J. Account. Public Policy xxx (xxxx) xxx

Contents lists available at ScienceDirect

J. Account. Public Policy

journal homepage: www.elsevier.com/locate/jaccpubpol

Full length article

Corruption culture and accounting quality ☆

Yunsen Chen [a], Limei Che [b], Dengjin Zheng [a,*], Hong You [c]

[a] Central University of Finance and Economics, China
[b] Peking University HSBC Business School, China
[c] Southwest University, China

ARTICLE INFO

Article history:
Available online xxxx

Keywords:
Corruption culture
Accounting quality
Local government officials
China

ABSTRACT

This paper examines the impact of corruption culture on accounting quality (AQ) of listed firms at the municipal level in China. We consider municipalities with (without) corrupt top government officials as having high (low) corruption culture. To isolate the effect of corruption culture, we use the arrest of corrupt officials (the events) to capture the change in local corruption culture, and apply the difference-in-difference method to compare AQ of firms operating in the jurisdictions of corrupt officials pre and post the events, compared to control firms. We find that AQ of firms affiliated with corrupt officials is higher after the events, which is robust to the placebo test, time-trend analysis, and various robustness tests. We complement the literature by showing that the increase in AQ is greater for firms associated with more powerful officials and having stronger connections with corrupt officials. Moreover, the positive effect on accounting quality is stronger in the post-2012 period. Further, we document that firms improving AQ after the events issue more SEOs and have lower cost of capital. Finally, analyses on channels firms used to improve AQ show that firms switch to higher quality auditors, have better internal control, and issue more management forecasts. This study has implications for policymakers in countries that suffer from corruption.

1. Introduction

Accounting plays an essential role in terms of resource allocation and economic growth (Biddle et al., 2009; Piotroski and Wong, 2012), as it bridges communication between business firms and capital markets, and serves as the foundation for various contracts, e.g., managerial and debt contracting (Watts and Zimmermann, 1986; Rajan and Zingales, 2003). Due to the importance of accounting, it is warranted to examine the impact of various factors on accounting quality. Ball et al. (2003)

☆ We are grateful to Suresh Radhakrishnan and Yuan Zhang from UT Dallas, Zezhong Xiao from Cardiff University, and Xi Wu and Xuan Gu from CUFE for their helpful comments and suggestions. We also appreciate the valuable feedback from participants at the 2018 Annual Congress of the European Accounting Association, the 2017 MIT Asia Conference of Accounting, as well as from colleagues at Jinan University, Nanchang University and Central University of Finance and Economics. This work was supported by the National Natural Science Foundation of China (71572209, 71802206), the Humanity and Social Science Youth foundation of Ministry of Education (18YJC630262), and the Fundamental Research Funds for the Central Universities (QL18005). Yunsen Chen and Dengjin Zheng also thank China's Management Accounting Research & Development Center in Central University of Finance and Economics.

* Corresponding author at: School of Accountancy, Central University of Finance and Economics, No. 39 South College Road, Haidian District, Beijing 100081, China.

E-mail addresses: yschen@cufe.edu.cn (Y. Chen), limei.che@phbs.pku.edu.cn (L. Che), dengjinzheng@cufe.edu.cn (D. Zheng), youhong@swu.edu.cn (H. You).

https://doi.org/10.1016/j.jaccpubpol.2019.106698
0278-4254/

show that accounting quality is profoundly affected by market and political forces that influence managers' incentives.[1] While acknowledging the contributions of this study, Holthausen (2003) criticises the heterogeneity issues in its setting of four East Asian countries. We follow up Ball et al. (2003) by focusing on the impact of one specific aspect of political forces, i.e., regional corruption culture on accounting quality, and adopting a setting of a single country to mitigate the above concern.

This paper examines how local corruption culture could affect accounting quality (AQ) of firms operating in the region using data from China. Corruption culture is measured by whether the top government officials that have the highest power in the region are corrupt.[2] Guiso et al. (2006, p. 26) suggest that "Power is not merely domination but hegemony – that is, the ability to influence society morally and intellectually". Moreover, Liu (2016) argue that corruption could be affected by political environment. We consider regions with corrupt top officials as having strong corruption culture and regions without corrupt top officials as having weak corruption culture.[3] Dass et al. (2017) show that there is significant regional variation in terms of "corruption culture" in the United States, and public firms in more corrupt regions exhibit a greater propensity for corruption.

When a corrupt top official is arrested on charges of corruption, this occurs as a shock to the public including both the corrupt officials themselves and the affiliated firms. This official will be removed from her post and this is very likely to affect the regional corruption culture because the connection between the corrupt official and firms is broken.[4] As suggested by Glaeser and Saks (2006), a significant advantage of using the arrest of corrupt officials is that this is enforced by the (upper) central government, which alleviates the concern that differences in regional factors may contribute to this event. Hence, the change in regional corruption culture due to the arrest of corrupt officials (the event) could be considered as an exogenous shock. By examining the change in AQ of firms before and after the events, we could isolate the effect of corruption culture driven by corrupt officials on AQ by controlling for time-invariant factors.

China provides an excellent setting to examine corruption culture and AQ as China is characterized as a combination of political centralization and economic regional decentralization, where regional governments have overall responsibility and strong direct control rights over a substantial amount of scarce resources, such as land, bank loans, energy, and raw materials (Xu, 2011). The huge power of local top officials combined with other Chinese features such as the importance of relationship or social network for doing business may breed corruption in the region. For example, Daohang Liang, vice mayor of Shenzhen city, was arrested in 2012 due to substantial illegal pecuniary benefits he obtained by taking advantage of his power to favour firms and persons bribing him.

We focus on corruption culture caused by corrupt officials and AQ of firms at the municipal level.[5] In China, municipalities are in general very large and are very important administrative units. Several municipalities have a population of over 10 million and almost 90% of municipalities have more than 1 million people per January 2018. Meanwhile, municipality is the unit that is at a relatively lower level, which enables close interactions between firms and officials. Compared to the government officials at a higher level, i.e., national or provincial (Faccio, 2006; Fan et al., 2014), investigation on corrupt top officials at the municipal level could be more powerful due to the discretionary power of local officials over allocating resources to local firms and the greater involvement of local officials in the economies within their jurisdictions, including local firms (Faccio, 2006; Xu, 2011).

Using manually collected data on corrupt officials, we investigate whether AQ of local public firms in regions with strong corruption culture are lower and AQ increases after the conviction of corrupt officials.[6] To mitigate the possibilities that unobservable factors contaminate our findings, we use propensity score matching (PSM) approach. We match firms in regions with strong corruption culture (i.e., treatment firms) with firms in regions that have normal official turnover but no convicted officials (i.e., control firms) based on characteristics at the municipal level. We then use the difference-in-difference method to examine AQ of treatment firms pre and post the event, compared to control firms.[7] The results support our hypothesis that AQ of public firms in the region of corrupt officials increases after the improvement of corruption culture (i.e., the arrest of corrupt top officials).

We conduct a battery of additional tests to validate our results. First, to mitigate the concern that our results are driven by latent variables instead of the change of corruption culture, we conduct a placebo test by artificially choosing two years before the actual event year as the pseudo-event year. The result of no change in AQ post the pseudo-event year indicates that our results are less likely to be affected by omitted variables. Second, we conduct a time-trend analysis, and the results show a significant increase in AQ *each* year after the corruption exposure. Furthermore, as the events of arresting corrupt

[1] Ball et al. (2003) note that the substantial attention given to international accounting standards can be misleading because financial reporting practice can be affected by preparers' incentives, which depend on the interplay of the market and political forces in the reporting jurisdiction. Their study tested the importance of preparers' incentives using data from Hong Kong, Malaysia, Singapore, and Thailand.

[2] We do not mean that corruption culture is only affected by corrupt officials, but argue that whether top officials in the region are corrupt or not will significantly affect the local corruption culture. Other factors that may affect corruption culture will be controlled for by our research design.

[3] Rather than studying government officials in general, we focus on government officials that are in top political positions in terms of decision-making power in the municipality (i.e., party committee secretaries and majors, including both principal/chief and vice/deputy). The vast discretionary power that these top officials wield can give any firm that establishes a relationship with them a very high return on its investment (McGregor, 2010).

[4] The corruption culture may become weaker also because the successors of arrested corrupt officials would be cautious to conduct corruption practices.

[5] The Chinese government consists of a region-based multilevel hierarchy. Below the central government, there are four levels of subnational governments: the provincial level, the municipal level (or prefecture level), the county level, and the township level (Xu, 2011). We do not focus on the county nor the township level because the economic scales are much smaller and there are almost no listed firms at these levels.

[6] All arrested officials have also been convicted. Therefore, we use "arrest" and "conviction" interchangeably.

[7] Factors that influence corruption culture but are unaffected by the arrest of corrupt officials will be controlled for by the use of difference-in-difference analysis and fixed effect on firms (and other fixed effects). We have also used many alternative PSM methods and the inferences hold.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

officials occur across various regions and in different years, it is less likely that unobserved variables could co-ordinate so well with the events. Moreover, our results are also robust when using alternative measures of AQ and balanced sample.

An alternative explanation for our finding could be that the change in AQ is driven by the change in firms' bank financing as Fan et al. (2008) show that firms connected with arrested officials experience a decline in the leverage and debt maturity ratios.[8] If so, our results should be stronger or only exist for firms with higher leverage or for firm with a large decline in leverage in the post-event period. We do not find statistically significant differences in the increase in AQ for firms with high and low levels of (or changes in) bank financing. Hence, this alternative interpretation cannot (fully) explain our results.

