# Political Connection, Financing Frictions, and Corporate Investment: Evidence from Chinese Listed Family Firms

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Note: We wish our paper to be considered for publication in the *EFM*.

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#### **Abstract**

Using a sample of Chinese family firms from 2000 to 2007, we investigate whether the political connection of the family firms will help them to reduce the frictions they face in external financing in a relationship-based economy. We find that political connectedness of family firms could reduce their investment-cash flow sensitivity. More interestingly, this political connectedness effect exists only in financially constrained family firms. However, from governance dimension, we cannot find any significant variation of the political connection effect on the sensitivity of investment to cash flow. We argue that these evidences are consistent with the firm's underinvestment arising from the asymmetric information problems, and are inconsistent with the firm's overinvestment arising from the free-cash-flow problems. Our paper corroborates the previous evidence that the firms' political connectedness could favor them by exploring another channel through which political connection could add value to firms, i.e., increasing the investment efficiency by reducing the cost of external financing in a relationship-based economy. However, the political connection benefits vary with firm's financial situations. Moreover, we also find that the underinvestment rather than overinvestment is a more important distortion in Chinese family firms.

Key Words: Political Connection, Corporate Investment, Family Firm, China

#### 1. Introduction

A firm's financial status is irrelevant for real investment decisions in a world of perfect and complete capital markets, as has been demonstrated by Modigliani and Miller (1958). However, in the real world, there are a variety of distortionary forces that prevent things from working this well, among which the most pervasive and important factors influencing the efficiency of corporate investment are those arising from informational asymmetries and agency problems (Stein, 2003). There is a growing literature suggests that because of information asymmetries and capital markets imperfections, corporate investment expenditures are strongly influenced by a firm's ability to internally generate cash flows. The empirical literature, starting with Fazzari et al., (1988), confirms the existence and robustness of investment-cash flow sensitivity after controlling for investment opportunities. The two traditional explanations for investment distortions are the misalignment of managerial and shareholders' interests (Jensen, 1986) and asymmetric information between corporate insiders and the capital market (Myers and Majluf, 1984). Both reasons will cause firm's investments to be sensitive to the amount of cash in the firm since there is a premium on external financing including issuing new shares or borrowing from financial institutions.

Most firms around the world are controlled by a large shareholder, typically founders or their families (La Porta et al., 1999; Claessens et al., 2000; Faccio and Lang, 2002). Even in the U.S., where ownership dispersion is at its highest, founding families exercise a significant degree of control over a third of the 500 largest corporations (Anderson and Reeb, 2003; Villalonga and Amit, 2006). In emerging market, private entrepreneurs have played a central role in the transition of the formerly centrally planned economies to market economies (McMillan and Woodruff, 2002). Despite its importance, however, private sector development has been hampered by limited access to external finance (Bai et al., 2006). A prominent feature of these countries is that the resource is controlled mostly by the government and is mostly reserved for state-owned enterprises (SOEs) (Cull and Xu, 2000).

For family firms in China, because of their non-state status and the socialist ideology, it's more difficult for them to obtain finance for investment. Consequently, financing becomes a more critical problem for the development of private sectors and sometimes they have to pass up even positive Net Present Value (NPV) projects because of short of finance. However, as a relationship-based economy of China, the connection of firms with government would act as a role of mitigating information asymmetry and removing the obstacles between the firms and the government. Because of the ultimate control of most of the resources by the government, the political connectedness could help these connected firms to obtain resources from banks and other state institutions (Johnson and Mitton, 2003; Khwaja and Mian, 2005; Luez and Oberholzer-Gee, 2006; Faccio et al., 2006; Fan et al., 2008; Li et al., 2008), which in turn we predict will affect the firm's investment behavior.

The incentive for businessmen to establish political connections in transition economies ultimately arises from the state control of key resources. Due to the lingering legacy of the command economy and the slow development of market-supporting institutions, private entrepreneurs in transition economies face many obstacles in running their businesses. They are often denied access to bank loans, which are largely reserved for state-owned enterprises, or are subject to heavy government regulations (Johnson et al., 2000; McMillan and Woodruff, 2002). Although equity issuance is also one important channel for the family firms to obtain finance, the selection criteria for new equity issuance are very stringent and are also subject to the regulation of the government (Chen and Yuan, 2004), which actually hinders their financing when they need finance for valuable investment opportunities. In the relationship-based economy of China, political connection status could reduce the frictions and the information asymmetry that the family firms face in financing by effective communication with the government. As a result, the premium of the external capital over internal capital would be reduced, and hence the financial

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<sup>&</sup>lt;sup>1</sup> Strictly speaking, *family firms* in China should be called *entrepreneurial firms* since the current controlling agents of most of these firms are founders of them, or the so-called first generation in family firm succession chain.

constraints relaxed. Consequently, the cultivation of political connections is then very important in China as a relationship-based economy (Li et al., 2008), especially for private entrepreneurs.

The objective of this paper is to address the effect of firm's political connectedness on firm's investment behavior in such a relationship-based economy as China focusing on a sample of Chinese listed family firms in the period 2000 to 2007. Specifically, we examine whether the listed family firms with politically connected management (whose CEOs or Chairmen are former government officials) have different investment behavior, i.e., different investment-cash flow sensitivities, from the non-politically connected family firms. As a further step, we have also differentiated the underlying channels through which the investment-cash flow sensitivity is affected since the sensitivity of corporate investment to cash flow could be arising from overinvestment or underinvestment. To disentangle the underinvestment vs. overinvestment problem, following Franzoni (2009), we first partition the sample into two groups, financial constrained and unconstrained firms. We examine whether the political connection status affects the investment behavior for financially constrained and unconstrained firms differently. Financially constrained firms face more severe underinvestment problem while financially unconstrained firms not. Political connection would affect the sensitivity of investment to cash flow more for financially constrained firms if underinvestment problem dominates. Second, we examine whether there is any variation of political connectedness effect for firms with different quality of corporate governance, which is supposed to monitor the *overinvestment* problem (Franzoni, 2009). The managements of firms with lower quality of corporate governance have more incentive to distort their resources for empire-building, while good quality of corporate governance could limit the distortion behavior. We partition the sample into two groups: the firms with good corporate governance who are supposed to have less overinvestment problem, and the firms with poor corporate governance who have more overinvestment problem. If overinvestment is a dominating distortion in Chinese family firms, political connection would affect the firms with different

quality of corporate governance differently.

Our empirical results in the first test of the political connectedness effect show that, consistent with our conjectures, political connection status could reduce Chinese listed family firms' dependence of their investment on their internally generated fund. In the second step of the analysis, we find that this effect is more prominent for relatively financially constrained firms. However, we cannot find the systematic variation of political connectedness effect on corporate investment across the firms with different quality of corporate governance, which is supposed to monitor the firm's behavior of distorting resources for empire building, or in other words, overinvestment problem. Taken together, our results demonstrate that political connection of family firms could help them alleviate underinvestment problem by mitigating the information asymmetry problem and hence reducing the cost of external financing, which is reflected by the reduced sensitivity of corporate investment to internally generated cash flow. This effect is especially prominent for firms who are financially constrained. Consistent with the literature, our evidence supports that underinvestment is by far more relevant (Hadlock, 1998; Franzoni, 2009), which is also consistent with the common sense.

Our paper contributes to the two strands of literature, political connection and corporate investment, in several ways. First, we corroborate the previous evidence that the firms' political connectedness could favor them. The previous literature finds that the political connection status could add value to firms by getting preferential treatment by government-owned enterprises (Khwaja and Mian, 2005), getting preferential treatment in competition for government contract (Faccio, 2006), and getting more bailout from the government (Faccio et al., 2006). We explore another channel through which political connection could add value to firms, i.e., increasing the investment efficiency by reducing the cost of external financing in a relationship-based economy. Second, although political connectedness could add value to firms, there is still variation of political connection benefits for firms with different financial situations. Third, consistent with the previous literature (Hadlock,

1998; Franzoni, 2009), we also find that the underinvestment rather than overinvestment is a more important distortion in Chinese family firms.

