which leads to a trade-off situation for their shareholders, that is, a tradeoff between losing high-return investment opportunities if the firms experience a shortage in funds due to cash payouts and facing the agency problem of excess cash holdings if they retain almost their cash. Whether a fast-growing firm should retain most of its cash from shareholders depends on how well company assets and shareholder interests are protected (Chen, 2008). A firm with better shareholder protection mechanisms should retain a high level of cash to meet the capital demand of investment opportunities.

In firms with a diverse ownership structure, greater insider ownership indicates better shareholder protection (eg greater than 5% such ownership in Opler *et al.* [1999]), and it is less likely that these firms will hold excess cash (Opler *et al.*, 1999; Ozkan and Ozkan, 2004). In firms with a concentrated ownership structure, however, a higher degree of ownership may not necessarily indicate better shareholder protection. Instead, the agency problem in these firms is mostly attributed to the conflict of interest between controlling and minority shareholders (La Porta *et al.*, 1999, 2000). When outside shareholders are less protected, insiders are more likely to appropriate company assets for their own private benefit, thus reducing the value of cash holdings and boosting the value of cash dividends (Pinkowitz *et al.*, 2006).

The majority of Chinese listed firms are former SOEs. The major purpose of public listing the firms was to raise funds to improve the financial position of unprofitable SOEs. To be able to impose state policies on firms' decision making after their public offerings, the state retained a controlling stake in most of China's listed firms, and it restricts the trading of the majority of their shares on the country's stock exchanges. Furthermore, as the controlling shareholder, the state often has multiple and conflicting objectives. On one hand, it demands that the firms it controls become as competitive

and efficient as privately owned enterprises, but on the other hand, it may impose the burden of social welfare on these firms (Shleifer and Vishny, 1994; Boycko, Shleifer, and Vishny, 1996; Frydman, Gray, Hessel, and Rapaczynski, 1999), and thus they may not always be capable of operating as efficiently as other firms. Accordingly, the interests of minority shareholders are less likely to be given the highest priority. The negative relationship between state control or state ownership and firm value found in prior studies (Qi *et al.*, 2000; Chen, 2001; Wei *et al.*, 2005) suggests that such control or ownership has a negative impact on shareholder protection.

Hence, the free cash flow hypothesis, which suggests the positive effect of insider ownership on dividends, may not always be applicable in firms with a high level of ownership concentration, such as Chinese listed firms. A number of recent studies have thus proposed the tunneling hypothesis to explain the corporate dividend policies of Chinese listed firms (Lee and Xiao, 2004; Chen *et al.*, 2009). These researchers argue that, because the holders of non-tradable shares are unable to realize capital gains from the markets, these investors (primarily the state and state agencies) will ask for high dividend payouts to meet their capital needs in supporting other SOEs. They have found that greater state ownership or more concentrated ownership leads to a higher level of cash dividends, a finding they argue provides evidence of the expropriation of minority shareholders on the part of controlling shareholders. If the state indeed uses cash dividends to extract company assets to support unprofitable SOEs, then these may lose good investment opportunities due to a lack of funds. As a result, the firms' payout policy will be reflected in their lower market valuation by investors. Hence, if a high level of cash payouts constitutes a means of asset tunneling, then investors will value the dividends of firms with a higher degree of ownership control less highly than those of firms with a lower degree of such control.

The tunneling hypothesis does have limitations, however, especially when firms have good growth potential. Gul (1999) finds that investment opportunity is negatively associated with dividend payments in China. Lin *et al.* (2010) find an insignificant relationship between both ownership concentration and cash dividend preferences and state ownership and such preferences in fast-growing firms. In addition, Jian and Wong (2010) further find that group-controlled firms in China are more likely to manipulate earnings and tunnel company assets via related party transactions. Therefore, the relationship between ownership concentration and the value of cash dividends may be positive or negative, depending on the relative explanatory power of the free cash flow and tunneling hypotheses.

H1: *If the free cash flow (tunneling) hypothesis is dominant in explaining cash dividends, investors place a higher (lower) value on the cash dividends of firms with higher ownership control than of firms with lower ownership control.*

As previously stated, cash holdings provide mangers with greater opportunity to expropriate minority shareholders if they wish to do so, because turning such liquid

assets into private benefits is less costly than transferring other assets (Myers and Rajan, 1998). Shareholders should thus be concerned about the likelihood of being expropriated by controlling shareholders when firms have a high level of cash holdings, especially in a market with limited investor protection. In China, investors in tradable shares are less likely to influence company insiders in their decision-making relative to other countries, particularly when corporate ownership is highly concentrated. In firms in which investors' interests are not taken into account in the decision-making process, investors bear greater investment risk and thus place a lower value on the firms.

Firms with concentrated ownership have been found to have a higher degree of interest dispersion between large shareholders and minority shareholders, and the controlling shareholders of these firms are likely to pursue private benefits at the expense of minority shareholders (La Porta *et al.*, 2000; Claessens *et al.*, 2000). Holding a large amount of cash is a good example of asset expropriation (Pinkowitz, 2006). Chinese firms not only have a high degree of ownership concentration, but they are also likely to be controlled by the state or by state agencies. In addition, the special characteristics of the ownership structure of Chinese firms lead to more asset tunneling. Cash assets provide controlling shareholders with a good channel for asset expropriation. Accordingly, when firms experience a higher degree of ownership control, shareholder interests are less likely to be protected. Shareholders thus prefer firms to retain fewer cash holdings.

