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Publication date:
2012

Document Version
Peer reviewed version

[Link to publication in Tilburg University Research Portal](#)

Citation for published version (APA):

Wu, W., Johan, S. A., & Rui, O. M. (2012). *Institutional investors, political connections and incidence of corporate fraud*. (TILEC Discussion Paper; Vol. 2012-042). TILEC.

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TILEC

TILEC Discussion Paper

DP 2012-042

Institutional Investors, Political Connections and Incidence of Corporate Fraud

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November 27, 2012

ISSN 1572-4042

ISSN 2213-9419 <http://ssrn.com/abstract=2181958>

Institutional Investors, Political Connections and Incidence of Corporate Fraud

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Abstract

In this study, we analyze two new potential determinants for mitigating fraud committed by firms: institutional investors and political connection. The role of institutional investors in the effective monitoring of firm management has also been well established and we in turn observe that firms with a large proportion of institutional investors have lower incidences of corporate fraud. The importance of political connection for enterprise in both developed and emerging markets such as the United States and China has also been established by prior studies. We find in this paper that it is possible to identify another positive effect on enterprise in that political connection could reduce incidences of corporate fraud, thus providing value to firms. We further find that political connection plays more pronounced role in reducing the incidence of regulatory enforcement against non-state owned enterprises in weaker legal environments, while institutional ownership plays a more important role in reducing the incidence of regulatory enforcement against state owned enterprises in weaker legal environments.

JEL Classification: G15, G18, K22

Keywords: Fraud; Political connection; Institutional investor; China

1. Introduction

Media reports of fraud carried out by the management of large corporations and financial institutions (e.g., Enron, Lehmann Brothers) arouse public attention and influence investor confidence as these cases bring into question the integrity of other firms and their executives who have gained the trust of the public and more significantly, their investors. Corporate and financial frauds have also been well documented in the finance and accounting academic literature as it is interesting to analyze what went wrong and how such frauds could potentially be avoided in the future to protect existing and future investors. These prior studies, mostly using US data, show that a number of factors are associated with the incidence of fraud, especially factors related to corporate governance (Beasley, 1996; Beasley et al., 2000; Dechow et al., 1996; Uzun et al., 2004).

In the examination of the accounting and auditing enforcement actions by Securities and Exchange Commission in the U.S. (SEC), Beasley (1996) shows that the incidence of financial statement fraud is negatively related to proportion, tenure and share ownership of outside directors. Uzun et al. (2004) find similar results for proportion of independent outside directors using the corporate fraud cases collected from the Wall Street Journal. Dechow et al. (1996) and Beasley et al. (2000) report that an audit committee helps minimize fraud. However, a study by Agrawal and Chadha (2005) suggests that the likelihood of earnings misstatement is lower only if at least one outside director on the board and on the audit committee has accounting or finance background. Chen et al. (2006) examine the impact of ownership structure and boardroom

characteristics on corporate financial fraud in China and they find that the proportion of outside directors, number of board meetings and tenure of chairman are also significant factors in explaining the incidence of fraud. A few studies have further examined the reaction of enforcement actions on fraud. Ding et al. (2010) study the dynamics between enforcement actions and the responses from both the board of directors and supervisory boards. Jia et al. (2009) find that supervisory boards play an active role when firms face enforcement action in China while Hou and Moore (2011) examine the effect of state ownership on China's regulatory enforcement against fraud. Chen et al. (2005) show that there is a negative stock price reaction for the announcement of enforcement actions.

Following the extant literature, we introduce two new potential determinants of mitigating the incidence of fraud by firms: proportion of institutional investors and political connection. Like many of the studies listed above, we do this by analyzing data from Chinese firms. We do this for the following reasons. Both agency theory and empirical evidence suggest that ownership structure affects the incentives to monitor and control management (Morck, Shleifer and Vishny, 1989; Shleifer and Vishny, 1986, 1994; Tirole, 2001). In particular, it has been suggested that large shareholders such as institutional investors are more effective in monitoring firm management (Franks and Mayer, 2001; Kang and Shivdasani, 1995; Shleifer and Vishny, 1986). The Chinese government within the last decade has made concerted efforts to increase institutional ownership within Chinese firms. With increased levels of institutional investor ownership in Chinese firms, institutional investors are incentivized to monitor investee firms closely and to curb the incidence of corporate fraud. We argue that firms with a large proportion

of institutional investors tend to have lower incidences of fraud.

While the Chinese government has made a strategic decision to cultivate institutional investors in China, political connection is still undoubtedly prevalent in that emerging market. The growing body of research into the impact of political connections find that political connections are valuable, as ties with the government help firms to gain comparative advantages, which enhance firm performance and value (Fan et al., 2008; Fisman, 2001; Goldman et al., 2009; Johnson and Mitton, 2003; Li et al., 2008; Wu et al., 2012). Such advantages include access to key resources, including bank loans granted at favorable terms (Charumilind, Kali, and Witwattanakantang 2006; Claessens et al., 2008), favorable tax treatment (Adhikari et al., 2006; Faccio, 2006), a higher IPO offering price (Francis et al., 2009), and government bailouts during financial distress (Faccio et al., 2006). We argue that political relation is a personal asset that is based on reputational capital and therefore it is in the interest of the politically connected CEO or Chairman to maintain his or her reputation by increased monitoring of the firm managers or by using his or her political clout to obtain privileges to maintain firm value. Chen et al. (2005) contend that enforcement actions reduce firm value. Firms with political connections are more likely to have lower incidences of fraud.

Using 966 enforcement announcements made by firm regulators, the China Securities Regulatory Commission (CSRC), Shanghai Stock Exchange and Shenzhen Stock Exchange from 2003 through 2011, we examine how proportion of institutional ownership and political connection may or may not mitigate the incidence of corporate fraud in firms. In China, the CSRC is responsible for both the investigation of accusations of corporate fraud carried out by

listed firms and securities firms and the enforcement of securities regulation for listed firms, securities firms and stock exchanges. Violations of securities regulations are published in the media (e.g., Securities Times and Shanghai Securities Daily) as designated by the CSRC. The types of violations include illegal share buybacks, inflated profits, assets fabrication, unauthorized change in fund use, violation in capital contribution, shareholder embezzlement, price manipulation, illegal guarantee and speculation. The violations may involve the firm, management and shareholders. Enforcement actions include fines, public criticism, administrative punishment, warning and delisting. We find that the firms with a larger proportion of institutional investors and political connected firms are less likely to face enforcement action in China.

