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#### Citation

HOPE, Ole-Kristian; YUE, Heng; and ZHONG, Qinlin. China's anti-corruption campaign and financial reporting quality. (2019). *Contemporary Accounting Research*. 1-63. Research Collection School Of Accountancy.

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# China's Anti-Corruption Campaign and Financial Reporting Quality\*

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July 19, 2019

## Abstract

We examine the impact of China's anti-corruption campaign on firm-level financial reporting quality (FRQ). As an important component of the anti-corruption campaign, in October 2013, "Rule 18" was issued to prohibit party and government officials from serving as directors for publicly listed firms. The regulation led to a large number of official directors resigning from their roles as directors involuntarily. As such, Rule 18 has effectively weakened, if not fully discontinued, the political connections of the firms that previously hired officials as directors. Our empirical analyses employ a difference-in-differences research design with firm fixed effects and PSM to examine the pre- and post- period FRQ around the enactment of Rule 18. We find that, compared to propensity-score-matched control firms, FRQ of firms with resigned official director increases after Rule 18. Further evidence suggests that the impact is stronger when firms are located in regions with more developed financial markets and in regions with higher judiciary efficiency. We also find that the effect is more pronounced when firms are non-state-owned, received preferential credits, and face refinancing pressure.

**Keywords:** Anti-Corruption Campaign; Financial Reporting Quality; Political Connections; China; Quasi Experiment

\* Accepted by Edward Riedl. We thank Muhammad Azim, Mary Barth, Stephanie Cheng, Keith Czerney, Gus De Franco, Jeff Downing, Amanda Gonzales, Allen Hart (discussant), Hai Lu, Kevin Smith (discussant), Han Wu, Aaron Yoon (discussant), Danielle Zhang, Tianyu Zhang (discussant), and seminar participants at Singapore Management School, BI Norwegian Business School, University of Melbourne, University of Nebraska, as well as the 2016 SMU Accounting Symposium, 2017 FARS conference, 2017 IAS conference (Best Paper Award), 2017 CAAA conference, and 2017 MIT Asia Conference in Accounting for helpful comments. This paper was previously

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/1911-3846.12557

titled “China’s Anti-Corruption Campaign and Earnings Transparency.” Hope acknowledges funding from the Deloitte Professorship

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Accepted Article

## China's Anti-Corruption Campaign and Financial Reporting Quality

### 1. Introduction

In November of 2012, Xi Jinping became the “paramount leader” of China (i.e., General Secretary; President; and Chair of the Central Military Commission). Shortly after he took power, Xi launched a far-reaching anti-corruption campaign, vowing to maintain a “zero-tolerance attitude toward corruption” and to “look into every case involving corruption.”<sup>1</sup> As of 2017, more than 100,000 people have been indicted for corruption, and 120 high-ranking officials, including five national-level leaders, have been targeted. The campaign has shown no sign of stopping yet, and is said to become the “new normal.”<sup>2</sup>

As one important action of the anti-corruption campaign, the Communist Party of China (CPC) issued “Rule 18” on October 19, 2013. Realizing that unduly close connections between business and officials could foster corruption, Rule 18 mandates that party and government officials above certain ranks, either currently in position or retired within three years, are prohibited from holding any part-time or full-time position in any enterprises. Rule 18 forced officials to resign from listed firms immediately, aiming to curb possible corruption relating to those firms that previously established political connections via hiring officials. The regulation thus triggered an unprecedented

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<sup>1</sup> See [http://www.chinadaily.com.cn/china/2016-07/01/content\\_25936928.htm](http://www.chinadaily.com.cn/china/2016-07/01/content_25936928.htm)

<sup>2</sup> See [https://en.wikipedia.org/wiki/Anti-corruption\\_campaign\\_under\\_Xi\\_Jinping](https://en.wikipedia.org/wiki/Anti-corruption_campaign_under_Xi_Jinping);  
[http://usa.chinadaily.com.cn/epaper/2015-03/02/content\\_19695097.htm](http://usa.chinadaily.com.cn/epaper/2015-03/02/content_19695097.htm);

large-scale tide of director resignations.

In this paper, we utilize the issuance of Rule 18 as a quasi-experiment to investigate the effect of anti-corruption reforms on firm-level financial reporting quality (FRQ). Corruption is an important issue in developing and transitional economies, and has attracted much attention from economists and policy makers (e.g., Bardhan 1997; Ades and Di Tella 1999; Cai et al. 2011). However, most previous research examines whether corruption reduces economic growth at the macro level. Also, although many countries put in efforts to curb corruption, the evidence of the effects of anti-corruption is rare. Rule 18 directly affects a group of firms that can be identified through analyses of the resignation announcements, therefore it provides an opportunity to examine firm-level effects of anti-corruption efforts. We focus on firm-level FRQ, which the literature has found to have a significant effect on the cost of capital (e.g., Bhattacharya et al. 2011), investment efficiency (e.g., Biddle et al. 2009), development of financial markets (e.g., Rajgopal and Venkatachalam 2011), and economic growth (e.g., Li and Shroff 2010).

When firms hire officials as directors, they establish a political connection with the government. This connection can serve as a channel for political rent-seeking and corruption. Because the Chinese government plays an especially important role in the economy, these directors may help firms to gain a variety of preferential treatments, such as preferential bank credit (e.g., Claessens et al. 2008), more government subsidies or government contracts (e.g., Agrawal and Knoeber 2001), and favorable court outcomes (e.g., Lu et al. 2015). As a result, these firms have

less incentive to provide high quality financial reporting. When the anti-corruption campaign cuts the connection by forcing the officials to resign, these firms lose preferential treatments and therefore may be incentivized to improve FRQ.

That forcing directors with political connections to resign would improve FRQ is not a priori obvious. The background of these directors is publicly disclosed and the employment relationship is public information, therefore these firms and hired officials may be subject to stricter media scrutiny. Thus, firms with official directors may have incentive to maintain high FRQ in order to signal their commitment to investor protection.

We utilize Rule 18 as an exogenous shock and use a difference-in-differences design with *firm fixed effects* to compare the effect of losing official directors on FRQ for firms affected by Rule 18 to a *propensity-score-matched* (PSM) control group. Following prior studies (e.g., Krishnan et al. 2011; Dou et al. 2018), we operationalize FRQ using two measures of accrual earnings management and one measure of real earnings management (and then combine these into our aggregate FRQ measure). We find that firms that lose official directors due to the enactment of Rule 18 significantly improve their FRQ compared to the control firms (and thus their financial transparency is enhanced).

We then examine the effects of institutional environments. First, the market system relies on financial information to allocate resources and more developed markets have higher demand for FRQ. Therefore, in regions with more developed markets, firms that previously gained access to

Accepted Article

scarce resources through political connections (or corruption) have greater incentives to improve their reporting quality. We find that the increase in FRQ is more pronounced when firms are located in the region with more developed market system. Second, the effectiveness of the anti-corruption campaign may rely on the effectiveness of legal enforcement. We partition the sample based on the efficiency of the judiciary system in China, and find that the effect is more pronounced in the subsample with a more efficient judiciary system. These findings are consistent with Svensson (2005) and Lin et al. (2016), and suggest that institutional developments are vital to the effectiveness of anti-corruption.

We further explore firm-level heterogeneity. First, we find that the effects are stronger for non-state-owned firms than for state-owned firms (SOEs), suggesting that political connections through directors are more important for non-SOEs. Second, we find that the impact is stronger when firms benefited from lower financing costs before Rule 18, and when firms face refinancing pressure. These results are consistent with the idea that official directors may help firms to access preferential financing. After the resignation of the directors, those firms have to rely on the market for financing and therefore provide financial reporting with higher quality.

In supplemental tests, we examine the consequence of anti-corruption campaign and the moderating effects of the change in FRQ. We show that treatment firms receive lower subsidies from the government and have less access to long-term bank loans after losing politically-connected directors, which is consistent with a reduction in preferential treatment for these firms. We also find

that treatment firms with increases in FRQ are better able to access the public financial market.

We conduct several robustness tests to further validate our findings. First, other events that occurred during this period in China could potentially confound our results. Because our research design controls for the time trend in FRQ, only events that would systematically affect the treatment and control firms could affect our inferences. We consider two events that could possibly have different effects on the treatment and control firms: the “Eight-Point Regulation” in 2012 (another example of the government’s anti-corruption efforts), and the market-liberalization reform of 2015. Our inferences are not impacted in these robustness tests.

Second, we carry out two sets of placebo tests. Rule 18 affects another group of directors who have similar civil-service ranks but no political connections in substance - university professors, leaders in publicly-funded organizations, and senior managers in SOEs. Because these individuals have no substantial political influence either in the government or the party, we expect their resignations not to affect FRQ. We use such firms as pseudo-treatment firms, and do the similar analyses. The results indicate that there is no significant change in FRQ for such firms. We also use other years as “pseudo-event” years, and do not find significant differences in FRQ between treatment and control firms around these pseudo-events.

Third, we manually collect detailed data on personal characteristics and professional backgrounds of both the resigned official directors and the successor directors for the treated firms. We include controls for these characteristics. The results indicate that personal characteristics of



resigned official directors affect the change of FRQ, while personal characteristics of replacement directors have no effect. More importantly, our main conclusions do not change.

Our paper contributes to the literature in the following ways. First, our paper relates to the understanding of the effect of China's anti-corruption campaign. The large scale anti-corruption campaign in China has attracted interest from academia (see Lin et al. 2016; Ke et al. 2017; Griffin et al. 2018). These studies use the whole anti-corruption campaign as an event that simultaneously affects all firms in the country, and rely on time-series differences to identify the effects of anti-corruption. We examine Rule 18, which focuses on officials who hold positions in listed companies, and affects only a group of firms. We can therefore use firms that are not affected by Rule 18 as a natural control sample, and identify the effects of anti-corruption using a difference-in-differences design. Our article is among the first to investigate the effects of the Chinese anti-corruption campaign in general, and is the first paper that examines the impact of Rule 18 on FRQ.

