The Relationship between Political Connections and Firm

Performance: A Study of China's Special Treatment Stocks

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Abstract

In this paper, we examine whether political connections can influence the performance of publicly traded Chinese firms. Specifically, we focus on so-called special status (ST) warnings that are imposed on firms after two consecutive years of losses, as well as the likelihood of being accused of fraud by the China Securities Regulatory Commission (CSRC). Our results show that political connections can help reduce a firm's risk of receiving an ST warning and can even increase its probability of reverting back to normal trading status. In addition, we find that politically linked enterprises are more likely to be accused of fraud. Our results highlight the importance of political connections in business activities and shed light on the potential dark side of this form of external support. While firms can greatly benefit from their relationship with the government, it does not necessarily mean that connected companies enjoy healthy operations or promising future development. These firms may more easily survive in troubles and recover after periods of negative earnings, but they also exhibit a greater likelihood of financial misconduct and/or related government investigations.

Key Words: Political connections, Financial performance, Special treatment, Fraud

JEL Classification: G15, G18, L14

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1. Introduction

Building good ties to government has been a crucial business strategy for centuries. Politically connected firms enjoy many advantages, including, among others, fewer hurdles in their market expansion (Park and Luo, 2001), easier access to financing (Claessens et al., 2008), relaxed supervision from authorities (Stigler, 1971), and tax benefits (Soto, 1989). Numerous studies have explored the causes and consequences of strong ties between these two significant parties in the economy. For instance, previous research has examined how political connections influence a firm's performance based on various dimensions. In general, political connections can be classified into two categories——by individuals and by organizations (Hillman and Hitt, 1999).

In this article, we focus on individual political connections that exist in firms in China and study how these linkages can influence the firms' performance. Unlike previous studies which typically test the market as a whole or focus on specific industries (Zhang et al., 2014), we select so-called special treatment (ST) firms as our research objects. Special treatment follows a unique regulation in China's stock market, which was passed in 1998 in order to partially lower investment risks and better regulate the stock market. The ST status is an interim between listing and delisting. ST warnings are primarily given to firms with poor performance but also to firms that otherwise catch the eyes of regulators. Specific examples (with the first category being the most dominant one) include: (1) Firms with negative earnings for two consecutive years; (2) Firms whose audited net worth is negative in the last fiscal year; (3) Firms whose financial statements of the last fiscal year receive an adverse or disclaimer opinion from their auditor; (4) Firms that are asked to correct serious errors and/or false records in their financial statements by the China Securities Regulatory Commission (CSRC), but fail to amend

them within the specified time limit, and whose stocks have been suspended from trading for two months; (5) Firms that fail to disclose their annual or semi-annual reports within the statutory time limit and whose stocks have been suspended from trading for two months; (6) Firms whose audited operating income is less than 10 million Yuan in the last fiscal year; and (7) Firms whose net worth in the last fiscal year is less than their registered capital.

As noted, the most common reason to be placed in ST status is for a firm to have negative earnings for two consecutive years. If the company still loses money in the following year (three consecutive years in total), ST will turn into *ST, which is a delisting warning. When firms are declared *ST, their stocks will be suspended from listing until they meet the requirements for coming back. In essence, the regulation makes the delisting mechanism more fluent in China. In addition, it serves not only as a warning to defective companies but also as a risk warning to investors. In general, the system is considered good for the stock market, since most investors do not have sufficient professional knowledge to make rational investment decisions. The ST regulation gives them a brief impression about a firm's situation and can protect them in part from making uninformed investments in high-risk stocks. However, the mechanism does have limitations. Its original intention was to identify problem corporations and poor quality shares, but it is not effective all the time. Empirical studies have shown that the ST mechanism may mistakenly drive firms with high growth potential out of the market (Jiang and Wang, 2008). The authors note that two years of losses do not necessarily represent the poor financial situation of a company as firm performance can be influenced by multiple factors, such as the volatility of sales within its industry. Jiang and Wang (2008) find evidence that this regulatory pressure forces some companies to manipulate their profits, which, in turn, can harm investors. Despite its disadvantages, ST is still a vital index to evaluate firms' performance in China.

Current studies on the benefits of political connections primarily focus on market based factors including market expansion, policy convenience, or external financial support. However, few studies examine the effect political connections have on net profits. In standard financial statements, net profits represent the after-tax amount of profits after summing up a variety of accounting items. Sales profits are just one part of the calculation. In addition, government subsidies and other non-operating income are also ingredients of a firm's net profit, and some local governments even use subsidies to boost firms' earnings (net profits) in order to keep them away from the regulation threshold (Chen et al., 2008). Thus, a firm's ST status, which is mainly based on a firm's net profit and thus takes governmental support into consideration, can be considered a comprehensive measure of both a firm's well-being and its political support network. In this article, we take a deeper look at how political connections can affect the likelihood of a firm receiving an ST warning.

In addition to the advantages they provide to firms, political connections have also been found to have a dark side as they can harm social welfare. Evidence regarding this link often focus on corruption whereby the government provides immoral shields to connected firms, i.e., it refrains from pursuing litigation against fraudulent firms (Fan, 2002; Sun and Zhang, 2006; Hasnan et al., 2012; Li et al., 2014). To further examine the influence of political connections on business activities in China, we thus extend our ST-focused analysis by testing the relationship between political connections and the likelihood of a firm being accused of fraud.

The rest of this paper is organized as follows. Section 2 provides a literature review of prior studies on political connections and how they affect enterprises. Section 3 describes our hypotheses. Section 4 explores our data and sample selection, while Section 5 describes our methodology and the models used in our analysis. Section 6 provides our empirical results, as well as our interpretations. Section 7 concludes.

2. Literature Review

Prior research has explored related topics in detail. According to the resource dependence theory proposed by Pfeffer and Salancik (1978), corporations rely on external resources to develop their business. These external resources can help reduce the environmental uncertainty they are faced with (Thompson, 1967) and correspondingly add value to the firm. Government, as an indispensable external party, plays a very important role in business strategy and the ties between government and firms have become a hot topic in academics.

Every single commercial activity is controlled by public regulations. In addition, government policies can be a determining factor of a firm's market position (Park and Luo, 2001). Thus, it is common that corporations actively participate in public policy discussions and try to push the outcome in their favor (Baysinger, 1984; Coate et al., 1990). The approaches of such political participation are multiform worldwide. For example, in the U.S., firms typically utilize lobbying or contributions through a political action committee in federal and state elections to exert influence (Keim and Zeithaml, 1986). In this context, Hillman and Hitt (1999) design a decision-tree model to explain the whole mechanism in a comprehensive way. They divide political action into two approaches: transactional and relational. Each of these approaches has two levels: collective and individual. The transactional approach employs short-term exchanges, while the relational approach builds relationships that are more stable and encompass a longer time period. These exchanges or relationships can be either organizational (collective) or take place in person (individual). More specifically, firms may provide policy makers with related information (Aplin and Hegarty, 1980), financial incentives, such as direct contributions in election campaigns or intra-company positions promised to those who may have a working political background (Hillman et al., 1999), and constituency building

including mobilizing voters and advertising in order to gain grassroots support (Baysinger et al., 1985). On the individual level, this behavior can occur in mutual directions. Firms can have former public officials employed in top management, while businessmen may also enter into political service and pursue a position (Faccio, 2006). Although the utility brought by all of these tactics is not always consistent, to a certain degree, these efforts are found to be effective in business operations all over the world.

2.1 Financial Benefits

Bailouts typically consist of powerful financial support that governments offer to enterprises in emergency situations to save them from bankruptcy. They can include transfer payments in the form of cash, bonds, stocks, or loans. Not all firms are eligible to receive this assistance. Generally, only those firms whose failure would cause serious negative effects in the market can enjoy bailout protection. Firms with political connections are more likely to receive both direct and indirect financial support from their domestic government or from the International Monetary Fund and the World Bank (Faccio et al., 2006). After investigating 450 target firms throughout 35 countries from 1997-2002, Faccio et al. (2006) confirm that political linkages can help firms in difficult times. This also holds in the financial industry. During the recent economic downturn in the U.S., financial firms that engaged in lobbying were found to not only have a greater probability of receiving government bailouts, but also tended to receive them earlier and in larger amounts (Thomas et al., 2013). The same is true in Malaysia where politically connected firms have easier access to loans in a crisis (Johnson and Mitton, 2003). Despite easier access to debt and the ability to raise larger amounts, in Pakistan, politically connected companies enjoy relatively low interest rates for their loans even though some of them are very likely to default in the future (Khwaja and Mian, 2005). Due to this "privilege", politically connected firms are considered to be safer and are favored by investors who are

willing to invest at a lower required return, further decreasing the cost of capital for these firms (Boubakri et al., 2012).

2.2 Market Benefits

In addition to the availability of financing, political ties can also add value to firms in other regards. Faccio (2010) provides a comprehensive cross-country comparison between connected and unconnected firms using accounting figures, market performance, and earning capabilities. His results indicate that connected firms usually have a greater market share that may benefit from substantial government contracts and easier access to business licenses. These firms may pay fewer taxes than their non-connected counterparts. In addition, Faccio finds that firms with political linkages also have significantly higher leverage ratios, which is consistent with their relatively lower debt financing thresholds. From an individual perspective, if a company's top manager or director simultaneously serves in a government position, then his/her company is more likely to have positive abnormal returns (Hillman et al., 1999). Alternatively, if a firm hires a public official to serve on its board of directors, it tends to have greater growth potential, especially if it operates in a strictly regulated segment (Hillman, 2005).