If our finding that firms increase their AQ after the arrest of corrupt officials in their region is valid, the increase in AQ should be greater for firms associated with more powerful corrupt officials and for firms that have stronger political connections with corrupt officials. This is because benefits from corruption depend on the officials' power to allocate resources and the strength of the political connection. Using three measures to proxy officials' power and firms' connection with corrupt officials, we find evidence supporting this prediction, which strengthens our main results.

Besides, China has experienced a dramatic change in corruption culture since Xi Jinping assumed power and embarked on a forceful anti-corruption movement in November 2012. An important policy "Eight-Point Regulation" started in December 2012 (Lin et al., 2016), and a series of polices including "Rule 18" were implemented from 2013. We find that AQ in the post-2012 period is higher than pre-2012 period, and the increase in AQ post the conviction of corrupt officials is also higher after 2012 than before 2012, which lends further support to our main finding of the impact of corruption culture on AQ.[9]

We argue that firms increase their AQ because they have to rely on accounting information to, e.g., raise external financing. If this explanation is valid, these firms should issue more seasonal equity offerings (SEOs) and have lower cost of capital. By examining firms' SEOs and cost of capital, we provide supportive results and validate our argument. Finally, to understand how firms improve their AQ after corruption culture becomes weaker, we investigate some potential channels these firms may have used. The evidence demonstrates that, after corrupt officials are arrested, these firms are more likely to switch to higher quality auditors, improve internal control, and disclose more management forecasts, compared to control firms.

This study contributes to the literature on how culture affects firms' behaviours. For example, Liu (2016), using U.S. data, examines the role of corporate culture in influencing corporate misconduct. He finds that firms with high corporate corruption culture are more likely to engage in corporate misconduct. Smith (2016) shows that U.S. political corruption affects local firms' financial policies. Our paper complements this literature by documenting that corruption culture affects accounting quality of firms in the region. Moreover, we enrich the literature by showing that officials' power and the strength of political connections between firms and corrupt officials matter for AQ.

Our paper also contributes to a broader literature of political corruption. Previous studies on corruption have mostly focused on cross-country data, which suffer from substantial endogeneity issues and the problem of correlated omitted variables (Miller, 2004).[10] This study greatly mitigates these issues by responding to the call of Miller (2004) to focus on a single country. As noted by Fisman and Gatti (2002), one advantage of within-country studies is that they control for institutional and other differences at the national level.

While Fan et al., 2014; Hope et al., forthcoming also study corruption in China, our study adds its incremental contribution to this literature due to the main distinctions between our paper and these two studies. First, Fan et al. (2014) examine Earnings Response Coefficient (ERC) and find that there is an increase in the earnings informativeness of the networked firms following the exposure of a scandal. However, their robustness tests fail to show that the increase in ERC is primarily due to financial reporting quality (FRQ), while we examine FRQ and find that FRQ increases post the conviction. Second, Fan et al. (2014) focus on corrupt officials at the provincial level or national level (including top officials in banks), which has some subtle differences from our focus on officials at the municipality level.[11] Third, Fan et al. (2014) focus on individual firms that have bribed to the corrupt officials, or have prior job-related relationship or kinship with the corrupt officials, which are affected by direct political connections, while we focus on *all* the listed firms in the region, which are affected by local corrupt culture.

Acknowledging the very interesting setting adopted by Hope et al., forthcoming, we list the main differences of our study from their paper.[12] First, Hope et al., forthcoming show that the break of political connections results in positive impacts on financial reporting quality (FRQ), while our study shows that, no matter whether there exists political connection between officials and local public firms or not, FRQ improves after the arrest of corrupt officials although the magnitude differs. Second, the exogenous shock of Rule 18 employed by Hope et al., forthcoming occurs at the national level, that is, all the listed firms will be affected at the same time. In contrast, our paper focuses on the events of corrupt officials at the municipal level that take place in different times and different regions, which greatly mitigates the endogeneity concerns. Third, using Rule 18 as an exogenous shock, Hope et al., forthcoming tell a story of political connection and find that FRQ of firms with resigned official director

[8] We thank an anonymous reviewer for this comment.

[9] We appreciate this comment from both anonymous reviewers.

[10] Studies on corruption using cross-country data suffer from endogeneity issues due to heterogeneous factors related to legal, judicial, cultural, and disclosure regulations across countries as well as correlated omitted variables (Miller, 2004; Faccio, 2006; Gul, 2006).

[11] There are many municipalities in each province and huge differences may exist among different municipalities. In addition, the government officials at the provincial level has much less contact with most firms compared to officials at the municipal level. In contrast, we examine the impact of government officials at the municipal level, because they can affect local corrupt culture and accounting quality due to more direct and closer relationship with local firms.

[12] Hope et al. (forthcoming) focus on the issue of the "Rule 18" policy in 2013, which prohibits party and government officials from serving as directors for public firms.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

increases after Rule 18. However, the directors prohibited from serving public firms might not be corrupt. Hence, the Rule 18 is not directly capturing corrupt officials, while our paper examines *corrupt* officials.

The finding of this paper could help policymakers better evaluate the negative impacts of corruption. Moreover, as the corruption level in China ranks high on a global scale, China could be representative on this matter, and findings from China may be generalizable to other countries.[13] For countries that suffer from corruption, this study could shed some insights for their policymakers.

2. Institutional background, literature, and hypotheses development

2.1. Institutional background

Xu (2011) describes China as a combination of political centralisation and economic regional decentralisation. This system leaves local municipalities as semi-autonomous economic regions, and the top municipal officials wield much power in their jurisdictions (Chen et al., 2018a). Local governments have the overall responsibility for initiating and coordinating reforms, providing public services, and making and enforcing laws within their jurisdictions (Xu, 2011). Hence, this authority grants discretionary power to local (top) officials, giving them direct control over a substantial amount of scarce resources such as land, bank loans, government contracts, and initial public offerings, which greatly affects the incentives and behaviours of various players in the region.

As of 2017, China administers 34 provincial-level or first-level divisions, 334 prefecture-level (or municipal level) divisions, and many county-level and township-level administrations.[14] Among the 334 prefecture-level divisions, there are 291 prefecture-level cities.[15] The majority of cities are very large and have a population of several million people. On November 3, 2017, Jeff Desjardins, Editor-in-Chief of Visual Capitalist, claims that 35 Chinese cities have a GDP that is equivalent to an entire country.[16] He writes "*To truly grasp the emergence of China, one approach is to look at the impressive economic footprint made by the country's cities. … Of course, cities like Shanghai, Beijing, and Hong Kong are the metro economic powerhouses that most people are familiar with. But have you heard of cities like Shijiazhuang, Wuxi, Changsha, Ningbo, Foshan, or Yantai? There are literally dozens of Chinese cities that most people in Western countries have never heard of – yet they each hold millions of people and have an economic output comparable to nations*." We focus on these large and less heard of cities in this study.[17]

The heavy dependence on interpersonal networks to do business is a historically and culturally deep-rooted feature in China (Gold and Guthrie, 2002). Corruption culture in China has been present through countless dynasties and can date back over a thousand years. Local government officials can affect the reporting incentives of both state-owned and non-state-owned firms (Chen and Yuan, 2004). The channels could be, e.g., direct ownership, bureaucracy regulations, licensing requirements, and informal political and social networks (Piotroski et al., 2015). The strong power of government officials, particularly of those on top, on the allocation of limited resources and the relationship-based business tradition have created widespread corruption practices in China.

2.2. Literature review

Corruption is a pervasive phenomenon worldwide (Shleifer and Vishny, 1993). It is defined as crimes of misusing government property by government officials for personal gain (Rose-Ackerman, 1975; Shleifer and Vishny, 1993; Svensson, 2005). While it more often takes root in developing countries, it also exists in developed countries, such as the United States. As Glaeser and Sakes (2006, p. 1053) noted, "Between 1990 and 2002, federal prosecutors convicted more than 10,000 government officials of acts of official corruption."

Prior research on corruption has generally consisted of cross-country studies using opinion surveys and examined the causes and consequences of corruption (e.g., Shleifer and Vishny, 1993; Bardhan, 1997; Ehrich and Lui, 1999; Glaeser and Saks, 2006). Such empirical studies have often relied on perceptions as a means of measuring corruption. Some evidence shows that perceived corruption is positively related to ethnic fragmentation and negatively related to investment and economic growth (e.g., Mauro, 1995; La Porta et al., 1999). Cross-country studies based on survey data have encountered difficulties in providing an accurate depiction of corruption and in comparing corruption in different countries due to the substantial differences between them (Miller, 2004).

There is an emerging branch of literature examining the importance of corruption culture in explaining the behaviour of individuals and firms.[18] Dass et al. (2017) hypothesize that there is a culture of corruption in certain regions of the U.S., where

[13] According to Transparency International's Corruption Perceptions Index, China ranked 80th out of 174 countries in terms of its corruption level in 2012, coming after Sri Lanka (79th) and Cuba (58th), but before India (94th) and many other countries (Lin et al., 2016).

[14] The four direct-controlled municipalities (Beijing, Shanghai, Tianjin, and Chongqing) are treated as provinces, and officials in these regions have a rank equal to that of officials at the provincial level.

[15] https://en.wikipedia.org/wiki/Administrative_divisions_of_China. Accessed on August 1, 2018.

[16] http://www.visualcapitalist.com/31-chinese-cities-economies-big-countries/. Accessed on August 1, 2018.