Furthermore, we investigate how state ownership (the most obvious of political connections) affects the association between the political connection and incidence of fraud. Wu et al. (2012) argue that compared with politically connected managers in state-owned enterprises (SOEs), politically connected managers in private non-SOEs will help firms gain privilege or favorable treatment from the government more significantly. We believe a similar inference may be made regarding the treatment of potential regulatory violations. As such, we carry out regressions with partitioned samples between SOEs and non-SOEs. We find that political connection plays a more important role in reducing the incidence of fraud among non-SOEs, while the effective monitoring carried out by institutional investors is more pronounced for SOEs in reducing the incidence of corporate fraud.

We also seek to determine whether the institutional environment could play a role in the

incidence of fraud among firms with political connections and among firms with higher levels of institutional ownership. Following prior studies, we use the widely used market development index compiled by Fan et al. (2010) to capture the regional differences in institutions in China (Wang et al., 2008). We find that political connection and institutional investors play a more important role in reducing the incidence of fraud within weaker legal environments.

We organize the remainder of the paper as follows. The next section briefly reviews literature and develops the hypotheses. Section 3 discusses the research design and sample characteristics. The empirical results are discussed in section 4. Conclusions are presented in the last section.

2. Literature and Hypotheses

2.1 Institutional shareholders

An increasingly important external control mechanism affecting governance worldwide is the emergence of institutional investors as equity owners. Gillian and Starks (2003) posit that the rise of professional money managers as a large shareholder group in corporations worldwide offers the potential for increased monitoring of firm management. Institutional investors have the potential to influence management's activities directly through their ownership (Shleifer and Vishny, 1986; Admati, Pfleiderer, and Zechner, 1994), and potentially indirectly with the threat of divesting their shares (Gillian and Starks, 2003). However, only large shareholders have sufficient incentives to monitor because all shareholders benefit from the actions of a monitoring shareholder without necessarily incurring the added costs. Hartzell and Starks (2003) provide

empirical evidence suggesting that institutional investors serve a monitoring role with regard to executive compensation contracts. Agrawal and Mandelker (1990) find that firms with greater institutional ownership have larger stock price reactions upon the announcement of anti-takeover amendment adoption.

In the past decade, the Chinese government has cultivated institutional investor ownership in Chinese firms. For example, in 2000 CSRC started to accelerate the development of mutual funds in domestic stock markets. In 2003, the QFII system was introduced to allow foreign investors to invest directly in China's domestic stock market. Top international investment banks, such as Citigroup, Credit Suisse First Boston, Goldman Sachs, HSBC, and Nomura Securities promptly applied for, and received, their licenses. The national social security fund and insurance companies were allowed to invest in domestic listed firms in 2003 and 2004, respectively. The ownership of firms by institutional investors has grown progressively in the past decade, especially by mutual funds. According to the CSRC statistics, the total net value of mutual funds was US\$10 billion by end 2002. As at end 2011, the total net value of mutual funds was over US\$421 billion (RMB 2651 billion) and there were 70 mutual fund management companies and 919 mutual funds in China. The mean mutual funds' ownership in our sample firms represents about 7.69% of the total number of A-shares. At the end of 2011, 176 foreign institutions obtained the QFII licenses with a combined investment quota of US\$42 billion.

The success of China's regulatory effort to promote institutional investors (such as mutual funds) as a corporate governance mechanism is supported by extant literature. Yuan et al. (2008) find that equity ownership by mutual funds has a positive effect on firm performance. Their

results are robust to several measures of firm performance and various estimations. This suggests that in China institutional shareholders play an important role in monitoring corporate managers. The involvement of institutional investors can range from keeping management in line with the threat of the sale of shares to the active use of corporate voting rights in proxy contests. Thus we expect the monitoring role of the institutional investors to reduce the incidences of corporate fraud.

H1: Institutional investor ownership mitigates the incidence of fraud among investee firms.

2.2. Political connection

Extant literature tells us that politically connected firms, whose board members, top management, or major stockholders have a relationship with someone in government, may garner value from governments such as the awarding of licenses, government contracts, bailouts for distressed firms, and planning permissions (Charumilind et al., 2006; Dinc, 2005; Faccio, Masulis, and McConnell 2006; Fisman 2001; Johnson and Mitton 2003; Leuz and Oberholzer-Gee 2006; Khawajia and Mian 2005). Especially in countries with interventionist governments and weak protection of property rights, the value of political connections is found to be more pronounced (Faccio, 2006).

Among emerging markets, China is most commonly associated with interventionist government and weak protection of property rights. Its legal institutions are regarded as government-driven, and not citizen-driven or litigant-driven (Clarke, Murrell, and Whiting, 2006). Gong (2004) also points out that China's judiciary operates as an administrative unit

within the political system, with its authority derived from the state rather than from the law. It therefore follows that the value of political connection among Chinese firms is palpable. Hiring politically connected managers is a feasible and effective way for private firms to overcome market- and state-level disadvantages and obtain favorable treatment from the government. Following Fan, Wong, and Zhang (2007), we define a CEO as politically connected if he or she is currently serving or formerly served in the government or military. However, we extend their exploration of the political connectedness of CEOs to include Chairmen, as both are important in China. To maintain the value of this connection, we believe that politically connected managers will also act as an external control mechanism and monitor their companies to ensure that there is no erosion of their own personal reputational goodwill. The firm itself will also seek to maintain the value of its political connection to ensure continuous favorable treatment and seek to avoid regulatory, or governmental, censure. Politically connected managers however may use their connections to help their firms to mitigate the potential for enforcement. Political connection can bring certain privileges in the regulatory environment, in that enforcement in the form of fines, public criticism, administrative punishment, warning and even delisting may be eased or even avoided. Based on the abovementioned discussion, we frame our hypothesis as follows:

H2: Firms with political connections are less likely to face enforcement action in China.