Second, corruption is an important issue in developing and transitional economies, and fighting corruption is a challenging task around the world (e.g., Khwaja and Mian 2005; Olken 2007). Previous studies on the effects of corruption typically focus on the real economic activities at the macro level, and the debate about the influence of corruption on economic efficiency and growth is still ongoing. Rule 18 provides a unique setting to examine the effects of the interplay of macroeconomic (or political) changes and institutional factors on firm-level FRQ. Because FRQ plays an important role in investment efficiency, the development of financial market, or even

economic growth, our evidence that FRQ improves as a result of the anti-corruption campaign suggests a channel through which anti-corruption campaign can positively affect economic efficiency and growth.

Third, we examine whether the effects of anti-corruption campaign vary with institutional development. China's market and legal institutions vary significantly across regions (Wang et al. 2008). Taking advantage of this natural laboratory, we show that the anti-corruption campaign exerts a stronger positive influence on firms in provinces with more developed markets and more efficient legal systems, which is consistent with Svensson (2005) that institutional development is crucial to the effectiveness of anti-corruption programs. Our findings provide policy implications for other emerging countries that have also launched periodic campaigns to fight corruption.

Fourth, our paper relates to and complements prior studies on political connections. Hiring officials as directors is a form of political connection. Previous literature only identifies political connections with high-level politicians, such as prime ministers or members of parliament. Faccio (2006) suggests that firms' connections with local officials may be more important than their connections with high-level government officeholders, therefore inferences from high-level connections cannot be easily generalizable to lower-level connections. Our article fills in the gap by identifying political connections with lower-level officials, as such, it extends previous studies and provides a more complete assessment of the impact of political connections on FRQ.

Finally, our study establishes a causal effect of political connections on FRQ. Firms

strategically develop their political connections, so endogeneity issues are an important concern to understand the relation between political connections and FRQ. For example, using an international dataset on corporate political connections developed by Faccio (2006), Chaney et al. (2011) conclude that the presence of connections is associated with lower accounting quality. In contrast, we utilize an economically important regulatory change as a quasi-experiment, thus providing much stronger support for the causal effect of political connections on FRQ. We find that the ceasing of political ties via the politically-connected directors improves FRQ, suggesting a negative effect of having political ties on FRQ. We also take advantage of the heterogeneity of regional development and firm characteristics and execute cross-sectional analyses, deepening our understanding of political connections.

## **2. Institutional Background, Prior Research, and Hypothesis Development**

### ***2.1 China's anti-corruption campaign***

Corruption has been a hotly contested issue for several decades. Previous studies suggest that corruption can distort resource allocation by diverting capital and talents toward political rent-seeking activities (Murphy et al. 1991), reduce investment and innovation (Mauro 1995), increase the scale of the informal economy (Friedman et al. 2000), and hinder urbanization (Li 2001), therefore generally there exists a negative correlation between corruption and GDP growth (World

Development Report 2002<sup>3</sup>).

China is sometimes viewed as an exception (Svensson 2005). In the past 30 years, China's economy maintained a high speed of growth and has become the second-largest economy in the world. At the same time, China also has a severe corruption problem, with a corruption perception index of 37 and world ranking of 83.<sup>4</sup> Some researchers suggest that corruption may act as lubricant, and an investment in official connections can “grease the gears” of the bureaucracy and allow firms “get things done” (Li et al. 2008).

After Jinping Xi became the President of China and General Secretary of the CCP in 2012, he warned that corruption, if not constrained, will “destroy the party and the nation,”<sup>5</sup> and launched a large-scale anti-corruption campaign. The campaign has so far investigated and removed five national-level leaders and hundreds of high-ranking party and government officials.

The large scale of the anti-corruption campaign in China has attracted intensive attention from both the press and academia. For example, Griffin et al. (2018) and Lin et al. (2016) examine the effect of the Eight-Point Regulation and document a positive market reaction to the policy. They also find that firms reduce entertainment expenses and increase operating performance after the policy. Ke et al. (2017) find that the anti-corruption campaign reduces luxury-goods consumption.

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<sup>3</sup> <https://openknowledge.worldbank.org/handle/10986/5984>

<sup>4</sup> <https://www.transparency.org/cpi2015#downloads>

<sup>5</sup> See <https://cn.nytimes.com/china/20121120/c20corruption/zh-hant/?mcubz=0>

Although these findings are interesting, these studies use the whole anti-corruption campaign as an event that simultaneously affects all firms in the country, and rely on time-series differences to identify the effects of anti-corruption. As a result, their findings could be contaminated by confounding events.

## 2.2 Official directors and Rule 18

As one of the significant measures of anti-corruption campaign, the Organization Department of the CCCPC released “Rule 18” on October 19, 2013 with a formal title of “To further regulate the officials who take positions in enterprises.” The purpose of Rule 18 is said to “enforce strict requirements with cadre” and “to fight against corruption.” This regulation forbids all party and government officials above certain ranks from taking any position in enterprises on either a part-time or a full-time basis. Because the anti-corruption campaign was implemented with *unusually strong force*<sup>6</sup> and Rule 18, as an important component of the campaign, was issued by the CCCPC and has very high authority,<sup>7</sup> the policy has triggered a large-scale tide of official director

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<sup>6</sup> Wikipedia: “The campaign ... as the largest organized anti-graft effort in the history of Communist rule in China. The extent and reach of the campaign has surprised even the most seasoned Chinese political observers.” Similarly, from Xinhua we have “*zero tolerance* for corruption” “wherever offenders may flee, they shall be brought back and brought to justice.”

<sup>7</sup> Rule 18 was issued by the Organization Department of the Central Committee of the CPC (CCCPC). The CPC has not only power over the government, but also over a variety of laws and regulation. The CCCPC is responsible for promotions and demotions of all high-level officials, both in the government and in the CPC. Therefore, rules issued by CCCPC have very high authority.

resignations within a short period.<sup>8</sup>

In China, hiring officials and just-retired officials as directors was a common practice in publicly listed firms. In our sample, about 15 percent of the listed firms had hired officials as independent directors prior to Rule 18. Firms' preference for such directors is caused by two distinctive features that differentiate China from western countries. First, the Chinese government plays a central role in the economy. The government directly controls a large group of enterprises as well as the financial market. More generally, the government has a particularly significant role in allocating scarce resources, and it can intervene in judicial and regulatory decisions at its discretion. While the Chinese capital market has grown rapidly in the last 25 years, the regulatory regime has not kept pace with the developments in the financial market. China still has a weak legal system and inadequate investor protection.

The other distinctive feature of China is a heavy emphasis on *relationship-management* in the economy. It is commonly believed that relationships (or social networks) - *Guanxi* - serve as substitutes for formal institutional development or formal contracts in the course of business (Gold and Guthrie 2002). Allen et al. (2005) document that Chinese firms rely on relationships or informal channels to access various resources.

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<sup>8</sup> See <http://finance.sina.com.cn/stock/s/20140307/015318431403.shtml>, <http://www.chinanews.com/gn/2014/06-03/6238320.shtml>, <http://finance.people.com.cn/money/n/2014/0423/c42877-24930194.html>. Because the potential penalties for non-compliance are severe, it is unlikely that officials would take a risk to get the benefits of serving as directors. Empirically we find that almost all official directors resigned within a very short period.

Accepted Article

Because of the above two features, it is not surprising that firms in China attempt to establish such connections with officials or political leaders (Fan et al. 2007; Hung et al. 2012; Hope et al. 2019a,b). Hiring officials as directors is a method to establish the connection. Officials who serve in the firm receive compensation from the firm, and enjoy perks. As a payback, they can bring various preferential treatments for the firms (Li et al. 2008). The government clearly believes that hiring official directors is a political rent-seeking activity that can foster corruption; therefore it issued Rule 18 to force these officials to resign.

Rule 18 provides an ideal setting to investigate the economic consequences of anti-corruption campaign at the firm level. It affects only a group of firms and aims to curb one specific form of political rent-seeking activity. Therefore, we can clearly identify treated firms and control firms, and use a difference-in-differences research design to observe the effects of the anti-corruption campaign at the firm level. We focus on firm-level FRQ. Financial reporting and earnings are important information provided by the listed firms and have important influences on the information environment. Previous studies suggest that high quality financial reporting helps to mitigate agency problems and reduce information asymmetry among investors (Bushman and Smith 2001), therefore leads to lower cost of capital, more efficient investment, and higher economic growth (See for example, Biddle et al. 2009; Li and Shroff 2010; Bhattacharya et al. 2011). Understanding the effects of anti-corruption on firm-level FRQ is useful to evaluate the effectiveness of the policy and the channels through which the policy affects the economy.

### 2.3 Political connections and FRQ

By hiring officials as directors, firms establish a political connection with the government.

Rule 18 forces those official directors to resign, therefore effectively cutting the political connections of firms that hired official directors. Political connections are a widespread phenomenon around the world. Firms with political connections can achieve a variety of preferential treatments, such as access to bank financing (Claessens et al. 2008), lax regulations (Berkman et al. 2010), and government bailouts (Duchin and Sosyura 2012).

Chaney et al. (2011) conclude that the presence of connections is associated with lower accounting quality. However, because firms strategically choose to establish political connections, there is an inherent endogeneity problem between accounting quality and such connections, which is difficult to tackle using cross-sectional analyses.<sup>9</sup> Rule 18 provides a useful setting to study the causal effect of political connections on FRQ.<sup>10</sup> First, it is an exogenous event (at least at the firm level) that forced hundreds of directors to resign. The political connections through those directors

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<sup>9</sup> The endogeneity problems of reverse causality and omitted variable bias are especially pertinent. Not only can political connections affect FRQ, FRQ may also affect political connections. For example, firms with lower FRQ may choose to establish political connections, leading to a negative relation. With respect to the correlated omitted variables problem, as but one example, low-quality corporate governance may affect both political connections and FRQ at the same time.