[17] The two major stock exchanges, the Shanghai and the Shenzhen, had 3467 listed firms by the end of 2017. Only listed firms are required to disclose financial reports to the public in China, similar to the United States.

[18] Some studies find that individuals with cultural ties to highly corrupt countries exhibit a greater prosperity to engage in unethical behaviours, for example illegal parking by U.N. diplomats (Fisman and Miguel, 2007), corporate tax evasion (DeBacker et al., 2015).

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

local individuals in public and private sectors share a common belief about whether it is acceptable to engage in unethical behaviours for private benefits. They find that public firms that are headquartered in more corrupt states exhibit a greater propensity for corrupt behavior. Liu (2016) examines whether U.S. firms with high corruption culture are more likely to engage in corporate misconduct. Holding the individual constant, he shows that the likelihood of engaging in personal misconduct increases when the same individual joins a firm with high corruption culture, compared to when he was at a firm with low corruption culture. Smith (2016) documents that firms in regions of more local political corruption change their financial policies by holding less cash and having greater leverage compared to firms in less corrupt areas.

A main strand of the literature on corruption has addressed political connection (e.g., Faccio, 2006; Faccio et al., 2006; Claessens et al., 2008; Chen et al., 2018b). These studies often use indicators of political connection, (e.g., a large shareholder, top executive, or director is a politician or is closely linked to one) as measures for corruption. Chaney et al. (2011) find that the earnings quality of politically connected firms is substantially lower than that of similar non-connected firms. Hope et al., forthcoming use the breaking of political connection caused by an exogenous shock from China's Rule-18 policy, which prevents government and party officials from serving as board members in listed firms, to test the effect of government officials resigning from their roles as directors on firm-level financial transparency.

Widespread corruption and the Chinese government's fight against corruption have provided excellent opportunities to study corruption. For example, Fan et al. (2008) show that there is a significant decline in the leverage ratio and debt maturity ratio of firms that are connected to corrupt officials. Fan et al. (2014) find that anti-corruption enforcement reduces the measurement noise arising from relationship-based business transactions and improves the earnings response coefficient (ERC). Several studies have examined anti-corruption campaign initiated by Xi Jinping and revealed that the anti-corruption campaign has decreased the consumption and importation of luxury goods, which are important vehicles for corruption, reduced entertainment expenditures, and had positive market reactions (Griffin et al., 2016; Lin et al., 2016; Ke et al., 2017).

2.3. Hypotheses development

In China, the distribution of resources in each region is at the discretion of some local government officials (e.g., party committee secretaries and mayors), who have the top-ranked political power in the region. Due to the weak legal system and investor protections in China and the importance of relationships and social network for obtaining privileged access to limited resources, firms make substantial investments (i.e., bribery) to establish relationships with local officials. Krueger (1974) argue that firms compete for resources that are restricted and controlled by the government. Claessens et al. (2008) show that access to bank financing is an important channel through which government officials provide preferential treatment to firms they favour.

The promotion of government officials is linked to the economic growth of their regions (Li and Zhou, 2005). As local listed firms are usually large, which both creates employment opportunities for local people and contributes to economic and financial performance in the region, they play an important role in terms of the political advancement of the officials. More importantly, when dispensing preferential treatment to the bribe-paying firms, as a kickback, corrupt officials receive huge personal benefits. In addition, theory suggests that government officials may solicit bribes and extort firms by using threats of regulation and targeted taxes (McChesney, 1987). If officials are not able to resist the enticement of various pecuniary benefits, they will misuse their power and exchange public resources of interests to local firms for their own personal gains. Hence, this "win-win" mechanism could induce a strong bribery-corruption relationship between local firms and local government officials, and intensify the corruption culture in the region.

Whether top government officials on one region are corrupt or not could significantly affect the corruption culture in the region. This is because top officials have much power on scare resources in the region and power has the ability to influence society morally and intellectually (Guiso et al., 2006). In turn, culture can change individual preferences and economic behaviors (e.g., Guiso et al., 2006; Fernandez, 2011).

In regions with high corruption culture, firms gain privileged access to the desired resources via the relationship they have cultivated with government officials rather than through standard procedures of providing accounting information, and the important contracting role of financial reports is therefore significantly weakened. These firms would pay less attention to the quality of accounting information due to less need to depend on the capital market for financing (Chaney et al., 2011). Francis et al. (2005) show that the more reliant one firm is on external financing, the higher the accrual quality. More importantly, both government officials and management at the firm receive pecuniary benefits from the corrupt practices and will conceal or obscure such transactions by providing low-quality accounting information (e.g., Schipper, 1989; Leuz et al., 2003).[19]

While auditors play a significant role in providing assurance that financial statements are free from material misstatements in developed countries such as the U.S., it is different in China. Firms that have government connections often choose local auditors, because local governments retain strong political influence over the local auditors (Wang et al., 2008). Furthermore, the Chinese institutional settings (e.g., government controls of capital markets, weak market institutions, limited protection of property rights, the importance of social networks and political connections) reduce the incentives of various

[19] There is substantial evidence that firms with political connections have poorer accounting quality and lower levels of transparency than un-connected firms (Gomez, 1990; Bhattacharya et al., 2003; Bushman et al., 2004; Faccio, 2006; Chaney et al., 2011).

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

capital market participants' demand for high quality financial reporting (Piotroski and Wong, 2012). Investors pay attention to firms' political connections for investment opportunities and do not demand high-quality accounting information (Fisman, 2001). Hung et al. (2015) provide evidence that the Chinese economy is dependent more on political-based contracts than market-based contracts because the loss of political ties imposes a greater negative effect on firm value than the loss of market credibility.

When the corrupt officials are arrested, they will be removed from their posts. All involved parties, such as the firms, the banks, and other officials in the region, may "behave well" after the event due to the concern that they would be investigated. For example, the successors of the corrupt officials might be cautious and would not follow the same path as their predecessors, making it difficult for the firms to rebuild their connection with local officials (Leuz and Oberholzer-Gee, 2006; Hung et al., 2015). Hence, the corruption culture in the region will become weaker.

However, it is unclear ex ante whether accounting quality of affiliated firms will improve or deteriorate after the exposure of corrupt officials. On the one hand, accounting quality may improve. When the corruption culture is low or no officials and firms dare to conduct corruption practices, we argue that firms will depend on accounting information to raise external financing or gain various types of contracts. To obtain resources such as financing through proper procedures, the listed firms will then rely on providing a higher quality of accounting (Bao and Bao, 2004; Wiedman and Hendricks, 2013). For example, firms may have to take actions to improve their accounting practices. In such a scenario, we expect that listed firms in the region of corrupted officials will have an increase in their accounting quality post the conviction of these officials, compared to control firms.

On the other hand, accounting quality of local listed firms may suffer after the conviction of corrupt officials. There is evidence that corruption could have positive impact on firm performance and economic growth (Wei, 2001; McMillan and Woodruff, 2002; Li et al., 2008). The firms' financial performance and stock returns may deteriorate after the conviction of local corrupt officials due to the loss of the privilege treatment from local officials they have enjoyed in the past (Liu et al., 2017). As firms usually need to beat the analyst forecast and management compensation is commonly related to firm performance, the management can have strong incentives to manage earnings, which leads to lower accounting quality post the conviction of local corrupt officials. Furthermore, corruption prosecution of local officials may potentially expose local firms to more political uncertainty and also possible scrutiny, hence firms may tend to manage earnings to hide any transactions related to convicted officials. In short, accounting quality of local firms may decrease after the arrest of local corrupt officials.

We argue that the firms' need for financing and various contracts through high accounting quality will dominate. Thus, we hypothesize that accounting quality of listed firms operating in the municipalities with corrupt officials will improve following the arrest of corrupt officials.

H1: Accounting quality of listed firms operating in municipalities with corrupt top officials will increase after the arrest of these officials than before the event, compared to control firms.

3. Research design and descriptive statistics

3.1. Data

We *manually* collect data on top government officials at the municipal level that were arrested (and subsequently convicted) for corruption crimes between 2003 and 2016 using the *China Procuratorial Yearbook* and the official website of the Central Commission for Discipline Inspection (CCDI) of the Communist Party of China. The top officials of interest were party committee secretaries and majors in the municipalities. For detailed information about corrupt officials' position, hometown, and tenure, we enter search terms such as "Bribery," "Corruption," and "Arrest," together with the name of each corrupt official into the web search engines Google and Baidu (Baidu is a Chinese web search engine similar to Google).

For each of the events involving the arrest of corrupt officials at the municipal level, we identify the listed companies located in the corrupt official's jurisdiction. To examine the change in AQ of these firms before and after the arrest of these corrupt officials, we use three years of data both before and after the event. The data on accounting and market information are obtained from the *China Security Market and Accounting Research* (CSMAR) database for the period 2000 to 2018. We exclude firms in the financial industry due to their different accounting rules.

To control for unobserved factors, we use the propensity score matching (PSM) method to match the municipalities having corrupt officials (i.e., treatment municipalities) with municipalities that otherwise have similar corrupt culture but have normal official turnover instead of arrested officials (i.e., control municipalities; PSM is described later in this section). The firms located in the treatment municipalities (control municipality) are our treat firms (control firms). Both treatment and control firms are required to exist for at least one year before and after the event. Our final sample includes 114 unique corrupt officials in 92 cities, and 6632 firm-year observations between 2000 and 2018.