The remainder of the paper is organized as follows. Section 2 describes the institutional background and the development of family firms in China. Section 3 develops the hypotheses. Research design is described in section 4. Section 5 details the sample and data and empirical results are provided in section 6. Section 7 concludes.

# 2. Institutional Background and the Development of Family Firms in China

The non-state sector of China, especially the private sector, pullulates in the crack of institutions. Private sector emerges at the beginning of economic reform in 1980s. However, the development of private sector is hindered by communist ideology before 1990. Until after Deng Xiaoping's comment on his tour to South China in 1992, the private sector goes on the right track of development. One of the most significant changes in the development of the private sector since 1980s occurred in March 2004, when the National People's Congress approved a constitutional amendment to protect private property rights, marking the first time that the legal status of private property was officially endorsed by the Constitution of China. Despite the speed with which the private sector developed after 1978, private firms not only suffer political and social discrimination, but must also deal with an unfavorable economic environment. The government still controls most of the resources, and state-owned enterprises still enjoy preferential status in obtaining bank loans and other key inputs (Brandt and Li, 2003; Li et al., 2008). Most of China's private enterprises are smaller and younger than their state-owned counterparts and are at a higher risk in the eyes of financing institutions. The information asymmetry between the private owners and the financing institutions makes it difficult for them to get access to external financing. Consequently, how to deal with the relationship with the government and reduce the information asymmetry is one big task for the family firms.

The Chinese stock market started in 1990s, which was aimed to solve the problems of state-owned enterprises at first. At the early period of the development of the capital

market, family firms were very unlikely to be the candidate of being listed. This status changed only after 2000<sup>2</sup>. However, even the family firms are allowed to float their outstanding shares in the capital markets, they still need the approval from the government for acquiring the rights to issue new shares for the selected firms<sup>3</sup>. Hence, the good relationship with the government is also important in equity issuance.

Meanwhile, a veritable bureaucratic revolution has taken place in China since the mid-1980's, when bureaucrats were allowed to quit their government positions in order to join the business community, a phenomenon that later came to be known as "Xiahai" (jumping into the sea). After several years' development, some of them have their own corporate groups and even list their firms in Chinese capital market. As a consequence, some Chairmen or CEOs of the family firms are associated with different government agencies. Although these bureaucrats quit from the government, they still keep good relationship with the governments, which would help reduce the frictions they face in external financing.

Taken together, financing is a big problem faced by the family firms because of the ideological or other reasons. Since the resource is still controlled by the state, building good relationship with the government is a possible channel to solve this problem in such a relationship-based country as China.

## 3. Hypothesis Development

## 3.1 Political connection and corporate investment

In their seminal paper, Modigliani and Miller (1958) demonstrate that a firm's financial status is irrelevant for real investment decisions in a world of perfect and complete capital markets. This view has been amended and disputed by richer theoretical models and empirical studies that have found a strong relationship between firms' financial health and investment (Hubbard, 1998). These financing constraints

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<sup>&</sup>lt;sup>2</sup> See Appendix I for the family firms listed in the China's A-share capital markets (Shanghai Stock Exchange and Shenzhen Stock Exchange).

<sup>&</sup>lt;sup>3</sup> In China, the number of shares that will be offered in IPO is determined by the government regulatory agencies, and the percentage of a company's shares allowed to be traded on the stock exchange was limited by the listing quotas that were allocated by the regulatory agency to different provinces (Chan *et al.*, 2004).

are generally attributed to capital market imperfections, stemming from such factors as asymmetric information and incentive problems, which result in different costs between internal and external finance (Myers and Majluf, 1984; Jensen, 1986; Stulz, 1990). In China, the state ownership of most of the resources and political and social discrimination against family firms arising from the communist ideology could exacerbate this information asymmetry between family firms and resource providers. How to reduce the information asymmetry and hence the financing cost is really vital to the success of family firms.

Political connection has been found to help firms to secure favorable regulatory conditions (Agrawal and Knoeber, 2001), get preferential treatment by government-owned enterprises, such as banks (Khwaja and Mian, 2005; Fan et al., 2006; Luez and Oberholzer-Gee, 2007), get preferential treatment in competition for government contract (Faccio, 2006), and get more bailout from the government (Faccio et al., 2006), and even powerful business tycoons can significantly influence government policies. As a relationship-based transitional economy, "Guanxi" (relationship) is a phenomenon so ubiquitous in Chinese society, which describes a subset of Chinese personal connections between people in which one individual is able to prevail upon another to perform a favor or service (Chung and Hamilton, 2002). Political connection is one type of "Guanxi". The state will preferentially treat firms with political connections using political power by intervening in firms' operations. By connecting with the government or even engaging in politics, family firms could facilitate the private communication with the state, which could mitigate the severe information asymmetry problem and the social discrimination. Consequently, political networks could facilitate relationship-based contract and reduce the frictions in external financing of family firms, which would reduce the dependence of investment on internally generated fund, and hence the sensitivity of investment to internally generated cash flow.

Following the above argument, we get the following hypothesis in alternative form:

**Hypothesis 1:** Compared with non-politically connected family firms, politically

connected family firms will have lower investment-cash flow sensitivity controlling for investment opportunities.

## 3.2 Political connection, financial constraints, and underinvestment

Adjusting capital expenditures in response to changes in expected future demand represents rational economic behavior at the firm level that reduces inefficient investment outlays, and should lead to optimal investment at the aggregate level. However, the same cannot be said for investment changes due to the existence of financial constraints. While such behavior may be rational at the firm level, it does not lead to optimal investment at the aggregate level. As a result, the role of financial constraints has been subject to much attention by researchers and policy makers, including the present paper (Fazzari et al., 1988; Franzoni, 2009).

Financially constrained firms face more difficulty or more information asymmetry in financing, which will lead to passing up even positive NPV projects, i.e., underinvestment. However, as argued above, political connection status could help them reduce the financing friction and get more external resource (Khwaja and Mian, 2005; Fan et al., 2006; Luez and Oberholzer-Gee, 2007), which could be used in undertaking positive NPV projects. In contrast, for financially unconstrained firms, even though they can get preferential access to external finance, they will not invest these resources as long as they have already reached their own optimal level of investment. In other words, the relationship between corporate investment and internally generated cash flow will be affected by political connection for financially constrained firms if they can obtain more finance, however, unaffected for financially unconstrained firms.

Consequently, we can get the following hypothesis (in alternative form):

<u>Hypothesis 2:</u> If the effect of political connection on investment originates from underinvestment problem, compared with financially unconstrained firms, political connection status will be more likely to reduce the sensitivity of corporate investment to cash flow for financially constrained firms.

## 3.3 Political connection, corporate governance, and overinvestment

Firm's management could have incentive for empire-building for their own private benefit of control by undertaking negative NPV projects. However, good corporate governance could reduce the manager's incentives to distort firms' resources for empire building (Gompers et al., 2003; Franzoni, 2009). With the lower cost of external financing because of the political connection, the firms with poor corporate governance will distort more finance for their empire building. In contrast, for firms with good corporate governance, they will only obtain external finance when they have valuable investment opportunities, i.e., positive NPV projects.

In Chinese family firms, like family firms in other East Asian countries, ownership is concentrated as opposed to being diffused as in the U.S. In addition, many firms are owned and controlled by single large shareholders via pyramid ownership structures. In these firms, the nature of agency problems shifts away from the conflicts of interest between managers and shareholders to the conflicts of interest between controlling owners or large shareholders (who happen to be managers in most cases) and minority shareholders.