<sup>10</sup> Using other settings and relatively small samples, Batta et al. (2014), Chi et al. (2016), and Fan et al. (2014) find either the opposite of what we find or no effects, thus providing further tension to our hypothesis. Similar to Chaney et al. (2011), these studies do not employ as strict a research design as we do in this paper.



are therefore cut off, or at least weakened significantly, after the resignations. Director departures are usually strategic and determined by director and firm characteristics (Fahlenbrach et al. 2017). Previous studies utilize sudden deaths to investigate the value of independent directors or political connections (e.g., Fisman 2001; Faccio and Parsley 2009; Nguyen and Nielsen 2010). Although those are interesting events, the samples are very small (and the research questions are not about FRQ). In contrast, Rule 18 caused a large number of director resignations due to explicit and exogenous reasons, and we use the event to examine the effects of political connections on FRQ.

Second, this context provides an effective way to identify political connections. We thus extend previous studies that use different measures for political connections. For example, Faccio and Parsley (2009) use geographic proximity to politicians, and Yu and Yu (2011) employ firms' lobbying activities as proxies. These measures are likely noisier measures of political connections than directors with a direct connection to the government. Rule 18 is a plausibly exogenous event and as such allows us to better measure the politically-connected directors. Because these connected directors are forced to resign in a short period and these resignations need to be publicly disclosed, we can manually verify the reasons for the resignations.

Third, existing studies often employ cross-country data, which raises concerns regarding endogeneity, the availability of variables at the country level, noisy variables, and the possibility of correlated omitted variables (Miller 2004). Cross-country studies are also affected by differences in legal, judicial, and cultural factors, which make it hard to disentangle firm-level effects from

country-level factors (Gul 2006). The different disclosure regulations across countries further add noise to the data (Faccio 2006). Because we focus on a large sample of firms in one particular country, these concerns are mitigated in our setting.

## 2.4 Hypothesis development

Political connections can negatively affect FRQ for the following reasons. First, high quality financial information is fundamental to the development of financial markets. Because connected firms gain access to preferential financing, they may attach lower importance to external investors. As a result, they have *reduced incentives* to provide high quality financial reporting. Second, politically-connected firms establish connections to derive gains, and these gains are often in the gray area or of dubious legality (Fisman 2001). Therefore, insiders may want to *obscure* reported earnings in order to obfuscate the gains from those connections. Third, regulators require firms to provide high-quality information, and they penalize firms that fail to follow rules. However, the regulatory monitoring is less severe for politically-connected firms (Yu and Yu 2011). Finally, connected firms not only enjoy the benefits but also carry some political burdens. For example, Piotroski et al. (2015) indicate that Chinese politicians prefer to suppress negative information during specific time periods, such as elections or political events. Therefore, the information of politically-connected firms can be *distorted* by political needs.

On the other hand, Li and Shen (2010) find that in China negative media coverage triggers

Accepted Article

further investigation by the government (see also Hope et al. 2019a), and that the affected officials are more likely to lose positions or their promotion opportunity. Therefore, politically-connected firms may have incentives to provide high-quality earnings information. Second, previous literature suggests that firms may use earnings management as a short-term mechanism to enhance perceived firm performance and access to equity financing (e.g., Teoh et al. 1998; Kothari et al. 2016). Since the politically connected firms receive preferential treatments such as access to bank loans and government subsidiaries, they rely less on the equity market, which may blunt their incentives to manipulate earnings. Finally, connected firms may be more likely to expropriate minority shareholders. Given that outside investors prefer high quality accounting information as a protection, insiders could provide high quality financial reporting to signal to outside investors.

Taken together, although we on balance expect a negative relation between political connections and FRQ, this prediction is not tautological. In addition, FRQ may affect the establishment of political connections. For example, firms with low FRQ may choose to establish connections in order to receive preferential treatments. Because of these empirical challenges, we believe that the nature of Rule 18 and the differences-in-differences methodology are especially useful. The resignation of directors due to Rule 18 effectively severs the political connections between the firm and politicians. To summarize, by observing the change of FRQ around Rule 18, we can identify the causal effect of these connections. Our primary hypothesis is stated as follows in the null form:

HYPOTHESIS 1. The financial reporting quality of firms with politically-connected directors does not change after the enactment of Rule 18.

### 3. Sample and Research Design

#### 3.1 Sample selection

We start our sample with all firms listed on the Main and SME boards of China's stock markets.<sup>11</sup> To identify the treated firms, we carry out several steps as the following: First, we *hand collect* all resignation announcements of directors from the introduction of Rule 18 until April 30, 2015, the mandatory deadline for 2014 annual reports.<sup>12</sup> If the resignation announcements explicitly state that the director has to resign from the firm to comply with Rule 18, we include them in the treatment group. Second, some firms tend to blur the true reason by providing ambiguous statements such as "due to personal reasons" in the resignation announcements. To mitigate any possible omissions for announcements without explicit explanations, we check the background of these resigned directors to identify whether the director is affected by Rule 18. Specifically, we collect the background information from each director's resume which is obtained

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<sup>11</sup> Our sample does not include firms listed on ChiNext, which is established to attract small and fast-growing enterprises, especially high-tech firms. The listing standards of ChiNext are less stringent than those of the Main and SME Boards.

<sup>12</sup> In follow-up analysis we confirm that Rule 18 was highly effective and nearly all of official directors resigned before the 2014 annual reporting date.

from the China Stock Market and Accounting Research (CSMAR) database and supplemented from firms' home pages and other websites.<sup>13</sup> We then examine the directors' working experience and official ranks. If these directors should be constrained by Rule 18, we include them in the treatment group.

Third, although Rule 18 aims to regulate party and government officials, in enforcement the policy uses civil-service ranks to identify the person. Because university professors, leaders in publicly-funded organizations, and top managers in SOEs in China have similar civil-service ranks as government officials, they were also affected by Rule 18 and were forced to resign.<sup>14</sup> However, these civil-service ranks are not associated with any government power. To assure that the resigned directors represent the loss of political connections, we examine their working experiences and exclude these cases from the treatment sample. All other firms are control firms when employing the full sample, and as candidates as matching firms for tests using PSM.

To examine the effects of anti-corruption, we collect financial information for the two years before and two years after Rule 18. Specifically, since Rule 18 was released in October 2013, we

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<sup>13</sup> For example, [www.baidu.com](http://www.baidu.com), <http://stockdata.stock.hexun.com>, <http://stock.jrj.com.cn>, <http://finance.sina.com.cn>, <http://www.stockstar.com>, and <http://www.10jqka.com.cn>.

<sup>14</sup> Based on a practice that has been followed for several decades, universities, publicly-funded organizations, and SOEs are given civil-service ranks equal to those of government departments. For example, prestigious universities usually have a civil-service rank of vice-ministerial level, and the leaders of those universities have the civil-service ranks similar to vice-minister. Publicly-funded organizations are mostly nonprofit organizations, such as the Chinese Academy of Science, General Research Institution for Nonferrous Metals, etc.

use 2012 and 2013 as the pre-rule period, while 2014 and 2015 comprise the post-rule period.<sup>15</sup>

Financial information is obtained from CSMAR. Following prior literature, we exclude financial firms because their financial ratios are not comparable with other firms. We also eliminate firms with missing data or negative equity. All continuous variables are winsorized at the 1st and 99th percentiles in order to mitigate the effects of outliers.

### 3.2 *Research design*

Our main tests involve DiD analyses using a PSM control group. This methodology compares FRQ of a sample of treatment firms with politically-connected directors who have resigned to that of control firms (without resigned directors but otherwise comparable), before and after the Rule 18 - induced director resignations. Our focus is on incremental effects for the treatment sample.

The DiD approach has several advantages. First, this methodology controls for omitted trends that are correlated with FRQ in both the treatment and the control groups. With the development of the stock market and the improvement of regulation, Chinese firms may have improved corporate governance and FRQ over time (Jiang et al. 2010). Second, the tests are conducted surrounding

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<sup>15</sup> The policy was issued at the end of 2013, so nearly all affected directors began to resign from 2014. Therefore we classify 2013 as pre-policy period. Our inferences are not affected if we exclude 2013 from our sample period or employ 2011 and 2012 as the pre-rule period. We also employ a specification that includes four years as pre-rule period (i.e. 2010, 2011, 2012, and 2013 as the pre-rule period, and 2014 and 2015 as the post-rule period). Inferences are not affected (untabulated).

Accepted Article

policy changes that cause a change in political connections. This helps to rule out reverse-causality concerns, such as directors may choose to resign from more opaque firms. In addition, we include *industry/firm fixed effects* and *year fixed effects* in the regressions. Firm fixed effects control for any time-invariant unobserved differences between the treatment and the control groups. Year fixed effects control for any market-wide changes in FRQ.

The PSM approach generates samples in which treatment firms and control firms are more similar, which helps mitigate the possibility that omitted correlated variables are driving our results (e.g., Hope et al. 2013). To implement this PSM approach, we first estimate a logit regression using the information in the year 2013 to model the probability of being affected by Rule 18 (i.e., whether a particular firm has affected official directors). Similar to DeFond et al. (2014), we include all independent variables in equation (1) in the PSM model to assure that all known factors that potentially affect FRQ are similar across the treatment and control samples. We also include region fixed effects to control for potential variation among different provinces. The estimation results of the logit model are presented in Appendix A. Next, we calculate the propensity score for each firm using the predicted probabilities from the logit model, and match each treatment firm to the control firm using the nearest-neighborhood technique without replacement.