H2: *Investors value the cash holdings of firms with greater ownership control less highly than those of firms with less ownership control.*

3. Empirical Design and Data

To examine the association between ownership control and the value of cash holdings, this study adopts the model specifications of Faulkender and Wang (2006), which are derived from the valuation model of Fama and French (1998). The regression specification for this study is as follows.

$$r_{i,t}-R^{B}_{i,t}= \beta_0+\beta_1\frac{\Delta C_{i,t}}{M_{i,t-1}}+\beta_2\frac{\Delta E_{i,t}}{M_{i,t-1}}+\beta_3\frac{\Delta NA_{i,t}}{M_{i,t-1}}+\beta_4\frac{\Delta I_{i,t}}{M_{i,t-1}}+\beta_5\frac{\Delta D_{i,t}}{M_{i,t-1}}+\beta_6\frac{StockD_{i,t}}{M_{i,t-1}}+\ _7\frac{C_{i,t-1}}{M_{i,t-1}}$$

$$+\beta_8 Lev_{i,t}+\beta_9\frac{NF_{i,t}}{M_{i,t-1}}+\beta_{10}\frac{C_{i,t-1}}{M_{i,t-1}}*\frac{\Delta C_{i,t}}{M_{i,t-1}}+\beta_{11} Lev_{i,t}*\frac{\Delta C_{i,t}}{M_{i,t-1}}+e_{i,t}$$

where r is the stock return of firm i during fiscal year t; R is stock i's benchmark return in year t, and thus $r - R$ represents the excess return of firm i in year t; ΔC is the change

in cash holdings; ΔE is the change in earnings before interest and tax plus interest; ΔNA is the change in total assets net of cash and cash equivalents; ΔI is the change in interest expenses; ΔD is the change in total cash dividends paid in a given year; C is the sum of cash and cash equivalents; Lev is leverage at the year end; and NF is net financing in the year. The interaction terms between the lag of the level of cash holdings and the change in cash holdings, and those between market leverage and the change in cash holdings, are also included in equation (1). All variables are deflated by the market value of equity, calculated as the sum of the market value of tradable shares and 30% of the stock price multiplied by the number of non-tradable shares at the beginning of year t to control for heteroskedasticity. Chen and Xiong (2001) find the value of non-tradable shares to be about 30% of tradable shares, and thus this study uses 30% of the stock price to determine the market value of non-tradable shares. The differences between the model adopted in this study and Faulkender and Wang's (2006) model are that research and development expenses are not included in the former, as there are differences in these expenses among Chinese listed firms, and the former includes stock dividend as a control variable.

This regression model is applied to firms with high and low degree of ownership control using the ordinary least squares (OLS) method, and the coefficients of cash dividends and the change in cash holdings are then contrasted between the two sample groups by estimating the t-statistics of the coefficient difference in their independent variables. If the free cash flow hypothesis is dominant, then $ß_5$ will be higher; if, in contrast, the tunneling hypothesis is dominant, then $ß_5$ will be smaller for firms with greater ownership control.

This study adopts three proxies of ownership control. The first is the change in ownership concentration of the five largest investors, as measured by the Herfindahl Index ($\Delta H5$). If $\Delta H5$ is positive, then a value of 1 is assigned to the dummy variable ΔH5D, thus indicating a higher degree of ownership concentration and, accordingly, a higher probability of expropriation, and 0 otherwise. The second is private ultimate control (*Private*), which equals 1 if the firm is ultimately controlled by private or institutional investors, and 0 otherwise. Finally, the third proxy is state ultimate control (*State*), which equals 1 if the firm's ultimate controller is the state, and 0 otherwise.

The sources of data for the study include the database of the China Center for Economic Research in Peking University, which is published by Sinofin Information Service Ltd., and company financial statements collected from the websites of the Shanghai and Shenzhen Stock Exchanges. The sample covers all firms listed on these exchanges from 1998 to 2006. After eliminating firms with missing values for the key variables, the final sample comprises 8,487 firm-year observations. Table 1 shows the descriptive statistics of the key variables and some of the characteristics of Chinese listed firms.

Table 1. Descriptive Statistics

This table presents descriptive statistics of the key variables. *ExcessReturn* is the stock return of a firm less its benchmark return; ΔC is the change in cash holdings; ΔD is the change in cash dividends; ΔE is the change in earnings before interest and taxes plus interest; ΔNA is the change in total assets net of cash and cash equivalents; ΔI is the change in interest expenses; LagC is the level of cash holdings at the beginning of the year; StockD is stock dividends; Lev is leverage; NF is net financing in the year; CA is the ratio of cash to assets; ΔH5 is the change in ownership control; ΔH5D is the indicator variable for the change in ownership control, with 1 is assigned for a positive change; Q is the market-to-book ratio of assets; and State is an indicator variable for state ownership, with 1 is assigned for state ultimate control. All variables are deflated by the market value of beginning equity to control for heteroskedasticity.

Panel A: Full sample

	N	Mean	Standard Deviation	Q3	Median	Q1
ExcessReturn	8,487	0.000	0.411	0.126	-0.016	-0.160
ΔC	8,487	0.011	0.167	0.054	0.001	-0.043
ΔD	8,487	0.000	0.024	0.000	0.000	0.000
ΔE	8,487	0.016	0.236	0.027	0.004	-0.013
ΔNA	8,487	0.139	0.494	0.238	0.080	-0.015
ΔI	8,487	0.003	0.020	0.007	0.001	-0.002
LagC	8,487	0.227	0.232	0.299	0.160	0.079
StockD	8,487	0.002	0.012	0.000	0.000	0.000
Lev	8,487	0.246	0.187	0.373	0.212	0.094
NF	8,487	0.094	0.462	0.192	0.50	-0.025
CA	8,487	0.153	0.114	0.209	0.127	0.071
ΔH5	8,487	-0.015	0.046	0.000	0.000	-0.006
ΔH5D	8,487	0.285	0.452	1.000	0.000	0.000
Q	8,487	1.515	22.916	1.339	1.008	0.832
State	8,487	0.738	0.440	1.000	1.000	0.000