In this case, the overinvestment is more likely to happen when entrenchment effect associated with the control rights of largest shareholders is aggravated when the quality of corporate governance is lower. In contrast, when the quality of corporate governance is high, the monitoring effect from outside and bonding effect from the largest shareholders themselves will alleviate the entrenchment effect and hence the overinvestment problem since in this case their interests are more aligned with those of minority shareholders. Consequently, if the political connection could affect the firm's overinvestment problem, the effect would vary for firms with different qualities of corporate governance. Hence, we get the following hypothesis (in alternative form):

<u>Hypothesis 3:</u> If the effect of political connection on investment originates from overinvestment problem, compared with firms with good quality of corporate

governance, political connection status will be more likely to reduce the sensitivity of corporate investment to cash flow for firms with poor quality of corporate governance.

# 4. Research Design

#### 4.1 the measurement of financial constraints

Testing our hypotheses requires separating firms according to *a priori* measures of the financing frictions they face. Which particular measures to use is a matter of debate in the literature. There are a number of plausible approaches to sorting firms into financially constrained and unconstrained categories. However, these measures are still controversial and whether they can be applied to China is also questionable<sup>4</sup>. To avoid the debate and suspicion over these measures, we pick out five variables that are associated with firms' financial status to measure the financial constraints of the listed family firms. Based on these variables, firms are sorted and classified as "constrained" and "unconstrained" categories. To account for the changing levels of financial constraints over time at the level of the firm, we allow reclassification of firm's financial status every year, and group composition is allowed to vary every year.

The first variable we choose to proxy for financial constraint is the firm's age since listing (Age), which is how many years that the firm has been listed in China's A-share market. Young firms without established reputations may have a harder time raising external finance (Diamond, 1991; Baker et al., 2003). Accordingly, firms who are older than the sample median are classified as financially unconstrained, and

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<sup>&</sup>lt;sup>4</sup> In the literature, the researchers have developed several indices to proxy for financial constraints, for example, the *KZ* index developed by Kaplan and Zingales (1997), a modified version of *KZ* index (Baker et al., 2003), and *WW* index constructed by Whited and Wu (2006). However, the applicability of these indices are controversial (Whited and Wu, 2006), and whether these indices are applicable to China or emerging markets are questionable since the requirement of the parameter stability both *across firms* and *over time* is very easily violated. Furthermore, some variables, for example, dividend, have different meaning from US or other developed countries. In China, dividends might be used by the controlling shareholders to engage in tunneling (Chen et al., 2009) rather than simply as dividend policy. Another variable Tobin's Q, as shown in Erickson and Whited (2000), contains a great deal of measurement error. To avoid these problems, we just pick several variables that are directly associated with financial status to proxy for firm-level financial constraints.

financially unconstrained otherwise.

The second variable we use is firm size (*Size*). In every year over the 2000–2007 period, we rank firms based on their total assets and assign those firms whose total assets are smaller (larger) than the median value of all the family firms to the financially constrained (unconstrained) group. This approach resembles Erickson and Whited (2000), and Almeida and Campello (2007). The rationale for using size is that small firms are more likely to be less well known, thus they are more likely to face information asymmetries.

The third variable is the *Asset Tangibility (Tangibility)*. As argued by Almeida and Campello (2007), firms with more tangibility are less likely to be financially constrained because tangible assets mitigate contractibility problems, i.e., tangibility increases the value that can be captured by creditor in default states. Following Berger et al. (1996), and Almeida and Campello (2007), tangibility is calculated as follows<sup>5</sup>: *Tangibility=(Cash+0.715\*Receivables+0.547\*Inventory+0.535\*Capital)/Total Assets* where *Cash* is firm's year-end cash holdings, *Receivables* includes firm's Accounts Receivable and Other Receivables, *Inventory* is the firm's year-end Inventory, *Capital* is the value of net property, plant, and equipment, and *Total Assets* is a firm's book value of Total Assets. After calculating the value of *Tangibility*, firms whose tangibility is less than the sample median are classified as financially constrained, and financially unconstrained firms otherwise.

The fourth variable is the regional *GDP* per capita *(GDP)* of different regions in China. Demirguc-Kunt and Maksimovic (1998) find that the proportion of firms in countries that were growing faster than they could have using only internally generated funds is positively related to financial development and to legal system indicators. Rajan and Zingales (1998) use industry-level data to show that industries that require more external finance grow faster in more developed capital markets.

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<sup>&</sup>lt;sup>5</sup> We also reset the weights of each component in the equation such that each variable contribute equally to Tangibility. We only find even more significant result.

Wurgler (2000) finds that financial development improves capital allocation by increasing the industry-level sensitivity of investment growth to value-added growth. All the above mentioned papers demonstrate that financial development is very important in stimulating economic growth. Exploiting the variation of economic development around the world, Love (2003) provides more direct evidence that financing constraints decrease with financial development. China has a vast territory (31 provinces) and the development of different regions (provinces) is unbalanced. Significant variation exists in market development across provinces in China, which we conjecture will affect the cost of financing and hence the financial constraint faced by the firms located in these regions. If the firms are located in regions with more developed regions (regions with higher GDP per capita), we regard these firms are less financially constrained since it is easier or less costly for them to obtain external finance. Consequently, we label those firms who located in more developed regions (provinces) as financially unconstrained firms, and firms who located in less developed regions (provinces) as financially constrained firms. The values of GDP per capita across the 31 provinces in China are listed in Appendix II.

The last variable we use is whether the ultimate controlling shareholders are in the list of *Fortune 500* each year, which is a dummy variable denoted as *Fortune500*. In China, Fortune 500 includes the richest millionaires of each year. Because of the big fortune they have, the firms they control would be less likely to face financial constraints since they can transfer the resource from other firms they control to the firms who are short of finance. Meantime, the internal capital market under the control of the same millionaire would makes the external financing less costly for the less asymmetric information and agency cost. Consequently, if the controlling shareholders are listed in Fortune 500, we classify the firms they control as unconstrained, and constrained otherwise.

Since the above variables are not choice variables for the managers in the short run and are unlikely to depend on investment over the short time period covered by our panel, we can regard them as *exogenous*. Even though one doubts that using either of

these variables to sort firms into putatively constrained/unconstrained groups is likely to misclassify some firms, we use the five variables at the same time. If the results are robust to different measures of constraints, we can declare that our results are not distorted by our classification procedure.

#### 4.2 the measurement of corporate governance

In the previous literature, some corporate governance mechanisms are found to be effective for Chinese listed firm: audit committee, CEO duality, the ownership of largest shareholders, board independence (Kato and Long, 2006), and the level of investor protection of different regions in China (Law)<sup>6</sup> (La Porta et al., 1998; Wang et al., 2008). These corporate governance mechanisms could limit the management's incentive to distort resource for empire building, i.e., overinvestment. Consequently, firms with better corporate governance would be subject to less overinvestment problem. According to the literature, we classify those firms who have an audit committee, whose CEOs are separated from Chairmen, whose largest shareholder's ownership is higher than the median ownership in the sample<sup>7</sup>, whose ratio of independent directors in the board is larger than the median value of the sample, and who are located in regions with better legal environment are firms with good corporate governance, and poor corporate governance otherwise. Following Franzoni (2009), to study the political connection effect on firm's overinvestment, we test whether there is difference in the effect of political connectedness on corporate investment for firms with different quality of corporate governance.

# 4.3 Structural model for test of investment-cash flow sensitivity

To test the effect of political connectedness on firms' investment behavior, we use the following baseline specification in our paper:

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it}$$

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<sup>&</sup>lt;sup>6</sup> The variation of legal environment development could be found in Appendix II.