2.3 Policy Benefits

Public policy plays a significant role in business. Governments rely on it to control the macro-economy. Business always booms in places or industries with looser policies. Thus, it is important for enterprises to build up this part of the relationship. John and Harvey (1980) conduct a survey among more than 400 top policymakers on this issue and summarize three tactics used by firms to influence policy making: information giving, public advertising, and direct pressure. Corporations provide legislators with a variety of professional data, start public campaigns using various resources, offer funds, or even make threats during the legislative

process. Some of them make positive contributions. In China, politically linked firms enjoy an advantage in lawsuits given their powerful capital and strong resistance capacity against stock price declines (Firth et al., 2011).

2.4 Drawbacks

The three points mentioned above are the primary channels through which firms increase their value using political ties. However, it does not mean that this relationship is not without negative side effects. The protection of minority shareholders may be weaker in politically linked firms. In China, when regulations focused on protecting minority shareholders are published, the market's reaction to them can differ sharply. Stock prices tend to significantly increase for private enterprises after the announcement, while no significant rise is noted in firms whose controlling blockholders are closely related to the government (Berkman et al., 2010). Investors have greater confidence in the implementation of novel regulation and the improvement of corporate governance in less politically connected firms. In addition, political connections have been found to impede corporate innovations. A study by Julie, Laura, and Kevin (2008) indicates a significantly lower ROA of politically connected firms in fiercely competitive markets. Arguably, because they enjoy greater external support from the government, their sense of competition may be deficient—restricting firm performance as competition becomes more intense. This may also explain another chief limitation found by many researchers which suggests that firms with political relationships usually exhibit poorer accounting based performance, such as sales profits and ROA (Park and Luo, 2001; Hillman, 2005; Faccio, 2010). Moreover, the accounting information disclosed by these firms can be of poorer quality, which may be due to the presence of less competitive pressure (Chaney et al., 2011).

3. Hypothesis Development

3.1 Political Connections and Special Treatment

China is an emerging market which exhibited impressive growth in the last century. After its economic reforms in the 1970s, China gradually built a socialist market economy with Chinese characteristics. When compared to the capitalist economic system in Western countries, it has some unique features. The most obvious difference is the government's control over the economy. In China, government control is significantly stronger than that in most Western countries (Sigley, 2006). More specifically, in the securities market, it contains many features that are different from Western stock markets including their administration. In the U.S., the stock market is managed based on detailed security laws. The Securities and Exchange Commission (SEC) specializes in monitoring the market. It has a partial judicial function and is responsible for interpreting the relevant legal provisions. In the U.K., no specialized administrative institutions were established. Regulation of the stock market relies on the rules of the stock exchanges and self-management among the members. However, in China, administration is provided through two distinct mechanisms: government unified management, as well as market self-discipline management (Wang and Zhang, 1995). The Securities Commission of the State Council and the China Securities Regulatory Commission (CSRC) together constitute the governmental administrative institutions in the stock market. All of the policies and rules in the securities market are set up by these two organizations. Market self-discipline management refers to supervision from the stock exchanges and industry associations. Thus, government plays an even more important role in business activities in China.

In Section 2, we present prior evidence supporting the notion that political connections can be helpful to corporations. In China, this positive effect has also been documented. Park and Luo (2001) examine 128 randomly selected firms in China from 1996-1997 and find a strong positive relationship between sales volume and "Guanxi." Guanxi is a Chinese word meaning networking with people and institutions. Political connections are one of the most powerful guanxi in China. As noted earlier, since the late 1970s, China's economy has undergone a profound transition. During this transition, a high level of uncertainty developed in the market accompanied by an incomplete legal system and policy ambiguity (Nee, 1992; Park and Luo, 2001). Guanxi with the government can ensure business operations by decreasing transaction costs, providing better negotiating power, and policy convenience. Another study finds that political connections lead to easier access to bank loans in China. This is similar in other countries (Shu et al., 2013). More specifically, firms with politically connected managers seem to be valued higher and have fewer financing constraints (Wu et al., 2010; Yan et al., 2011). Members with political backgrounds can even bring positive abnormal returns to firms (Calomiris et al., 2010). Based on the aforementioned positive effects that political ties can offer firms, we derive our first hypothesis:

Hypothesis 1: Companies with political connections are less likely to receive an

ST warning than companies without political connections.

As noted earlier, ST firms only have one year to redeem themselves. If they incur another year of losses, they will be put into *ST, which brings them very close to being delisted. Given the benefits that firms derive from political ties, we assume that politically linked firms have a greater likelihood to return to normal, which is our second hypothesis:

Hypothesis 2: Firms with political connections are more likely to move from ST

to normal than firms without political connections.

3.2 Political Connections and Corporate Fraud

Government linkages certainly benefit firms in multiple ways. However, some of these benefits may come at the expense of social wealth. Political connections have often been associated with corrupt economic activities and connected members tend to be protected when faced with troubles (Fan, 2002). A study in Malaysia reveals a positive correlation between poor corporate governance, political connections, and the likelihood of corporate fraud (Hasnan et al., 2012). The same is true of China where financial misreporting is more likely to be associated with firm connections with regulators and these firms are more likely to receive lighter sanctions (Li et al., 2014). Politically connected chairmen and CEOs are also less likely to be punished even when fraud has been revealed (Sun and Zhang, 2006). Furthermore, Ang et al. (2014) claim that firms with political backgrounds tend to show less respect for laws and regulations, increasing their likelihood to engage in fraud. We therefore propose the following (third) hypothesis:

Hypothesis 3: Firms with political connections are less likely to be accused of

fraud than firms without political connections.

4. Data

4.1 Sample Selection

Based on each share's traits and trading characteristics, the Chinese stock market can be divided into several parts, consisting of A-shares, B-shares, and H-shares. In this article, we only focus on the A-shares market in China, which comprises the most representative ordinary shares traded on the Shanghai and Shenzhen Stock Exchanges. It constitutes the main part of the Chinese stock market. Our sample period starts from the first day of 1999, which is the second year after the ST regulation was published, to the end of June 2017. Our target firms include all firms in the A-shares market that received an ST warning, went back to normal from ST, or were found to be engaged in fraud during our sample period. The full sample contains 2,078 listed firms with 15,695 firm-year observations. For the first two hypotheses, we select Chinese ST firms, as well as those that went from ST to normal, as our research objectives. All of these sample firms are identified through the Special Treatment and Particular Transfer Research Database in CSMAR (China Stock Market and Accounting Research). This database contains all listing status changes of Chinese listed companies since 1998. Specifically, there are 200 ST firms with 211 firm-year observations in our ST sample and 253 firms whose status reverted back to normal with 282 firm-year observations in our "back-to-normal" sample. The number of firms that went back to normal from ST is larger than the number of ST firms because we are not tracking the same group of ST firms in our back-to-normal sample. Instead, we simply selected those that went back to normal from ST in the CSMAR pool. Some of these firms were in a worse position prior to their ST listing resulting in a larger number of observations in the sample we use to test our second hypothesis. For the third hypothesis, we

identify all firms engaged in fraud from the China Securities Regulatory Commission's Enforcement Actions Database that are also included in CSMAR. All firms that have violated China's securities laws and are punished by the CSRC are recorded in detail in this database including the timing of the alleged fraud, a detailed description of the fraud allegations, and the punishment they received. The fraud sample covers 265 firms that have been recorded as fraudulent with 528 firm-year observations as many firms are recorded as fraudulent in multiple years during our sample period.

4.2 Political Connections Measurement

As previously mentioned in Section 2, there are a variety of ways through which firms can nurture political relationships. We focus on individual connections when people with political backgrounds are chosen to be a firm's CEO or chairman of the board. Similar measurements have been used by previous researchers including Hillman (2005), Faccio (2006), Boubakri et al. (2008), and Chaney et al. (2011). Specifically, we follow Schweizer et al. (2017) to define the political background of a firm's CEO or chairman of the board. A CEO or chairman is considered to be politically connected if they have been or are currently working as a senior officer in the military in either a central or local government department, as well as institutional sectors directly under the State Council's jurisdiction (e.g., the local taxation bureau or the industrial and commercial bureau). Members of the Chinese People's Political Consultative Conference (CPPCC) or the National People's Congress (NPC) are also considered to be politically connected. We use political connection (PC) dummy as our main explanatory variable for a given firm-year observation if a firm's CEO or chairman of the board is politically connected during that year. The PC dummy is equal to one if the CEO or chairman is politically connected and zero otherwise (Wu et al., 2012; Schweizer et al., 2017).