3.2. Methodology and variable measurements

Dass et al. (2017) find that state-level measures of corruption by public officials reflect a local corruption culture and public firms headquartered in more corrupt states exhibit a greater propensity for corruption. Following Dass et al. (2017), we

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

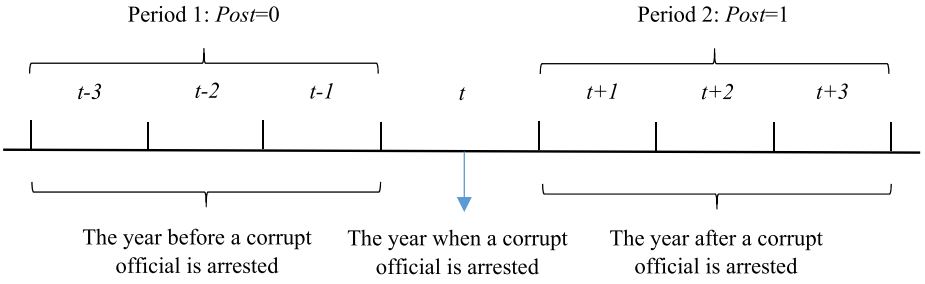

Fig. 1. The timeline.

define regions with (without) corrupt officials as having high (low) corruption culture. *Corrupt* equals one for listed firms located in the municipality where top government officials were arrested for corruption (regions with high corruption culture), and zero otherwise. *Post* is one for the period after the year of the arrest of corrupt officials (event year *t*); in other words, *t* + 1, *t* + 2, and *t* + 3, and zero for the period before the event year, *t*-3, *t*-2, and *t*-1. Fig. 1 presents the timeline around the event and illustrates the definition of *Post*.[20]

To isolate the effect of the change in corruption culture due to the arrest of corrupt officials on AQ, we compare AQ of the same firm pre and post the event, compared to control firms. We use the difference-in-difference approach by conducting the following model to test the hypothesis:

$$FRQ = \beta_0 + \beta_1 Corrupt + \beta_2 Post + \beta_3 Corrupt \times Post + Controls + Firm\ Fixed\ Effect\ (\text{or}\ Industry\ and\ Province\ Fixed\ Effect) + Year\ Fixed\ Effect + \mu \quad (1)$$

The definitions of all the variables are reported in Appendix A. *FRQ,* which proxies for financial reporting quality, is the measure for accounting quality and is used as the dependent variable in the main analyses. The computation of *FRQ* is detailed in Appendix B. The higher the value of *FRQ,* the higher the quality of the accounting information. As no single measure can capture different dimensions of AQ (Biddle et al., 2009; Chen et al., 2011), we also use other proxies for accounting information quality in robustness tests.

The interaction term, *Corrupt* × *Post*, captures the change in *FRQ* of the treatment firms between the pre- and post-event periods, compared to control firms. This is the interest of the test and we expect the coefficient on *Corrupt* × *Post*, β_3, to be positive. The control variables are discussed below. Fixed effects on firm (or industry and province) and year are used in all the regressions.[21] We also cluster the standard errors at the firm level as multiple observations of each firm are included.[22]

3.2.1. Control variables

We include control variables that are often used in the literature (e.g., Dechow and Dichev, 2002; Hribar and Craig Nichol, 2007; Gopalan and Jayaraman, 2012). As AQ could be related to size, we include the natural logarithm of total assets (*Ln_Assets*) as a control. We also control for firms' debt ratio (*Leverage*), returns on assets (*Roa*), cash flows from operation scaled by total assets (*Cash_Flow*), and the ratio of tangible assets to total assets (*Tangibility*). Market-related variables (i.e., the market to book value) (*MB*), stock return over the fiscal year (*Return*), and standard deviation of firm-specific monthly returns in the fiscal year (*Std_Return*) are added as controls. Because auditors are likely to affect quality of financial reports (DeAngelo, 1981), we include an indicator variable, *Big10_Auditor*, which equals one if the auditor is a Big 10 firm in China according to the rank of audit firm's revenue in a given year, and zero otherwise. Fan and Wang (2012) showed that the legal environment will affect local firms' accounting quality, where the local legal environment is measured by the number of lawyers as a percentage of the population in the region, the efficiency of local courts, and the protection of property rights. We define an indicator variable based on the measure in Fan and Wang (2012) as proxies for the local legal environment, *High_LawScore*, which is equal to one if the value for the firm's municipality is in the highest quartile, and zero otherwise.

3.2.2. The propensity score matching (PSM) approach

As our definition on corrupt culture is based on political environment at the level of municipality, we match municipalities that have corrupt officials with municipalities that have otherwise similar culture but have regular official turnover instead of arrested officials using PSM approach.[23] The treatment firms are listed firms in municipalities with convicted officials. The control firms are listed firms of municipalities that have regular official turnover but have no officials convicted for corruption. We first define an indicator variable, *CorruptCity*, which is equal to 1 if a municipality has a top government official

[20] Note that we exclude observations in the event year *t*, when the corrupt officials are arrested, from the main analyses. We have also used different alternative measures for *Post*, which include the event year and/or fewer years before and after the events. The findings are unchanged.
[21] When we control for firm fixed effect, the variable *Corrupt* is omitted because we compare AQ of the same firm pre and post the event and *Corrupt* has the same values for the same firm. We also alternatively control for year, industry, and province fixed effects in all the regressions, and the results are unchanged.
[22] Our results hold when we cluster the standard errors at the province level or the municipality level.
[23] We thank an anonymous reviewer for the suggestion of this PSM approach.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

arrested for corruption in year *t* (corrupt municipality), and zero if a municipality has normal official turnover but no convicted officials in year *t*. We then conduct a propensity score matching probit regression of *CorruptCity* on municipalities' characteristics that capture local corrupt culture to obtain the propensity score for each municipality.

Following the literature (e.g., Clarke and Xu, 2004; Ang et al., 2016; Sobjak, 2018), we use variables that proxy the investment and economic growth of the region as independent variables of our PSM regression. For example, a city with more infrastructure and real estate investment may bring more rent seeking opportunities, which would lead to corruption. Moreover, the characteristics of overall listed firms in the region may also be related to corruption culture, e.g., evidence shows that enterprise entertainment expenses measure the extent of bribery (Cai et al., 2011).

Specifically, the independent variables for our PSM approach include the amount of infrastructure investment scaled by GDP (*InvestRatio*), real estate investment scaled by GDP (*RealestateRatio*), the per capita GDP (*GDPpercapita*), the GDP growth rate (*GDPGrowth*), the population growth rate (*PopulationGrowth*), the natural logarithm of the average assets of all listed firms in the city (*MeanAssets*), the average return on assets of all listed firms in the region (*MeanRoa*), and the average enterprise entertainment expenses scaled by sales of all listed firms in the city (*MeanMfee*).[24] We then match the pairs of the treatment and control municipalities in each year that have the closest scores without replacement. The results of propensity score matching probit regression are shown in Appendix C. Consequently, the firms located in the treatment municipalities (control municipality) are our treat firms (control firms).[25]

3.3. Descriptive statistics

Table 1, Panel A reports the number of corrupt officials and their affiliated listed firms in the final sample. In the period between 2003 and 2016, there were 114 corrupt officials in 92 cities.[26] There are some variations in the number of corrupt officials across the years. For example, while there were only two corrupt officials in 2003, 2004, and 2006, the highest number of corrupt officials was 21 in 2014, as shown in Column (1). The number of corrupt officials are at least 10 after 2012, which implies that the national anti-corruption campaign after 2012 has a real effect.

Panel B of Table 1 presents the descriptive statistics of the variables used in the main analyses, which include mean (*Mean*), standard deviation (*Std*), median (*Median*), and the 25th and 75th percentiles (*P25* and *P75*). The first row shows that the dependent variable (*FRQ*) has a mean of 0.019 and a median of −0.190. The next two rows show that 55% of the observations are subsequent to the event (*Post*) and 60.3% of the observations are listed firms located in cities with corrupt officials (*Corrupt*).[27] The subsequent rows report the statistics of control variables.[28]

4. Main results, placebo test, and robustness tests

4.1. Main results for the hypothesis

Table 2 reports the regression results for testing H1. For all the regressions, we use two sets of fixed effects. We first control for fixed effects on industry, year, and province and the results are reported in the first two columns. As we compare accounting quality of the same firm before and after the event, it is important to control for firm fixed effects. Hence, we also use fixed effects on firm and year and the results are reported in the last two columns. For brevity, we only report the results when using firm and year fixed effects in the subsequent tables (inferences are unchanged when using other fixed effects). Please note that the coefficient on *Corrupt* in Columns (3) and (4) is not available due to the inclusion of the firm fixed effect.

Columns (1) and (3) provide the regression results when excluding control variables and columns (2) and (4) include control variables. The coefficient on the interaction term, *Corrupt* × *Post*, is of our interest. For all four regressions, the coefficient on *Corrupt* × *Post* is positive and significant at the 1% level, as expected. Both the magnitude and the statistical significance of the coefficient are qualitatively similar, e.g., in Columns (3) and (4), the coefficient on *Corrupt* × *Post* is 0.234 and 0.242, and the *t*-value is 4.16 and 4.35, respectively. Table 2 provides strong evidence that the *FRQ* of the treatment firms following the event is statistically higher than that prior to the event compared to control firms, supporting H1.[29]

[24] The macro data are from CSMAR database.

[25] We have tried many alternative PSM approaches. For example, we have only used the characteristics of municipalities without firm characteristics as the independent variables in the PSM regression. The results remain. Our findings are also robust when matching the treatment and control firms based on firm characteristics using PSM. Other alternative matching methods include, e.g. matching treatment firms in corrupt cities and control firms in non-corrupt cities based on firm size and industry. The results remain and are not tabulated for brevity.