2.3. State Owned Enterprises

As previous studies have found, the value of political connection is mainly derived from the advantage of obtaining key resources from the government (Adhikari et al., 2006; Claessens et

al., 2008). SOEs are obviously the most directly politically connected firms. For private firms that are non-SEOs, it is clear that more tenuous political connections can put them at a disadvantage compared with SOEs, especially in transitional economies, which typically lack property rights protection and the market-supporting institutions needed by private firms (McMillan, 1995). Retaining politically connected managers is a feasible and effective way for private firms to overcome market- and state-level disadvantages and potentially obtain favorable treatment from the government and its agencies.

However, the resource-based value of political connectivity is still likely to be influenced by government ownership as limited resources are controlled by the government. SOEs have direct ties with the government, and the government ownership link is more explicit and stable than a personal, more reputation based link with the government through a politically connected manager. Thus, government ownership tempers the monitoring benefits of the politically connected managers. Non-SOEs' having a connected manager will seek to ensure and maintain favorable treatment from the government which is not guaranteed as it is not state owned. Therefore, in this study we predict that the presence of politically connected managers in non-SOEs is more likely to reduce the incidence of fraud than those in SOEs.

The impact of institutional investor on the reduction of fraud may also be different between SOEs and non-SOEs. While private owners tend to seek to maximize their personal wealth, SOEs tend to have more strategic, or political objectives, which include maximizing employment and wages; promoting regional development; ensuring national security; providing low-prices goods and services; and producing unnecessary goods. These political objectives can lead to poor

incentives and weak corporate governance for SOEs (Conyon and He, 2011). Thus, non-SOEs should have better corporate governance than SOEs. It follows therefore that institutional investors will be incentivized to monitor their investments in SOEs more than non-SOEs. Consequently, the external monitoring role of institutional investors on reducing frauds should be more pronounced for SOEs.

We hypothesize as follows.

H3a: Political connection plays more important role in mitigating the incidence of fraud in non-SOEs.

H3b: Institutional ownership plays more pronounced role in mitigating the incidence of fraud in SOEs.

2.4. Legal environment

Many studies argue that a country's institutional and legal environment, including the enactment and enforcement of laws, is crucial for creating sustainable growth and fostering entrepreneurial spirit (North 1990). As Faccio (2006) points out, the favorable treatment enjoyed by firms with political connections is found to be more pronounced in countries with interventionist governments and weak protection of property rights because political connection are more likely to bring more privileges under such environment. Thus, we expect that the role of political connection in reducing the incidence of regulatory enforcements will be found to be more pronounced in regions with the weaker legal environment.

On the other hand, institutional and legal environment could exert profound influence on the

behavior and governance of firms. For example, La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997) argue that corporate governance is stronger where the legal system is based on common law as opposed to civil law. As Chen et al. (2009) document, better firm-level and self-disciplined corporate governance will be more valuable in regions with weak investor protection, as investors cannot rely on legal systems alone to monitor the controlling shareholder and management. As a firm-level corporate governance mechanism, the role of institutional investors is also affected by the legal (investor protection) environment. Thus, we expect that the effectiveness of institutional investors in reducing incidences of corporate fraud may be greater in regions with weak legal and investor protection. Based on the foregoing discussion, we hypothesize that:

H4a: Political connection plays a more important role in reducing the incidences of regulatory enforcements in weaker legal environments.

H4b: Institutional ownership plays a more pronounced role in reducing the incidences of regulatory enforcements in weaker legal environments.

3. Research Design

3.1. Data and Sample

We collect 966 regulatory enforcement announcements made by CSRC, Shanghai Stock Exchange and Shenzhen Stock Exchange during the period 2003-2011. We exclude firms in the finance industry. We believe our data includes all cases where fraud is detected, although, as noted before, cases of minor infractions are not publicly disclosed. Our sample period begins at

2003 because listed firms started to disclose percentages held by institutional investors such as mutual funds in 2003. The original data are collected from Winds and CSMAR data. The yearly and industry distribution of firms is shown in Panel A and Panel B of Table 1. The industry distribution of fraud is representative of the number of listed firms in an industry sector, except for the property (real estate) sector, which has a higher incidence of financial fraud.

In panel C of Table 1, we show the distribution of cases across provinces. Column 1 lists the province, column 2 and 3 gives the development and legal score of the province (MINDEX and MLEGAL), column 4 shows the number of fraud cases, and column 5 expresses the number of fraud cases as a proportion of the total number of listed firms in the province. As panel C shows, Shanghai has the highest development score of 10.972. During the period of our study, 53 enforcement actions were made against firms located in Shanghai and this represents about 4% of the listed firms in the city. There is no obvious pattern in panel C. Fraud does not appear to be confined to those provinces with higher development scores or to those with lower scores. To more formally test this, we use the index of market development (MINDEX) in our multivariate analyses.

Table 1 here

The panel A of Table 2 gives a breakdown of the type of violation, using the categories supplied by the CSRC. The main violations are postponement or delay in disclosure, major information omission and false statements which cover fabrication of facts that appear in statements other than accounting reports. In total there are 1449 types of violation for the 966

enforcement announcements, so some firms had multiple violations. Panel B shows a breakdown of the type of enforcement actions. Some firms had multiple enforcement actions, as in total there are 1268 enforcement actions against 966 announcements. About 20% of the penalties consist of public condemnation. Monetary fines, the most serious penalty, account for about 18% of the sanctions.