4.3 Other Control Variables

Firm performance can be affected by multiple factors. Political connections are not the only determinant of whether or not a firm will receive an ST listing. We thus employ several control variables in our research. To measure the impact of corporate governance on a firm's likelihood of receiving an ST listing, we consider three governance variables: board independence, equity concentration, and individual characteristics. Board independence is important to the efficiency of corporate governance, especially in monitoring managers' and firms' transparency (Byrd and Hickman, 1992; Armstrong et al., 2014). Agency theory highlights the monitoring function of the board of directors (Barnhart et al., 1994; Hillman and Dalziel, 2003). Thus, the percentage of independent directors on the board is used as an evaluation of board independence. Equity concentration is another vital factor in corporate governance, referring to the proportion of shares held by the largest shareholder, which can influence the firm through the board of directors. Following Schweizer et al. (2017), as well as adding several new factors, we consider the chairman's age, tenure, gender, and CEO duality in this paper. In addition, we perform a robustness test in which we add the chairman's degree in our model. Moreover, we control for various firm-specific factors that can affect a firm's likelihood of receiving an ST listing, including the leverage ratio, earnings capacity (ROE), firm size (measured by total assets), tangibility (measured by the tangible assets ratio), and growth opportunities (Tobin's q). Because ST listings are driven by net profit based on a firm's annual financial statements, we define an audit dummy to determine whether a company being audited by one of the Big Four accounting firms (i.e., PwC, Deloitte, E&Y, and KPMG) can affect its likelihood of being put into a ST status in a specific year. Finally, we examine the influence of a firm's stock returns six months prior to each ST date. Table 1 provides detailed definitions for all variables.

Firm-specific financial figures, corporate governance data, as well as audit information, are obtained from the sub-databases of CSMAR. For these data, as well as for the PC dummies, we collect data starting in 1998, a year prior to 1999, as we require prior year (t-1) information for many of our variables. Because several corporate governance and audit-related databases in CSMAR begin later than 1998 (i.e., in 2003), we manually collect the missing values from either the Wind database or from the official website of the Shanghai and Shenzhen Stock Exchanges (www.sse.com.cn and www.szse.cn).

*** Insert Table 1 about here ***

5. Methodology

In our empirical analysis, we winsorize all financial variables and use the natural logarithm of firm size (total assets) to eliminate the effect of outliers. To determine how political connections can affect a firm's likelihood of receiving an ST warning, we employ a nearest-neighbor propensity score matching (PSM) routine to prepare the sample to be used in our regressions. Receiving an ST warning is not random. For instance, it may be affected by firm size. Larger firms may have a greater ability to survive an adverse situation and avoid negative earnings. Thus, using PSM to match each firm-year observation in our ST sample to one without ST status based on firm size (i.e., total assets) helps address any self-selection biases. To be precise, we use normally listed firms that have never received an ST warning during our sample period as the control group to match the ST firms. Firms with similar size are assumed to have a similar likelihood (likelihood is measured as the propensity score) to receive an ST warning. After matching, our sample appears in pairs with each ST firm matched with a non-ST firm that has the same propensity to receive an ST warning based on firm size.

Considering that firms from different industries perform differently when times change, we also control for industry effects and perform the matching year by year.

To test Hypothesis 1, we estimate the following:

Equation (1)

$$ST_t = \alpha + \beta_1 PC_{t-1} + \beta_2 \text{Tobin's q}_{t-1} + \beta_3 ROE_{t-1} + \beta_4 Leverage_{t-1}$$

$$+\beta_5 Tangibility_{t-1} + \beta_6 Gender_{t-1} + \beta_7 Age_{t-1} + \beta_8 CEODuality_{t-1}$$

$$+\beta_9 Tenure_{t-1} + \beta_{10} EquityConcentration_{t-1}$$

$$+\beta_{11} BoardIndependence_{t-1} + \beta_{12} AuditDummy_{t-1} + \beta_{13} Return_{t-\frac{1}{2}}$$

$$+Industry_t + Year_t + \varepsilon_t$$

where ST_t is a dummy variable that equals to one if the firm receives an ST warning in year t and zero otherwise and $Industry_t$ and $Year_t$ are industry fixed effects and year fixed effects, respectively. $Return_{t-1/2}$ is the average rate of return during the six months prior to the date the firm receives its ST warning. All other variables mentioned in the previous section are extracted one year prior to the ST year as we need t-1 years' data to predict the likelihood of an ST warning in year t. Firm size is omitted in the regression as it has been used as the matching standard in our PSM routine.

To test our second hypothesis, we estimate another probit regression with the same variables used in the first hypothesis:

Equation (2)

$$Normal_t = \alpha + \gamma_1 PC_{t-1} + \gamma_2 \text{Tobin's q}_{t-1} + \gamma_3 ROE_{t-1} + \gamma_4 Leverage_{t-1}$$

$$+\gamma_5 Tangibility_{t-1} + \gamma_6 Gender_{t-1} + \gamma_7 Age_{t-1} + \gamma_8 CEODuality_{t-1}$$

$$+\gamma_9 \text{Tenure}_{t-1} + \gamma_{10}\text{EquityConcentration}_{t-1}$$

$$+\gamma_{11}\text{BoardIndependence}_{t-1} + \gamma_{12}\text{AuditDummy}_{t-1}$$

$$+\gamma_{13}\text{FirmSize}_{t-1} + \gamma_{14}\text{Return}_{t-\frac{1}{2}} + Industry_t + Year_t + \varepsilon_t$$

where Normal_t is equal to one if the firm reverted from ST to normal in year t and zero otherwise. For this test, we estimate the regression without employing propensity score matching because the number of firm-year observations in our treatment group (firms going back to normal) is larger than the control group (firms doing worse). The reason that we compare firms going back to normal with those doing worse instead of with those that stay in the ST group is because, according to the regulations, if a firm has negative profits for two years, it will receive an ST warning for the third year. However, if the profits become positive, the ST will be removed and it will resume normal trading status. If the profits are still negative in the third year, its situation becomes worse and it will be placed in ST* status—the last stop before mandatory delisting. Thus, for an ST firm, the only two possible outcomes in the subsequent year are either to return to normal or getting worse. There is no middle ground that would allow the firm to stay in ST. $\text{Return}_{t-1/2}$ is the rate of return during the six months prior to the date of returning from ST to normal.

We also employ our full list of available variables to test Hypothesis 3 via the following model:

Equation (3)

$$\text{Fraud}_t = \alpha + \delta_1 PC_{t-1} + \delta_2 \text{Tobin's q}_{t-1} + \delta_3 \text{ROE}_{t-1} + \delta_4 \text{Leverage}_{t-1}$$

$$+\delta_5 \text{Tangibility}_{t-1} + \delta_6 \text{Gender}_{t-1} + \delta_7 \text{Age}_{t-1} + \delta_8 \text{CEODuality}_{t-1}$$

$$+\delta_9 \text{Tenure}_{t-1} + \delta_{10}\text{EquityConcentration}_{t-1}$$

$$+\delta_{11}\text{BoardIndependence}_{t-1} + \delta_{12}\text{AuditDummy}_{t-1} + \delta_{13}\text{Return}_{t-1}$$

$$+Industry_t + Year_t + \varepsilon_t$$

where Fraud_t measures whether a firm is accused of fraud in year t. If yes, Fraud_t is equal to one and zero otherwise. Propensity score matching is once again applied prior to the regression because the likelihood of being accused of fraud may again be biased by firm size. One thing that is different in this model is that instead of using the rate of return during the prior six months, we use the yearly stock return one year before the fraud year because fraud allegations are disclosed on a yearly basis. It is important to note here that we are only able to observe cases in which the CSRC investigated and lay a penalty on a firm. Similar to the Securities and Exchange Commission (SEC) in the US, the CSRC has limited resources and may not pursue minor cases or (in line with our hypothesis) cases against politically well-connected firms.

6. Empirical Results

6.1 Descriptive Statistics

Table 2 provides an overview of our sample. The time periods reported in Panels A and C are different from that in Panel B because we use data from year t-1 to complete the propensity score matching routine and our analysis. Our target firm coverage commences on the first day of 1999 and ends in June 2017. As such, the reported variables, including the PC data, are reported from one year prior, i.e., from January 1998 to the end of June 2017.

*** Insert Table 2 about here ***

Our full sample contains 2,078 firms with 15,695 firm-year observations. Out of these, 1,878 firms are normally listed with 15,484 firm-year observations and 200 are ST firms with

211 firm-year observations. We start our empirical analysis by first running a series of summary statistical tests using the full sample. Our results suggest no significant difference in PC (it is only slightly higher in firms without ST). However, this does not mean that political connections are unrelated to ST status changes because the full sample may be biased by self-selection as explained previously. In addition, univariate tests only provide an initial glance at the possible relationship between these factors but does not control for the influence of other factors which we will explore in our subsequent multivariate analysis. To address the potential self-selection bias, we perform another univariate test in which we employ the post-PSM matched sample. Table 3 presents the descriptive statistics for our propensity score matched sample. After propensity score matching, our sample consists of 422 firm-year observations with 211 ST observations and 211 non-ST observations. Panels A, B, and C in Table 3 compares firms by whether or not they receive an ST warning, while Panels D, E, and F compares firms using their political connections. As shown in the table, PC and ST are significant factors in both univariate analyses. Firms without political connections are significantly more likely to receive an ST warning and ST firms have significantly fewer political connections. Tangibility is significantly higher for firms without ST, as well as for firms with political connections. Leverage is also significantly higher for ST firms. It can be intuitively understood that higher leverage demonstrates greater risk. Chairmen's tenure and age are significantly higher in firms without ST implying that experienced chairmen may provide greater benefits to companies. ST firms also tend to have significantly lower ROE and stock price returns. This is understandable because the earnings performance of ST firms must by definition be worse than that of its counterparts. Moreover, firms with ST warnings have a greater propensity to be audited by the Big Four accounting firms, which generally indicates a higher quality of annual reports. Finally, politically connected firms are significantly more

likely to have older chairmen but poorer board independence. Most of these findings are supported by our multivariate regression results for the first two hypotheses.