[26] The information on the year and the name of the city and its province where at least one corrupt top official is arrested is available upon request.

[27] The distribution of the number of observations for these two variables (*Post* and *Corrupt*) is due to the PSM matching on corrupt culture at the level of municipalities.

[28] We briefly discuss some of the control variables. The average of the logarithm of total assets (*Ln_Assets*) is 22.02, which has small standard deviation of 1.149, indicating the relatively similar size of the firms. The debt ratio (*Leverage*) has a mean of 0.479 and a median of 0.483. The average values of return on assets (*Roa*) and market-to-book value (*MB*) are 0.034 and 4.151, respectively. The annual buy and hold return (*Return*) has a very high average value, 0.232, and its standard deviation is 0.629, also very high, suggesting very large variations in performance across stocks.

[29] For the first two columns in Table 2, the coefficients on *Corrupt* are −0.134 and −0.129 and are statistically significant at the 1% level. This shows that accounting quality for treatment firms before the event year *t* is in general lower than that for control firms, which is in line with our arguments. Among all the control variables, the coefficients on *Ln_Assets*, *Cash_Flow*, *Tangibility*, *Return*, and *Std_Return*, are statistically significant in Columns (2) or (4), while other control variables are generally insignificant.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Table 1
Sample distribution and descriptive statistics. Panel A reports the sample distribution of corrupt officials and corrupt cities in each year. The event year (the year when the corrupt official is arrested) is from 2003 to 2016. Column (1) shows the number of corrupt officials in each year (*# corrupt officials*); Column (2) exhibits the number of municipalities/cities with at least one corrupt official (*# corrupt cities*) in each year. Panel B presents descriptive statistics of the dependent, test, and control variables used in Eq. (1) in the paper. Appendix A provides the definitions of all variables.

Panel A: Sample of corrupt officials and cities

Year	*# corrupt officials* (1)	*# corrupt cities* (2)
2003	2	2
2004	2	2
2005	5	4
2006	2	2
2007	3	3
2008	3	3
2009	8	7
2010	12	11
2011	6	5
2012	8	7
2013	13	10
2014	21	15
2015	13	10
2016	16	11
Total	114	92

Panel B: Descriptive statistics

Variable	*#* (1)	*Mean* (2)	*Std* (3)	*P25* (4)	*Median* (5)	*P75* (6)
FRQ	6632	0.019	0.801	−0.317	−0.190	0.342
Post	6632	0.550	0.498	0.000	1.000	1.000
Corrupt	6632	0.603	0.457	0.000	1.000	1.000
Ln_Assets	6632	22.020	1.149	21.140	21.890	22.790
Leverage	6632	0.479	0.204	0.315	0.483	0.647
Roa	6632	0.034	0.041	0.011	0.031	0.058
MB	6632	4.151	2.291	2.487	3.484	5.086
Cash_Flow	6632	0.042	0.063	0.001	0.041	0.084
Tangibility	6632	0.242	0.166	0.109	0.211	0.351
Return	6632	0.232	0.629	−0.233	0.041	0.538
Std_Return	6632	0.065	0.024	0.047	0.059	0.078
Big10_Auditor	6632	0.474	0.499	0.000	0.000	1.000
High_LawScore	6632	0.240	0.427	0.000	0.000	0.000

One may argue that some control firms in our sample might be affiliated with undetected corrupt officials. Because the increase in AQ is due to the weakening in the local corruption culture driven by the arrest of officials, we argue that this scenario will not affect our results because of the unchanged level of corruption culture. After a corrupt official is arrested in one region, it is likely that firms in regions of undetected corrupt officials do nothing in terms of accounting information because they do not expect their officials will be exposed. In this case, our results will be unchanged. Let us assume that firms affiliated with undetected corrupt officials in other regions (i.e., control firms) will be affected by the arrest of officials and may try to improve the quality of accounting due to the concern that their undetected corrupt officials will also be arrested. AQ following the event will be higher than AQ before the event for (some) control firms in regions with undetected corrupt officials. This would work against finding our results because both treatment firms and control firms would have higher AQ after the event. In short, our results are not contaminated by this possibility.[30]

4.2. Robustness tests

To examine whether our results are sensitive to the measures of key variables, we also conduct two other robustness tests. First, we use three alternative measures of AQ: (1) discretionary accruals based on the modified Jones model (Dechow et al., 1995), (2) discretionary accruals based on Kothari et al. (2005), and (3) discretionary accruals based on Dechow and Dichev (2002). For all three measures, we take the absolute value of the discretionary accruals (residuals from the regression models) and multiply them with (−1); hence, the higher value indicates higher accounting quality. We label

[30] An alternative interpretation of our result could be that the higher AQ of listed firms associated with arrested officials post the event is driven by the shortfall in bank capital (Fan et al., 2008), which forces the connected firms to turn to public equity market and offer better accounting quality. If our finding is driven by the change in bank financing (Fan et al., 2008), our results should be stronger or only exist for firms with higher levels of or changes in bank loan ratio. Our analyses show that the results are similar for firms with high or low levels of (or changes in) bank loan, which suggests that this alternative interpretation cannot (fully) explain our results.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Table 2
Regression results for the hypothesis. This table reports the regression results for the impact of the arrest of local corrupt officials (i.e., officials at the municipal level) on financial reporting quality (*FRQ*) predicted in hypothesis 1. The dependent variable is *FRQ*. The test variable of interest is *Corrupt* × *Post*. The sample covers the period from 2000 to 2018. To be included in the sample, both treatment and control firms are required to have available data for at least one year before and at least one year after the arrest of corrupt officials. Regressions in Column (1) and (2) include industry, province, and year fixed effects. Regressions in column (3) and (4) include firm and year fixed effects. The t-statistics based on standard errors clustered at the firm level are reported in parentheses. Variable definitions are provided in Appendix A. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Variable	*FRQ*		*FRQ*	
	(1)	(2)	(3)	(4)
Corrupt	−0.134***	−0.129***		
	(−3.48)	(−3.35)		
Post	0.050	0.052	0.159**	0.153**
	(1.15)	(1.22)	(2.32)	(2.25)
Corrupt × *Post*	0.242***	0.249***	0.234***	0.242***
	(5.11)	(5.31)	(4.16)	(4.35)
Ln_Assets		−0.005		−0.133***
		(−0.42)		(−2.95)
Leverage		0.078		0.205
		(0.92)		(1.04)
Roa		−0.263		0.176
		(−0.80)		(0.33)
MB		−0.010		−0.014
		(−1.55)		(−1.24)
Cash_Flow		0.485***		0.606**
		(2.58)		(2.44)
Tangibility		0.222***		0.884***
		(3.07)		(4.46)
Return		−0.064**		−0.059
		(−2.23)		(−1.63)
Std_Return		−1.638**		−1.698*
		(−2.31)		(−1.83)
Big10_Auditor		−0.009		0.066
		(−0.42)		(1.60)
High_LawScore		−0.022		0.013
		(−0.63)		(0.32)
Constant	−0.423	−0.192	−0.052	2.543**
	(−1.59)	(−0.50)	(−0.12)	(2.50)
Ind & Pro & Year fixed effects	Yes	Yes	No	No
Firm & Year fixed effects	No	No	Yes	Yes
Obs.	6632	6632	6632	6632
R2_adjust	0.08	0.09	0.25	0.26

these three measures as *–Abs_DA_Adjust*, *–Abs_DA_Kothari*, and *–Abs_DA_DD*. We then rerun Eq. (1) by replacing the dependent variable, *FRQ*, with the three measures of discretionary accruals.

The results are reported in Panel A of Table 3. For all three measures of accounting quality in the three columns, the coefficient on *Corrupt* × *Post* is positive and significant. The coefficient is 0.024, 0.026, and 0.031, with a *t*-value of 3.02, 3.60, and 6.96, respectively. This panel shows that our main results in Table 2 are robust to different measures of AQ.

Second, we use a balanced sample (all firms have 3 years data before and after the event) to re-estimate our results. We redo the regression Eq. (1) using this balanced sample. The results are reported in Panel B of Table 3. This panel also provides consistent results as the coefficients on *Corrupt* × *Post* are positive and significant.[31,32]

5. Cross-sectional analyses

5.1. The influence of corrupt officials' power on accounting quality

As the benefits of corruption come from the officials' power to allocate resources, the economic advantages to firms and the negative impact on AQ would be increasing with the officials' discretionary power over the scarce resources (Glaeser and Saks, 2006). Piotroski et al. (2015) also argue that powerful officials are more likely to exert influence over listed firms than those lacking this clout. As AQ is likely to be lower when bribe-paying firms are associated with more powerful corrupt

[31] To mitigate the concern that our results are driven by latent variables, we conduct a placebo test by artificially choosing a pseudo-event year. The analysis based on the pseudo-event year indicates no evidence of a positive effect of the hypothetical event of arresting corrupt officials on FRQ, alleviating the concern that our results are driven by omitted variables.