 Table 2 here

3.2. Model Specification

To empirically test the predictions in our abovementioned hypotheses, we analyze the following probit model on the full sample enforcement announcements:

$$\begin{aligned}
 \text{FRAUD} = & \beta_0 + \beta_1 \text{POLITICAL CONNECTION} + \beta_2 \text{INSTITUTIONAL INVESTORS} \\
 & + \beta_3 \text{LARGEST SHAREHOLDER} + \beta_4 \text{TOP10} + \beta_5 \text{AUDITOR} + \beta_6 \text{BOARDSIZE} \\
 & + \beta_7 \text{INDEPENDENT} + \beta_8 \text{SIZE} + \beta_9 \text{LEV} + \beta_{10} \text{GROWTH} + \beta_{11} \text{LOSS} \\
 & + \beta_{12} \text{MINDEX} + \text{Industry and Year dummies} \tag{1}
 \end{aligned}$$

where FRAUD is an indicator variable taking the value one if the firm is subject to an enforcement action. Institutional investor shareholding and political connection are the main experimental variables in our study. INSTITUTIONAL INVESTORS, the proportion of institutional investors, is the sum of percentage shares held in a firm by mutual funds, securities companies, insurance companies, national social security fund and Qualified Foreign Institutional Investor (QFII). If our hypothesis H1 holds, we would expect the coefficient on INSTITUTIONAL INVESTORS to be negative. POLITICAL CONNECTION is an indicator

variable taking the value one if the firm has retained a politically connected CEO and/or Chairman, and zero otherwise. Following Fan, Wong, and Zhang (2007), we define a CEO as politically connected if he or she is currently serving or formerly served in the government or military. However, we extend their exploration of the political connectedness of CEOs to include Chairmen, as both are important in China. If our hypothesis H2 holds, we would expect the coefficient on POLITICAL CONNECTION to be negative. We also include the following controlling variables identified from prior studies. LARGEST SHAREHOLDER is the percentage ownership of the firm held by the largest shareholder. TOP10 is a Herfindahl index that measures the concentration of shares held by the top 10 stockholders excluding the controlling one. $TOP10 = \sum_{n=2}^{10} \left(\frac{S_n}{S}\right)^2$ where S_n is the number of shares held by the nth largest stockholder, and S is the number of total outstanding shares. These indicator variables have been included in the model to proxy for ownership structure characteristics. AUDITOR is an indicator variable taking the value of one if the auditor of the firm is one of the 10 biggest auditors by market share. The auditing profession is relatively new in China therefore there is as yet no clearly defined set of ‘well-known’ or ‘prestigious’ auditors. Nevertheless we do attempt to partition auditors on the basis of market share by ranking Chinese CPA firms by market share of clients’ assets and then identifying the 10 highest. Using market share to measure audit quality is very common (DeAngelo, 1981). Chen et al. (2006) also use a Big 10 classification (auditors with the ten highest market shares) as a proxy for high audit quality in China. To measure board characteristics, we use BOARDSIZE which is the log of number of board members and

INDEPENDANT is the percentage of independent directors. The following financial variables are also used in the incidence of fraud model. SIZE is the natural log of total assets at the beginning of the year, and is used to capture size effects of the fraud. We include LEV to control for the ratio of debt to total assets of the firm, which serves as a measure of financial difficulties as we believe companies with high levels of leverage are more likely to be investigated by the CSRC. We base our belief on Loebbecke et al. (1989) and Bell et al. (1991), who contend that firms in financial trouble are more likely to be examined for financial statement fraud. They further argue that very rapid growth is an indicator of fraud in the US. To control for growth effect, we include GROWTH as an indicator variable, which is the value of annual average sales growth in the three years prior to the date of the financial fraud. In China, if a firm records losses over two consecutive years, it will be specially treated (“ST”). If a third year of losses is reported then trading of the shares will be suspended on the stock exchange. Firms usually try to avoid to be specially treated to avoid extra regulatory oversight. LOSS is therefore included as an indicator variable taking the value of one if the firm has recorded a loss in each of the prior two years.

A strong characteristic of China’s reform process is the uneven distribution of wealth and growth across the different provinces (Demurger et al., 2002). As the degree of market development could have an effect on the propensity to commit corporate fraud, it is important that we account for this in our model. To accomplish this we use a comprehensive index (MINDEX) compiled by Fan et al. (2010) as a proxy of the market development of a province. The index captures the regional market development from the following aspects: (1) relationship

between government and markets, such as the role of markets in allocating resources and enterprise burden in addition to normal taxes; (2) the development of non-state business, such as the ratio of industrial output by the private sector to total industrial outputs; (3) development of product markets, such as regional trade barriers; (4) development of factor markets such as FDI and mobility of labor; (5) development of market intermediaries and legal environment such as protection of property rights. Higher scores equate to greater market development. We also use MLEGAL, the fifth sub-index of MINDEX, which represents the development of market intermediaries and legal environment, as a robustness check. Regional rankings based on MINDEX and MLEGAL are very similar.

4. Empirical Findings

4.1. Descriptive Statistics

The details of the variable construction are found in Appendix A. A list of all of these variables, as well as their summary statistics, is provided in Table 3. Approximately 26% of firms are politically connected in China. The institutional investors hold more than 8% of shares outstanding. As mentioned in an earlier section, institutional investors is the sum of percentage shares held by mutual fund, securities companies, insurance companies, social security fund and Qualified Foreign Institutional Investor (QFII). Among them, the mutual funds have the highest ownership. On average, the largest shareholder holds around 37% of the total outstanding shares. The BIG10 auditors in China account for 16% of the market share. The proportion of independent directors is 35.2%. Of all firms, 3.8% have suffered losses over two consecutive

years.

Table 3 here

4.2. Regression Results

We report the results of main regression models in Table 4. We only include those control variables in Model 1. We find the ownership of the largest shareholder reduces the likelihood of the incidence of. Model 1 shows that there is a negative relationship between proportion of independent directors and incidence of fraud. These results suggest that the largest shareholder and independent directors play a monitoring role in reducing the likelihood of fraud. Larger firms and more profitable firms are less likely to commit fraud. We find that financial leverage (LEV) and financial distress (LOSS) have a positive impact on fraud. The coefficients on AUDITOR and other variables are not significant. All these results are consistent with prior literature on corporate fraud.