Panel B: Firms with or without private ultimate control and the p-value of the Wilcoxon two-sample test

	Private Ultimate Control (Private = 1) (N=1,820)			Non-Private Ultimate Control (Private = 0) (N=6,667)			p-value of Wilcoxon test (2)>(1)
	Mean	Standard Deviation	Median (1)	Mean	Standard Deviation	Median (2)	
ExcessReturn	0.013	0.479	-0.003	-0.004	0.390	-0.018	0.1364
ΔC	-0.002	0.186	-0.001	0.014	0.162	0.003	0.0015
ΔD	-0.001	0.020	0.000	0.000	0.025	0.000	0.0435
ΔE	0.024	0.377	0.006	0.014	0.179	0.004	0.2246
ΔNA	0.124	0.635	0.084	0.143	0.448	0.079	0.6514
ΔI	0.003	0.027	0.002	0.003	0.018	0.001	0.0001
LagC	0.237	0.248	0.159	0.224	0.228	0.161	0.2265
StockD	0.003	0.015	0.000	0.002	0.011	0.000	0.5342

	Private Ultimate Control (Private = 1) (N=1,820)			Non-Private Ultimate Control (Private = 0) (N=6,667)			p-value of Wilcoxon test (2)>(1)
	Mean	Standard Deviation	Median (1)	Mean	Standard Deviation	Median (2)	
Lev	0.280	0.193	0.256	0.237	0.185	0.199	0.0001
NF	0.054	0.588	0.047	0.105	0.421	0.051	0.0063
CA	0.144	0.121	0.112	0.156	0.112	0.130	0.0001
ΔH5	-0.013	0.047	0.000	-0.015	0.046	0.000	0.1392
ΔH5D	0.235	0.424	0.000	0.299	0.458	0.000	0.0001
Q	2.624	49.405	1.443	1.212	1.420	1.313	0.0001

Panel C: Firms with or without state ultimate control and the p-value of the Wilcoxon two-sample test

	Non-State Ultimate Control (State = 0) (N=2,225)			State Ultimate Control (State = 1) (N=6,262)			p-value of Wilcoxon test (2)>(1)
	Mean	Standard Deviation	Median (1)	Mean	Standard Deviation	Median (2)	
ExcessReturn	0.003	0.453	-0.011	-0.001	0.395	-0.017	0.8654
ΔC	0.000	0.176	-0.001	0.014	0.164	0.003	0.0034
ΔD	-0.001	0.019	0.000	0.000	0.025	0.000	0.0347
ΔE	0.021	0.345	0.004	0.014	0.182	0.004	0.8040
ΔNA	0.121	0.586	0.083	0.146	0.457	0.079	0.8366
ΔI	0.003	0.025	0.002	0.003	0.018	0.001	0.0001
LagC	0.229	0.237	0.152	0.227	0.231	0.162	0.0037
StockD	0.003	0.014	0.000	0.002	0.011	0.000	0.0381
Lev	0.265	0.190	0.235	0.240	0.186	0.201	0.0001
NF	0.065	0.564	0.050	0.104	0.420	0.050	0.0811
CA	0.148	0.120	0.120	0.155	0.112	0.130	0.0001
ΔH5	-0.013	0.045	0.000	-0.015	0.046	0.000	0.3123
ΔH5D	0.241	0.428	0.000	0.301	0.459	0.000	0.0001
Q	2.459	44.713	1.057	1.179	1.075	1.296	0.0001

Panel D: Firms with a lower or higher degree of ownership control and the p-value of the Wilcoxon two-sample test

	Decreased Ownership Concentration (ΔH5D = 0) (N=6,067)			Increased Ownership Concentration (ΔH5D = 1) (N=2,420)			p-value of Wilcoxon test (2)>(1)
	Mean	Standard Deviation	Median (1)	Mean	Standard Deviation	Median (2)	
ExcessReturn	-0.017	0.403	-0.027	0.041	0.427	0.010	0.0001
ΔC	0.011	0.163	0.002	0.010	0.177	0.000	0.1521

	Decreased Ownership Concentration (ΔH5D = 0) (N=6,067)			Increased Ownership Concentration (ΔH5D = 1) (N=2,420)			p-value of Wilcoxon test (2)>(1)
	Mean	Standard Deviation	Median (1)	Mean	Standard Deviation	Median (2)	
ΔD	0.000	0.024	0.000	0.000	0.022	0.000	0.5294
ΔE	0.014	0.261	0.003	0.020	0.155	0.006	0.0001
ΔNA	0.125	0.418	0.077	0.175	0.645	0.086	0.0110
ΔI	0.003	0.020	0.001	0.003	0.019	0.001	0.9983
LagC	0.226	0.229	0.157	0.230	0.239	0.166	0.0538
StockD	0.002	0.012	0.000	0.002	0.012	0.000	0.9733
Lev	0.250	0.189	0.215	0.237	0.183	0.202	0.0063
NF	0.088	0.446	0.050	0.109	0.501	0.052	0.7195
CA	0.153	0.114	0.127	0.155	0.115	0.126	0.5168
ΔH5	-0.024	0.047	0.000	0.009	0.035	0.000	0.0001
Q	1.6264	27.084	1.014	1.235	1.638	0.992	0.0022

Panel A presents the statistics of the full sample. The median excess return relative to the market benchmark does not differ significantly between firms with private and non-private ultimate ownership control, although there is a significant difference between the two types of firms in the change in cash holdings and interest expenses. Although the firms controlled by private owners (0.256) have more debt than their non-privately owned counterparts (0.199), the degree of net financing is significantly lower among the former than the latter. In addition, private ownership-controlled firms (0.112) hold fewer assets in cash and cash equivalents than the non-private ownership-controlled firms (0.130). Pinkowitz *et al.* (2006) investigate the value of cash and dividends in 35 countries, but do not include China. Even though the ratio of cash dividends to total assets is higher in China than in the US or Japan, it is lower than that in many other countries. However, the ratio of cash holdings to total assets in China (0.153; Panel A) is higher than that in almost all countries except Japan.