[32] Another robustness test is a time-trend analysis following Bertrand and Mullaianathan (2003). We find that FRQ of the treatment firms is higher in each of the three years following the event year as compared to the control firms. These findings confirm that listed firms that are affiliated with corrupt officials have been affected by the change in local corruption culture and have invested effort to improve AQ each year after the exposure of the corrupt officials.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Table 3
Results for robustness tests. This table presents regression results for other robustness tests. Panel A provides results using alternative measures of accounting information quality. Column (1) reports the results using *-Abs_DA_Adjust*, which multiplies (−1) with the absolute value of discretionary accruals estimated from the modified Jones model (Dechow et al., 1995), as the dependent variable. Column (2) and Column (3) are similar to Column (1), except that they use the model of Kothari et al. (2005) and Dechow and Dichev (2002), respectively (*-Abs_DA_Kothari* and *-Abs_DA_DD*). Panel B presents the results using the balanced data. The sample covers the period from 2000 to 2018. To be included in the regression sample, both treatment and control firms are required to have available data for at least one year before and one year after the arrest of corrupt officials. All regressions include firm and year fixed effects. For all the tests in this table, t-statistics based on standard errors clustered at the firm level are reported in parentheses. Results for control variables are not reported for brevity. Variable definitions are provided in Appendix A. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Alternative measures of dependent variable, accounting information quality

Variable	*-Abs_DA_Adjust* (1)	*-Abs_DA_Kothari* (2)	*-Abs_DA_DD* (3)
Post	0.013	0.016*	0.001
	(1.28)	(1.74)	(0.11)
Corrupt × *Post*	0.024***	0.026***	0.031***
	(3.02)	(3.60)	(6.96)
Controls	Yes	Yes	Yes
Firm & Year fixed effects	Yes	Yes	Yes
Obs.	6632	6632	6632
R2_adjust	0.32	0.31	0.38

Panel B: Balanced data

Variable	*FRQ*	
	(1)	(2)
Post	0.207**	0.215***
	(2.52)	(2.65)
Corrupt×*Post*	0.251***	0.253***
	(3.75)	(3.82)
Controls	No	Yes
Firm & Year fixed effects	Yes	Yes
Obs.	4182	4182
R2_adjust	0.24	0.25

officials before the events, these firms might need to exert more effort to improve the quality of their accounting. Thus, the increase in AQ of firms associated with more powerful corrupt officials is likely to be greater than that of firms affiliated with less powerful officials.

Corrupt officials that are principal, have long tenure, and are promoted from the local region are very likely to be more powerful. First of all, in the Chinese political system, a principal official has more power than a deputy/vice official. Moreover, when officials have a longer tenure, this means they have had a longer time to build relationships, thereby developing wider networks, giving them more power than those officials with relatively shorter tenure, ceteris paribus. Finally, local officials are likely to have more power because they have family members and more networks in the region. In China, family and hometown relationships play a significant role in terms of networks and power. In contrast, non-local officials are likely to have fewer family members and smaller networks in the region, giving them less power.

We use three pairs of measures as proxies for corrupt officials' power. First, we use *Corrupt_Principal* (*Corrupt_Vice*), which equals one if the corrupt official is principal (vice), and zero otherwise, to proxy listed firms that are affiliated with more (less) powerful officials. Our second measure of more (less) powerful officials is *Corrupt_LongTenure* (*Corrupt_ShortTenure*), which is one for listed firms associated with corrupt officials that have been in office longer than (less than) the median, and zero otherwise. Third, we use *Corrupt_Local* (*Corrupt_NonLocal*), which equals one if the corrupt official is local (non-local) and zero otherwise, as proxies for corrupt officials that have more (less) power.[33]

We replace variables *Corrupt* and *Corrupt* × *Post* in Eq. (1) with these three pairs of measures and their interactions with *Post*, respectively. For example, using the first pair of measures of corrupt officials' power, the test variables of interest are *Corrupt_Principal* × *Post*, and *Corrupt_Vice* × *Post* . Similarly, the test variables of interest using the second pair measures are *Corrupt_LongTenure* × *Post* and *Corrupt_ShortTenure* × *Post*, and are *Corrupt_Local* × *Post* and *Corrupt_NonLocal* × *Post* when using the third pair measures of officials' power. We expect the coefficients on all these test variables to be positive and that the effect will be stronger for officials with more power. The control variables are the same as those in Eq. (1) and are not reported for brevity. The results are reported in Table 4.

Panel A of Table 4 exhibits the characteristics of the corrupt officials. Among the 114 officials, 42 (36.84%) are principal and 72 (63.16%) are deputy/vice. Only 33 officials (28.95%) are local and 81 (71.05%) are non-local. The mean (median) of corrupt officials' tenure is 3.81 (3.0) years.

[33] Because very few corrupt officials in our sample come from the city of their jurisdiction, we consider an official as local if he or she origins from the province the municipality belongs to.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Table 4
The impact of corrupt officials' power on accounting quality. This table reports the regression results for the impact of corrupt officials' power on audit quality. Panel A reports the characteristics of corrupt officials. Column (1) reports the number of corrupt officials and among them, how many are principal or vice officials, and how many are originated from the same region as their jurisdiction (*Local*) and are not local (*Non-Local*). Column (2) presents the corresponding percentages. Panel B reports regression results. The dependent variable is financial reporting quality (*FRQ*). The test variables for Column (1) are *Corrupt_Principal* × *Post* and *Corrupt_Vice* × *Post*. The test variables in Column (2) are *Corrupt_LongTenure* × *Post* and *Corrupt_ShortTenure* × *Post*; and are *Corrupt_Local* × *Post* and *Corrupt_NonLocal* × *Post* in Column (3). The sample covers the period from 2000 to 2018. To be included in the regression sample, both treatment and control firms are required to have available data for at least one year before and one year after the arrest of corrupt officials. All regressions include firm and year fixed effects. The t-statistics based on standard errors clustered at the firm level are reported in parentheses. Variable definitions are provided in Appendix A. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Characteristics of corrupt officials

	# (1)	% (2)
All corrupt officials	114	
Including:		
Principle	42	36.84%
Vice	72	63.16%
Local	33	28.95%
Non-local	81	71.05%
Corrupt officials' tenure	*Mean* = 3.81, *Median* = 3.00	

Panel B: The impact of corrupt officials' power on accounting quality

Variable	*FRQ*		
	(1)	(2)	(3)
Corrupt_Principal×*Post*	0.354***		
	(5.63)		
Corrupt_Vice×*Post*	0.095*		
	(1.68)		
Corrupt_LongTenure×*Post*		0.293***	
		(4.02)	
Corrupt_ShortTenure×*Post*		0.217***	
		(3.65)	
Corrupt_Local×*Post*			0.283***
			(4.76)
Corrupt_NonLocal×*Post*			0.143**
			(2.07)
Post	0.172**	0.147**	0.149**
	(2.52)	(2.15)	(2.19)
Controls	Yes	Yes	Yes
Firm & Year fixed effects	Yes	Yes	Yes
Obs.	6632	6632	6632
R2_adjust	0.26	0.25	0.25
Difference-Test (F-value):			
(1) *Corrupt_Principal*×*Post* = *Corrupt_Vice*×*Post*	13.17***		
(2) *Corrupt_LongTenure*×*Post* = *Corrupt_ShortTenure*×*Post*		3.69*	
(3) *Corrupt_Local*×*Post* = *Corrupt_NonLocal*×*Post*			5.00**

Column (1) of Panel B in Table 4 presents results when measuring corrupt officials' power based on the officials' rank (principal or vice). The coefficient on *Corrupt_Principal* × *Post* is positive, at 0.354, and statistically significant at the 1% level with a *t*-value of 5.63. The coefficient on *Corrupt_Vice* × *Post* is also positive, at 0.095, and significant with a *t*-value of 1.68. These results show that *FRQ* is higher in the post-event period than in the pre-event period independent of the rank of the corrupt officials, lending further support for the hypothesis. More importantly, the coefficient on *Corrupt_Principal* × *Post* is higher than that on *Corrupt_Vice* × *Post* in terms of both magnitude and statistical significance. The *F*-value in the last row of Column (1) shows that the difference between these two coefficients is statistically significant (*F*-value = 13.17). This indicates that the increase in *FRQ* following the event year is greater when the listed firms are associated with more powerful corrupt officials than when the associated corrupt officials have less power.

Column (2) of Panel B in Table 4 reports the results when measuring corrupt officials' power based on whether an official has a longer or shorter tenure. The coefficient on *Corrupt_LongTenure* × *Post* is positive, at 0.293, and statistically significant at the 1% with a *t*-value of 4.02. The coefficient on *Corrupt_ShortTenure* × *Post* is also positive and significant, with the magnitude of 0.217 and a *t*-value of 3.65. These two coefficients also provide further support to H1. It is important to note that, similar to the results in Column (1), the difference between the effect of corrupt officials with longer and shorter tenure on AQ is statistically significant at the 10% (*F*-value = 3.69).