We include our main variable political connection in Model 2. The coefficient of political connection is negative and statistically significant. It is consistent with our hypothesis H2 that political connection decreases the incidence of regulatory enforcements against firms. It indicates that the retaining politically connected CEOs and/or Chairmen can bring certain privileges in the regulatory environment, in that enforcement in the form of fines, public criticism, administrative punishment, warning and even delisting may be eased. We add the aggregate institutional investor ownership in Model 3. The coefficient of institutional investors is negative and

statistically significant. It supports our hypothesis H1 that institutional investor monitoring decreases the incidence of regulatory enforcement against fraud. It implies that institutional investors can potentially play an increasingly important role in the external control mechanisms in China. They are effective in monitoring firm management and reducing the likelihood of corporate frauds. We then separate institutional investors into different types: mutual fund, security companies, insurance companies, social insurance fund and QFII in Model 4. We find the coefficient on mutual fund is significant and those on the other institutional investors are not significant. It implies that larger mutual fund ownership in firms incentivizes effective monitoring. In the latter analysis, we use the ownership of mutual funds as a proxy for institutional investors. When we include both political connection and institutional investors in Model 5, the coefficients on both variables are significant.

Table 4 here

We examine the association between political connection, institutional investors and fraud under different ownership in Table 5. We investigate the ownership of listed firms in China based on the identity of the largest shareholder, that is, the ultimate owner, following the recent literature (La Porta et al., 1999; Bortolotti and Faccio, 2009). We classify our sample based on whether the firm is government controlled or not. We find that the coefficient on political connection is negative and statistically significant for the Non-SOEs sub-sample while that is not significant for SOEs. It is consistent with our hypothesis H3a that political connection plays more important role in the incidence of regulatory enforcement against fraud for Non-SOEs. It

implies that the value of political connection among SOEs may be diluted by government ownership. Additionally, Table 5 also shows that the coefficient on mutual fund is negative and statistically significant for SOEs. It lends support to hypothesis H3b that institutional ownership plays a more important role in reducing the incidence of regulatory enforcements against fraud for SOEs. The finding suggests that institutional investors may put in greater efforts to ensure more effective in monitoring SOEs as Non-SOEs tend to have better corporate governance.

Table 5 here

Table 6 reports the results on the issue whether the role of political connection and institutional investors is conditional on institutional and legal environment. We partition our sample based on the legal environment which is measured by MLEGAL, an index capturing the development of the protection of property rights. We find that the coefficient on political connection is negative and statistically significant for the firms in weaker legal environments. It is consistent with our hypothesis H4a that political connection plays more important role in reducing incidence of fraud in weaker legal environment. It also indicates that the favorable treatment of firms with political connections is more pronounced in weaker legal environments. Table 6 also shows that the coefficients on mutual funds are negative and statistically significant for firms in weaker legal environment, whereas those are not significant for firms in stronger legal environments. This supports our hypothesis H4b and echoes prior studies that support the view that institutional owner monitoring plays a more pronounced role in reducing the incidences of fraud weaker legal environments.

Table 6 here

5. Conclusion

In this study, we analyze two new potential determinants for mitigating fraud committed by firms in China: institutional investors and political connection. For the purposes of this study, we measure the incidence of fraud by analyzing the number of enforcement announcements made by the CSRC, Shanghai Stock Exchange and Shenzhen Stock Exchange from 2003 through 2011. In the past decade, the Chinese government has cultivated institutional investor ownership in Chinese firms to take advantage of an increasingly important external control mechanism for the monitoring of firm management. We find that the firms with a larger proportion of institutional investors, especially mutual fund investors, tend to have lower incidences of fraud. The prevalence of politically connected firms in both developed markets like the US and emerging markets such as China cannot be ignored. We know that political connection is valued by enterprise as it could help firms get privilege or favorable treatment from government. We argue however that political relation is a personal asset that is based on reputational capital and therefore it is in the interest of the politically connected CEO or Chairman to maintain his or her reputation by increased monitoring of the firm managers or by using his or her political clout to maintain firm value. Chen et al. (2005) contend that enforcement actions reduce firm value. We find that in China, the firms with political connections have lower incidences of fraud, or are less likely to face enforcement action. It can be suggested that both Institutional ownership and

politically connected firms are effectively monitored.

One characteristics of capital market in China is that the central or local government and wholly SOEs are often the major stockholders in many listed firms. Apart from the concentrated ownership by government, there is diverse disparity in the extent of market development and legal protection across provincial jurisdictions in China. We argue that government ownership and institutional environment could dilute the benefits of monitoring by institutional investors and politically connected CEOs and/or Chairmen. We find that political connection plays a more important role in reducing the incidence of regulatory enforcement for non-SOEs, while the monitoring role of institutional investors for mitigating the incidence of fraud is more pronounced for SOEs. We also find that political connection and institutional investor ownership plays more important role in reducing the incidence of regulatory enforcement in weaker legal environments within China.

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Appendix A Definition of Variables

This table defines the variables considered in this paper. Summary statistics are presented in Tables 3, 4, 5 and 6.	
Variable	Description
POLITICAL CONNECTION	A dummy variable taking the value of one if the firm is politically connected.
INSTITUTIONAL INVESTORS	The percentage ownership by institutional investors. The proportion of institutional investors is the sum of percentage shares held by mutual fund, securities companies, insurance companies, social security fund and Qualified Foreign Institutional Investor (QFII).
MUTUAL FUND	The percentage ownership by a mutual fund as an institutional investor.
SECURITY COMPANY	The percentage ownership by a security company as an institutional investor.
INSURANCE COMPANY	The percentage ownership by an insurance company as an institutional investor.
SOCIAL SECURITY FUND	The percentage ownership by a social security fund as an institutional investor.
FRAUD	A dummy variable taking the value one if the firm is subject to an enforcement action.
LARGEST SHAREHOLDER	The percentage ownership by the largest shareholder.
TOP10	A Herfindahl index that measures the concentration of shares held by the top 10 stockholders excluding the controlling one.
AUDITOR	A dummy variable taking the value of one if the auditor is one of the 10 biggest auditors by market share.
BOARDSIZE	The log of number of board members.
INDEPENDENT	The percentage of independent directors.
SIZE	The log of total assets.
LEV	The ratio of debt to total assets.
GROWTH	The annual average sales growth in the three years prior to the date of the financial fraud.
LOSS	A dummy variable taking the value of one if the firm has recorded a loss in each of the prior two years, zero otherwise.
MINDEX	is a market development score. It is a comprehensive index to capture the regional market development from the following aspects: (1) the relations between government and markets, such as the role of markets in allocating resources and enterprises' burden in addition to normal taxes; (2) the development of non-state business, such as ratio of industrial output by the private sector to total industrial output; (3) development of product markets, such as regional trade barriers; (4) development of factor markets such as FDI and mobility of labor; (5) development of market intermediaries and the legal environment (such as the protection of property rights).
MLEGAL	is the fifth sub-index of MINDEX, which represents development of market intermediaries and the legal environment.