<sup>&</sup>lt;sup>7</sup> Morck et al. (1988) find that the relationship between ownership and firm value is non-monotonic because of the concurrent entrenchment problem and incentive alignment effect. Consequently, we also partition the sample by 20%, 30%, and 40% in terms of largest shareholder's ownership. We only get very similar results.

$$+\beta_4 \times Q_{it-1} + \beta_5 \times Control + \mu_{it}$$
 (1)

where CAPX is the ratio of capital expenditure in year t to beginning-of-year book assets, CF is firm's net operating cash flow, scaled by beginning-of-year book assets, Q is firm's Tobin's Q, measured by market value of owners' equity and book value of total liabilities all divided by book value of total assets, Political is a proxy for firms' political connection to the government, and Control indicates the variables that are found in the previous literature affecting firm's capital expenditure, i.e., 1/TA, Leverage, and Sale (Chen et al., 2006). The coefficient of interest in our paper is  $\beta_3$ , the coefficient on the interaction term  $CF \times Political$ , which reflects the effect of political connectedness on firm's investment-cash flow sensitivity. To reduce the influence of outliers, we winsorize each of these continuous variables at the first and ninety-ninth percentile, i.e., we set all observations beyond these tolerances to the first and ninety-ninth percentile values, respectively. Similar to previous literature, the reported regression results are estimated using firm-year fixed effects model to control for firm and time specific influences.

## 5. Sample and Data

To test the effect of firm's political connection on firm's corporate investment behavior, we use the family firms listed in Shanghai and Shenzhen A-share stock markets from 2000 to 2007. Our sample starts from 2000 because by this year there is more public information on CEOs and Chairmen, including their biographical profiles, from which we can obtain information about their political connection.

Our study calls for identifying family firms first. The ownership information data are gathered from the China Center for Economics Research (*CCER*) China stock database, which provides detailed information about the ownership of listed firms' ten largest shareholders and the information about their ultimate shareholders. Based on the information of the ultimate shareholders, we choose the firms whose ultimate shareholder is some person as family firms. The detailed information about the Chairmen and CEOs is retrieved from the *WIND* financial database, which provides

detailed information about the experience of most CEOs after 2000 starting from the firms' listing date. Following Fan et al. (2007), we define those firms whose Chairmen or CEOs are current or former governmental officials are political connected firms according to the detailed biographical profiles of the Chairmen and CEOs. To capture financial constraints, we rank firms according to five variables found in the previous literature associated with firm's financial status. Moreover, to capture the firm's incentives to overinvest, we have exploited several typical corporate governance measures that are found to be effective in previous literature in mitigating agency problems.

The accounting and financial data are also obtained from the *WIND* database, and ownership structure data from *CCER* database. Firms in financial sector are deleted since their investment behavior is much different from non-financial firms. Moreover, firms who are in *ST* and *PT* status<sup>8</sup> are also deleted since these firms are subject to different regulations. Firms with missing needed financial and ownership data are also deleted. Finally, we get a sample of 489 family firms with 2094 firm-year observations. The distribution of the family firms and political connected family firms across the period 2000 to 2007 is illustrated in Table 1. From Table 1, we can see that there are 12% of family firms are political connected, which is smaller than the figure in Fan et al. (2007) who also include state-owned enterprises.

#### [Insert Table 1 about here]

Table 2 reports the descriptive statistics of the variables used in our empirical analysis. From table 2, we can see that firms' investment level (*CAPX*) and cash flow (*CF*) generated varies a lot across, which is is reflected by the higher variance for these two variables. The detailed definition of all the variables used can be found in Appendix III.

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<sup>&</sup>lt;sup>8</sup> In 1998, the China Securities Regulatory Commission (CSRC) introduced the ST and PT designation policy to the Chinese stock market. Under the CSRC guidelines, a firm may become an ST (PT) firm if it experiences net loss for two (three) consecutive years. The ST or PT firms will receive stricter scrutiny from regulators, including narrower daily price fluctuation range (5% versus 10% for normal stocks) and requirement for audited semi-annual financial reports.

#### [Insert Table 2 about here]

# 6. Empirical Results

In this part, we will report our empirical results based on the previous analysis.

# 6.1 The effect of political connection on corporate investment

In this section, we examine whether the political connection status will affect the sensitivity of corporate investment to internally generated cash flow. Following prior literature, we define the family firm whose Chairman or CEO is a former government official as political connected firm (Fan et al., 2007). We employ fixed effect regressions for all the equations controlling for firm and year fixed effect, and report the standard errors in parentheses. To mitigate the effect of outliers and include as many observations as possible, all the continuous variables are *winsorized* at 1% levels.

Table 3 reports the results of the effect of political connection on corporate investment. Consistent with Hypothesis 1, the sensitivity of corporate investment to internally generated cash flow of politically connected firms is much lower than the corresponding non-politically connected firms, which is reflected by the negative and statistically significant coefficient (-0.096) on the interaction term  $CF \times Political$ . The results show that politically connected firms could mitigate their dependence on internally generated cash flow in investment since they can obtain less costly external finance through their good connection with the governments, which supports our first hypothesis.

#### [Insert Table 3 about here]

However, although the political connection could reduce the investment cash flow sensitivity, it is still not clear that the reduction of investment cash flow sensitivity is because of mitigation of underinvestment problem or overinvestment problem. Next we will perform several tests to differentiate these two types of problems.

# 6.2 The effect of political connection on corporate investment across firms with

#### different levels of financial constraints

In our next tests, we will examine the variation of the political connectedness effect across firms with different levels of financial constraints. Table 4 reports the main results. The firms are partitioned into two groups according to the five different proxies of financial constraints. The first two columns of Table 4 show the results for the two groups of firms partitioned by Age, the first proxy for financial constraints. Column 1 of Table 4 reports the results for the firms with higher level of financial constraints, which shows that the political connection status could reduce the sensitivity of corporate investment to internally generated cash flow as reflected by the negative and statistically significant coefficient on the interaction term CF×Political. In contrast, for the firms that are less financially constrained (column 2), this effect disappears. The coefficient on the interaction term  $CF \times Political$  for these firms is negative, however, not statistically different from 0. Furthermore its magnitude is also much smaller than the corresponding coefficients for more financially constrained firms. The results are robust to other three proxies (Size, Tangibility, and GDP) for financial constraints except that the results for variable Fortune 500 are a little bit weaker. In next step, we will test whether the coefficients of these two groups partitioned by the proxies for financial constraints are statistically significantly different.

#### [Insert Table 4 about here]

As Gelman and Stern (2006) argue, the difference between significant and insignificant results may itself be insignificant. We pooled the two groups of firms and add one three-way interaction term ( $CF_{it} \times Political_{it} \times FC_{it}$ ) into equation (1) to test whether the political connection status has significant different effects on the investment-cash flow sensitivity for firms with different levels of financial constraints. Specifically, we will focus on  $\beta_5$  in the following equation (2) to see whether it is significantly different from 0.

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times CF_{it} \times FC_{it}$$

$$+\beta_5 \times CF_{it} \times Political_{it} \times FC_{it} + \beta_6 \times Q_{it-1} + \beta_7 \times Control + \mu_{it}$$
 (2)

where FC is the five proxies for financial constraints (Age, Size, Tangibility, GDP, and Fortune 500), and the definition of the other variables in the regression is the same as above.