Panel B shows the statistics for firms with and without private ultimate control, based on Private, and Panel C those for firms with and without state ultimate control, based on State. Relative to non-private firms, private firms have better investment opportunities and, on average, fewer cash dividends. Moreover, on average, non-private firms are more likely to experience increasing ownership concentration than private firms, which implies that the former are more likely than the latter to expropriate private benefits at investors' expense. In other words, given the fewer investment opportunities, more cash holdings, greater change in cash holdings, more cash dividends, and greater incentives for expropriation, these statistics imply that the controlling investors of Chinese listed firms, especially non-private firms, are more likely to extract private benefits from the firms' cash holdings and cash dividends, which is consistent with the expectations of this

study. Similar results are obtained when *State* is used to distinguish the sample.

Panel D presents the statistics for firms experiencing an increased or decreased ownership concentration, based on *ΔH5*. Although firms experiencing a decreased ownership concentration have a significantly lower level of excess returns than those experiencing an increased ownership concentration, the former have more investment opportunities. In addition, although there are no significant differences between the firms in the change in cash holdings, change in cash dividends, or level of cash holdings, those with an increased ownership concentration are more likely to be state-controlled firms and to have owners with more incentives to expropriate benefits from the firm.

4. Empirical Results

Table 2 provides the estimations of equation (1), which are examined for the two subsamples based on the three proxies of ownership control: private ownership versus non-private ownership in panel A, state ownership versus non-state ownership in panel B, and increased ownership concentration versus decreased ownership concentration in Panel C.

Table 2. Changes in Value of Cash and Ownership Control

This table presents the results of tests to determine whether the change in the value of cash is subject to ownership control. Three proxies of ownership control are used: private ownership in panel A, state ownership in panel B, and the change in ownership concentration (ΔH5D) in panel C. *ExcessReturn* is the stock return of a firm less its benchmark return; ΔC is the change in cash holdings; ΔD is the change in cash dividends; ΔE is the change in earnings before interest and taxes plus interest; ΔNA is the change in total assets net of cash and cash equivalents; ΔI is the change in interest expenses; LagC is the level of cash holdings at the beginning of the year; StockD is stock dividends; and Lev is leverage; NF is net financing in the year. All variables are deflated by the market value of beginning equity to control for heteroskedasticity. ***, **, and * represent statistical significance levels of 1%, 5%, and 10%, respectively.

Panel A: Private ownership control (Private)

Dependent Var. =ExcessReturn(t)	Private = 0			Private = 1			t-stat of Difference	
	coeff.	std. err.	p-value	coeff.	std. err.	p-value		
Intercep(t)	-0.058	0.014	<.0001	0.080	0.046	0.087	-2.8504	***
ΔC	0.493	0.049	<.0001	0.717	0.126	<.0001	-1.6533	**
ΔD	0.498	0.189	0.009	1.093	0.558	0.050	-1.0108	
ΔE	0.247	0.027	<.0001	0.029	0.030	0.334	5.4181	***
ΔNA	0.070	0.014	<.0001	0.132	0.024	<.0001	-2.2418	**
ΔI	0.141	0.281	0.617	-0.712	0.404	0.078	1.7331	**
LagC	0.287	0.023	<.0001	0.247	0.054	<.0001	0.6819	
StockD	0.857	0.408	0.036	0.221	0.771	0.774	0.7297	
Lev	-0.173	0.028	<.0001	-0.340	0.062	<.0001	2.4615	***
NF	0.038	0.016	0.015	0.026	0.025	0.298	0.3890	

Dependent Var. =ExcessReturn(t)	Private = 0			Private = 1			t-stat of Difference	
	coeff.	std. err.	p-value	coeff.	std. err.	p-value		
C*ΔC	-0.067	0.042	0.113	-0.409	0.119	0.001	2.6991	***
Lev*ΔC	-0.556	0.139	<.0001	-0.474	0.271	0.081	-0.2699	
R-sq	7.43%			10.07%				

Panel B: State ownership control (State)

Dependent Var. =ExcessReturn(t)	State = 1			State = 0			t-stat of Difference	
	coeff.	State = 1	p-value	coeff.	State = 0	p-value		
Intercep(t)	-0.047	0.014	0.001	-0.023	0.033	0.483	-0.649	
ΔC	0.485	0.051	<.0001	0.730	0.111	<.0001	-2.006	**
ΔD	0.542	0.194	0.005	0.809	0.494	0.101	-0.504	
ΔE	0.248	0.027	<.0001	0.029	0.028	0.299	5.594	***
ΔNA	0.075	0.015	<.0001	0.126	0.021	<.0001	-1.932	**
ΔI	0.217	0.288	0.452	-0.758	0.377	0.045	2.054	**
LagC	0.293	0.024	<.0001	0.218	0.049	<.0001	1.383	*
StockD	0.951	0.421	0.024	0.144	0.700	0.837	0.987	
Lev	-0.180	0.029	<.0001	-0.297	0.054	<.0001	1.891	**
NF	0.029	0.017	0.090	0.040	0.022	0.068	-0.404	
C*ΔC	-0.068	0.043	0.118	-0.436	0.111	<.0001	3.088	***
Lev*ΔC	-0.533	0.142	0.000	-0.501	0.248	0.043	-0.111	
R-sq	7.43%			10.07%				