*** Insert Table 3 about here ***

In Table 4, we perform a similar univariate analysis and explore the differences between firms with and without fraud allegations based on the propensity score matched sample.[1] We delete all fraudulent firms from the full list of normally listed firms before performing our propensity score match to ensure that fraudulent (target) firms are matched to firms without any fraud allegations during our sample period. Panels A to C are organized by fraud=1/0, while Panels D to F are organized by PC=1/0. Contrary to our original expectations, our results suggest that political connections are significantly lower for firms without fraud and that fraud is significantly higher for firms with PC. Both findings are significant at the 1% level. There are several possible explanations for this finding: One is that politically connected firms feel safe from prosecution and thus commit more fraud. Even if some of it is not prosecuted, it could still lead to a higher litigation rate for these firms. A second reason may be China's anti-corruption campaign under president Xi Jinping since 2012 which in many cases ousted corrupt officials and possibly the firms they led. The outcomes of the control variables are largely as expected. Fraudulent firms exhibit a lower equity concentration, have younger chairmen, a lower ROE, a lower Tobin's q, fewer tangible assets, are larger, and are more leveraged.

*** Insert Table 4 about here ***

Finally, to ensure that our analysis is unaffected by any multicollinearity problems, we calculate the correlation coefficients for all variable pairs for our full sample in Table 3. The

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[1] We calculate the descriptive statistics and perform our equality tests using both the full sample and the post-PSM sample, with similar results. For consistency with Table 3, we only report the post-PSM results.

results are shown in Table 5[2]. We find that the absolute values of all correlation coefficients are below 0.6, indicating only a weak correlation among all variables and no evidence of multicollinearity.

*** Insert Table 5 about here ***

6.2 Political Connections and ST

By running the probit regression specified in Equation (1), we derive our results for the first hypothesis. Our results are reported in Table 6. First, we run the regression with financial variables only (Specification 1). Then, we estimate it with firm characteristic variables only. Finally, in Specification 3, we combine all variables and estimate the full model. Because PC is our primary explanatory variable, we add it to each specification. As we can see in Table 6, PC is significantly negative at the 5% significance level throughout all three specifications (at the 1% significance level in Specification 2), indicating a negative relationship between PC and ST. The coefficient of PC in Specification 1 is 0.163 (the margin effect), suggesting that the probability of a firm receiving an ST warning decreases by 16.3 percent if a member of the top management team or the board of directors has a political background. The results strongly support our first hypothesis argues that companies with political connections are less likely to get an ST warning than companies without political connections. The coefficient estimates of the control variables are largely as expected. ROE exhibits a significant negative relation with ST, indicating the poorer performance of ST firms. A negative coefficient for tangibility and positive coefficients for leverage as well as Tobin's q suggest that greater risk leads to a higher likelihood of an ST warning. The positive association between Tobin's q and ST supports the previous finding that the ST mechanism may mistakenly drive firms with high potential growth

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[2] We also examine the correlation matrix for our fraud sample (unreported). The absolute values of all correlation coefficients are within the normal range, again providing no evidence of multicollinearity.

(also high volatility) out of the market (Jiang and Wang, 2008). The age and tenure of the chairman are negatively related to the likelihood of ST suggesting that experienced chairmen may be better at corporate governance and can better utilize their resources to benefit the firm. It is worth noting that the audit dummy has a significant positive effect on the likelihood of receiving an ST warning. Annual reports provided by the Big Four accounting firms tend to be more precise and of higher quality such that firm losses may be more likely to be revealed. We also explore how a chairman's gender can influence the likelihood of an ST warning and find a significant positive relation at the 5% level between these two factors in Specification 2. This suggests that firms led by female Chairmen (Chairwomen) are at a higher risk of receiving an ST warning. However, we do not consider this finding a robust outcome because it becomes insignificant in the full model (Specification 3) and in our subsequent regressions.

*** Insert Table 6 about here ***

6.3 Political Connections and "Going-Back-to-Normal"

The above regression primarily tests whether political linkages can affect the probability of a firm receiving an ST warning. To further test the impact of political connections on a firm's performance, we run another probit regression based on Equation (2) using the back-to-normal sample. If a firm truly benefits from political connections, then firms with political connections should also be more likely to move from ST to normal than firms without political connections. Again, we organize our probit regressions by estimating three specifications of our model: a model with financial variables only, a model with firm characteristics only, and the full model. Our results, presented in Table 7, suggest that PC is positively related to our dependent variable $Normal_t$ (at the 5% significance level), consistent with our assumption that political connections help firms out of ST status. In addition, firm

size and leverage are important factors. Larger firms with lower leverage ratios can more easily dispose of losses and survive in downturns. Equity concentrations are found to be helpful in these circumstances, arguably because blockholders are more capable of coordinating resources and dealing with corporate crises (McConnell and Servaes, 1990; Holderness, 2011). From the perspective of board independence, our results indicate a negative relation between the proportion of independent directors and the likelihood of going back to normal. Weaker board independence implies relaxed supervision inside the company that could allow for the manipulation of accounting figures (Uzun et al., 2004), leading to an easier route back to normal listing status. In addition, the rate of return during the prior six months can be predictive of a move back to normal at the 5% significance level. The positive relation between these factors may be driven by investors observing improved firm performance and, relatedly, a reversal back to normal listing status. What is interesting here is that while Tobin's q is positively related to the likelihood of receiving an ST warning, it is also positively related to the likelihood of moving out of ST and back to normal. One explanation is consistent provided by Jiang's (2008) work, which argues that ST mechanism mistakenly drives companies with high volatility, but high potential development, out of the market. In the long term, these companies may be in a healthy financial condition and enjoy future profitability.

*** Insert Table 7 about here ***

6.4 Political Connections and Fraud

In this section, we analyze the relationship between political ties and corporate fraud. Based on our previous findings, we assume that the likelihood of a fraud allegation is negatively correlated with political connections. Again, we estimate a probit regression (Equation 3), now using the PSM-matched sample for fraud. After employing our PSM matching routine, we have

265 fraudulent firms with 528 firm-year observations and 290 non-fraudulent firms with 528 firm-year observations. The results are presented in Table 8. The coefficient of our PC variable is significantly positive at the 1% level throughout all model specifications, indicating that the likelihood of corporate fraud will increase by 9-10.5 percent when a firm has political connections depending on the control variables we add to the model. The finding is contrary to our hypothesis and suggests that firms whose managers or chairmen have political backgrounds may be more unscrupulous when manipulating financial statements (Sun and Zhang, 2006; Li et al., 2014; Stuart and Wang, 2016). The higher fraud rate appears to outweigh any protection against prosecution afforded to these firms by their political connections.

Leverage is also closely related to fraud (with a marginal effect of at least 1.026 in our regression). Higher leverage ratios represent higher risk levels and increase the likelihood of a firm committing fraud. Equity concentration is significantly negative reflecting blockholders' positive influence on the firm's operations and their ability to monitor the firm. Age also appears to play an important role. We find that firms run by elder chairmen are less likely to engage in fraud (with at least a 0.5 percent decline per year of age). This is consistent with the notion that experienced chairmen may be beneficial to companies. However, there is one unexpected finding in Table 8. We find significant coefficients for the audit dummy which suggests that firms being audited by the Big Four accounting firms are more likely to be accused of fraud in the next year, which is intuitively hard to explain. One possible explanation could be that the Big Four firms provide firms with more precise auditing reports which allow for better insights into the firms' performance. This may also help reveal any problems to outsiders, including government investigators.

*** Insert Table 8 about here ***

7. Robustness tests

In this section, we provide test for the robustness of our empirical results. First, we examine the impact of a potentially omitted variable on our findings. Specifically, we take the chairman's education into consideration by adding another control variable, *Degree*, to our original model. Prior studies in this area have documented that the presence of better educated top management leads to better performance in terms of ROA and Tobin's q (cf., Jalbert et al., 2002). We now control for this factor and re-estimate our regression. Data regarding the chairmen's education level is also obtained from CSMR. *Degree* takes on a value from 5 to 1, representing PhD, graduate, undergraduate, college, and high school/other terminal degrees. Because of several missing values for this variable, the number of observations is somewhat different from that in our main regressions, which also prompted us not to include the variable in our original tests. The results are shown in Table 9. As we can see, our key explanatory variable, PC, is still significant after *Degree* has been added to the model. For ST firms (Panel A), the coefficients for the political connection variable remain significantly negative in all three specifications. Our results also suggest that well educated chairmen can significantly reduce a firm's likelihood of being assigned ST status. When examining the situation in which firms move from ST back to normal, our results still holds in the first two model specifications and the coefficients for *Degree* become even more significant. In Panel C, PC remains highly significant in all three specifications (as before) and *Degree* is significantly negative, suggesting that firms with high educated chairmen are less likely to be accused of fraud.