Table 5 reports the results for the difference of the political connectedness effects between financially constrained and unconstrained firms. The coefficients ( $\beta_5$ ) on the three-way interaction term show us the difference of the political connectedness effect between financial constrained and unconstrained firms. The coefficients ( $\beta_5$ ) are statistically significantly positive when financial constraints are proxied by the four variables, i.e. Age, Size, Tangibility, GDP. When financial constraint is proxied by Fortune 500,  $\beta_5$  is positive, however not statistically significant. Collectively speaking, the results demonstrate that the political connection status could reduce the investment-cash flow sensitivity for the firms who are financially constrained rather than the firms who are financially unconstrained, and this difference of the political connectedness effect is statistically significant.

#### [Insert Table 5 about here]

Taken together, consistent with Hypothesis 2, our empirical results offer evidence that political connected management could mitigate the dependence of firm's investment on internally generated cash flow by reducing the cost of external financing through the good relationship with the government who controls most of the resources. This effect is especially prominent for firms who are financially more constrained.

# 6.3 The effect of political connection on corporate investment across firms with different levels of corporate governance

This part reports the effect of political connection on firm's investment for firms with different levels of corporate governance according to our several measures of corporate governance: Audit Committee (AudCom), CEO duality (Duality), the Ownership of Largest Shareholder (Ownership), Board Independence (Independent), and Regional Legal Investor Protection (Law). Table 6 reports the empirical results.

From the results, we cannot get a systematic evidence of the political connection effect on investment for firms with different qualities of corporate governance since for some measures, the political connection effect is more prominent for poor corporate governance firms, while for other measures the effect is more prominent for good corporate governance firms.

## [Insert Table 6 about here]

Consistent with the financial constraints test, we further test the difference of political connection effects for firms with different levels of corporate governance. Table 7 reports the significance of the difference of the political connection effect for the firms with good and poor corporate governance using the following equation:

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times CF_{it} \times CG_{it}$$
$$+\beta_5 \times CF_{it} \times Political_{it} \times CG_{it} + \beta_6 \times Q_{it-1} + \beta_7 \times Control + \mu_{it}$$
(3)

Consistent with the results in Table 6, the difference of political connectedness effect is not statistically significantly different across the two groups of firms portioned by the quality of corporate governance as indicated by the insignificant coefficient  $\beta_5$ . Consequently, Hypothesis 3 is not supported by our evidence.

#### [Insert Table 7 here]

# 6.4 The effect of political connection on corporate investment: financial constraints versus corporate governance

Table 8 reports the effect of political connection on firm's investment where we include the financial constraint variable and corporate governance variable simutaneously to test which one dominates. To avoid the multicollinearity problem, we include one financial constraint variable and one corporate governance variable every time in the following model (4):

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times CF_{it} \times FC_{it}$$
$$+ \beta_5 \times CF_{it} \times Political_{it} \times FC_{it} + \beta_6 \times CF_{it} \times CG_{it} + \beta_7 \times CF_{it} \times Political_{it} \times CG_{it}$$

$$+\beta_8 \times Q_{it-l} + \beta_9 \times Control + \mu_{it}$$
 (4)

where FC indicates financial constraint variable, and CG indicates corporate governance variable. We have five financial constraint variables and five corporate governance variables, so we have 25 combinations of these two groups of variables, and 25 regressions. For brevity, we only report the values of  $\beta_5$  and  $\beta_7$  in Table 8 for the 25 regressions. Consistent with the above analysis, we find that the coefficients on the interactions with financial constraint variables ( $\beta_5$ ) are all significant and in the expected direction except Fortune500, while all the coefficients on the interactions with corporate governance variables ( $\beta_7$ ) are not. Taken together, we can conclude that firm's political connection status could affect the firm's underinvestment problem because of the lower cost of external financing by reducing the frictions between the firms and the state. However, the political connection status does not affect firm's overinvestment problem. Consistent with the prior literature (Hadlock, 1998; Franzoni, 2009), our evidence supports that underinvestment is by far more relevant for Chinese listed family firms.

#### [Insert Table 8 about here]

#### 7. Conclusions

In a world of frictionless capital markets, firm's investment is irrelevant to firms' financial status (Modigliani and Miller, 1958). However, the capital markets are imperfect and incomplete where the cost of external capital exceeds that of internal capital, which will lead to the positive sensitivity of corporate investment to internally generated cash flow. There are two arguments for this relationship: a symptom of *underinvestment* because of asymmetric information problem (Myers and Majluf, 1984), or *overinvestment* arising from free cash flow problem (Jensen, 1986). However, which one dominates is still unclear. China provides us a natural laboratory for us to study this question in depth, where family firms contribute a lot to the country's whole development while they are constrained with financing.

As a relationship-based economy of China, the frictions are much higher for family

firms because of socialist ideology and the dominant control of resource by state. As a mechanism to mitigate the frictions faced by the family firms, the political connection to the government could help the family firms to reduce the premium of the external capital over internal capital, hence facilitating their external financing. Using the data of listed family firms in China's capital market from 2000 to 2007 and firm-year fixed effect model, we find that political connectedness could reduce the investment-cash flow sensitivity of the listed family firms by reducing the frictions of external financing. This effect is especially prominent for firms with higher financial constraints, which is consistent with the underinvestment argument because of the higher cost of external financing. More importantly, the results are robust to different measures of financial constraints. However, we cannot find the variation of political connectedness effect across firms with different quality of corporate governance, which does not support the *overinvestment* argument. From these evidences, we conclude that firm's political connection status could reduce the underinvestment problem by reducing the cost of external financing, and *underinvestment* problem is by far the more important problem than *overinvestment* for Chinese family firms.

However, we acknowledge that our paper is still subject to several caveats. First, the definition of political connection in this paper could not fully capture the firms' political relationship with the governments. For example, some CEOs would build good relationship with government official by bribing the officials (Shleifer and Vishny, 1993). Fortunately, this will bias against our finding the difference between the firms with and without political connection. Second, because of the data limitation, we cannot get the direct evidence that how much resource the firms can get through their political connectedness. This could be very interesting and need further research.

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Appendix I: The Frequency of Listed Family Firms and All Listed Firms in China's A-Share Market

Year	# of Listed Family	# of All Listed	Percentage
	Firms	Firms	T creentage
1992	2	46	4.35%
1993	12	168	7.14%
1994	21	292	7.19%
1995	21	308	6.82%
1996	33	511	6.46%
1997	44	715	6.15%
1998	51	820	6.22%
1999	70	930	7.53%
2000	110	1092	10.07%
2001	120	1140	10.53%
2002	187	1205	15.52%
2003	272	1266	21.48%
2004	353	1355	26.05%
2005	374	1351	27.68%
2006	456	1434	31.80%
2007	534	1548	34.50%

# APPENDIX II: GDP Per Capita and Legal Environmental Index for 31 Provinces of China

This table demonstrates the average values of GDP per capita in RMB Yuan (*GDP*) and legal environmental index (*Law*) for the 31 provinces of China from 2000 to 2007. The value of legal environmental index in the table is the average of the legal environmental indices from 2000 to 2005 for each province of China, The legal environmental index is compiled by Fan and Wang (2007), and GDP per capita is retrieved from the Year Books of National Statistical Bureau of China.