Column (3) of Panel B in Table 4 uses the information on whether an official is local or non-local. The results show that the increase in *FRQ* in the post-event period when the corrupt officials are local (*Corrupt_Local* × *Post*) is higher than that when the corrupt officials are non-local (*Corrupt_NonLocal* × *Post*). The coefficients are 0.283 and 0.143, respectively, and the difference is significant at the 5% level. In short, Table 5 demonstrates that the increase in *FRQ* after the arrest of corrupt officials is higher when the corrupt officials had more power.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Table 5
The impact of the strength of political connection on accounting quality. This table reports the regression results for the impact of the strength of firms' connection with corrupt officials on audit quality. The dependent variable is financial reporting quality (*FRQ*). The test variables for Column (1) are *Corrupt_LocalGovControl* × *Post* and *Corrupt_NonLocalGovControl* × *Post*. The test variables are *Corrupt_PolConnect* × *Post* and *Corrupt_NonPolConnect* × *Post* in Column (2). The test variables are *Corrupt_Subsidy* × *Post* and *Corrupt_NonSubsidy* × *Post* in Column (3). The sample covers the period from 2000 to 2018. To be included in the regression sample, both treatment and control firms are required to have available data for at least one year before and one year after the arrest of corrupt officials. All regressions include firm and year fixed effects. The t-statistics based on standard errors clustered at the firm level are reported in parentheses. Variable definitions are provided in Appendix A. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Variable	*FRQ*		
	(1)	(2)	(3)
Corrupt_LocalGovControl × *Post*	0.341***		
	(5.29)		
Corrupt_NonLocalGovControl × *Post*	0.160***		
	(2.60)		
Corrupt_PolConnect × *Post*		0.366***	
		(5.19)	
Corrupt_NonPolConnect × *Post*		0.183***	
		(3.11)	
Corrupt_Subsidy × *Post*			0.247***
			(4.42)
Corrupt_NonSubsidy × *Post*			0.106*
			(1.73)
Post	0.159**	0.151**	0.153**
	(2.34)	(2.21)	(2.25)
Controls	Yes	Yes	Yes
Firm & Year fixed effects	Yes	Yes	Yes
Obs.	6632	6632	6632
R2_adjust	0.26	0.26	0.26
Difference-Test (F-value):			
(1) *Corrupt_LocalGovControl* × *Post* = *Corrupt_NonLocalGovControl* × *Post*	9.07***		
(2) *Corrupt_PolConnect* × *Post* = *Corrupt_NonPolConnect* × *Post*		8.45***	
(3) *Corrupt_Subsidy* × *Post* = *Corrupt_NonSubsidy* × *Post*			2.91*

5.2. The influence of the strength of political connection on accounting quality

The impact of corruption on AQ may also depend on the strength of the political connection between the firms and corrupt officials. Firms that have more opportunities to establish relationship with the local government are likely to be more dependent on their connections with top officials and may be more affected by corruption. When a firm is controlled by the local government, has a CEO or chair who is a current or former government official, or has received government subsidies, it may be easier for this firm to establish even stronger relationships with top local officials.[34] These firms would provide lower accounting quality prior the event than firms having relatively less connections with corrupt officials due to more incentive to hide their transactions or less need for accounting information. After corrupt officials are arrested, firms that were more dependent on the local government have to devote more effort to improve accounting quality to an accepted level in order to obtain various resources such as external financing. We therefore expect the increase in AQ following the arrest of corrupt officials will be greater for firms that were more dependent on local government.

We use three pairs of variables to measure firms' dependency on local government following Fan et al. (2007) and Piotroski et al. (2015): (1) whether a listed firm is controlled by the local government or not (*Corrupt_LocalGovControl* and *Corrupt_NonLocalGovControl*); (2) whether a firm creates political connection because its CEO or chair has or had a position in the government (*Corrupt_PolConnect* and *Corrupt_NonPolConnect*); and (3) whether a firm receives government subsidies (*Corrupt_Subsidy* and *Corrupt_NonSubsidy*). We follow the same procedure as the test in Section 5.1, and obtain three pairs of test variables that are of our interest. The first pair is *Corrupt_LocalGovControl* × *Post* and *Corrupt_NonLocalGovControl* × *Post*; the second pair is *Corrupt_PolConnect* × *Post* and *Corrupt_NonPolConnect* × *Post*; and the third pair is *Corrupt_Subsidy* × *Post* and *Corrupt_NonSubsidy* × *Post*. The control variables are the same as those in Eq. (1). The results are reported in Table 5.

Column (1) of Table 5 presents the regression results when firms associated with corrupt officials are split into those that are controlled and not controlled by the local government. For treatment firms that are local government-controlled, the coefficient on *Corrupt_LocalGovControl* × *Post* is 0.341, which is statistically significant at the 1% level. For treatment firms that are not controlled by the local government, the coefficient on *Corrupt_NonLocalGovControl* × *Post* is also positive, though both the magnitude and *t*-value are significantly lower, at 0.160 and 2.60, respectively. The *F*-test shows that the difference is

[34] For example, compared to a non-government-controlled firm, a government-controlled firm will receive more preferential treatment from the government due to its closer relationship with the government, ceteris paribus. A firm whose CEO has worked in the local government will have a stronger social network and a better understanding of the political system in order to seek more economic rents. A firm that has received government subsidies is likely to have better political connections than firms without subsidies (Piotroski et al., 2015).

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

significant (*F*-value = 9.07). The results in Column (1) indicate that the increase in accounting quality following the event is greater for local government-controlled firms than for firms not controlled by the local government.

Column (2) in Table 5 splits treatment firms based on whether their CEOs or chairs have or had positions in the government. Both the coefficients on *Corrupt_PolConnect* × *Post* and *Corrupt_NonPolConnect* × *Post* are positive and significant at the 1% level. The magnitude of the coefficient is 0.366 for the former and 0.183 for the latter. The *F*-test reported in the last row of Column (2) indicates that the difference between these two coefficients is significant at the 1% level with an *F*-value of 8.45. This suggests that the increase in *FRQ* is greater when affiliated firms are more dependent on corrupt officials.

Column (3) in Table 5 presents results for distinguishing treatment firms based on whether a firm receives government subsidies. The coefficients on *Corrupt_Subsidy* × *Post* and *Corrupt_NonSubsidy* × *Post* are positive and significant at the 1% and 10% levels, respectively. The magnitude of the coefficient is 0.247 for the former and 0.106 for the latter. The *F*-test reported in the last row of Table 4 indicates that the difference between these two coefficients is also significant. Taken together, this table shows that the increase in *FRQ* is greater post the event when affiliated firms had more political dependency.

5.3. The influence of anti-corruption campaign on accounting quality

In November 2012, Xi Jinping assumed the power and launched a far-reaching anti-corruption campaign. An important policy is "Eight-Point Regulation" started in December 2012 (Lin et al., 2016). From 2013, a series of polices including Rule 18 were implemented. These movements will affect corruption culture at a national level. To investigate whether the post-2012 period provides an even more powerful setting for the impact of the change in corruption culture, we conduct two analyses. The first test uses 6 years data pre and post the year of 2012. The test variable is *Post2012*, which equals one if the year is 2013 to 2018 (post-2012 period), and zero for 2007 to 2012 (pre-2012 period). Firm fixed effects are included and we cluster the standard errors at the firm level. The results are reported in Panel A of Table 6. The results show that AQ in the post-2012 period is higher than that in the pre-2012 period.

The second analysis examines whether the effect of the arrest of corrupt officials on AQ pre the 2012 period differs from that in the post-2012 period. We first construct two indicator variables: *Corrupt_After2012* and *Corrupt_Before2012,* and then interact these two variables with the variable *Post*. *Corrupt_After2012* (*Corrupt_Before2012*) equals one if a firm is located in the municipality where the government official is arrested for corruption between 2013 and 2016 (between 2003 and 2012), and zero otherwise. The variables of interest for this test are the two interaction terms *Corrupt_After2012* × *Post* and *Corrupt_*

Table 6
The influence of anti-corruption campaign on accounting quality. This table reports the regression results for the accounting quality pre and post year 2012 in Panel A, and the impact of change in corruption culture driven by arrested corrupt officials on the change in accounting quality pre and post year 2012 in Panel B. The dependent variable is financial reporting quality (*FRQ*). The test variable of interest is *Post2012* in Panel A, and *Corrupt_After2012* × *Post* and *Corrupt_Before2012* × *Post* in Panel B. The sample covers the period from 2007 to 2018 in Panel A, and 2000 to 2018 in Panel B. We include all non-financial listed firms in Panel A. In Panel B, both treatment and control firms are required to have data for at least one year before and one year after the arrest of corrupt officials. Firm fixed effect is included in Panel A, and firm and year fixed effects are included in Panel B. The t-statistics based on standard errors clustered at the firm level are reported in parentheses. Variable definitions are provided in Appendix A. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Panel A: The accounting quality pre and post year 2012

Variable	*FRQ* (1)
Post2012	0.125***
	(7.11)
Controls	Yes
Firm fixed effects	Yes
Obs.	17,067
R2_adjust	0.07

Panel B: The change in AQ in the pre and post year 2012 periods

Variable	*FRQ* (1)
Corrupt_After2012×*Post*	0.322***
	(4.65)
Corrupt_Before2012×*Post*	0.164**
	(2.30)
Post	0.163**
	(2.39)
Controls	Yes
Firm & Year fixed effects	Yes
Obs.	6632
R2_adjust	0.25
Difference-Test (F-value):	
Corrupt_After2012×*Post = Corrupt_Before2012*×*Post*	3.99**

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Before2012 × *Post*. We regress the dependent variable *FRQ* on the test and control variables. Panel B of Table 6 shows the results that AQ is higher post the conviction of corrupt officials for both before and after year 2012. The F-test of the difference between the two periods shows that the positive effect on AQ is stronger in the post-2012 period. This test lends further support for the effect of corruption culture on accounting quality and for the finding of Hope et al., forthcoming.

6. Why and how is accounting quality increased?

The intention of this section is not to examine all the explanations for the increased AQ and all the channels firms used to improve their AQ. Instead, we only focus on the firms' equity financing to examine whether firms increase their AQ because they have to rely on accounting information for e.g., financing after the weakening of local corruption culture. Further, we examine a few potential channels these firms used to increase AQ.