We compare the changes in FRQ among politically-connected firms with non-connected firms over the period 2012-2015. In order to perform this comparison, we regress our FRQ measures on  $OFFICIAL_i \times POST_{it}$  that captures the interaction between political connections (boards with

official directors) and the post-policy period, along with a set of control variables. The main regression model is as follows:

$$\begin{aligned} FRQ_{it} = & \beta_0 + \beta_1 OFFICIAL_i \times POST_{it} + \beta_2 POST_{it} + \beta_3 OFFICIAL_i \\ & + \beta_4 SIZE_{it} + \beta_5 LEV_{it} + \beta_6 PPE_{it} + \beta_7 SDSALE_{it} + \beta_8 BETA_{it} + \beta_9 DIVIDEND_{it} \\ & + \beta_{10} AGE_{it} + \beta_{11} CONCENTRATION_{it} + \beta_{12} INSIDER_{it} + \beta_{13} BOARDSIZE_{it} \\ & + \beta_{14} INDPRO_{it} + \beta_{15} AF_{it} + \beta_{16} ANALYSTS_{it} + \beta_{17} ROA_{it} + \beta_{18} RETURN_{it} \\ & + \beta_{19} MB_{it} + \beta_{20} SOE_{it} + Fixed\ Effects + \varepsilon_{it} \end{aligned} \tag{1}$$

To proxy for a firm's financial reporting quality, we use three individual measures, and an overall measure (*FRQ*) that aggregates the three individual measures. The first individual proxy is based on discretionary accruals (*|DA1|*) estimated using the cross-sectional Modified Jones model as developed in Dechow et al. (1995). The model controls for industry-wide changes in economic conditions that affect total accruals while allowing the coefficients to vary across time. The second individual proxy is based on discretionary accruals (*|DA2|*) estimated using cross-sectional performance-adjusted model as developed in Kothari et al. (2005) which further controls for firm performance. Higher absolute values of discretionary accruals indicate lower financial reporting quality. The third proxy is based on real earnings management (*|REM|*) following Roychowdhury (2006), Zang (2011), and Chen et al. (2015). Higher real earnings management indicates lower financial reporting quality. For ease of interpretation, we multiply -1 to each variable (*|DA1|*, *|DA2|*,



and |REM|), and then standardize (i.e., subtract the mean and divide by the standard deviation) to create three individual measures of FRQ (i.e., *FRQ1*, *FRQ2*, and *FRQ3*). The higher the variable, the higher quality of financial reporting. Similar to Biddle et al. (2009), we construct an aggregate measure (*FRQ*), which is the average of the three standardized individual measures.<sup>16</sup> Please see Appendix B for details.

*OFFICIAL* is an indicator variable that takes the value of one for firms with resigned official directors, and zero otherwise. *POST* is defined as one when the year is after the issuance of Rule 18, (i.e., 2014 or 2015), and zero otherwise.

To purge the effect of underlying business processes and other fundamental drivers of the information quality, we include several control variables that the literature has shown to associate with firms' FRQ (e.g., Dechow and Dichev 2002; Hribar and Nichol, 2007; Daniel et al. 2008; Raman and Shahrur 2008; Gopalan and Jayaraman 2012; Chen et al. 2015): firm size (*SIZE*), long term leverage (*LEV*), capital intensity (*PPE*), volatility of the operating environment (*SDSALES*; the volatility of sales), systematic risk (*BETA*), dividend payments (*DIVIDEND*), and firm age (*AGE*). Next, we include a set of variables to control for corporate governance. Specifically, we incorporate ownership concentration (*CONCENTRATION*), insider's shareholdings (*INSIDER*), board size (*BOARDSIZE*), the percentage of independent directors (*INDPRO*), audit fees (*AF*), analyst

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<sup>16</sup> We obtain similar results if we use the first principal factor as the aggregate measure of FRQ.

following (*ANALYSTS*) in our model.

Previous research indicates that firm growth and firm performance affect FRQ (e.g., Kasznik 1999; Lee et al. 2006). Therefore we include return on assets (*ROA*), annual stock returns (*RETURN*), and the market-to-book ratio (*MB*). We also control for whether the firm is a state-owned enterprise (*SOE*). Finally, we include year fixed effects and industry/firm fixed effects.<sup>17</sup> We cluster standard errors at the firm level to mitigate the overstatement of statistical significance owing to serial correlation in the error term (Petersen 2009). All variables are defined in Appendix B.

The major variable of interest is the interaction between political connection and the post-period (*OFFICIAL*×*POST*). The coefficient on the interaction term,  $\beta_1$ , captures the incremental change in FRQ from the pre- to the post-period for firms with resigned official directors relative to the change for firms in the benchmark group. A positive (negative) coefficient on  $\beta_1$  indicates that the cutting-off of connections improves (impairs) FRQ.

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<sup>17</sup> In most of our analyses, we use the most restrictive specification, that is, we include both firm fixed effects and year fixed effects. When firm fixed effects are included, *OFFICIAL* drops out. When year fixed effects are included, *POST* is subsumed.

## 4. Empirical Results

### 4.1 *The influence of Rule 18*

Table 1 presents the sample-selection procedure. We start from all firms listed on both the Main and SME boards of the Shanghai and Shenzhen Stock Exchanges. After excluding firms in the financial industry, we have 2,090 firms and a total of 8,337 independent directors on the date when Rule 18 was issued. Among those listed firms and directors, 819 directors were forced to resign after Rule 18, which affects a total of 613 firms (or 29% of the whole population of listed non-financial firms). It is evident that Rule 18 had a highly significant impact on the directors and publicly-traded companies. We further remove observations if resigned directors are university professors, leaders in publicly-funded organizations, or SOE managers. They have similar civil-service ranks as officials but are considerably less likely to provide political connections for firms. This leaves us with 315 firms. After eliminating firms with missing variables or without appropriate PSM matching firms, our final treated group includes 286 firms with 368 resigned official directors.

The large sample of resigned official directors indicates that listed firms in China were keen to hire officials as directors in order to build up political connections. This is consistent with previous evidence that firms tend to establish such connections, especially in regions where the government plays an important role (e.g., Hillman 2005). The large-scale resignation wave due to this event provides us with an ideal setting to study the effect of China's anti-corruption campaign on FRQ.

## 4.2 Descriptive statistics

Panel A of Table 2 reports descriptive statistics for our main variables separately in the treatment group, control group (No PSM), and control group (PSM) just prior to the event. In the column “Treatment-Control (No PSM),” we observe that the treatment and control firms (No PSM) have significant differences on many firm characteristics. For example, relative to the control firms, treatment firms are larger, have more long term debt, have a larger board of directors, pay higher audit fees, and are more likely to be SOEs. These differences suggest the necessity of employing PSM.

Importantly, after we use PSM to identify the control sample, *all* significant differences are eliminated as shown in the column “Treatment-Control (PSM).” We also evaluate the effectiveness of PSM by examining whether the covariates are balanced across treatment and control group. In untabulated analyses, we find that the mean bias drops significantly from 8.7% before matching to 4.6% after matching. Thus, the PSM approach is effective in removing meaningful differences in the matched variables across the treatment and control groups.

In Panel B of Table 2, we present firm characteristics for the main sample in our regression tests. There are 2,200 firm-year observations for a total of 572 firms (286 matched treated firms and 286 corresponding control firms) across our entire sample period. In Panel C of Table 2 we provide descriptive statistics on personal characteristics of the official directors who were forced to resign. We observe that 40% of the resigned directors held government positions in the industry in which

the firm operates,<sup>18</sup> 36% held “national rank” (an important dimension in China), most of the resigned directors (87%) resided within the same province as the affected firms, the vast majority (89%) are male, and 20% are retired.

Panel D of Table 2 shows the details of the successor directors’ backgrounds. Of the incoming directors, 30% have their primary experience within the same industry. In terms of professional backgrounds, 54% are from accounting, finance or tax, 15% from law, and 6% from banking. With regard to personal characteristics, 83% are male and under 5% are retired.

#### **4.3 The effect of Rule 18 on FRQ**

Table 3 provides our main results. In Panel A, we use all other firms as control firms. In models (1)-(3), we use the aggregate measure of financial reporting quality (*FRQ*) as dependent variable and include industry fixed effects, firm fixed effects, and firm and year fixed effects, respectively. Our focus is on the incremental effect for the treatment sample. The estimated coefficients on  $\beta_1(OFFICIAL \times POST)$  are 0.2182, 0.2115, and 0.2083, respectively, and all are significant at the 1% level (using two-sided tests). Because the measure of FRQ is standardized, the results indicate that firms with resigned official directors have improved their FRQ after the event

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<sup>18</sup> As an example, if a real-estate development company hires an official director from *People's Republic of China Ministry of Housing*, which has the authority to monitor the operations of the real-estate industry, this official has some power related to the real-estate industry.

by a significant 20.83%-21.82% of the standard deviation.

In models (4)-(6), we use three individual measures of FRQ as dependent variables, and include both firm and year fixed effects. The estimated coefficients on  $\beta_1$  are all positive and significant at the 5% level or better. The empirical results indicate that Rule 18 has similar effects on the three individual measures of FRQ, that is, firms with resigned official directors improve their financial reporting quality.

In Panel B, we present results using the aggregate measure of FRQ as dependent variable and use PSM firms as control firms<sup>19</sup>. The PSM procedure generates control firms similar to treatment firms, therefore mitigates the effects of possible omitted variables. In models (1)-(3), we include industry fixed effects, firm fixed effects, and firm and year fixed effects, respectively. The coefficients for the test variable are 0.2038, 0.1791, and 0.1748, respectively (all significant at the 1% level).<sup>20</sup> Taken together, our results consistently suggest that the firms improve FRQ (and thus their financial transparency) after the directors resign. Our results establish a causal relation between political connections and FRQ.

In the following analyses, we focus on the sample with PSM control firms, use the aggregate measure (*FRQ*) as our major dependent variable, and include firm and year fixed effects in our

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<sup>19</sup> The inferences remain similar when employing each of three individual FRQ measures.

<sup>20</sup> Following previous studies (e.g., Bertrand and Mullainathan, 2003; Li et al., 2018), in model (4) we perform a dynamic analysis by including *OFFICIAL* with each year indicator. The evidence indicates that the increase of FRQ of treatment firms occurs after the event.

models.

## 5. Cross-Sectional Partitions and Consequences Analyses

### 5.1 Institutional development

We first explore the effects of institutional development. Svensson (2005) points out that anti-corruption programs rely on legal and financial institutions to enforce and strengthen accountability. When these institutions are weak or corrupt themselves, anti-corruption programs are hard to succeed. To further understand the effects of anti-corruption on FRQ, we make use of interesting within-China variations and examine whether the institutional development has a moderating effect.

To examine the moderating role of financial market development, we use Fan et al.'s (2011) financial-market index to measure the development of financial market. We partition the sample based on the median of the province-level financial marketization index. The results in Table 4 indicate that the test variable is significant at the level of 1% in the group with a more developed financial market (0.3348), and insignificant in the group with a less developed financial market (0.0219). The Z-statistic shows that the difference between two groups is significant at the 5% level. The results are consistent with the argument that financial institutions play a moderating role. Before the event, connected firms can gain access to preferential financing, consequently they attach lower importance to external investors and have *reduced incentives* to improve FRQ. After the event, connected firms have to rely on the financial market for external financing. A more

developed financial market system will impose higher requirements for FRQ, while a less developed financial market has less demand for FRQ. These results are also consistent with Lin et al. (2016), who find that the anti-corruption campaign has a more positive effect when the market is more developed.