Panel C: Change in ownership concentration (ΔH5D)

Dependent Var. =ExcessReturn(t)	Decreased Ownership Concentration			Increased Ownership Concentration			t-stat of Difference	
	coeff.	Std. err.	p-value	coeff.	std. err.	p-value		
Intercep(t)	-0.077	0.015	<.0001	0.045	0.027	0.088	-3.972	***
dL(t)	0.623	0.063	<.0001	0.289	0.079	0.000	3.293	***
dCashD(t)	0.648	0.210	0.002	0.265	0.376	0.482	0.888	
dE(t)	0.110	0.020	<.0001	0.355	0.056	<.0001	-4.128	***
dNA(t)	0.092	0.015	<.0001	0.039	0.022	0.081	1.980	**
dI(t)	0.023	0.257	0.928	-1.177	0.466	0.012	2.256	**
L(t-1)	0.301	0.025	<.0001	0.262	0.040	<.0001	0.837	
StockD(t)	0.677	0.414	0.102	0.741	0.708	0.295	-0.077	
Lev(t)	-0.189	0.030	<.0001	-0.242	0.050	<.0001	0.906	
NF(t)	0.003	0.015	0.835	0.156	0.028	<.0001	-4.774	***
L(t)_dL(t)	-0.115	0.067	0.087	-0.113	0.057	0.047	-0.025	
Lev(t)_dL(t)	-0.623	0.143	<.0001	-0.333	0.234	0.155	-1.061	
R-sq	6.68%			10.98%				

In all three panels, the coefficients of cash holdings are significantly higher in firms with less likelihood of expropriation (ie, private firms, non-state firms, and firms experiencing a decreased ownership concentration) than in those with greater such likelihood. This finding indicates that investors place a higher value on the cash holdings of firms with private ultimate control, non-state ultimate control, and a decreased ownership concentration (ie, a higher level of investor protection) than on those of firms with non-private ultimate control, state ultimate control, and an increased ownership concentration. Although investors value the cash dividends of firms with private ultimate control, non-state ultimate control, and a decreased ownership concentration more highly, the difference is not significant, thus providing weak support for the tunneling hypothesis. In addition, the results in the three panels also show that cash dividends make a greater contribution to firm value in firms with private ultimate control, non-state ownership control, and a decreased ownership concentration, which is inconsistent with the findings in the literature (Pinkowitz *et al.*, 2006; Dittmar and Mahrt-Smith, 2007). This evidence raises the question: is it possible that the two hypotheses each dominate for different types of firms?

While the results in Table 2 are in favor of the tunneling hypothesis, one particular phenomenon in Chinese listed firms is that firms need to pay dividends in order to acquire extra funds from the capital market. It is likely that cash payouts are not only a means of reducing agency costs, but also a means of obtaining more funds in future. An unreported correlation test confirms this phenomenon, finding that cash holdings and cash dividends are significantly and positively related. Recall the results in Table 1: firms with private ultimate control, non-state ultimate control, and a decreased ownership concentration have more investment opportunities, and thus they need to raise more funds to pursue these opportunities. As the cash in firms with more investment opportunities should be invested in such positive net present value (NPV) projects, and as the benefits from these projects may be better than those from expropriation, it is likely that these firms have fewer incentives to engage in expropriation at the expense of other investors. In sum, the need for funds, the benefits arising from expropriation, and the expropriation incentives of firms with different ownership structures and at different growth stages may be different. In other words, cash holdings and cash dividends may play different roles in different types of firms, and thus the dominance of the two hypotheses may differ under certain conditions. Accordingly, this study further considers ownership structure, growth stage, and the level of cash holdings to investigate whether the dominance of the free cash flow hypothesis or tunneling hypothesis is related to differences in firms' growth opportunities.

Table 3. Changes in Value of Cash, Cash Dividends, Growth, and Ownership Control

This table shows the results of tests of whether the change in the value of cash is subject to ownership control and investment opportunities. The variables are defined in the same way as those in Tables 1 and 2, and the subgroup classification is based on the directions of the change in ownership concentration (ΔH5D), the median value of investment opportunities (Q), and the type of ultimate controller (Private or State). ***, **, and * represent statistical significance levels of 1%, 5%, and 10%, respectively.

Panel A: Change in ownership concentration versus private ultimate control

Dependent Variable ExcessReturn		Decreased Ownership Concentration			Increased Ownership Concentration			t-stat of Difference	
		coeff.	Std. err.	p-value	coeff.	Std. err.	p-value		
Private=0	ΔC	0.581	0.074	<.0001	0.353	0.077	<.0001	2.139	**
	ΔD	0.473	0.220	0.032	0.325	0.373	0.383	0.341	
Private=1	ΔC	0.733	0.130	<.0001	0.773	0.364	0.034	-0.104	
	ΔD	1.653	0.607	0.007	-0.443	1.243	0.722	1.515	*
t-stat of Difference	ΔC		-1.021			-1.128		-0.519	
	ΔD		-1.828	**		0.592		0.725	