		Legal			Legal
Province	GDP	Environmental	Province	GDP	Environmental
		Index (Law)			Index (Law)
ANHUI	7612.86	3.33	JIANGXI	7954.88	3.23
BEIJING	37458.21	7.87	JILIN	11442.75	4.12
CHONGQING	9009.25	3.41	LIAONING	16663.51	5.15
FUJIAN	16960.23	5.35	NINGXIA	8411.13	2.75
GANSU	6258.24	2.11	QINGHAI	8649.29	2.04
GUANGDONG	20560.37	8.19	SHAANXI	8247.13	2.62
GUANGXI	7361.22	3.40	SHANGDONG	16743.56	4.82
GUIZHOU	4285.28	2.41	SHANGHAI	48767.00	10.53
HAINAN	9709.75	4.12	SHANXI	9611.38	3.68
HEBEI	12524.03	3.86	SICHUAN	7853.75	4.07
HEILONGJIANG	12839.25	4.54	TIANJIN	30209.70	6.98
HENAN	9439.38	3.50	TIBET	7782.75	2.32
HUBEI	10470.51	3.80	XINJIANG	11221.38	4.05
HUNAN	8974.63	3.00	YUNNAN	6802.75	2.75
INNER MONGOLIA	12704.04	3.84	ZHEJIANG	23253.84	7.57
JIANGSU	20487.75	6.17			

**Appendix III: The Definition of the Variables Used in Our Analysis** 

Variables	Definition
Financial Variables	
CAPX	Capital expenditure scaled by beginning -of-year total assets
CF	Net operating cash flow, scaled by beginning -of-year total assets
Q	The market value of owners' equity and book value of total liabilities all divided
	by book value of total assets. The market value of tradable shares is calculated
	based on the year-end price in the stock markets. For non-tradable shares, we set
	their market price at book value.
Political-connection	ı Variables
Political	A dummy variable for whether the firm is politically connected. Political is equal
	to 1 if a firm's CEO or Chairman is currently or formerly a government official,
	and 0 otherwise
Financial Constrain	nt (FC) Variables
Age	A variable for the firm's listing history which is measured as the number of years
	since the firm's IPO.
$D\_Age$	A dummy variable for Age, $D\_Age$ is equal to 1 if the firm's Age is less than the
	sample median, and 0 otherwise.
Size	A variable for the firm's size, which is measured as the book value of firm's total
	assets (in Billion RMB Yuan).
$D\_Size$	A dummy variable for Size, $D\_Size$ is equal to 1 if the firm's size is less than the
	sample median, and 0 otherwise.
Tangibility	Tangibility is calculated by the following equation:
	Tangibility = (Cash + 0.715*Receivables + 0.547*Inventory + 0.535*Capital)/Total
	Assets, where Cash is firm's cash holdings, Receivables includes firm's
	Accounts Receivable and Other Receivables, Inventory is the firm's year-end
	Inventory, Capital is the value of net Property, Plant, and Equipment, and Total
	Assets is a firm's book value of Total Assets.
$D_{\_}$ Tangibility	A dummy variable for Tangibility, $D_{-}$ Tangibility is equal to 1 if firm's value of
	Tangibility is less than the sample median, and 0 otherwise.
GDP	Provincial-level GDP per capita in RMB Yuan for the 31 regions (provinces) in
	China, where the firm is located.
$D\_GDP$	A dummy variable for GDP, $D\_GDP$ is equal to 1 if the firm is located in the
	region whose GDP per capita is larger than the median of that for 31 provinces
	in China, and 0 otherwise.
Fortune500	A dummy variable for whether the firm's ultimate shareholder is listed in the top
	500 millionaires in the famous magazine <i>New Fortune</i> in China. If the ultimate
	owner appears in the list, then <i>Fortune500=1</i> , and 0 otherwise.
	ance (CG) Variables
AudCom	A dummy variable for whether there is an audit committee in the firm. If there is
	an audit committee in the firm, <i>AudCom</i> =1, otherwise, <i>AudCom</i> =0
Duality	A dummy variable for whether the CEO is separated from Chairman. If CEO is
	also the chairman of firm, <i>Duality</i> =1, otherwise, <i>Duality</i> =0.

Ownership	The largest shareholder's immediate ownership of the firm.
D Ownership	A dummy variable for Ownership. D Ownership is equal to 1 if the firms'
	largest shareholder's ownership is larger than the sample median, and 0 otherwise.
Independent	A measure of board independence, which is measured as the percentage of
	independent directors in the board of directors.
$D_{\_}$ Independent	A dummy variable for Independent. $D_{}$ Independent is equal to 1 if the ratios of
	independent directors are larger than the sample median, and 0 otherwise.
Law	A variable for legal environmental index for the region where the firms is
	located, which is measured by the number of lawyers as a percentage of the
	population, the efficiency of the local courts and protection of property rights,
	for each province or provincial level region in each year from 2000 to 2005.
	Because the data for years 2006 and 2007 are not available, we set the value of
	legal environment index as the same as that in 2005 for each region, which is
	reasonable considering about the stability of legal environment across these
	years. The data are compiled by Fan and Wang (2007).
$D_{\_}Law$	A dummy variable for Law. $D\_Law$ equals 1 if the provincial level of legal
	environmental index (Law) where the firm located is greater than the median
	value of sample, otherwise, $D_{\_}Law$ =0.
Control Variables	
1/TA	TA is total book value of assets in Billion RMB Yuan.
Sale	Net sales scaled by beginning-of-year total assets.
Leverage	the ratio of a firm's total liabilities over total assets.

# **Table 1 The Number and Percentage of Political Connected Family Firms**

This table reports the summary statistics of the number and percentage of politically connected family firms and total family firms listed in China's A-share capital market in the period 2000 to 2007. Following previous literature, firms whose Chairmen or CEOs are former or current government officials are defined as politically connected firms.

Year	2000	2001	2002	2003	2004	2005	2006	2007	Total
# of Politically Connected Family Firms	9	14	22	28	34	44	50	50	251
# of Family Firms	83	112	171	243	294	353	404	434	2094
Percentage of Politically Connected Family Firms (%)	10.84	12.50	12.87	11.52	11.56	12.46	12.38	11.52	11.99

**Table 2 Summary Statistics**This table reports the summary statistics of the financial variables used in our analysis.

Variable	Obs.	Mean	Std. Dev.	Min	Max	25%	50%	75%
CAPX	2094	0.07	0.09	0.00	1.05	0.01	0.03	0.09
CF	2094	0.04	0.11	-1.27	0.94	0.00	0.04	0.10
Q	2094	1.50	0.78	0.78	11.73	1.10	1.27	1.61
Age	2094	6.72	3.57	1.00	17.00	4.00	7.00	9.00
Size	2094	1.64	1.91	0.00	35.34	0.63	1.09	1.92
Tangibility	2094	0.55	0.64	0.03	1.12	0.48	0.53	0.60
GDP	2094	21144	13942	2662	66367	10546	16809	28332
Fortune 500	2094	0.30	0.46	0.00	1.00	0.00	0.00	1.00
AudCom	2094	0.37	0.48	0.00	1.00	0.00	0.00	1.00
Duality	2094	0.23	0.42	0.00	1.00	0.00	0.00	0.00
Independent	2094	0.32	0.11	0.00	1.00	0.33	0.33	0.36
Ownership	2094	0.31	0.13	0.01	0.81	0.22	0.29	0.39
Law	2094	6.20	2.90	1.15	13.07	3.82	5.51	8.55
Leverage	2094	0.59	0.66	0.01	16.33	0.38	0.52	0.65
Sale	2094	0.67	0.69	0.00	11.44	0.29	0.51	0.82

# Table 3 The Effect of Political Connection on Firm's Investment-Cash Flow Sensitivity

This table reports the effect of political connection status on the sensitivity of firm's investment on cash flow. All the continuous variables are *winsorized* at the 1% and 99% levels. The following *Fixed Effect Model* is used controlling for the firm and year fixed effects:

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times Q_{it-1} + \beta_5 \times Control + \mu_{it}$$
(1)

Our focus is the interaction term CF\*Political. Standard errors are reported in parentheses. \*,\*\*, and \*\*\* indicate the significance levels at 10%, 5%, and 1%, respectively.