The other institutional development variable that we examine is the effectiveness of law enforcement. Although laws and regulations are set at the national level in China, the efficiency of enforcement varies significantly across regions. Studies find that enforcement, not merely the existence of a policy, is important (Bhattacharya and Daouk 2002; Hope 2003). We use a judiciary-efficiency index developed by the World Bank to measure the effectiveness of law enforcement.<sup>21</sup>

We partition the sample based on the median of province-level court-efficiency index. The results in Table 4 suggest that the test variable is significant at the 1% level in the group with greater judicial efficiency (with coefficient equal to 0.3767) and is insignificant in the group with lower judicial efficiency (with coefficient equal to 0.0423). The Z-statistic shows that the difference between two groups is significant at the 5% level. The results are consistent with the argument that legal institutions play a moderating role. Because the anti-corruption campaign may rely on legal institutions, the effects of anti-corruption policy have larger effects when the legal institutions are more efficient.

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<sup>21</sup> <http://www.doingbusiness.org/Reports/Subnational-Reports/China>



## 5.2 The effects of firm-level characteristics

We first examine whether the ownership type of the controlling shareholders matters. Listed firms with the government as the largest shareholders (i.e. SOE firms) are generally carved out from large state-owned economic groups, and may have political connections by nature. SOE firms often receive preferential treatments from banks and government regulations (e.g., Lu et al. 2015; Hope et al. 2019a,b), therefore, they may not need to depend on official directors for political connections, and the resignations of official directors are expected to have less effect. Panel A of Table 5 presents the results.  $OFFICIAL \times POST$  is significant at the 1% level in the non-SOE group (0.3416), and insignificant in the SOE group (0.0153). More importantly, the magnitude of  $\beta_1$  in the non-SOE group is significantly larger than that in the SOE group (at the 1% level), suggesting that the effect of politically-connected directors is more important for non-SOE firms.

Second, we examine whether financing pressure has moderating effects. One important preferential treatment that politically-connected firms can receive is preferential financing.<sup>22</sup> Therefore connected firms do not face the same level of pressure from external investors who usually require high quality information. However, when the political connections are cut off, firms

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<sup>22</sup> For example, Claessens et al. (2008) find that firms with political connections have more access to bank financing. Piotroski and Zhang (2014) show that in China political intervention plays a significant role in the IPO process, and that firms gain access to stock-market financing through their connections. Yu et al. (2012) find that political connections can mitigate financial constraints, especially for non-SOEs.

may need to improve FRQ so as to increase the financing capability and reduce cost of capital. Previous studies (such as Bharath et al. 2008; Francis et al. 2005) find that firms with high accounting quality have lower cost of debt and equity. Bhattacharya et al. (2011) suggest that there are both a direct path from earnings quality to the cost of equity, and an indirect path that is mediated by information asymmetry. Kim and Sohn (2013) document that real earnings management is associated with higher implied cost of equity.<sup>23</sup>

We use two firm-level conditioning variables. The first variable is the cost of debt before the event. Following Pittman and Fortin (2004), we calculate the cost of debt as interest expense divided by the amount of interest-bearing debt. When the cost of debt is lower, firms are more likely to receive preferential credit, therefore, after the political connection is severed, they will face greater pressure from external investors. The second variable is refinancing pressure. We measure refinancing pressure using the ratio of short term bank loans as a percentage of total debt. When firms face refinancing pressure and cannot access preferential credit, they have greater incentive to respond to the demand of information from investors.

In panel B of Table 5, we report the results. In the first two columns, we partition our treatment firms into two subsamples based on the median of cost of debt and assign the control

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<sup>23</sup> A contra argument is that firms may manipulate earnings upward in order to report good accounting performance and get access to external financing. This creates tension for the tests.

Accepted Article

firms to the same group.<sup>24</sup> We then run regressions in each subsample. We can see that *OFFICIAL*×*POST* is significantly positive in the group with low cost of debt, while insignificant in the group with high cost of debt. The Z-statistic shows that the difference between the two groups is significant at the 5% level. The results indicate that firms that received preferential financial treatment before the event are more likely to increase their FRQ.

Similarly, we examine the effects of refinancing pressure and the results are presented in Panel B of Table 5. We find that *OFFICIAL*×*POST* is significantly positive in the group with high refinancing pressure, while insignificant in the group with low refinancing pressure. The Z-statistic shows that the difference between two groups is significant at the 5% level. Together, these findings provide support for the argument that financing pressure has a moderating effect. When firms receive more preferential treatment in terms of credit before the event, or have refinancing pressure, the severing of political connections is more likely to increase the pressure from the capital market for those firms. Therefore, these firms increase FRQ more.

### ***5.3 Supplemental tests: other consequences of the anti-corruption campaign***

In this section, we provide further evidence on consequences of the anti-corruption campaign and on the moderating effects of FRQ.

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<sup>24</sup> The sample is smaller for this test because we need interest expense and that variable has some missing values in our sample.

Accepted Article

First, we examine the government subsidies that firms received around Rule 18. Government subsidies are direct funds from the government, which can boost firms' operating performance, and reduce their reliance on external financing. Losing official directors may lead to the loss of government subsidies, which further increases firms' reliance on external financing. We obtain government subsidy data from CSMAR database. To examine the effects of Rule 18 on government subsidies, we regress the natural logarithm of government subsidies on *OFFICIAL*×*POST* and control variables that previous studies suggest affecting government subsidy (e.g., Faccio et al. 2006; Chen et al. 2008). The results are presented in Panel A of Table 6. Consistent with our prediction, we find that the estimated coefficient on *OFFICIAL*×*POST* is significantly negative, suggesting that firms receive lower subsidies after they lose official directors. Because the dependent variable is the natural logarithm of government subsidies, the results suggest that the magnitude of decrease is 16.46%.<sup>25</sup>

Next, we examine the effect of anti-corruption on long-term bank loans (i.e., a form of preferential financing). We include control variables following prior studies (e.g., Custódio et al. 2013; El Ghouli et al. 2016). The results are also presented in Panel A of Table 6. Consistent with our argument, we find that the estimated coefficient on *OFFICIAL*×*POST* is significantly negative

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<sup>25</sup> In our sample, the mean of subsidy/net profit is 25.58% and the mean of subsidy/CFO is 14.57%. So, the decreased government subsidies will on average affect profits by 4.21% (=0.1646\*25.58%) and operating cash flows by 2.40% (=0.1646×14.57%), respectively.

(-0.0169), suggesting that treatment firms have less access to preferential bank financing.

Similarly, in Panel B we test for the effects on public financing, that is, public equity and bond financing. The dependent variable is total newly-issued equity and bonds as a percentage of total assets. Control variables are based on prior studies (Denis and Mihov 2003; Beck et al. 2008; Marshall et al. 2016). The results are presented in Panel B of Table 6. We observe that  $OFFICIAL \times POST$  is insignificant in the whole sample, suggesting that anti-corruption has no effect on public financing in general. We further separate the group into two sub-groups based on the change in FRQ around the event. We find that  $OFFICIAL \times POST$  is positive and significant when firms have increased FRQ more, and insignificant otherwise. The Z-statistics shows that the difference is significant.

Taken together, the evidence suggests that after Rule 18, formerly politically-connected firms receive less in subsidies and preferential bank loans. However, if firms improve their FRQ, they can moderate the effects by accessing more public financing.

## 6. Robustness Tests

### 6.1 Potential confounding events

We consider two potential confounding events that occurred around the event we examine. After President Xi Jinping assumed power, the government launched a large-scale anti-corruption campaign, and the Eight-Point Regulation was issued on December 4, 2012. The regulation requires

government officials to forego conspicuous perks, and was perceived as the launch of China's anti-corruption reform. The Eight-Point Regulation regulates the general behavior of government officials, while Rule 18 specifically focuses on the officials who serve as directors in firms. Lin et al. (2016) find that the market reacts positively to the launch of the Eight-Point Regulation, and firms (especially SOE firms) greatly reduce their entertainment and travel costs (*ETC*), which are presumably used for corruption. Griffin et al. (2018) confirm that the Regulation leads to a decrease in entertainment expenses, but find no evidence that it affects discretionary accruals, one of their measures for corruption. To control the effects of abrupt change of *ETC* due to the Eight-Point Regulation, we add *ETC* as a control variable and rerun our main tests as in equation (1). The results are presented in model (1) of Table 7. We find that controlling for *ETC* does not change our conclusions. To further ensure our results are not driven by the Eight-Point Regulation, we also exclude the year 2012 from our sample, which makes our sample years all post the Eight-Point Regulation. The results are presented in model (2) of Table 7 and again no inferences are affected.<sup>26</sup>

The second potential confounding event we consider is a market-liberalization reform, the Shanghai-Hong Kong Stock Connect, which significantly changed the market segmentation in China. Through a centralized platform set up by the Shanghai Stock Exchange and Hong Kong Stock Exchange, international investors, either institutional or non-institutional investors, can

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<sup>26</sup> We also test for whether *ETC* increased for treatment firms in the post period (i.e., whether these firms would incur more *ETC* to rebuild political connections). We do not find any evidence of that (untabulated).

Accepted Article

directly trade a selected batch of stocks listed on the Shanghai Stock Exchange if they have stock accounts in Hong Kong. The market-liberalization reform introduces foreign investors and could affect FRQ. To control for the effects of the market liberalization, we first include an indicator variable, which equals one if the stocks can be directly traded by Hong Kong and international investors. The conclusions do not change. Next, we eliminate the year 2015 from our sample, which makes our sample years all before the liberalization reform. Our inferences hold again. The results are presented in models (3) and (4) of Table 7.