Panel B: Change in ownership concentration versus state ultimate control

Dependent Variable ExcessReturn		Decreased Ownership Concentration			Increased Ownership Concentration			t-stat of Difference	
		coeff.	Std. err.	p-value	coeff.	Std. err.	p-value		
State=1	ΔC	0.597	0.076	<.0001	0.317	0.079	<.0001	2.554	***
	ΔD	0.509	0.226	0.024	0.364	0.382	0.341	0.326	
State=0	ΔC	0.684	0.117	<.0001	0.969	0.298	0.001	-0.892	
	ΔD	1.317	0.541	0.015	-0.618	1.071	0.564	1.613	*
t-stat of Difference	ΔC		-0.617			-2.115	**	-1.208	
	ΔD		-1.379	*		0.864		1.029	

Panel C: Change in ownership concentration versus investment opportunities

Dependent Variable ExcessReturn		Decreased Ownership Concentration			Increased Ownership Concentration			t-stat of Difference	
		coeff.	Std. err.	p-value	coeff.	Std. err.	p-value		
Low Q	ΔC	0.166	0.063	0.008	0.111	0.060	0.066	0.635	
	ΔD	0.208	0.159	0.190	0.766	0.277	0.006	-1.744	**
High Q	ΔC	0.795	0.107	<.0001	0.645	0.179	0.000	0.721	
	ΔD	1.610	0.455	0.000	-0.850	0.800	0.288	2.674	***
t-stat of Difference	ΔC		-5.084	***		-2.831	***	-2.527	***
	ΔD		-2.910	***		1.909	**	1.298	*

Table 3 presents the regression estimations for firms with different expropriation incentives and possibilities by considering two of the three factors of change in ownership concentration, ultimate control, and investment opportunities. All of the observations in Panel A are classified into four groups based on the change in ownership concentration and private ultimate control. In the group with non-private ultimate control and a decreased ownership concentration, cash holdings and cash dividends are valued more highly than they are in firms with non-private ultimate control but an increased ownership concentration. In addition, investors place greater value on the cash dividends of firms with private ultimate control and a decreased ownership concentration than on those of firms with private ultimate control but an increased ownership concentration. These findings reflect investors' greater discounting of the

cash holdings and cash dividends of firms with a higher probability of expropriation or stronger incentives to expropriate, which is consistent with the tunneling hypothesis. Moreover, cash dividends have the highest value in the group of firms with private ultimate control and a decreased ownership concentration. This finding provides further support for the tunneling hypothesis in that these firms have the fewest incentives to obtain benefits at the expense of investors, and thus investors will not consider their cash payouts a means of expropriation. The four subsamples in Panel B are defined based on the change in ownership concentration and state ultimate control, and the results are similar to those in Panel A, thus indicating that the results remain consistent in both proxies of the probability of asset expropriation and further strengthening the credibility of this study's empirical analyses.

The subsamples in Panel C are distinguished by a change in ownership concentration and investment opportunities. Although there is no significant difference in the value of cash holdings between firms with few investment opportunities and an increased ownership concentration and those with few investment opportunities and a decreased ownership concentration, investors tend to value the cash dividends of the former more highly than those of the latter. According to the free cash flow hypothesis, firms with fewer investment opportunities have more free cash flow problems, and thus cash payouts can mitigate the agency problems between investors and firms. In other words, investors place greater value on the cash dividends of firms with a greater likelihood of expropriation (eg, an increased ownership concentration). Thus, the results show that the free cash flow hypothesis dominates in firms with fewer investment opportunities, which demonstrates that investment opportunity is a key issue in determining which hypothesis is dominant.

The results also show that regardless of the likelihood of expropriation (ie, no matter whether there is a positive or negative change in ownership concentration), investors value the cash holdings of firms with more investment opportunities more highly than those of firms with fewer investment opportunities. This is because cash holdings are more important in allowing the former to fund investment projects. Moreover, the results also show that among firms with more investment opportunities, investors place greater value on the cash dividends of those with less likelihood of expropriation (ie, a decreased ownership concentration) and punish those with a greater such likelihood that pay out cash dividends. One explanation for this finding is that investors consider the cash payouts in the latter type of firms to be a means of expropriation. Another possible reason is that investors believe that firms with more investment opportunities should not pay out cash dividends, but rather should invest money in projects. However, among the four subsamples, investors place the highest value on the cash dividends of firms with more investment opportunities and a decreased ownership concentration, which implies that as long as firms have little likelihood of expropriation and bright prospects, investors consider cash payouts to be an evidence of good performance. This finding is also consistent with the aforementioned special phenomenon of China's capital market, that is, that the country's firms need to pay out cash dividends to raise funds from extra

equity issuance. In sum, the free cash flow hypothesis is dominant in firms with fewer investment opportunities, which is consistent with our expectation; hence, investment opportunities should be taken into account when researchers attempt to distinguish which of the two hypotheses dominates the other.

The results in Table 3 indicate that the value of a firm's cash holdings and cash dividends is subject to the factors of ownership concentration, ultimate control, and investment opportunities. When firms have fewer investment opportunities, investors value the cash dividends of those with a greater probability of expropriation more highly, consistent with the free cash flow hypothesis. In addition, investors place the highest value on the cash dividends of firms under private or non-state ultimate control and those with more investment opportunities when these firms have little likelihood of expropriation in these firms are low (ie, a decreased ownership concentration). According to the free cash flow hypothesis, the agency problem is more severe in firms with few investment opportunities but large cash holdings, which implies that cash holdings may influence the likelihood of or incentives for expropriation. Table 3 considers only two of the three factors of interest in each panel. Thus, we now turn to further analysis of the value of cash holdings and cash dividends in two matrices: (1) ownership concentration, ultimate control, and investment opportunities, and (2) ownership concentration, investment opportunities, and the level of cash holdings.