CF	0.069***
	(0.018)
Q	0.001
	(0.005)
Sale	0.035***
	(0.006)
Leverage	-0.021***
	(0.006)
1/TA	0.009***
	(0.002)
Political	0.012
	(0.011)
CF*Political	-0.096**
	(0.041)
Constant	0.039***
	(0.012)
Year and Firm	
fixed-effects	Yes
# of Obs.	2094
# of Firms	489
R-squared	0.09

#### Table 4 The effect of Political Connection on Investment-Cash Flow Sensitivity for Firms Partitioned by Level of Financial Constraints

This table reports the effect of political connection status on the sensitivity of corporate investment on cash flow for financially constrained and financially unconstrained firms. Financial constraint is measured by different measures: *Age, Size, Tangibility, GDP, and Fortune500*. We classify those firms whose values of *Age, Size* and *Tangibility* are larger than the sample median into the group of firms who are financially unconstrained, and constrained otherwise. We also classify those firms who are located in regions with higher *GDP* per capita, and whose ultimate controllers are listed in the top 500 millionaires in China by *New Fortune* into the group of firms who are financially unconstrained, and constrained otherwise. All the continuous variables are *winsorized* at the 1% and 99% levels. We use the following *Fixed Effect Model* controlling for firm and year fixed effect:

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times Q_{it-1} + \beta_5 \times Control + \mu_{it}$$
(1)

	Α	Age	S	ize	Tang	gibility	GDP		Fortune500	
	Constrained	Unconstrained								
CF	0.142***	0.017	0.016	0.158***	0.105***	0.023	0.083*	0.066***	0.077***	0.065*
	(0.039)	(0.018)	(0.020)	(0.034)	(0.029)	(0.030)	(0.042)	(0.021)	(0.023)	(0.033)
Q	0.018	0.007	-0.009*	0.013	0.002	0.012	-0.001	0.003	-0.001	0.005
	(0.013)	(0.005)	(0.005)	(0.011)	(0.009)	(0.008)	(0.012)	(0.006)	(0.006)	(0.010)
Sale	0.061***	0.020***	0.031***	0.012	0.022***	0.030***	0.033***	0.039***	0.042***	0.024***
	(0.013)	(0.006)	(0.007)	(0.012)	(0.008)	(0.011)	(0.009)	(0.009)	(0.009)	(0.008)
Leverage	-0.041***	-0.010	-0.006	-0.148***	-0.038***	-0.014	-0.022	-0.020**	-0.017**	-0.064***
	(0.015)	(0.006)	(0.006)	(0.036)	(0.010)	(0.010)	(0.014)	(0.008)	(0.007)	(0.023)
1/TA	0.011*	0.004**	0.007***	0.121***	0.016***	0.004	0.010*	0.008***	0.009***	0.007
	(0.006)	(0.002)	(0.002)	(0.019)	(0.003)	(0.003)	(0.005)	(0.002)	(0.002)	(0.007)
Political	0.020	0.012	0.005	0.017	-0.001	0.024	0.019	0.009	0.001	0.046*
	(0.033)	(0.011)	(0.012)	(0.021)	(0.013)	(0.026)	(0.021)	(0.014)	(0.013)	(0.024)

CF*Political	-0.174*	-0.027	-0.175**	-0.101	-0.093*	0.046	-0.186*	-0.045	-0.123	-0.062
	(0.023)	(0.042)	(0.086)	(0.062)	(0.067)	(0.089)	(0.101)	(0.053)	(0.095)	(0.057)
Constant	0.045*	0.010	0.033**	-0.007	0.047**	0.047**	0.063**	0.030**	0.042***	0.053**
	(0.023)	(0.016)	(0.013)	(0.035)	(0.019)	(0.020)	(0.027)	(0.014)	(0.016)	(0.022)
Year and firm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
fixed-effects										
#of Obs.	1020	1074	1046	1048	1047	1047	649	1445	1460	634
# of Firms	345	319	311	289	335	364	155	361	359	131
R-squared	0.16	0.05	0.08	0.24	0.12	0.11	0.14	0.09	0.09	0.13

# Table 5 The Difference of the Effect of Political Connection on Investment-Cash Flow Sensitivity between Firms with Different Level of Financial Constraints

This table reports whether the effect of political connection status on the sensitivity of corporate investment on cash flow for financially constrained and financially unconstrained firms are significantly different. Financial constraint is measured by different measures: *Age, Size, Tangibility, GDP, and Fortune 500*. The definition of all variables can be found in Appendix III. All the continuous variables are *winsorized* at the 1% and 99% levels. We use the following *Fixed Effect Model* controlling for firm and year fixed effect:

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times CF_{it} \times FC_{it}$$
$$+\beta_5 \times CF_{it} \times Political_{it} \times FC_{it} + \beta_6 \times Q_{it-1} + \beta_7 \times Control + \mu_{it}$$
(2)

	Age	Size	Tangibility	GDP	Fortune 500
CF	0.141***	0.018	0.122***	0.104***	0.081***
	(0.029)	(0.024)	(0.026)	(0.039)	(0.022)
Q	0.001	0.002	0.002	0.002	0.002
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Sale	0.035***	0.034***	0.036***	0.035***	0.035***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Leverage	-0.020***	-0.020***	-0.021***	-0.020***	-0.020***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
1/TA	0.009***	0.010***	0.010***	0.009***	0.009***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Political	0.011	0.014	0.011	0.012	0.011
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
CF*Political	-0.148*	-0.254**	-0.143**	-0.199**	-0.134
	(0.091)	(0.102)	(0.065)	(0.096)	(0.091)
CF*D_Age	-0.110***				
	(0.036)				
CF*Political*D_Age	0.105*				
	(0.014)				
CF*D_Size		0.135***			
		(0.037)			
CF*Political*D_Size		0.145**			
		(0.107)			
CF*D_Tangibility			-0.093***		
			(0.035)		
CF*Political*D_Tangibility			0.116*		
			(0.072)		
CF*GDP				-0.039	
				(0.044)	

CF*Political*D_GDP				0.150*	
				(0.090)	
CF×Fortune500					-0.029
					(0.042)
CF×Political×Fortune500					0.085
					(0.110)
Constant	0.039***	0.038***	0.039***	0.039***	0.040***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Year and firm fixed-effects	Yes	Yes	Yes	Yes	Yes
# of Obs.	2094	2094	2094	2094	2094
# of firms	489	489	489	489	489
R-squared	0.10	0.11	0.10	0.10	0.10

#### Table 6 The Effect of Political Connection on Investment-Cash Flow Sensitivity for Firms Partitioned by Quality of Corporate Governance

This table reports the effect of political connection status on the sensitivity of corporate investment on cash flow for firms with good corporate governance and poor corporate governance. Corporate governance is measured by different measures: *AudCom, Duality, Ownership, Independent, and Law.* Following the literature, we classify those firms who have an audit committee, whose CEOs are separated from Chairmen, whose largest shareholder's ownership is higher than the median ownership in the sample, whose ratio of independent directors in the board is larger than the median value of the sample, and who are located in regions with better legal environment are firms with good corporate governance, and poor corporate governance otherwise. All the continuous variables are *winsorized* at the 1% and 99% levels. We use the following *Fixed Effect Model* controlling for firm and year fixed effect:

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times Q_{it-1} + \beta_5 \times Control + \mu_{it}$$
(1)