## 6.2 Placebo tests

To validate that the change of FRQ is caused by the lost political connections, we execute two sets of placebo tests. First, we examine the effect of the resignation of directors who are highly unlikely to provide important political connections. If our results are not driven by political connections, then we expect that the resignation of these directors will also affect FRQ. We use firms with resigned directors from universities, publicly-funded organizations, or SOEs as the treated group. We have a total of 298 pseudo-treatment firms, among which 210 are firms with resigned directors from universities,<sup>27</sup> 70 with resigned directors from publicly-funded

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<sup>27</sup> The relevant regulation requires that at least one of the independent directors should have accounting expertise. Therefore, it was a common practice that university professors who have accounting backgrounds serve as independent directors.

Accepted Article

organizations, and 35 with resigned directors from other SOEs. We use a similar PSM procedure and match these firms with control firms using the firm characteristics in the year 2013. We define *NOFFICIAL* as a binary variable that equals to 1 if the firm has forcedly resigned director from universities, publicly-funded organizations, or SOEs, and 0 otherwise. We then execute similar DiD analyses as in equation (1) and present the results in Panel A of Table 8. The results show that *NOFFICIAL*×*POST* is *not* significant. This test further corroborates that our results are driven by political connections, not because the resigned directors are weak monitors.

Second, to address the possibility that unobservable shocks that are unrelated to Rule 18 could drive the results, we artificially pick (1) the years 2008 and 2009 as the pre-event period, and 2010 and 2011 as the post-event period; or (2) the years 2008-2011 as Pre-Event, 2012-2015 as Post-Event. We do not find a significant difference in FRQ between the treatment and control firms around these “pseudo-event” years. The results are shown in Panel B of Table 8.

### 3 Other robustness tests

To further ensure the robustness of our inferences, we implement additional sensitivity analyses. First, we investigate whether personal characteristics of directors have any effects. The personal characteristics that we examined are described as in Table 2. We include interactions between personal characteristics of resigned directors or replacement directors with *OFFICIAL*×*POST*. The results indicate that the personal characteristics of resigned directors or



replacement directors do not affect our inferences. The results are not tabulated.

Second, we control for any potential confounding effect of concurrent CEO changes, as new appointed CEOs may affect firms' FRQ. We either delete observations with CEO changes during our sample period or include an additional control variable to capture the effect of such changes. Untabulated analyses show that no conclusions are altered in these tests.

Finally, we use firms with all resigned directors with no official positions as alternative control group. These firms have director changes, but the resigned directors have no political connection. This is to eliminate the possibility that any new directors will lead to improvement in FRQ. Untabulated analyses show that our inferences remain the same.

## **7. Conclusion**

In this paper, we examine firm-level effects of China's anti-corruption campaign. More specifically, we utilize a natural experiment in which more than 400 official directors were mandated to resign, effectively severing the political connections of those firms. We examine FRQ in the pre- and post- event periods using a difference-in-differences approach combined with propensity-score matching and firm and year fixed effects. Our results indicate that compared to control firms, the FRQ (measuring firm-level financial transparency) of firms with politically-connected directors increases after those directors resign. The results are consistent with the idea that politically-connected directors negatively affect FRQ. More broadly, our findings suggest that

political connections negatively affect the quality of firm-provided information. Our results are robust to a variety of robustness checks.

We further examine how the institutional environment influences the effects of the anti-corruption campaign. The results show that firms have a stronger response to the anti-corruption campaign when they are located in regions with more developed financial markets and higher judicial efficiency. Further, firms improve their FRQ more when they are non-state-owned, when they previously received preferential access to financing, or when they face refinancing pressure. Our study contributes to the understanding of the effects of China's anti-corruption campaign in general and to research on the effects of political connections on firm-level FRQ in particular. Future research could examine whether China's anti-corruption campaign affects other firm-level activities and the efficiency of capital allocation.

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APPENDIX A:

Procedure to construct the propensity-score-matched sample

Dependent Variable = Resigned Official Directors		
VARIABLES	Coefficient	Z
SIZE	0.1455	1.07
LEV	1.2831*	1.95
PPE	0.4638	1.15
SDSALE	1.1096**	2.37
BETA	0.6002**	2.00
DIVIDEND	0.1687	0.93
AGE	0.4233*	1.85
CONCENTRATION	-0.1290	-0.28
INSIDER	0.0049	0.01
BOARDSIZE	0.8493**	2.16
INDPRO	2.4789*	1.85
AF	0.0561	0.38
ANALYSTS	-0.0412	-0.48
ROA	-1.3103	-0.86
RETURN	0.1455	0.84
MB	-0.0373	-0.64
SOE	-0.0975	-0.60
Region Fixed Effects	YES	
Observations	1958	
Pseudo R <sup>2</sup>	0.067	

Notes: The PSM approach involves pairing treatment and comparison units that are similar in terms of their observable characteristics (Dehejia and Wahba 2002). We implement this procedure by first estimating a logit regression to model the probability of being affected by Rule 18 (i.e., firms with resigned official directors). We use all of the control variables in equation (1) as our predictors. The table presents the results from the logit model. \* and \*\* indicate statistical significance at the 10 percent and 5 percent levels, respectively. Next, we estimate the propensity score for each firm using the predicted probabilities from the logit model. We then match each treatment firm to the control firm using nearest neighborhood technique with no replacement.



APPENDIX B:  
Variable definitions

Variables	Definitions
DA1	<p>The absolute value of discretionary accruals, calculated using the Jones model (Dechow et al., 1995). Specifically, we estimate the following model in each year-industry:</p> $Acc_{it} = \beta_1(1/TA_{i,t-1}) + \beta_2\Delta S_{it} + \beta_3PPE_{it} + \varepsilon_{it}$ <p>where <math>Acc_{it}</math> is the total accruals, calculated as net income before extraordinary items minus total cash flow from operation; <math>TA_{i,t-1}</math> is the lagged total assets; <math>\Delta S_{it}</math> is change in sales; <math>PPE_{it}</math> is property, plant, and equipment. All scaled using lagged total assets. Discretionary accruals are calculated using the estimated coefficients with adjustments for the change of accounts receivable.</p>
DA2	<p>The absolute value of discretionary accruals, calculated using the performance-adjusted model (Kothari et al. 2005). Specifically, we estimate the following model in each year-industry:</p> $Acc_{it} = \beta_1(1/TA_{i,t-1}) + \beta_2(\Delta S_{it} - \Delta AR_{it}) + \beta_3PPE_{it} + \beta_4ROA_{it} + \varepsilon_{it}$ <p>where <math>Acc_{it}</math> is the total accruals, calculated as net income before extraordinary items minus total cash flow from operation; <math>TA_{i,t-1}</math> is the lagged total assets; <math>\Delta S_{it}</math> is change in sales; <math>\Delta AR_{it}</math> is change in account receivable; <math>PPE_{it}</math> is property, plant, and equipment. All scaled using lagged total assets. <math>ROA_{it}</math> is return on assets. The residuals from the regressions are used to measure discretionary accruals.</p>
REM	<p>The absolute value of real earnings management following Roychowdhury (2006). Specifically, we estimate the following models in each year-industry:</p> $CFO_{it} = \beta_1(1/TA_{i,t-1}) + \beta_2S_{it} + \beta_3\Delta S_{it} + \varepsilon_{it}$ $DEXP_{it} = \beta_1(1/TA_{i,t-1}) + \beta_2S_{i,t-1} + \varepsilon_{it}$ $PROD_{it} = \beta_1(1/TA_{i,t-1}) + \beta_2S_{it} + \beta_3\Delta S_{it} + \beta_4\Delta S_{i,t-1} + \varepsilon_{it}$ <p>where <math>CFO_{it}</math> is operating cash flow; <math>DEXP_{it}</math> is discretionary expenditures; <math>PROD_{it}</math> is production costs; <math>TA_{i,t-1}</math> is the lagged total assets; <math>S_{it}</math> is sales; <math>\Delta S_{it}</math> is change in sales; <math>S_{i,t-1}</math> is the lagged sales; <math>\Delta S_{i,t-1}</math> is lagged change in sales; all scaled using lagged total assets. The residuals from the regressions (i.e. <math>DCFO</math>, <math>DDEXP</math>, <math>DPROD</math>) are discretionary levels of real earnings management. We then follow Zang (2011) and Chen et al. (2015) to combine three measures into one combined measure, i.e. <math> REM  =  DPROD - DCFO - DDEXP </math>;</p>
FRQ1	Standardized financial reporting quality measure based on  DA1 . We multiply (-1) by  DA1 , and then subtract the mean and divide by the standard deviation;
FRQ2	Standardized financial reporting quality measure based on  DA2 . We multiply (-1) by  DA2 , and then subtract the mean and divide by the standard deviation;
FRQ3	Standardized financial reporting quality measure based on  REM . We multiply (-1) by  REM , and then subtract the mean and divide by the standard deviation;
FRQ	Aggregate measure of financial reporting quality, calculated as the average of the above three standardized measures, i.e. $FRQ = \frac{1}{3} \times (FRQ1 + FRQ2 + FRQ3)$ ;
OFFICIAL	Indicator variable for official director, equal to 1 if the firm has resigned official directors due to Rule 18, and 0 otherwise;
POST	Indicator variable for post-policy period, equal to 1 if it is year 2014 or 2015, and 0

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	otherwise;
SIZE	Firm size, calculated as the natural logarithm of firm's market capitalization at the year end;
LEV	Financial Leverage, calculated as long-term liabilities divided by total assets;
PPE	Fixed assets, calculated as Property, Plant and Equity divided by total assets;
SDSALE	The standard deviation of sales, calculated as the standard deviation of sales (deflated by total assets) in the previous five years. We require at least three observations to estimate the variable;
BETA	Beta of the stock, obtained from the China Stock Market and Accounting Research (CSMAR) database;
DIVIDEND	Indicator variable for dividend payment, equal to 1 if the firm pays dividend, and 0 otherwise;
AGE	Firm age, calculated as the natural logarithm of years that the firm has established;
CONCENTRATION	Ownership concentration, proxied by the percentage of shares held by the three largest shareholders.
INSIDER	Insider shareholding, calculated as shares held by managers divided by total shares outstanding;
BOARDSIZE	Board size, calculated as the natural logarithm of the number of board directors;
INDPRO	The percentage of independent directors, calculated as the number of independent directors as a percentage of total board directors;
AF	Audit fee, calculated as the natural logarithm of audit fee paid to the auditor;
ANALYSTS	Number of analyst following, calculated as the natural logarithm of one plus the number of analysts following the firm;
ROA	Return on assets, calculated as net income divided by the average total asset;
RETURN	Stock return, represents the annual stock return of the firm;
MB	Market-to-book ratio, calculated as the assets minus book equity plus market equity, divided by the assets at the year end;
SOE	Indicator variable for state-owned enterprise, equal to 1 if the ultimate controlling shareholder is the state, and 0 otherwise;

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TABLE 1  
Sample Selection

	Number of Firms	Number of Resigned Directors
All firms listed on the Main and SME Boards of Shanghai and Shenzhen A-share stock exchanges	2136	
Non-financial firms	2090	
Firms with resigned directors due to Rule18	613	819
Excluding firms with resigned directors from universities, publically funded organizations, or SOEs	(298)	(418)
Firms with resigned official directors	315	401
Excluding firms with missing variables or no PSM control firms	(29)	(33)
Treated firms in our sample	286	368

Notes: This table describes the sample selection process. For the number of resigned directors, when a person serves as director for two firms, we count as two.