Table 1 Descriptive statistics for regulatory enforcements during the 1999-2011 period

This table describes the statistics for regulatory enforcement in China. We collect 965 regulatory enforcement announcements made by CSRC, Shanghai Stock Exchange and Shenzhen Stock Exchange during the period 2003-2011.

Panel A: by year and stock exchange

Year	Shanghai		Shenzhen		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
2003	20	0.021	19	0.020	39	0.040
2004	22	0.023	22	0.023	44	0.046
2005	65	0.067	65	0.067	130	0.135
2006	46	0.048	62	0.064	108	0.112
2007	47	0.049	78	0.081	125	0.129
2008	29	0.030	68	0.070	97	0.100
2009	55	0.057	109	0.113	164	0.170
2010	47	0.049	88	0.091	135	0.140
2011	33	0.034	91	0.094	124	0.128
Total	364	0.377	602	0.623	966	1.000

Panel B: by industry

Industry name	Industry code	Number of occurrences	Percentage of occurrences	Ratio of number of firms with cases to total number of firm in the industry
Agriculture	A	42	0.126	0.346
Mining	B	23	0.077	0.200
Food, beverage	C0	44	0.074	0.278
Textile/Apparel	C1	43	0.074	0.224
Timber, furniture	C2	2	0.041	0.182
Paper making, printing	C3	21	0.076	0.298
Petroleum, chemistry, plastics	C4	107	0.068	0.237
Electronics	C5	25	0.037	0.130
Metal, non-metal	C6	84	0.067	0.222
Machinery, equipment, instrument	C7	136	0.057	0.168
Medicine, biological product	C8	64	0.069	0.225
Other manufacturing industries	C9	11	0.065	0.161
Power, gas and water	D	21	0.036	0.203
Construction	E	21	0.066	0.161

Transportation	F	28	0.049	0.179
IT	G	75	0.073	0.172
Retail	H	41	0.048	0.235
Real estate	J	84	0.103	0.432
Social service	K	32	0.070	0.211
Communication	L	12	0.093	0.185
Conglomerate	M	50	0.075	0.338
Total		966	0.066	0.218

We use the CSRC (Chinese Securities Regulation Commission) industry classification standard. As most of firms belong to the Manufacturing industry whose code begins with 'C', we use the first two codes to classify these samples. Our sample does not include the financial industry whose code begins with 'I'.

Panel C: by province

Province	MINDEX score	MLEGAL score	Number of occurrences	Ratio of fraud cases
Shanghai	10.972	14.774	53	0.039
Zhejiang	10.760	12.054	70	0.060
Guangdong	10.476	11.374	137	0.075
Jiangsu	9.833	9.727	41	0.038
Beijing	9.098	8.159	45	0.042
Fujian	9.073	6.461	46	0.098
Tianjin	9.031	9.059	26	0.099
Shandong	8.360	6.611	56	0.065
Liaoning	8.152	6.629	27	0.059
Chongqing	7.734	5.042	19	0.079
Sichuan	7.203	5.358	56	0.095
Anhui	7.127	5.083	25	0.051
Hubei	6.951	5.154	36	0.063
Henan	6.826	4.509	16	0.043
Hunan	6.758	4.108	56	0.127
Hebei	6.748	4.886	19	0.059
Jiangxi	6.721	4.304	6	0.026
Jilin	6.370	4.911	23	0.081
Hainan	6.313	3.770	18	0.095
Guangxi	6.048	3.891	24	0.108
Neimenggu	5.948	4.324	9	0.055
Heilongjiang	5.830	5.194	25	0.100
Shanxi	5.781	4.400	8	0.031
Yunnan	5.642	4.041	10	0.047
Ningxia	5.367	3.451	11	0.109
Xinjiang	5.138	4.569	16	0.059

Guizhou	5.079	3.249	11	0.068
Shaanxi	5.032	4.283	31	0.121
Gansu	4.821	3.277	27	0.153
Qinghai	4.111	2.320	16	0.186
Xizang	3.236	3.523	3	0.039

The MINDEX and MLEGAL scores shown above are the average scores during period 1999-2009.

Table 2 Breakdown of enforcement actions by type of violation

Panel A: By type of violation

	Number of occurrences	Percentage
Illegal share buybacks	146	0.101
Inflated profits	82	0.057
Fabrication of assets	19	0.013
Unauthorized change in use of funds	25	0.017
Postponement/delay in disclosure	366	0.253
False statements	162	0.112
Violations of fund provisions	4	0.003
Major information omission	234	0.161
Assets of listed firms occupied by the largest shareholders	74	0.051
Stock price manipulation	12	0.008
Illegal loan guarantee	43	0.030
Speculation	14	0.010
Others	268	0.185
Total	1449	1.000

Panel B: by type of enforcement action

	Number of occurrences	Percentage
Public criticism	186	0.147
Public condemnation	244	0.192
Administrative penalty	44	0.035
Initiation of investigation	135	0.106
Warning	184	0.145
Fine	233	0.184
Others	242	0.191
Total	1268	1.000

Table 3 Summary Statistics of Main Variables

This table reports the summary statistics of main variables used in the following regression analysis. Variables are as defined in Appendix A.