*** Insert Table 9 about here ***

Moreover, we examine whether our results hold across different industries. In our main regression analyses in Tables 6 to 8, we consider firms from all industries. We now want to explore if our results still hold when we restrict our sample to high-tech companies[3]. To do this, we identify all high-tech firms in our target sample and match them with the rest of high-tech firms on firm size using propensity score matching. High-tech firms are selected according to the industry classification standards from the National Bureau of Statistics. These firms are primarily from modern manufacturing industries such as medical manufacturing, aviation manufacturing, electronic and communication equipment manufacturing, computer manufacturing, and high-tech instrument manufacturing, etc. (Year 2012 CSRC Industry Codes starting with the letter C). In addition, they include service industries such as software and information technology services, communication services, science technology services, and Internet services. (Year 2012 CSRC Industry Codes starting with the letters I and M). The fraud results, shown in Panel C of Table 10, remain consistent with our prior (contrary) findings for the third hypotheses, with a significant positive relation between PC and fraud allegations. However, for the first hypothesis and to a lesser extent the second hypothesis, we obtain significant positive results for political connections (Panel A and B). These findings are understandable given the particularity of the high-tech industry and may be explained by previous studies (Gargiulo and Benassi, 2000; Li et al., 2008; Sheng et al., 2011). Compared with traditional industries, high-tech companies face more intense competition and managers need to react rapidly to changes in the competitive environment. However, political connections are usually strong and cohesive and are slowly built on a solid foundation. Such tightly bonded ties may weaken managers' ability as well as their motivation to search for new

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[3] We also run the same series of tests for the sample of non-high-tech firms. The results are robust with respect to our first and third hypothesis, but insignificant for our second hypothesis.

cooperative networks, especially with people outside the political system (Gargiulo and Benassi, 2000), which in turn increases their reaction time in competition. Sheng (2011), for example, shows that in industries with a high level of technology turbulence, political connections may be ineffective and people prefer business collaborations to obtain market resources and stay safe from technological competition. Thus, although political connections can benefit firms in certain aspects, they may also increase their likelihood of becoming obsolete, and thus having negative earnings and receiving ST warnings.

*** Insert Table 10 about here ***

8. Conclusion

In this paper, we examine how political connections can influence a firm's performance. We focus on so-called Special Treatment (ST) warnings imposed by the government because they allow for a comprehensive and uniform evaluation of a firm's well-being. Political connections affect a firm's prospect of being accused of fraud by the CSRC. We assume that political connections can help reduce a firm's risk of receiving an ST warning and can even increase their probability of moving back to normal if their firm has been placed into ST status. We also hypothesize that politically linked enterprises are less likely to be accused of fraud given the privileges they enjoy and based on the results of previous studies.

Our sample consists of 2,078 Chinese listed companies from 1998 to the end of June 2017. By estimating three multivariate probit regressions based on three subsamples, we find evidence supporting our assumptions regarding the effect of political connections on ST listings. According to our results, for most industries, firms with political connections are indeed less likely to be involved in ST issues and recover more easily even if they are given an

ST warning. At the same time, contrary to our expectations, politically connected firms are more likely to be accused of fraud by the CSRC.

Our results highlight the importance of political connections in business activities and shed light on the potential dark side of this form of external support. While firms can greatly benefit from their relationship with the government, it does not necessarily mean that connected companies enjoy healthy operations or promising future development. Our study urges investors to use care when investing in the stock market, especially when faced with politically connected firms. These firms may more easily survive in troubles and recover after periods of negative earnings, but they also exhibit a greater likelihood of financial misconduct and/or related government investigations. Investors should perform a comprehensive evaluation of a given firm before making their investment decision.

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Table 1: Variable Definitions

Variable Name	Definition	Source
ST	Dummy variable, equal to 1 if the firm is designated as a special treatment (ST) firm in a given year, and 0 otherwise	CSMAR
Normal	Dummy variable, equal to 1 if the firm went from ST back to normal in a certain year, and 0 otherwise	CSMAR
Fraud	Dummy variable, equal to 1 if a firm is accused of fraud in a certain year, and 0 otherwise	CSMAR
PC	Dummy variable, equal to 1 if the chairman or CEO of the firm is politically connected in a certain year, and 0 otherwise	CSMAR, Wind
ROE	Return on equity, calculated as net profit / shareholders' equity	CSMAR
Tobin's q	Calculated as a firm's total market value / book value of total assets	CSMAR
Firm Size	Logarithm of the book value of total assets	CSMAR
Leverage	Book value of total liabilities over the book value of total assets	CSMAR
Tangibility	Book value of tangible assets over the book value of total assets	CSMAR
Gender	Dummy variable, equal to 1 if the chairman of a firm is female in a certain year, 0 otherwise	CSMAR, Wind
Age	Age of the chairman of a firm in a given year	CSMAR, Wind
Tenure	Calculated in months in which the chairman has held his/her position by the end of a certain year	CSMAR, Wind
CEO Duality	Dummy variable, equal to 1 if the chairman of a firm is also the firm's CEO in a certain year, and 0 otherwise	CSMAR, Wind
Equity Concentration	Percentage of shares held by the company's largest shareholder	CSMAR, Wind
Board Independence	Proportion of independent directors on the board of directors	CSMAR, www.sse.com.cn www.szse.cn
Audit Dummy	Dummy variable, equal to 1 if the firm is audited by one of the big four accounting firms in a certain year, and 0 otherwise	CSMAR, www.sse.com.cn www.szse.cn
Return	Average previous rate of return of the stock, based on the previous 6 months for hypotheses 1 and 2, and the previous year for hypothesis 3	CSMAR

Table 2: Sample Overview

Panel A reports the number of listed stocks and the number of normally listed stocks (net of ST stocks) during the period 1998/01/01 to 2017/06/30. Panel B reports the number of ST stocks, stocks whose status declined from ST to ST*, stocks that went back to normal from ST and stocks found to be engaged in fraud during the period 1999/01/01 to 2017/06/30. Panel C reports the number of firms with political connections (PC) and without PC from 1998/01/01 to 2017/06/30. All data are retrieved from the CSMAR and Wind databases.

Panel A: Stock Listings	
Number of listed stocks	2,078
Number of normally listed stocks	1,878

Panel B: ST Status Changes and Fraud Allegations	
Number of stocks with ST status	200
Number of ST stocks whose status declined	183
Number of ST stocks that went back to normal	253
Number of fraudulent stocks	265

Panel C: Political Connections (PC)	
Firms with PC	1,207
Firms without PC	1,622

Table 3: Summary Statistics for Post-PSM Firms with and without ST Status

This table provides the summary statistics (i.e., the mean, median, standard deviation, the 25% and 75% quantile, and the number of observations) for all variables based on the post-PSM sample for listed firms with ST status (Panel A) and without ST status (Panel B) from January 1999 to June 2017. Panel C reports the results for a series of t-tests and Wilcoxon tests, which examine the pairwise differences in means and medians of the variables between firms with and without ST status. Panels D, E, and F provide summary statistics over the same time period for listed firms with political connections (Panel D) and without political connections (Panel E) as well as the results for a series of t-tests and Wilcoxon tests (Panel F). Related *p*-values are shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Mean	Median	Std. Dev.	25%	75%	N
Panel A: ST=0						
PC	0.569	1.000	0.496	0.000	1.000	211
Board Independence	0.137	0.000	0.159	0.000	0.333	211
Equity Concentration	43.209	42.130	17.806	28.520	59.840	211
Audit Dummy	0.033	0.000	0.180	0.000	0.000	211
Return	-0.003	-0.014	0.048	-0.034	0.019	211
Tenure	25.777	23.000	17.377	11.000	34.000	211
Gender	0.014	0.000	0.119	0.000	0.000	211
Age	50.872	52.000	7.714	46.000	57.000	211
CEO Duality	0.232	0.000	0.423	0.000	0.000	211
ROE	0.079	0.080	0.055	0.047	0.107	211
Tobin's q	2.704	2.468	1.573	1.555	3.445	211
Tangibility	0.974	0.985	0.032	0.962	0.997	211
Firm Size	20.706	20.568	0.785	20.134	21.135	211
Leverage	0.368	0.375	0.149	0.259	0.468	211
Panel B: ST=1						
PC	0.398	0.000	0.491	0.000	1.000	211
Board Independence	0.139	0.000	0.154	0.000	0.286	211
Equity Concentration	53.201	33.073	251.024	25.430	47.870	211
Audit Dummy	0.076	0.000	0.265	0.000	0.000	211
Return	-0.012	-0.017	0.044	-0.032	0.007	211
Tenure	21.194	19.000	17.248	9.000	30.000	211
Gender	0.043	0.000	0.203	0.000	0.000	211
Age	48.033	48.000	7.924	42.000	54.000	211
CEO Duality	0.204	0.000	0.404	0.000	0.000	211
ROE	-0.861	-0.364	2.748	-0.910	-0.132	211
Tobin's q	2.510	1.870	2.061	1.196	3.249	211
Tangibility	0.949	0.976	0.072	0.934	0.992	211
Firm Size	20.651	20.554	0.818	19.916	21.133	211
Leverage	0.651	0.678	0.215	0.535	0.836	211