TABLE 2  
Descriptive statistics

Panel A: Comparison between treated firms and control firms								
VARIABLES	Treatment Group		Control Group (No PSM)		Treatment-Control (No PSM)	Control Group (PSM)		Treatment-Control (PSM)
	N	Mean	N	Mean	<i>Difference</i>	N	Mean	<i>Difference</i>
SIZE	286	22.3811	1663	22.2114	<i>0.1697 ***</i>	286	22.4312	<i>-0.0501</i>
LEV	286	0.1169	1663	0.0946	<i>0.0223 ***</i>	286	0.1144	<i>0.0025</i>
PPE	286	0.2590	1663	0.2417	<i>0.0173</i>	286	0.2465	<i>0.0125</i>
SDSALE	286	0.1462	1663	0.1310	<i>0.0152 *</i>	286	0.1579	<i>-0.0117</i>
BETA	286	1.1088	1663	1.0757	<i>0.0331 **</i>	286	1.0988	<i>0.0100</i>
DIVIDEND	286	0.7273	1663	0.7011	<i>0.0262</i>	286	0.7378	<i>-0.0105</i>
AGE	286	2.7869	1663	2.7429	<i>0.0440 *</i>	286	2.7632	<i>0.0237</i>
CONCENTRATION	286	0.4931	1663	0.4854	<i>0.0077</i>	286	0.4832	<i>0.0099</i>
INSIDER	286	0.0656	1663	0.0825	<i>-0.0169</i>	286	0.0605	<i>0.0051</i>
BOARDSIZE	286	2.1972	1663	2.1624	<i>0.0348 ***</i>	286	2.1917	<i>0.0055</i>
INDPRO	286	0.3743	1663	0.3714	<i>0.0029</i>	286	0.3758	<i>-0.0015</i>
AF	286	13.8325	1663	13.6833	<i>0.1492 ***</i>	286	13.8030	<i>0.0295</i>
ANALYSTS	286	2.0535	1663	1.9720	<i>0.0815</i>	286	2.0597	<i>-0.0062</i>
ROA	286	0.0349	1663	0.0371	<i>-0.0022</i>	286	0.0396	<i>-0.0047</i>
RETURN	286	0.1979	1663	0.2137	<i>-0.0158</i>	286	0.2044	<i>-0.0065</i>
MB	286	1.9324	1663	2.1237	<i>-0.1913 *</i>	286	2.0560	<i>-0.1236</i>
SOE	286	0.5350	1663	0.4678	<i>0.0672 **</i>	286	0.5245	<i>0.0105</i>



TABLE 2 (continued)

Panel B: Treated firms with propensity-score matched firms as control sample						
	N	Mean	SD	P25	P50	P75
DA1	2200	0.057	0.057	0.019	0.039	0.074
DA2	2200	0.053	0.053	0.018	0.037	0.070
REM	2200	0.126	0.117	0.040	0.094	0.174
FRQ1	2200	-0.003	1.005	-0.300	0.315	0.669
FRQ2	2200	0.007	1.008	-0.320	0.307	0.674
FRQ3	2200	0.043	0.979	-0.357	0.310	0.765
FRQ	2200	0.016	0.822	-0.255	0.250	0.566
SIZE	2200	22.662	0.975	21.952	22.553	23.246
LEV	2200	0.116	0.113	0.019	0.081	0.188
PPE	2200	0.250	0.179	0.110	0.213	0.363
SDSALE	2200	0.150	0.160	0.055	0.099	0.173
BETA	2200	1.127	0.241	0.969	1.148	1.291
DIVIDEND	2200	0.557	0.497	0	1	1
AGE	2200	2.808	0.331	2.639	2.833	3.045
CONCENTRATION	2200	0.480	0.161	0.350	0.476	0.599
INSIDER	2200	0.059	0.136	0.000	0.000	0.011
BOARDSIZE	2200	2.184	0.208	2.079	2.197	2.197
INDPRO	2200	0.373	0.054	0.333	0.364	0.400
AF	2200	13.863	0.738	13.385	13.710	14.221
ANALYSTS	2200	2.043	1.126	1.099	2.197	2.996
ROA	2200	0.035	0.055	0.010	0.029	0.059
RETURN	2200	0.317	0.489	-0.027	0.219	0.557
MB	2200	2.292	1.853	1.243	1.717	2.542
SOE	2200	0.534	0.499	0	1	1

TABLE 2 (continued)

Panel C: Resigned director backgrounds		
	Number	Percentage
In charge of related industry	161	40.15%
National level rank	146	36.41%
From the same region as the company	348	86.78%
Male	356	88.78%
Retired	81	20.20%
Total resigned official directors	401	
Panel D: Successor director backgrounds		
	Number	Percentage
From same industry	120	30.08%
Accounting, finance or tax	215	53.88%
Banking	24	6.02%
Law	60	15.04%
At least belong to one of above categories	363	90.98%
Male	332	83.21%
Retired	18	4.51%
Total successor directors	399	

Notes: This table reports descriptive statistics. Panel A provides comparison between treatment firms and control firms. The observations and statistics are at the firm level for the year before Rule 18. Panel B reports descriptive statistics of key independent, dependent, and control variables for the main sample, including treatment firms and propensity-score matched firms. The observations and statistics are at the firm-year level. Panel C reports the characteristics of resigned directors. Panel D reports the characteristics of successor. Please see Appendix B for variable definitions. \*, \*\*, and \*\*\* indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

TABLE 3  
Anti-corruption campaign and financial reporting quality

Panel A: All non-treatment firms as control firms						
	FRQ			FRQ1	FRQ2	FRQ3
	(1)	(2)	(3)	(4)	(5)	(6)
<i>OFFICIAL</i> × <i>POST</i>	0.2182*** (4.98)	0.2115*** (4.63)	0.2083*** (4.55)	0.2552*** (4.26)	0.2579*** (4.62)	0.1117** (2.46)
OFFICIAL	-0.0613 (-1.55)					
POST	0.0807** (3.56)	0.0789*** (2.59)				
SIZE	-0.0371* (-1.78)	-0.2413*** (-4.72)	-0.2930*** (-5.41)	-0.3002*** (-4.28)	-0.1982*** (-2.86)	-0.3806*** (-6.53)
LEV	-0.1111 (-0.83)	-0.5890** (-2.28)	-0.5787** (-2.23)	-0.5948* (-1.93)	-0.7083** (-2.23)	-0.4329* (-1.67)
PPE	0.3795*** (5.00)	0.7293*** (4.07)	0.7259*** (4.06)	0.8490*** (3.47)	0.7642*** (3.10)	0.5645*** (3.01)
SDSALE	-1.0508*** (-10.24)	-0.2833 (-1.54)	-0.2659 (-1.43)	-0.2995 (-1.41)	-0.3924* (-1.67)	-0.1058 (-0.49)
BETA	0.1619*** (3.74)	0.1075** (2.14)	0.0574 (1.05)	0.0934 (1.32)	0.0433 (0.63)	0.0356 (0.63)
DIVIDEND	0.1284*** (5.45)	-0.0029 (-0.11)	0.0411 (1.38)	0.0485 (1.28)	0.0494 (1.31)	0.0253 (0.84)
AGE	-0.0250 (-0.72)	0.5831*** (2.71)	0.2463 (0.86)	0.4471 (1.31)	0.0457 (0.13)	0.2463 (0.81)
CONCENTRATION	-0.1211 (-1.61)	-0.6470*** (-2.77)	-0.6426*** (-2.75)	-0.7187** (-2.44)	-0.8327*** (-2.80)	-0.3762 (-1.34)
INSIDER	0.0619 (0.85)	0.4284* (1.78)	0.3899 (1.64)	0.3399 (1.09)	0.4287 (1.36)	0.4010 (1.39)
BOARDSIZE	0.0414 (0.63)	0.0263 (0.18)	0.0296 (0.21)	0.0940 (0.54)	0.0222 (0.13)	-0.0275 (-0.18)
INDPRO	0.1792 (0.80)	-0.3975 (-1.10)	-0.4266 (-1.18)	-0.5294 (-1.18)	-0.6577 (-1.45)	-0.0926 (-0.24)
AF	0.0546** (2.42)	-0.0450 (-0.81)	-0.0446 (-0.80)	-0.0481 (-0.67)	-0.0921 (-1.25)	0.0063 (0.10)
ANALYSTS	0.0381*** (2.90)	0.0724*** (2.84)	0.0763*** (2.98)	0.0744** (2.33)	0.0696** (2.23)	0.0848*** (3.10)
ROA	-2.2156*** (-7.39)	-1.3163*** (-3.14)	-1.2361*** (-2.93)	-0.5634 (-0.95)	-1.9899*** (-4.03)	-1.1550*** (-2.75)
RETURN	-0.0159 (-0.67)	0.0263 (0.93)	0.0431 (1.47)	0.0554 (1.45)	0.0084 (0.22)	0.0656** (2.13)
MB	-0.0334*** (-3.96)	0.0054 (0.39)	0.0018 (0.13)	0.0030 (0.17)	0.0158 (0.90)	-0.0134 (-0.85)
SOE	0.0701*** (2.58)	-0.0250 (-0.17)	-0.0223 (-0.15)	0.0320 (0.17)	0.0163 (0.09)	-0.1152 (-0.74)
Year FE	NO	NO	YES	YES	YES	YES