	N	Mean	std	min	P25	Median	P75	Max
POLITICAL CONNECTION	11396	0.257	0.437	0.000	0.000	0.000	1.000	1.000
% shares held by								
INSTITUTIONAL INVESTOR	11396	8.709	14.460	0.000	0.004	1.323	11.102	76.204
% shares held by MUTUAL FUND	11396	7.687	13.368	0.000	0.001	0.909	9.131	61.553
% shares held by SECURITY								
COMPANY	11396	0.131	0.583	0.000	0.000	0.000	0.000	18.229
% shares held by INSURANCE								
COMPANY	11396	0.335	1.206	0.000	0.000	0.000	0.000	20.828
% shares held by SOCIAL								
SECURITY FUND	11396	0.315	1.191	0.000	0.000	0.000	0.000	19.501
% shares held by QFII	11396	0.241	1.149	0.000	0.000	0.000	0.000	27.297
% shares held by LARGEST								
SHAREHOLDER	11396	37.670	16.091	0.82	25	35.53	50.03	89.41
TOP10	11396	0.017	0.025	0.000	0.001	0.006	0.024	0.194
AUDITOR	11396	0.161	0.368	0.000	0.000	0.000	0.000	1.000
BOARD SIZE	11396	2.234	0.216	1.099	2.197	2.197	2.398	3.219
INDEPENDENT	11396	0.352	0.067	0.000	0.333	0.333	0.375	0.714
SIZE	11396	21.588	1.233	10.842	20.795	21.486	22.257	28.282
LEV	11396	0.529	0.267	0.052	0.373	0.519	0.650	2.224
GROWTH	11396	0.282	0.656	-0.609	0.044	0.168	0.331	5.134
LOSS	11396	0.038	0.192	0.000	0.000	0.000	0.000	1.000
MINDEX	11396	8.456	2.132	0.79	6.88	8.63	10.55	11.71

Table 4 Main regression results

The table reports the results of a probit regression model as follows:

$$\begin{aligned} \text{FRAUD} = & \beta_0 + \beta_1 \text{POLITICAL CONNECTION} + \beta_2 \text{INSTITUTIONAL INVESTORS} \\ & + \beta_3 \text{LARGEST SHAREHOLDER} + \beta_4 \text{TOP10} + \beta_5 \text{AUDITOR} + \beta_6 \text{BOARDSIZE} \\ & + \beta_7 \text{INDEPEDENT} + \beta_8 \text{SIZE} + \beta_9 \text{LEV} + \beta_{10} \text{GROWTH} + \beta_{11} \text{LOSS} \\ & + \beta_{12} \text{MINDEX} + \text{Industry and Year dummies} \end{aligned}$$

The constant term, industry dummies, and year dummies are included in the regression but not reported. The p -values, which are adjusted for clustering at the firm level, are presented in parentheses below the estimates, where *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. Variable definitions are in Appendix A.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
POLITICAL CONNECTION		-0.282** (0.014)			-0.279** (0.015)	-0.279** (0.015)
INSITUTIONAL INVESTOR			-1.690*** (0.001)		-1.683*** (0.001)	
MUTUAL FUND				-1.613*** (0.005)		-1.603*** (0.005)
SECURITY COMPANY				-0.031 (0.997)		0.002 (0.000)
INSURANCE COMPANY				-4.551 (0.363)		-4.583 (0.360)
SOCIAL SECURITY FUND				-1.434 (0.788)		-1.545 (0.772)
QFII				-3.234 (0.579)		-3.132 (0.589)
LARGEST SHAREHOLDER	-1.281*** (0.001)	-1.266*** (0.001)	-1.301*** (0.001)	-1.301*** (0.001)	-1.285*** (0.001)	-1.285*** (0.001)
TOP10	3.486* (0.074)	3.339* (0.087)	3.555* (0.067)	3.547* (0.067)	3.404* (0.080)	3.395* (0.081)
AUDITOR	-0.042 (0.846)	-0.039 (0.857)	-0.030 (0.889)	-0.029 (0.892)	-0.028 (0.895)	-0.028 (0.897)
BOARD SIZE	1.358* (0.062)	1.368* (0.060)	1.363* (0.060)	1.372* (0.059)	1.371* (0.059)	1.380* (0.057)
INDEPENDENT	-0.368** (0.018)	-0.369** (0.018)	-0.342** (0.029)	-0.338** (0.031)	-0.342** (0.029)	-0.338** (0.031)
SIZE	-0.270*** (0.001)	-0.264*** (0.001)	-0.234*** (0.001)	-0.233*** (0.001)	-0.229*** (0.001)	-0.227*** (0.001)
LEV	0.542*** (0.001)	0.546*** (0.001)	0.525*** (0.001)	0.524*** (0.001)	0.529*** (0.001)	0.528*** (0.001)
GROWTH	-0.031 (0.635)	-0.031 (0.638)	-0.021 (0.739)	-0.021 (0.739)	-0.021 (0.745)	-0.021 (0.745)
LOSS	1.325*** (0.001)	1.316*** (0.001)	1.303*** (0.001)	1.302*** (0.001)	1.293*** (0.001)	1.293*** (0.001)
MINDEX	-0.036 (0.103)	-0.037* (0.093)	-0.038* (0.083)	-0.038* (0.083)	-0.039* (0.074)	-0.039* (0.074)
Sample size	11396	11396	11396	11396	11396	11396
Adj-R ²	0.043	0.044	0.045	0.045	0.045	0.045

Table 5 Regression results between SOEs and non-SOEs

This table examines the association between political connection, institutional investors and fraud under different ownership. We investigate the ownership of listed firms in China based on the identity of the largest shareholder, that is, the ultimate owner, following the recent literature. We classify our sample based on whether the firm is government controlled (SOEs) or not (non-SOEs). The constant term, industry dummies, and year dummies are included in the regression but not reported. The p -values, which are adjusted for clustering at the firm level, are presented in parentheses below the estimates, where *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. Please refer to Table 4 for the model specification. Variable definitions are in Appendix A.