Panel C: Equality Tests	Differences in Means		Differences in Medians	
PC	0.171***	(0.000)	1.000***	(0.001)
Board Independence	-0.002	(0.905)	0.000	(0.957)
Equity Concentration	-9.993	(0.564)	9.057***	(0.000)
Audit Dummy	-0.043*	(0.054)	0.000*	(0.054)
Return	0.009**	(0.049)	0.003	(0.167)
Tenure	4.583***	(0.007)	4.000***	(0.001)
Gender	-0.028*	(0.079)	0.000*	(0.079)
Age	2.839***	(0.000)	4.000***	(0.000)
CEO Duality	0.028	(0.481)	0.000	(0.480)
ROE	0.941***	(0.000)	0.444***	(0.000)
Tobin's q	0.194	(0.277)	0.598***	(0.005)
Tangibility	0.025***	(0.000)	0.009***	(0.001)
Firm Size	0.055	(0.478)	0.014	(0.346)
Leverage	-0.283***	(0.000)	-0.303***	(0.000)

	Mean	Median	Std. Dev.	25%	75%	N
Panel D: PC=0						
ST	0.583	1.000	0.494	0.000	1.000	218
Board Independence	0.161	0.174	0.158	0.000	0.333	218
Equity Concentration	37.588	33.328	17.549	24.739	50.251	218
Audit Dummy	0.060	0.000	0.237	0.000	0.000	218
Return	-0.007	-0.018	0.048	-0.034	0.015	218
Tenure	23.427	20.000	17.972	11.000	31.000	218

Gender	0.023	0.000	0.150	0.000	0.000	218
Age	48.454	48.000	8.097	42.000	55.000	218
CEO Duality	0.243	0.000	0.430	0.000	0.000	218
ROE	-0.380	-0.027	1.756	-0.399	0.078	218
Tobin's q	2.525	2.004	1.883	1.266	3.107	218
Tangibility	0.957	0.980	0.067	0.948	0.996	218
Firm Size	20.636	20.548	0.807	19.988	21.023	218
Leverage	0.533	0.526	0.230	0.360	0.698	218
Panel E: PC=1						
ST	0.412	0.000	0.493	0.000	1.000	204
Board Independence	0.113	0.000	0.150	0.000	0.261	204
Equity Concentration	59.551	40.005	254.924	27.565	56.250	204
Audit Dummy	0.049	0.000	0.216	0.000	0.000	204
Return	-0.008	-0.014	0.044	-0.032	0.011	204
Tenure	23.549	21.000	16.904	11.000	32.500	204
Gender	0.034	0.000	0.182	0.000	0.000	204
Age	50.520	51.000	7.643	45.000	56.000	204
CEO Duality	0.191	0.000	0.394	0.000	0.000	204
ROE	-0.403	0.045	2.231	-0.244	0.100	204
Tobin's q	2.694	2.329	1.780	1.488	3.438	204
Tangibility	0.966	0.980	0.044	0.955	0.995	204
Firm Size	20.724	20.586	0.795	20.124	21.193	204
Leverage	0.485	0.461	0.234	0.299	0.659	204
Panel F: Equality Tests	**Differences in Means**			**Differences in Medians**		
ST	0.171***	(0.000)		1.000***	(0.001)	
Board Independence	0.049***	(0.001)		0.174***	(0.002)	
Equity Concentration	-21.963	(0.205)		-6.677***	(0.010)	
Audit Dummy	0.011	(0.632)		0.000	(0.632)	
Return	0.001	(0.895)		-0.004	(0.589)	
Tenure	-0.122	(0.943)		-1.000	(0.800)	
Gender	-0.011	(0.483)		0.000	(0.483)	
Age	-2.065***	(0.007)		-3.000***	(0.010)	
CEO Duality	0.052	(0.197)		0.000	(0.197)	
ROE	0.022	(0.909)		-0.072***	(0.005)	
Tobin's q	-0.169	(0.344)		-0.325	(0.109)	
Tangibility	-0.009*	(0.087)		0.000	(0.633)	
Firm Size	-0.088	(0.260)		-0.038	(0.229)	
Leverage	0.048**	(0.033)		0.065**	(0.027)	

Table 4: Summary Statistics for Fraudulent and Non-fraudulent Firms

This table provides summary statistics (i.e., the mean, median, standard deviation, the 25% and 75% quantile, and the number of observations) for all sample variables based on the post-PSM sample of listed firms being accused of fraud (Panel A) and their matched non-fraudulent counterparts (Panel B) from January 1999 to June 2017. Panel C reports the results for a series of t-tests and Wilcoxon tests, which examine the pairwise differences in means and medians of all variables for fraudulent firms and non-fraudulent firms. Panels D, E, and F repeat the summary statistics over the same time period based on same sample but distinguishes between firms with political connections (Panel D) and without political connections (Panel E) and provides the results for the respective t-tests and Wilcoxon tests (Panel F). Related *p*-values are shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Mean	Median	Std. Dev.	25%	75%	N
Panel A: Fraud=0						
PC	0.383	0.000	0.486	0.000	1.000	528
Board Independence	0.249	0.333	0.162	0.000	0.364	528
Equity Concentration	38.603	36.006	15.390	26.330	49.632	528
Audit Dummy	0.017	0.000	0.130	0.000	0.000	528
Return	0.284	0.061	0.808	-0.252	0.619	528
Tenure	24.212	20.000	16.603	13.000	31.000	528
Gender	0.036	0.000	0.186	0.000	0.000	528
Age	49.813	49.500	7.489	45.000	55.000	528
CEO Duality	0.205	0.000	0.404	0.000	0.000	528
ROE	0.059	0.066	0.128	0.036	0.103	528
Tobin's q	3.028	2.661	2.051	1.545	3.926	528
Tangibility	0.953	0.976	0.073	0.949	0.993	528
Firm Size	20.376	20.164	0.772	19.897	20.712	528
Leverage	0.334	0.326	0.174	0.191	0.459	528
Panel B: Fraud=1						
PC	0.477	0.000	0.500	0.000	1.000	528
Board Independence	0.250	0.333	0.167	0.000	0.364	528
Equity Concentration	34.712	31.211	15.029	24.072	44.871	528
Audit Dummy	0.030	0.000	0.172	0.000	0.000	528
Return	0.368	0.012	1.056	-0.296	0.707	528
Tenure	23.858	20.000	20.326	11.000	31.000	528
Gender	0.047	0.000	0.213	0.000	0.000	528
Age	48.430	48.000	7.772	43.000	54.000	528
CEO Duality	0.191	0.000	0.394	0.000	0.000	528
ROE	-0.107	0.062	1.646	0.015	0.109	528
Tobin's q	2.557	1.999	2.055	1.101	3.302	528
Tangibility	0.941	0.973	0.095	0.937	0.989	528
Firm Size	20.799	20.712	0.955	20.172	21.379	528
Leverage	0.646	0.504	2.733	0.350	0.648	528
Panel C: Equality Tests	**Differences in Means**			**Differences in Medians**		
PC	-0.095***	(0.002)		0.000***	(0.002)	
Board Independence	-0.001	(0.921)		0.000	(0.886)	
Equity Concentration	3.891***	(0.000)		4.795***	(0.000)	
Audit Dummy	-0.013	(0.157)		0.000	(0.157)	
Return	-0.085	(0.144)		0.049	(0.751)	
Tenure	0.354	(0.757)		0.000*	(0.061)	
Gender	-0.011	(0.356)		0.000	(0.356)	
Age	1.383***	(0.003)		1.500***	(0.002)	
CEO Duality	0.013	(0.589)		0.000	(0.589)	
ROE	0.166**	(0.021)		0.004*	(0.093)	
Tobin's q	0.470***	(0.000)		0.662***	(0.000)	
Tangibility	0.011**	(0.029)		0.003**	(0.011)	
Firm Size	-0.423***	(0.000)		-0.548***	(0.000)	
Leverage	-0.311***	(0.009)		-0.178***	(0.000)	
Panel D: PC=0						
Fraud	0.458	0.000	0.499	0.000	1.000	602
Board Independence	0.259	0.333	0.159	0.143	0.364	602
Equity Concentration	36.420	34.060	14.868	25.590	46.960	602
Audit Dummy	0.022	0.000	0.145	0.000	0.000	602
Return	0.307	0.014	0.942	-0.284	0.649	602
Tenure	23.233	19.000	18.011	11.000	30.000	602