Industry FE	YES	NO	NO	NO	NO	NO
Firm FE	NO	YES	YES	YES	YES	YES
Observations	7745	7745	7745	7745	7745	7745
Adjusted $R^2$	0.131	0.301	0.303	0.236	0.227	0.486

TABLE 3 (continued)

Panel B: Propensity matched firms as control firms

	Dependent Variable = FRQ			
	(1)	(2)	(3)	(4)
<i>OFFICIAL</i> × <i>POST</i>	0.2038*** (3.29)	0.1791*** (2.88)	0.1748*** (2.80)	
OFFICIAL	0.0005 (0.01)			
POST	0.0826 (1.61)	0.0670 (1.06)		
OFFICIAL*Y2012				-0.0149 (-0.21)
OFFICIAL*Y2013				0.0125 (0.20)
OFFICIAL*Y2014				0.2080*** (3.21)
OFFICIAL*Y2015				0.2011*** (3.15)
Other Controls	YES	YES	YES	YES
Year FE	NO	NO	YES	YES
Industry FE	YES	NO	NO	YES
Firm FE	NO	YES	YES	NO
Observations	2200	2200	2200	2200
Adjusted $R^2$	0.137	0.330	0.330	0.138

Notes: This table reports our main results of the impact of the anti-corruption campaign on financial reporting quality. In Panel A, we present the results using all non-treatment firms as control firms. Model (1)-(3) use the aggregate measure of financial reporting quality (*FRQ*) as the dependent variable, and include industry fixed effects, firm fixed effects, firm and year fixed effects respectively. Model (4)-(6) use three individual financial reporting quality measures as dependent variable, and include firm and year fixed effects. In Panel B we present the results using PSM firms as control firms. Please see Appendix B for variable definitions. Standard errors are clustered at the firm level. T-statistics are presented in

parentheses. \*, \*\*, and \*\*\* indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

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TABLE 4  
The influence of institutional development

	Predicted Sign	Financing Marketization		Judicial Efficiency	
		High	Low	High	Low
<i>OFFICIAL</i> × <i>POST</i>		0.3348*** (3.79)	0.0219 (0.25)	0.3767*** (3.53)	0.0423 (0.54)
<i>Difference: High-Low</i>	+	0.3129** <i>Z-statistic</i> =2.53		0.3344** <i>Z-statistic</i> =2.53	
Other Controls		YES	YES	YES	YES
Year FE		YES	YES	YES	YES
Firm FE		YES	YES	YES	YES
Observations		1007	1193	800	1400
Adjusted <i>R</i> <sup>2</sup>		0.277	0.365	0.248	0.369

Notes: This table reports the results of the influence of institutional development on anti-corruption effects. In the first two columns, the sample firms are partitioned into sub-samples based on the median values of financing marketization degree compiled by Fan et al. (2011). In the next two columns, the sample firms are partitioned into sub-samples based on the median values of judicial efficiency ranking developed by World Bank in *Doing Business in China Report*. The dependent variable is the aggregate measure of financial reporting quality. Please see Appendix B for variable definitions. Standard errors are clustered at the firm level. T-statistics are presented in parentheses. \*\* and \*\*\* indicate statistical significance at the 5 percent and 1 percent levels, respectively.

TABLE 5  
The influence of firm characteristics

Panel A: Ownership type						
	Predicted Sign	Non-SOE		SOE		
<i>OFFICIAL</i> × <i>POST</i>		0.3416*** (3.24)		0.0153 (0.22)		
<i>Difference: Non-SOE - SOE</i>	+	0.3263*** <i>Z-statistic</i> =2.58				
Other Controls		YES		YES		
Year FE		YES		YES		
Firm FE		YES		YES		
Observations		1026		1174		
Adjusted <i>R</i> <sup>2</sup>		0.272		0.410		
Panel B: Financing characteristics						
	Cost of Debt			Refinancing Pressure		
	Predicted Sign	High	Low	Predicted Sign	High	Low
<i>OFFICIAL</i> × <i>POST</i>		0.0400 (0.42)	0.3302*** (3.89)		0.3032*** (3.49)	0.0274 (0.32)
<i>Difference: High-Low</i>	-	-0.2902** <i>Z-statistic</i> =2.27		+	0.2758** <i>Z-statistic</i> =2.26	
Other Controls		YES	YES		YES	YES
Year FE		YES	YES		YES	YES
Firm FE		YES	YES		YES	YES
Observations		989	972		1098	1102
Adjusted <i>R</i> <sup>2</sup>		0.319	0.315		0.302	0.375

Notes: This table reports the results of the influence of firm characteristics on anti-corruption effects. In panel A, the sample firms are partitioned into sub-samples based on whether the ultimate controlling shareholder is the state or not. In panel B, the sample firms are partitioned into sub-samples based on firm characteristics about financing. In the first two columns, the partition variable is the cost of debt (*COD*), calculated as interest expense divided by the amount of interest-bearing debt in the year before the event. In the next two columns, the partition variable is the refinancing pressure (*RP*), calculated as short term bank loans as a percentage of total debt. The dependent variable is the aggregate measure of financial reporting quality. Please see Appendix B for variable definitions. Standard errors

are clustered at the firm level. T-statistics are presented in parentheses. \*\* and \*\*\* indicate statistical significance at the 5 percent and 1 percent levels, respectively.

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TABLE 6

The other consequences of the anti-corruption campaign and the moderating effects of FRQ

Panel A: The effects on government subsidy and long term loan				
		Subsidy (1)	Long-term Loan (2)	
<i>OFFICIAL</i> × <i>POST</i>		-0.1646** (-1.98)	-0.0169** (-2.49)	
Other Controls		YES	YES	
Year FE		YES	YES	
Firm FE		YES	YES	
Observations		2158	2148	
Adjusted $R^2$		0.768	0.814	

  

Panel B: The Effects on Public Financing and the Moderating effects of FRQ				
			$\Delta$ FRQ	
	Predicted Sign	Full Sample	High	Low
<i>OFFICIAL</i> × <i>POST</i>		0.0037 (0.61)	0.0215** (2.34)	-0.0112 (-1.41)
<i>Difference: High-Low</i>	+		0.0327*** Z-statistic=2.69	
Other Controls		YES	YES	YES
Year FE		YES	YES	YES
Firm FE		YES	YES	YES
Observations		2140	1069	1071
Adjusted $R^2$		0.050	0.054	0.066

Notes: The table reports the effects of anti-corruption campaign on government subsidy, long term bank loan, and public financing. For Model (1) of Panel A, the dependent variable is the natural logarithm of government subsidies; For Model (2) of Panel A, the dependent variable is long-term bank loans as a percentage of total liability. For Panel B, the dependent variable is total public financing as a percentage of total assets. The sample is divided into two subgroups based on the median of the change of financial reporting quality (*FRQ*) from pre-event period to post-event period. We include control variables following the literature. Standard errors are clustered at the firm level. T-statistics are presented in parentheses. \*\* and \*\*\* indicate statistical significance at the 5 percent and 1 percent levels, respectively.

TABLE 7  
Potential confounding events

	Eight-Point Regulation		Market Liberalization	
	(1)	(2)	(3)	(4)
<i>OFFICIAL</i> × <i>POST</i>	0.1751*** (2.79)	0.1507** (2.14)	0.1757*** (2.81)	0.1973*** (2.82)
ETC	1.0782 (0.78)			
Market Liberalization			0.0455 (0.64)	
Other Controls	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
Observations	2200	1680	2200	1657
Adjusted $R^2$	0.330	0.350	0.330	0.353

Notes: This table presents results controlling for two potential confounding events. The first two columns present results controlling for Eight-Point Regulation. In Model (1) we add Entertainment and Traveling Costs (*ETC*) as a control variable; in Model (2), we exclude observations of the year 2012 from our sample to assure that our sample is after the Eight-point Regulation. The next two columns present results controlling for the market liberalization. In model (3), we include an indicator variable equal to one if the stocks are opened to direct trade by Hong Kong and international investors; in model (4) we exclude observations in the year 2015 from our sample to assure that our sample is prior to the market liberalization. The dependent variable is the aggregate measure of financial reporting quality. Please see Appendix B for variable definitions. Standard errors are clustered at the firm level. T-statistics are presented in parentheses. \*\* and \*\*\* indicate significance at the 5 percent and 1 percent levels, respectively.

TABLE 8  
Placebo analyses

Panel A: The effects of non-official directors' resignations		
	(1)	
<i>NOFFICIAL</i> × <i>POST</i>	-0.0638 (-1.18)	
Other Controls	YES	
Year FE	YES	
Firm FE	YES	
Observations	2069	
Adjusted $R^2$	0.356	
Panel B: Results using pseudo-event years		
	(1)	(2)
<i>OFFICIAL</i> × <i>POST</i>	-0.0363 (-0.47)	-0.0157 (-0.27)
Other Controls	YES	YES
Year FE	YES	YES
Firm FE	YES	YES
Observations	1342	3053
Adjusted $R^2$	0.287	0.259

Notes: This table presents two sets of placebo analyses. In Panel A, we use firms with resigned directors from universities, publicly-funded organizations or SOEs as Pseudo treated group. *NOFFICIAL* is an indicator variable which equals to 1 if the firm has forcedly resigned director from non-government organizations and 0 otherwise. In Panel B, we use two different years as “pseudo-event” years. In model (1), we pick the years 2008 and 2009 as the pre-event period, and 2010 and 2011 as the post-event period. In model (2), we use the years 2008-2011 as pre-event period, and 2012-2015 as post-event period. The dependent variable is the aggregate measure of financial reporting quality. Please see Appendix B for variable definitions. Standard errors are clustered at the firm level. T-statistics are presented in parentheses.