	SOEs			Non-SOEs		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
POLITICAL CONNECTION	-0.041 (0.777)		-0.035 (0.805)	-0.570*** (0.007)		-0.570*** (0.007)
MUTUAL FUND		-2.148*** (0.009)	-2.146*** (0.009)		-1.263 (0.120)	-1.232 (0.130)
SECURITY COMPANY		-10.24 (0.499)	-10.27 (0.498)		1.834 (0.839)	2.118 (0.820)
INSURANCE COMPANY		-4.106 (0.560)	-4.109 (0.560)		-3.297 (0.644)	-3.385 (0.634)
SOCIAL SECURITY FUND		-0.807 (0.912)	-0.822 (0.911)		-1.728 (0.834)	-2.292 (0.783)
QFII		-8.609 (0.356)	-8.603 (0.356)		3.509 (0.638)	3.916 (0.597)
LARGEST SHAREHOLDER	-1.110** (0.013)	-1.183*** (0.009)	-1.179*** (0.009)	-0.838 (0.114)	-0.789 (0.138)	-0.833 (0.116)
TOP10	-0.324 (0.912)	-0.525 (0.858)	-0.512 (0.861)	7.214** (0.013)	8.249*** (0.004)	7.392** (0.011)
AUDITOR	-0.115 (0.709)	-0.089 (0.774)	-0.090 (0.770)	0.287 (0.362)	0.250 (0.426)	0.287 (0.361)
BOARD SIZE	1.380 (0.175)	1.355 (0.179)	1.360 (0.177)	1.117 (0.343)	1.081 (0.358)	1.118 (0.343)
INDEPENDENT	-0.657*** (0.005)	-0.615*** (0.009)	-0.616*** (0.009)	0.111 (0.611)	0.125 (0.565)	0.125 (0.566)
SIZE	-0.219*** (0.001)	-0.157** (0.013)	-0.157** (0.013)	-0.250*** (0.001)	-0.235*** (0.001)	-0.230*** (0.001)
LEV	0.694*** (0.002)	0.659*** (0.003)	0.660*** (0.003)	0.469*** (0.001)	0.453*** (0.002)	0.456*** (0.002)
GROWTH	0.068 (0.454)	0.081 (0.363)	0.082 (0.362)	-0.149 (0.127)	-0.142 (0.140)	-0.142 (0.142)
LOSS	1.463*** (0.001)	1.435*** (0.001)	1.434*** (0.001)	1.140*** (0.001)	1.148*** (0.001)	1.131** (0.001)
MINDEX	-0.108*** (0.001)	-0.113*** (0.001)	-0.112*** (0.001)	0.000 (0.993)	0.007 (0.830)	0.000 (0.999)
Sample size	7553	7553	7553	3843	3843	3843
Adj-R ²	0.037	0.038	0.038	0.060	0.059	0.061

Table 6 Regression results for partitioned sample by legal environment level

This table investigates the role of political connection and institutional investors could be conditional on institutional environment. We partition our sample based on an index MLEGAL, which captures the development of the legal environment, such as the protection of property rights. The constant term, industry dummies, and year dummies are included in the regression but not reported. The p -values, which are adjusted for clustering at the firm level, are presented in parentheses below the estimates, where *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. Please refer to Table 4 for the model specification. Variable definitions are in Appendix A.

	Strong legal environment			Weak legal environment		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
POLITICAL CONNECTION	-0.213 (0.219)		-0.218 (0.208)	-0.331** (0.033)		-0.331** (0.033)
MUTUAL FUND		-1.363* (0.095)	-1.373* (0.093)		-1.756** (0.029)	-1.749** (0.030)
SECURITY COMPANY		8.751 (0.297)	9.208 (0.275)		-13.42 (0.347)	-13.70 (0.338)
INSURANCE COMPANY		-6.968 (0.380)	-7.056 (0.375)		-2.799 (0.659)	-2.820 (0.655)
SOCIAL SECURITY FUND		-0.663 (0.933)	-0.713 (0.927)		-3.743 (0.608)	-3.792 (0.605)
QFII		-5.391 (0.569)	-5.125 (0.586)		-1.514 (0.836)	-1.479 (0.840)
LARGEST SHAREHOLDER	-1.481*** (0.003)	-1.564*** (0.002)	-1.509*** (0.002)	-1.079** (0.017)	-1.072** (0.017)	-1.098** (0.015)
TOP10	5.490** (0.045)	5.503** (0.045)	5.361* (0.050)	1.476 (0.604)	1.845 (0.512)	1.669 (0.555)
AUDITOR	-0.178 (0.576)	-0.161 (0.613)	-0.160 (0.616)	0.158 (0.592)	0.162 (0.581)	0.158 (0.591)
BOARD SIZE	2.000* (0.057)	2.105** (0.046)	2.090** (0.047)	0.779 (0.458)	0.680 (0.516)	0.708 (0.499)
INDEPENDENT	-0.467** (0.036)	-0.435* (0.052)	-0.438* (0.050)	-0.207 (0.361)	-0.168 (0.459)	-0.165 (0.466)
SIZE	-0.258*** (0.001)	-0.229*** (0.001)	-0.225*** (0.001)	-0.290*** (0.001)	-0.251*** (0.001)	-0.246*** (0.001)
LEV	0.381** (0.031)	0.368** (0.038)	0.373** (0.035)	0.674*** (0.001)	0.637*** (0.001)	0.645*** (0.001)
GROWTH	-0.020 (0.825)	-0.009 (0.917)	-0.011 (0.899)	-0.041 (0.674)	-0.040 (0.680)	-0.035 (0.722)
LOSS	1.426*** (0.001)	1.420*** (0.001)	1.417*** (0.001)	1.243*** (0.001)	1.227*** (0.001)	1.207*** (0.001)
Sample size	5650	5650	5650	5746	5746	5746
Adj-R ²	0.044	0.044	0.045	0.050	0.051	0.052