Table 4. Changes in Value of Cash, Cash Dividends, and Ownership Control

This table shows the results of tests of whether the change in the value of cash is subject to ownership control, ultimate control, investment opportunities and the level of cash holdings. The variables are defined in the same way as those in Tables 1 and 2, and the subgroups classification is based on the directions of the change in ownership concentration (ΔH5D), the median value of investment opportunities (Q), the type of ultimate controller (Private or State), and the median value of cash holdings. ***, **, and * represent statistical significance level of 1%, 5%, and 10%, respectively.

Panel A: Change in ownership concentration, private ultimate control, and investment opportunities

Dependent Variable ExcessReturn			Decreased Ownership Concentration			Increased Ownership Concentration			t-stat of Difference	
			coeff.	Std. err.	p-value	coeff.	Std. err.	p-value		
Low Q	Private=0	ΔC	0.156	0.075	0.038	0.172	0.064	0.007	-0.158	
		ΔD	0.180	0.172	0.296	0.887	0.298	0.003	-2.056	**
	Private=1	ΔC	0.260	0.113	0.022	-0.337	0.234	0.152	2.295	**
		ΔD	0.564	0.412	0.172	0.399	0.772	0.606	0.188	
t-stat of Difference		ΔC		-0.762			2.097	**	2.006	**
		ΔD		-0.861			0.589		-0.277	
High Q	Private=0	ΔC	0.795	0.128	<.0001	0.547	0.174	0.002	1.145	
		ΔD	1.095	0.480	0.023	-0.999	0.816	0.221	2.211	**
	Private=1	ΔC	0.918	0.217	<.0001	1.487	0.676	0.029	-0.801	
		ΔD	3.434	1.313	0.009	-0.751	2.247	0.739	1.608	*
t-stat of Difference		ΔC		-0.489			-1.346	*	-1.006	
		ΔD		-1.673	**		-0.104		0.804	

Panel B: Change in ownership concentration, state ultimate control, and investment opportunities

Dependent Variable ExcessReturn			Decreased Ownership Concentration			Increased Ownership Concentration			t-stat of Difference	
			coeff.	Std. err.	p-value	coeff.	Std. err.	p-value		
Low Q	State=1	ΔC	0.173	0.078	0.026	0.175	0.066	0.008	-0.016	
		ΔD	0.178	0.175	0.309	0.897	0.306	0.004	-2.036	**
	State=0	ΔC	0.207	0.104	0.047	-0.274	0.199	0.171	2.140	**
		ΔD	0.505	0.379	0.183	0.351	0.661	0.596	0.202	
t-stat of Difference		ΔC		-0.259			2.139	**	2.090	**
		ΔD		-0.782			0.749		-0.252	
High Q	State=1	ΔC	0.830	0.134	<.0001	0.427	0.181	0.018	1.790	**
		ΔD	1.201	0.498	0.016	-0.798	0.841	0.343	2.044	**
	State=0	ΔC	0.899	0.190	<.0001	1.757	0.520	0.001	-1.550	*
		ΔD	2.467	1.113	0.027	-1.350	1.930	0.485	1.713	**
t-stat of Difference		ΔC		-0.292			-2.415	***	-1.725	**
		ΔD		-1.038			0.262		1.280	

Panel C: Change in ownership concentration, investment opportunities, and the level of cash holdings

Dependent Variable ExcessReturn			Decreased Ownership Concentration			Increased Ownership Concentration			t-stat of Difference	
			coeff.	Std. err.	p-value	coeff.	Std. err.	p-value		
Low CA	Low Q	ΔC	0.567	0.138	<.0001	0.087	0.253	0.731	1.667	**
		ΔD	0.339	0.220	0.123	0.765	0.439	0.082	-0.868	
	High	ΔC	1.747	0.307	<.0001	2.847	0.499	<.0001	-1.879	**
		ΔD	3.677	0.601	<.0001	1.011	1.216	0.406	1.966	**
t-stat of Difference		ΔC		-3.504	***		-4.939	***	-4.407	***
		ΔD		-5.216	***		-0.190		-0.544	
High CA	Low Q	ΔC	0.267	0.074	0.000	0.213	0.064	0.001	0.548	
		ΔD	0.115	0.225	0.608	0.744	0.345	0.031	-1.528	*
	High Q	ΔC	1.111	0.128	<.0001	0.758	0.213	0.000	1.423	*
		ΔD	-0.360	0.647	0.578	-2.230	0.996	0.026	1.573	*
t-stat of Difference		ΔC		-5.714	***		-2.448	***	-2.177	**
		ΔD		0.694			2.820	***	2.296	***

Table 4 shows the results with the change in ownership concentration, ultimate control, investment opportunities, and the level of cash holdings considered simultaneously. As can be seen from Panel A, among firms with fewer investment opportunities and non-private ultimate control, investors value the cash dividends of those experiencing an increased ownership concentration more highly than those of not experiencing such an increase. Because these firms have less need for cash holdings to fund investment projects, the agency problem becomes more severe when they hold a

high level of cash, which is consistent with the free cash flow hypothesis. Among firms with fewer investment opportunities but private ultimate control, in contrast, investors place less value on the cash holdings of those experiencing an increased ownership concentration, as these firms are more likely to appropriate fund for their owners' private benefit. There is no significant difference in cash dividends between the two subsamples.

Among firms with more investment opportunities, investors place more value on the cash dividends of those experiencing a decreased ownership concentration, especially those under private ultimate control. This is because these firms have a lower likelihood of expropriation and need to pay out cash dividends to raise funds through extra equity issuance, consistent with the aforementioned special phenomenon in China. These findings show that when firms have more investment opportunities, neither hypothesis is necessarily applicable in explaining the payout policy, which again highlights the importance of investment opportunities. Panel B shows similar results, thus further confirming the findings presented thus far.