Gender	0.045	0.000	0.207	0.000	0.000	602
Age	48.608	48.000	8.054	43.000	55.000	602
CEO Duality	0.209	0.000	0.407	0.000	0.000	602
ROE	-0.010	0.061	0.727	0.022	0.103	602
Tobin's q	2.925	2.343	2.235	1.347	3.952	602
Tangibility	0.952	0.976	0.077	0.947	0.993	602
Firm Size	20.528	20.305	0.878	19.937	21.082	602
Leverage	0.534	0.393	2.566	0.230	0.561	602
Panel E: PC=1						
Fraud	0.555	1.000	0.498	0.000	1.000	454
Board Independence	0.237	0.333	0.171	0.000	0.364	454
Equity Concentration	36.973	34.055	15.927	26.240	48.824	454
Audit Dummy	0.026	0.000	0.161	0.000	0.000	454
Return	0.351	0.090	0.940	-0.259	0.678	454
Tenure	25.099	22.000	19.210	12.000	33.000	454
Gender	0.037	0.000	0.190	0.000	0.000	454
Age	49.802	49.000	7.054	45.000	55.000	454
CEO Duality	0.183	0.000	0.387	0.000	0.000	454
ROE	-0.043	0.072	1.577	0.035	0.109	454
Tobin's q	2.617	2.241	1.804	1.306	3.383	454
Tangibility	0.940	0.974	0.094	0.931	0.989	454
Firm Size	20.667	20.516	0.909	20.009	21.146	454
Leverage	0.431	0.413	0.204	0.289	0.577	454
Panel F: Equality Tests	**Differences in Means**			**Differences in Medians**		
Fraud	-0.097***	(0.002)		-1.000***	(0.002)	
Board Independence	0.022**	(0.029)		0.000	(0.218)	
Equity Concentration	-0.553	(0.562)		0.005	(0.771)	
Audit Dummy	-0.005	(0.609)		0.000	(0.609)	
Return	-0.043	(0.458)		-0.076	(0.255)	
Tenure	-1.867	(0.106)		-3.000**	(0.034)	
Gender	0.007	(0.551)		0.000	(0.551)	
Age	-1.194**	(0.012)		-1.000**	(0.015)	
CEO Duality	0.026	(0.285)		0.000	(0.285)	
ROE	0.033	(0.647)		-0.011**	(0.011)	
Tobin's q	0.308**	(0.016)		0.102	(0.150)	
Tangibility	0.012**	(0.021)		0.002**	(0.032)	
Firm Size	-0.139**	(0.012)		-0.211**	(0.012)	
Leverage	0.103	(0.392)		-0.020	(0.120)	

Table 5: Correlation Matrix

This table reports the Pearson correlation coefficients for all variable pairs based on the sample employed in Table 3. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
(1) ST	1														
(2) PC	-0.003	1													
(3) Board Independence	-0.389***	0.002	1												
(4) Equity Concentration	-0.011	0.005	0.004	1											
(5) Audit Dummy	-0.006	0.050***	0.058***	0.104***	1										
(6) Return	-0.047***	-0.001	0.045***	-0.011	-0.004	1									
(7) Tenure	-0.063***	0.019*	0.104***	-0.127***	-0.004	0.036***	1								
(8) Gender	-0.001	0.01	0.001	0.012	-0.027***	0.008	-0.005	1							
(9) Age	-0.069***	0.098***	0.021**	-0.004	0.107***	0.020*	0.249***	-0.018*	1						
(10) CEO Duality	0.001	-0.041***	0.071***	-0.051***	-0.051***	0.028***	0.067***	0.026**	-0.103***	1					
(11) ROE	-0.212***	0.009	0.083***	0.037***	0.024**	0.026**	0.011	0.003	0.031***	0.01	1				
(12) Tobin's q	0.035***	-0.056***	-0.012	-0.034***	-0.142***	0.251***	0.005	0.011	-0.031***	0.158***	0.023**	1			
(13) Tangibility	-0.011	-0.051***	0.002	0.015	-0.044***	-0.002	-0.024**	0.021**	0.004	0.021**	0.017*	-0.009	1		
(14) Firm Size	-0.114***	0.075***	0.143***	0.139***	0.510***	-0.024**	0.139***	-0.033***	0.171***	-0.120***	0.050***	-0.390***	0.008	1	
(15) Leverage	0.113***	0.021**	-0.024**	-0.004	0.186***	-0.015	-0.017*	-0.020*	0.012	-0.152***	-0.072***	-0.487***	0.031***	0.521***	1

Table 6: Multivariate Analysis of Political Connections and ST Status

This table reports the results of a probit regression analysis for a sample of 211 firms with ST status and a sample of 211 PSM-matched firms without ST status from January 1999 to June 2017. The dependent variable, ST, is a dummy variable that equals 1 if the firm has ST status in a given year, and 0 otherwise. Columns (1) and (2) report the results for two partial models with financial figures and firm characteristics, respectively, and Column (3) reports the results for the full model. *P-values* are displayed in parentheses below each coefficient. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

	(1) PC & Financial Figures	(2) PC & Firm Characteristics	(3) Full Model
PC	-0.135**	-0.170***	-0.133**
	(0.013)	(0.001)	(0.019)
Tobin's q	0.047***		0.048***
	(0.006)		(0.010)
ROE	-0.549***		-0.541***
	(0.000)		(0.000)
Leverage	1.575***		1.571***
	(0.000)		(0.000)
Tangibility	-2.010***		-2.045***
	(0.001)		(0.001)
Return	0.040		0.075
	(0.858)		(0.825)
Gender		0.317**	0.185
		(0.028)	(0.137)
Age		-0.012***	-0.003
		(0.001)	(0.424)
CEO Duality		-0.068	0.029
		(0.276)	(0.686)
Tenure		-0.003*	-0.002
		(0.066)	(0.255)
Equity Concentration		0.000*	0.000
		(0.067)	(0.670)
Board Independence		-0.162	0.033
		(0.338)	(0.887)
Audit Dummy		0.248**	0.184*
		(0.036)	(0.076)
Constant	3.323*	1.933***	3.869**
	(0.056)	(0.000)	(0.041)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	422	422	422
Pseudo R^2	0.473	0.073	0.489
Prob > χ^2	0.000	0.000	0.000

Table 7: Multivariate Analysis of Political Connections and ST Status Reversals

This table reports the results of a probit regression analysis for a sample of 281 firms that reverted back to normal listing status after receiving an ST warning and a sample of 237 firms whose status further declined from January 1999 to June 2017. The dependent variable, Normal, is a dummy variable that equals 1 if the firm went from ST back to normal in a given year, and 0 otherwise. Columns (1) and (2) report the results for two partial models with financial figures and firm characteristics, respectively, and Column (3) reports the results for the full model. *P-values* are displayed in parentheses below each coefficient. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

	(1) PC & Financial Figures	(2) PC & Firm Characteristics	(3) Full Model
PC	0.094**	0.106**	0.081*
	(0.045)	(0.023)	(0.094)
Firm Size	0.139***		0.111***
	(0.000)		(0.002)
Tangibility	0.228		0.242
	(0.401)		(0.374)
ROE	0.023		0.019
	(0.158)		(0.253)
Tobin's q	0.038***		0.033**
	(0.003)		(0.020)
Leverage	-0.472***		-0.472***
	(0.007)		(0.009)
Return	1.129**		1.142**
	(0.040)		(0.033)
Gender		0.073	0.058
		(0.481)	(0.684)
Age		0.004	0.004
		(0.174)	(0.228)
CEO Duality		0.036	0.074
		(0.514)	(0.225)
Audit Dummy		0.030	-0.117
		(0.790)	(0.269)
Equity Concentration		0.007***	0.005***
		(0.000)	(0.008)
Board Independence		-0.824***	-0.567**
		(0.001)	(0.026)
Tenure		-0.001	-0.002**
		(0.110)	(0.024)
Constant	-46.142	-208.994***	-141.298**
	(0.111)	(0.000)	(0.006)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	519	519	519
Pseudo R^2	0.270	0.080	0.295
Prob > χ^2	0.000	0.000	0.000

Table 8: Multivariate Analysis of Political Connections and Fraud

This table reports the results of a probit regression analysis for a sample of 528 firms that have been accused of fraud and a sample of 528 PSM-matched firms that have not been accused of fraud between January 1999 and June 2017. The dependent variable, Fraud, is a dummy variable that equals 1 if the firm was accused of fraud in a given year, and 0 otherwise. Columns (1) and (2) report the results for two partial models with financial figures and firm characteristics, respectively, and Column (3) reports the results for the full model. *P-values* are displayed in parentheses below each coefficient. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

	(1) PC & Financial Figures	(2) PC & Firm Characteristics	(3) Full Model
PC	0.090***	0.105***	0.097***
	(0.007)	(0.001)	(0.004)
Tobin's q	0.005		0.004
	(0.590)		(0.722)
ROE	-0.126		-0.106
	(0.137)		(0.208)
Leverage	1.062***		1.026***
	(0.000)		(0.000)
Tangibility	-0.250		-0.228
	(0.239)		(0.287)
Return	0.025		0.024
	(0.208)		(0.252)
Board Independence		-0.102	-0.012
		(0.319)	(0.912)
Audit Dummy		0.190**	0.154
		(0.049)	(0.110)
Equity Concentration		-0.005***	-0.004***
		(0.000)	(0.001)
Tenure		0.000	0.001
		(0.943)	(0.469)
Gender		0.098	0.056
		(0.211)	(0.492)
Age		-0.007***	-0.005**
		(0.002)	(0.032)
CEO Duality		-0.033	-0.008
		(0.413)	(0.859)
Constant	-0.455	1.484***	0.465
	(0.401)	(0.000)	(0.451)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	1,056	1,056	1,056
Pseudo R^2	0.148	0.042	0.160
Prob > χ^2	0.000	0.000	0.000