	Au	dCom	Dι	ality	Ow	nership	Inde	Independent		Law	
	Poor	Good	Poor	Good	Poor	Good	Poor	Good	Poor	Good	
CF	0.060**	0.120***	0.037	0.072***	0.061**	0.063**	0.078***	0.060*	0.123***	0.070***	
	(0.024)	(0.034)	(0.054)	(0.020)	(0.027)	(0.029)	(0.028)	(0.031)	(0.044)	(0.021)	
Q	0.008	-0.007	0.003	0.002	0.012	-0.013	0.005	-0.005	0.007	0.005	
	(0.007)	(0.011)	(0.020)	(0.006)	(0.008)	(0.008)	(0.008)	(0.010)	(0.014)	(0.006)	
Sale	0.032***	0.045***	0.064***	0.028***	0.047***	0.031***	0.027***	0.034***	0.024**	0.042***	
	(0.007)	(0.013)	(0.022)	(0.007)	(0.013)	(0.007)	(0.009)	(0.010)	(0.010)	(0.009)	
Leverage	-0.021***	-0.020*	-0.182***	-0.022***	-0.022**	-0.020**	-0.021**	-0.017	-0.011	-0.022***	
	(0.008)	(0.011)	(0.054)	(0.006)	(0.009)	(0.010)	(0.009)	(0.011)	(0.014)	(0.007)	
1/TA	0.006**	0.012***	-0.003	0.011***	0.008**	0.012***	0.009**	0.010***	0.003	0.009***	
	(0.003)	(0.004)	(0.009)	(0.002)	(0.003)	(0.003)	(0.004)	(0.003)	(0.009)	(0.002)	
Political	0.007	0.036*	0.035	0.002	0.021	-0.001	0.014	0.014	0.035	0.001	
	(0.015)	(0.019)	(0.037)	(0.013)	(0.016)	(0.021)	(0.015)	(0.022)	(0.021)	(0.014)	

CF*Political	-0.110*	-0.014	-0.018	-0.125**	-0.035	-0.095	-0.053	-0.215**	-0.244**	-0.043
	(0.056)	(0.093)	(0.117)	(0.058)	(0.080)	(0.064)	(0.061)	(0.092)	(0.102)	(0.054)
Constant	0.038***	0.074	0.151***	0.039***	0.022	0.058***	0.042***	0.037	0.067**	0.022
	(0.014)	(0.077)	(0.057)	(0.013)	(0.019)	(0.018)	(0.016)	(0.045)	(0.028)	(0.015)
Year and firm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
fixed-effects										
# of Obs.	1324	770	477	1617	1049	1045	1323	771	516	1578
# of firms	359	199	204	446	289	304	405	326	149	396
R-squared	0.09	0.14	0.15	0.11	0.09	0.12	0.09	0.13	0.16	0.10

# Table 7 The Difference of the Effect of Political Connection on Investment-Cash Flow Sensitivity for Firms with Different Quality of Corporate Governance

This table reports whether the effect of political connection status on the sensitivity of corporate investment on cash flow for firms with good corporate governance and poor corporate governance are significantly different. Corporate governance is measured by different measures: *AudCom, Duality, Ownership, Independent, and Law.* The definitions of all variables can be found in Appendix III. All the continuous variables are *winsorized* at the 1% and 99% levels. We use the following *Fixed Effect Model* to control for firm and year fixed effect:

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times CF_{it} \times CG_{it}$$
$$+\beta_5 \times CF_{it} \times Political_{it} \times CG_{it} + \beta_6 \times Q_{it-1} + \beta_7 \times Control + \mu_{it}$$
(3)

	AudCom	Duality	Ownership	Independent	Law
CF	0.050**	0.073***	0.074***	0.079***	0.083**
	(0.022)	(0.021)	(0.026)	(0.025)	(0.042)
Q	0.001	0.002	0.002	0.002	0.002
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Sale	0.034***	0.035***	0.035***	0.035***	0.036***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Leverage	-0.020***	-0.020***	-0.020***	-0.021***	-0.020***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
1/TA	0.010***	0.009***	0.009***	0.009***	0.009***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Political	0.012	0.011	0.010	0.011	0.012
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
CF*Political	-0.099*	-0.120**	-0.045	-0.052	-0.214**
	(0.055)	(0.060)	(0.076)	(0.057)	(0.102)
$CF \times AudCom$	0.073*				
	(0.039)				
CF×Political×AudCom	0.083				
	(0.107)				
$CF \times Duality$		0.003			
		(0.040)			
CF×Political×Duality		0.089			
		(0.096)			
$CF \times Ownership$			-0.000		
			(0.036)		
CF×Political×D_Ownership			-0.060		
			(0.096)		
CF×Independent				-0.013	
				(0.035)	

CF×Political×D_Independen	-0.118				
				(0.099)	
$CF \times Law$		-0.012			
					(0.046)
CF×Political×D_Law					0.165
					(0.115)
Constant	0.041***	0.039***	0.039***	0.039***	0.039**
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Year and firm fixed-effects	Yes	Yes	Yes	Yes	Yes
# of Obs.	2094	2094	2094	2094	2094
# of firms	489	489	489	489	489
R-squared	0.10	0.10	0.10	0.10	0.10

# **Table 8 Political Connection Effect: Financial Constraint vs. Corporate Governance**

This table reports the results for the comparison of financial constraint and corporate governance. Every regression includes one financial constraint variable and one corporate governance variable. The definitions of the variables are the same as above. All the continuous variables are *winsorized* at the 1% and 99% levels. The following fixed effect model is used to control for firm and year fixed effect.

$$CAPX_{it} = \alpha + \beta_1 \times CF_{it} + \beta_2 \times Political_{it} + \beta_3 \times CF_{it} \times Political_{it} + \beta_4 \times CF_{it} \times FC_{it}$$

$$+\beta_5 \times CF_{it} \times Political_{it} \times FC_{it} + \beta_6 \times CF_{it} \times CG_{it} + \beta_7 \times CF_{it} \times Political_{it} \times CG_{it}$$

$$+\beta_8 \times Q_{it-l} + \beta_9 \times Control + \mu_{it}$$
 (4)

For brevity, we only tabulate the values of  $\beta_5$  and  $\beta_7$  in this table. Standard errors are reported in parentheses. \*,\*\*, and \*\*\* indicate the significance levels at 10%, 5%, and 1%, respectively.

Independent Variables	CG= AudCom	CG= Duality	CG= Ownership	CG= Independent	CG= Law		
	Panel A: FC=Age						
$CF \times Political \times FC$	0.264**	0.231*	0.237*	0.182*	0.265**		
	(0.129)	(0.129)	(0.131)	(0.126)	(0.129)		
$CF \times Political \times CG$	0.147	-0.092	0.030	-0.103	0.089		
	(0.223)	(0.120)	(0.125)	(0.123)	(0.148)		
	Panel B: FC=Size						
$CF \times Political \times FC$	0.272**	0.303***	0.278**	0.259**	0.263**		
	(0.111)	(0.113)	(0.111)	(0.124)	(0.112)		
$CF \times Political \times CG$	0.142	0.127	-0.057	-0.037	0.123		
	(0.101)	(0.089)	(0.089)	(0.102)	(0.106)		
	Panel C: FC= Tangibility						
$CF \times Political \times FC$	0.144*	0.145*	0.152*	0.168*	0.137*		
	(0.089)	(0.086)	(0.083)	(0.097)	(0.092)		
$CF \times Political \times CG$	0.085	0.104	-0.116	-0.112	0.171		
	(0.108)	(0.100)	(0.099)	(0.110)	(0.115)		
	Panel D: FC=GDP						
$CF \times Political \times FC$	0.319**	0.312**	0.309**	0.267*	0.252		
	(0.137)	(0.146)	(0.144)	(0.158)	(0.352)		
$CF \times Political \times CG$	-0.166	-0.003	-0.016	-0.067	0.058		
	(0.226)	(0.120)	(0.118)	(0.128)	(0.350)		
	Panel E: FC= Fortune500						
$CF \times Political \times FC$	0.108	0.091	0.082	0.063	0.072		
	(0.110)	(0.110)	(0.110)	(0.111)	(0.110)		
$CF \times Political \times CG$	0.087	0.094	-0.060	-0.117	0.159		
	(0.108)	(0.097)	(0.096)	(0.100)	(0.115)		