Panel C shows the results of simultaneously taking into account a change in ownership concentration, investment opportunities, and the level of cash holdings. Among firms with fewer investment opportunities, regardless of the level of cash holdings, investors place less value on cash holdings and more value on cash dividends when those firms have a higher probability of expropriation (ie, an increased ownership concentration), which is consistent with the free cash flow hypothesis that firms with few investment opportunities but a high level of cash holdings are more likely to suffer from the free cash flow problem, and thus cash dividends can alleviate the agency problem. Moreover, among firms with more investment opportunities, investors value the cash dividends of those experiencing a decreased ownership concentration more highly, especially if these firms have a low level of cash. There are three potential reasons for this finding: (1) the need to pay out cash dividends to obtain funds for investment projects is greater in these firms; (2) there is little opportunity for these firms to expropriate, as they have a low level of cash; and (3) these firms are in the growth stage, and investors thus believe that they have bright prospects.

To sum up, investors are indeed concerned with cash holdings and cash dividends, especially when firms are more likely to engage in expropriation, and it seems that the free cash flow hypothesis dominates the tunneling hypothesis in firms with fewer investment opportunities. Consistent with the special phenomenon in China's capital markets, investors place greater value on the cash dividends of firms with more investment opportunities, as it is reasonable to expect that these firms will pay out cash dividends to raise funds to support their investment projects.

5. Conclusions

The value of Chinese listed firms is evidenced herein to be inversely related to ownership concentration and control, because controlling shareholders have different

objectives than minority shareholders, and the former are likely to appropriate funds for their own private benefit at the expense of the latter. An important issue is determining how these controlling shareholders harm firm vale and minority shareholder interests. In addition to its discussion of asset tunneling via related party transactions, the literature proposes that a high level of cash dividends provides the holders of non-tradable shares, especially the state, with the opportunity to gain high returns. However, although offering large cash payouts may result in fewer internal funds for investment opportunities, these firms still have access to external financing due to preferential treatment from the state.

One essential condition for the argument that large cash dividend payouts are a means of expropriation to hold true is that investors would enjoy greater returns if firms paid smaller dividends. This study thus examines the association between ownership control and the value of cash holdings and dividends. When the degree of ownership control is high, there are more likely to be conflicts of interest between the controlling shareholders and outside shareholders. Thus, outside shareholders will value cash dividends more highly if the free cash flow hypothesis is dominant. If, however, cash dividends provide a means of asset tunneling, then investors will place less value on the cash dividends of firms with a higher degree of ownership control.

The results presented herein are rather more consistent with the free cash flow hypothesis than the tunneling hypothesis. Investors place the greatest value on the cash holdings of firms with a lower level of ownership control, private or non-state ultimate control, and more investment opportunities. These findings indicate that when shareholders are free of concerns over being expropriated, they prefer firms to hold more cash to pursue investment opportunities. In addition, investors value the cash dividends of firms with strong ownership concentration and fewer investment opportunities more highly, consistent with the free cash flow hypothesis. However, among firms with more investment opportunities, investors value the cash dividends of those with a decreased ownership concentration more highly. These findings suggest that if shareholders are free of concerns of being expropriated, they will accept firms' payouts of dividends to raise funds to support investment projects, which is again consistent with the aforementioned special phenomenon of capital markets in China.

This study contributes to the literature on agency theory and international corporate governance. By investigating the value of cash holdings and cash dividends for firms with high and low degree of ownership control, this study helps to resolve the dispute over the role played by cash dividends in asset expropriation on the part of controlling shareholders in Chinese listed firms. Its findings show that investors are concerned about the cash holdings and cash dividends that the controlling shareholders of state-controlled firms may extract from company assets for their own private benefit. The study also contributes to the literature on cash holdings. In a rapidly growing economy, Chinese listed firms have large capital demands to support their growth, and the most essential condition for these firms to be able to hold a high level of cash holdings is the quality of investor protection. The results of this study consistently support the free cash flow

hypothesis of agency theory in explaining the cash holdings and cash dividend payouts of Chinese listed firms. They also serve as an example of the applicability of Anglo-Saxon theory to emerging markets.

The foundation of this study is the idea in the literature that investors in growing firms in countries with poor investor protection prefer more cash dividends and less cash holdings. With reference to prior evidence of a negative relationship between ownership control and firm value, this study follows most of the literature and considers the high degree of ownership control in China to be an indication of poor investor protection. However, there may be other indicators by which to identify the quality of such protection in examining this topic, which we leave to future research. Nevertheless, the empirical analyses presented herein are largely consistent with the literature, which serves to ensure the validity of the study's findings.

These findings have a number of practical implications. For example, in a growing economy, a higher level of cash holdings may be reasonable, as most firms enjoy a number of investment opportunities. Nevertheless, determining whether this higher level of cash holdings relative to comparable markets really results in better future performance merits further investigation. In addition, although large cash payouts do not necessarily mean the interests of minority shareholders are being expropriated, shareholders remain concerned over such payouts as they may result in the loss of good growth opportunities or an increase in the need for external financing. Even though the state may offer special financing treatment to firms in certain strategic industries, external financing still increases the cost of capital, and thus reduces the opportunities for high-return investments. Therefore, changing the corporate ownership structure or the rules of ownership control may be a necessary step for policy makers in emerging countries such as China if they wish to attract more investors and further develop their financial market. Further, company insiders may find that improving corporate governance to enhance investor protection boosts firm value, thus lowering the cost of capital and increasing the likelihood of future low-cost external financing.

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