Table 9: Robustness Test with Educational Degree Added as an Additional Control Variables

This table reports the results for a series of robustness tests in which we re-test hypotheses 1-3 while adding an additional control variable *Degree* to our models. Panel A reports the robustness test for hypothesis 1, Panel B for hypothesis 2, and Panel C for hypothesis 3. Columns (1) and (2) report the results for two partial models with financial figures and firm characteristics, respectively, and Column (3) reports the results for the full model. *P-values* are displayed in parentheses below. Each coefficient. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Panel A	(1)	(2)	(3)
	PC & Financial Figures	PC & Firm Characteristics	Full Model
PC	-0.406**	-0.445***	-0.425**
	(0.013)	(0.001)	(0.012)
Tobin's q	0.142***		0.161***
	(0.006)		(0.006)
ROE	-1.648***		-1.570***
	(0.000)		(0.000)
Leverage	4.729***		4.747***
	(0.000)		(0.000)
Tangibility	-6.035***		-5.906***
	(0.001)		(0.001)
Return	0.359		0.607
	(0.858)		(0.761)
Gender		0.815**	0.631
		(0.046)	(0.206)
Tenure		-0.008**	-0.007
		(0.046)	(0.276)
Age		-0.036***	-0.021*
		(0.000)	(0.093)
Degree		-0.194**	-0.261**
		(0.021)	(0.036)
CEO Duality		-0.187	0.061
		(0.235)	(0.771)
Audit Dummy		0.693**	0.744*
		(0.030)	(0.072)
Equity Concentration		0.000**	0.000
		(0.050)	(0.502)
Board Independence		-0.299	0.218
		(0.484)	(0.717)
Constant	3.323*	2.842***	5.006**
	(0.056)	(0.000)	(0.011)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	422	419	419
Pseudo R^2	0.473	0.081	0.494
Prob > χ^2	0.000	0.000	0.000
Panel B	(1)	(2)	(3)
	PC & Financial Figures	PC & Firm Characteristics	Full Model
PC	0.241**	0.255**	0.200
	(0.045)	(0.035)	(0.108)
Firm Size	0.357***		0.291***
	(0.000)		(0.002)
Tobin's q	0.098***		0.087**
	(0.003)		(0.018)
ROE	0.059		0.041
	(0.158)		(0.309)
Leverage	-1.211***		-1.174**
	(0.007)		(0.011)
Tangibility	0.585		0.762
	(0.401)		(0.284)
Return	2.896**		2.797**
	(0.040)		(0.047)
Gender		0.217	0.178
		(0.416)	(0.623)
Age		0.019**	0.018*
		(0.021)	(0.051)

	(1)	(2)	(3)
Degree		0.264***	0.262***
		(0.000)	(0.001)
CEO Duality		0.115	0.237
		(0.417)	(0.132)
Tenure		-0.004*	-0.006**
		(0.071)	(0.018)
Equity Concentration		0.018***	0.011**
		(0.000)	(0.014)
Board Independence		-2.125***	-1.458**
		(0.001)	(0.031)
Audit Dummy		0.033	-0.351
		(0.907)	(0.207)
Constant	-46.142	-200.852***	-130.858**
	(0.111)	(0.000)	(0.012)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	519	511	511
Pseudo R^2	0.270	0.101	0.309
Prob > χ^2	0.000	0.000	0.000

Panel C	(1)	(2)	(3)
	PC & Financial Figures	PC & Firm Characteristics	Full Model
PC	0.226***	0.263***	0.245***
	(0.007)	(0.001)	(0.004)
Tobin's q	0.013		0.011
	(0.590)		(0.678)
ROE	-0.315		-0.276
	(0.137)		(0.194)
Leverage	2.662***		2.563***
	(0.000)		(0.000)
Tangibility	-0.628		-0.490
	(0.239)		(0.370)
Return	0.063		0.058
	(0.208)		(0.268)
Gender		0.235	0.129
		(0.232)	(0.529)
Tenure		0.000	0.002
		(0.982)	(0.461)
Age		-0.021***	-0.016***
		(0.000)	(0.010)
Degree		-0.135***	-0.113**
		(0.002)	(0.019)
CEO Duality		-0.108	-0.043
		(0.290)	(0.695)
Audit Dummy		0.543**	0.437*
		(0.033)	(0.080)
Equity Concentration		-0.013***	-0.009***
		(0.000)	(0.001)
Board Independence		-0.152	0.050
		(0.564)	(0.860)
Constant	-0.455	2.110***	0.901
	(0.401)	(0.000)	(0.165)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	1,056	1,051	1,051
Pseudo R^2	0.148	0.048	0.165
Prob > χ^2	0.000	0.000	0.000

Table 10: Robustness Test for High-tech Firms

This table reports the results for a series of robustness tests in which we re-test hypotheses 1-3 based on our high-tech subsample. Panel A reports the robustness test for hypothesis 1, Panel B for hypothesis 2, and Panel C for hypothesis 3. Columns (1) and (2) report the results for two partial models with financial figures and firm characteristics, respectively, and Column (3) reports the results for the full model. *P-values* are displayed in parentheses below. Each coefficient. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Panel A	(1) PC & Financial Figures	(2) PC & Firm Characteristics	(3) Full Model
PC	2.595***	0.781**	6.121***
	(0.000)	(0.011)	(0.002)
Tobin's q	0.193**		0.357
	(0.018)		(0.066)
Leverage	9.715***		23.347***
	(0.000)		(0.001)
Tangibility	9.042**		23.207**
	(0.012)		(0.023)
ROE	-1.264***		-4.023***
	(0.000)		(0.003)
Tenure		0.001	-0.007
		(0.921)	(0.851)
Age		0.010	0.172**
		(0.607)	(0.026)
CEO Duality		-0.171	-2.976**
		(0.681)	(0.017)
Board Independence		-4.269**	-8.905**
		(0.042)	(0.040)
Equity Concentration		0.002	0.045
		(0.832)	(0.231)
Constant	705.991***	342.920**	1647.311***
	(0.000)	(0.029)	(0.001)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	116	116	116
Pseudo R^2	0.787	0.493	0.870
Prob > χ^2	0.000	0.000	0.000

Panel B	(1) PC & Financial Figures	(2) PC & Firm Characteristics	(3) Full Model
PC	0.133	0.458*	0.219
	(0.610)	(0.068)	(0.401)
Firm Size	0.513***		0.415**
	(0.001)		(0.019)
Tangibility	-0.393		-0.132
	(0.804)		(0.941)
Tobin's q	0.104***		0.098**
	(0.004)		(0.012)
ROE	0.436**		0.460*
	(0.039)		(0.055)
Leverage	-0.971***		-0.997***
	(0.002)		(0.003)
Return	7.169**		8.671***
	(0.016)		(0.002)
Gender		-0.367	-0.925
		(0.448)	(0.233)
Age		0.010	0.017
		(0.496)	(0.323)
CEO Duality		-0.076	0.226
		(0.801)	(0.502)
Tenure		-0.004	-0.011**
		(0.299)	(0.011)
Equity Concentration		0.020**	0.013
		(0.028)	(0.188)
Board Independence		-2.966**	-1.580

		(0.028)	(0.281)
Audit Dummy		0.768	0.282
		(0.184)	(0.598)
Constant	-32.095	-270.224**	-169.875
	(0.535)	(0.015)	(0.143)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	138	138	138
Pseudo R^2	0.375	0.119	0.424
Prob > χ^2	0.000	0.141	0.001
Panel C	(1)	(2)	(3)
	PC & Financial Figures	PC & Firm Characteristics	Full Model
PC	0.312*	0.376**	0.357**
	(0.055)	(0.017)	(0.033)
Tobin's q	0.127***		0.107**
	(0.003)		(0.022)
Leverage	2.672***		2.512***
	(0.000)		(0.000)
Tangibility	-4.440***		-3.799**
	(0.004)		(0.012)
ROE	-2.465***		-2.916***
	(0.002)		(0.001)
Gender		0.538	0.595
		(0.129)	(0.136)
Tenure		-0.003	-0.001
		(0.569)	(0.800)
Age		-0.027***	-0.017
		(0.008)	(0.106)
CEO Duality		0.128	0.142
		(0.502)	(0.483)
Board Independence		-1.195	-0.661
		(0.156)	(0.507)
Audit Dummy		-0.514	-0.511
		(0.251)	(0.186)
Equity Concentration		-0.019***	-0.019***
		(0.000)	(0.001)
Constant	-54.618	-51.796	-74.482
	(0.242)	(0.483)	(0.386)
Industry Fixed Effects	yes	yes	yes
Year Fixed Effects	yes	yes	yes
Observations	290	290	290
Pseudo R^2	0.165	0.085	0.209
Prob > χ^2	0.000	0.000	0.000