6.1. Firms' equity financing following the arrest of corrupt officials

We have argued that firms increase their AQ because they have to rely on accounting information to, e.g., raise external financing. If we could show that affiliated firms issue more secondary equity offering (*SEO*) and have lower cost of capital in the post-event period than the pre-event period, compared to firms un-affiliated with corrupt officials, we can validate our argument. We define *SEO*, an indicator variable, as one if a firm has issued secondary equity offering in year *t*, and zero otherwise. Following Gebhardt et al. (2001), we use a discounted residual income model to estimate an implied cost-of-capital, the internal rate of return (*IRR*), by equating the current stock price to the present value of all future cash flows to common shareholders. More specifically, we regress *SEO* and *IRR*, respectively, on the test variable and control variables in Eq. (1). The results are reported in Table 7.

Table 7
Firms' equity financing. This table reports the regression results for the impact of the arrest of local corrupt officials (i.e., officials at the municipal level) on firms' equity financing. The dependent variables are *SEO* and *IRR*. *SEO* is an indicator variable, which equals one if a firm has issued secondary equity offering in year *t*, and zero otherwise. *IRR* (internal rate of return) proxies the cost of capital. All the variables are defined in Appendix A. The test variable of interest is *Corrupt* × *Post*. The sample covers the period from 2000 to 2018. The regressions in columns 1 and 2 include industry, province, and year fixed effects. The regression in column 3 includes firm and year fixed effects. The z-statistics or t-statistics based on standard errors clustered at the firm level are reported in parentheses. Variable definitions are provided in Appendix A. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Variable	*SEO* (1)	*IRR* (2)	*IRR* (3)
Corrupt	−0.165**	0.002	
	(−2.51)	(1.26)	
Post	0.176***	−0.002*	−0.003
	(2.92)	(−1.65)	(−1.62)
Corrupt × *Post*	0.190**	−0.008***	−0.008***
	(2.49)	(−5.51)	(−4.75)
Ln_Assets	0.343***	0.007***	0.006***
	(13.08)	(10.49)	(3.95)
Leverage	−1.197***	0.003	−0.000
	(−7.27)	(0.88)	(−0.06)
Roa	0.369	−0.042***	−0.026
	(0.55)	(−3.32)	(−1.56)
MB	−0.045***	−0.002***	−0.001*
	(−3.34)	(−7.01)	(−1.86)
Cash_Flow	−2.460***	0.000	−0.002
	(−6.62)	(0.03)	(−0.30)
Tangibility	−0.263*	0.007**	−0.004
	(−1.68)	(2.36)	(−0.72)
Return	0.033	−0.007***	−0.009***
	(0.86)	(−7.99)	(−9.08)
Std_Return	4.220***	−0.087***	−0.034
	(4.43)	(−3.67)	(−1.22)
Big10_Auditor	−0.072	0.001	−0.000
	(−1.52)	(1.08)	(−0.05)
High_LawScore	−0.032	−0.000	0.000
	(−0.60)	(−0.18)	(0.01)
Constant	−7.987***	−0.095***	−0.073**
	(−14.57)	(−4.50)	(−2.21)
Ind & Pro & Year fixed effects	Yes	Yes	No
Firm & Year fixed effects	No	No	Yes
Obs.	6632	5985	5985
R2_Pseudo/ R2_adjust	0.09	0.55	0.72

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Table 8
Channels firms used to improve accounting quality. This table presents results for testing the channels used by listed firms affiliated with corrupt officials to improve their financial reporting quality. Column (1) examines whether the affiliated firms switch auditors from non-Big-10 to Big-10 audit firms. The dependent variable is *Change_Big10_Auditor*, which equals one if the firm has switched from a non-Big-10 auditor to a Big-10 auditor, and 0 otherwise. Column (2) investigates whether the affiliated firms have improved their internal control. The dependent variable is *High_InterControl*, which equals one if the firm's internal control does not have weakness, and 0 otherwise. The last two columns examine whether affiliated firms have increased the number of their management forecasts. The dependent variable in Column (3) is *High_Forecast*, which equals 1 if the number of management forecasts is above the median, and 0 otherwise. The dependent variable in Column (4) is *ΔForecast*, which is annual change in the number of management forecasts. For all four tests, the test variable is *Corrupt* × *Post*. The sample covers the period from 2000 to 2018. The regressions in Column (1)–(3) use probit model and include industry, province, and year fixed effects. The regression in column 4 includes firm and year fixed effects. The z-statistics or t-statistics based on standard errors clustered at the firm level are reported in parentheses. Variable definitions are provided in Appendix A. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Variable	*Change_Big10_Auditor* (1)	*High_InterControl* (2)	*High_Forecast* (3)	*ΔForecast* (4)
Corrupt	−0.119*	−0.147***	0.015	
	(−1.67)	(−2.58)	(0.19)	
Post	0.249***	−0.109	0.215***	0.016
	(4.59)	(−1.41)	(3.38)	(0.43)
Corrupt × *Post*	0.146**	0.165***	0.314***	0.113***
	(2.27)	(3.21)	(4.03)	(4.22)
Ln_Assets	0.049**	0.065	−0.255***	0.028
	(2.33)	(1.58)	(−9.27)	(1.04)
Leverage	−0.315**	0.320**	0.041	0.001
	(−2.31)	(2.22)	(0.23)	(0.01)
Roa	0.843	−2.022***	−2.141***	0.442
	(1.44)	(−3.41)	(−3.44)	(1.24)
MB	−0.006	0.036***	−0.007	−0.002
	(−0.62)	(3.60)	(−0.57)	(−0.36)
Cash_Flow	−0.400	0.550	0.240	0.093
	(−1.15)	(1.01)	(0.65)	(0.53)
Tangibility	0.199	0.142	0.342*	−0.242**
	(1.44)	(1.23)	(1.89)	(−2.19)
Return	0.141***	−0.048	0.099***	0.030
	(4.09)	(−0.44)	(2.95)	(1.19)
Std_Return	1.425	−0.848	−1.345	−0.582
	(1.46)	(−0.56)	(−1.52)	(−0.86)
Big10_Auditor		0.006	0.161***	0.008
		(0.09)	(2.72)	(0.31)
High_LawScore	−0.431***	−0.064*	−0.028	0.001
	(−6.38)	(−1.89)	(−0.55)	(0.04)
Constant	−3.037***	3.556***	7.258***	−0.505
	(−5.63)	(4.01)	(11.18)	(−0.90)
Ind & Pro & Year fixed effects	Yes	Yes	Yes	No
Firm & Year fixed effects	No	No	No	Yes
Obs.	6632	6632	6632	6632
R2_Pseudo/ R2_adjust	0.05	0.12	0.12	0.17

Results in Column (1), where the dependent variable is *SEO*, show that the coefficient on *Corrupt* × *Post* is positive and significant at the 5% level.[35] This indicates that affiliated firms have issued more *SEO* after the arrest of the corrupt officials compared to the control firms. Columns (2) and (3) use *IRR* as the dependent variable, where the former uses industry, province, and year fixed effects and the latter uses firm and year fixed effects. The coefficients on the interaction term, *Corrupt* × *Post*, are significantly negative, suggesting that *IRR* has reduced in the post-event period than in the pre-event period. Taken together, these results further support our argument.

6.2. Analyses on channels firms used to improve accounting quality

This subsection examines the channels the firms used to improve the quality of their accounting information. We first investigate whether the firms were more likely to switch to higher quality auditors after the arrest of corrupt officials. DeFond et al. (2000) show that the Big 10 audit firms in China deliver higher quality of audits than other firms as they are more stringent and issue more modified opinions in their sample period. We define *Change_Big10_Auditor,* which equals one in the years after a firm changes its auditor from a non-Big 10 to a Big 10 audit firm, and zero otherwise.

Next, we examine whether firms affiliated with corrupt officials improved their internal control, which would have had a positive impact on the quality of financial reports. For each firm in each year, *High_InterControl* is equal to one if the firm's internal control has no weakness, and zero otherwise. Furthermore, we examine the number of management forecasts

[35] In Table 7, we use the probit model for the regression in column 1 as the dependent variable *SEO* is an indicator variable, and control for industry, province, and year fixed effects. We also re-estimate this regression by using fixed effects on firm and year. The results are qualitatively similar and are unreported for brevity.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

(*Forecast*) of each firm in each year and define two variables. *High_Forecast* equals one if the number of forecasts is above the median, and zero otherwise. *ΔForecast* is the annual change in *Forecast*. Following the event, the affiliated firms had to rely more on the capital market for financing than in the pre-event period. Hence, firms are likely to render more forecasts to reduce information asymmetry with the capital market.

The results are reported in Table 8.[36] For all the regressions, the test and control variables are the same as those in Eq. (1). In Column (1), the dependent variable is *Change_Big10_Auditor*. The results based on the probit regression show that the coefficient on *Corrupt* × *Post* is positive and significant. This indicates that affiliated firms were more likely to switch to Big 10 audit firms after the arrest of the corrupt officials than in the pre-event period, compared to the control firms. Hence, switching to auditors of high quality is one of the channels the firms have utilised to increase their accounting quality.

The second column in Table 8 uses *High_InterControl* as the dependent variable. The coefficient on the interaction term, *Corrupt* × *Post*, is also positive and significant, suggesting that internal control quality has increased in the post-event period than in the pre-event period. The last two columns report results of regressing *High_Forecast and ΔForecast* on the test and control variables. Similar to the first two columns, the coefficients on *Corrupt* × *Post* are positive and significant, indicating that firms affiliated with corrupt officials disclose more management forecasts post the event to reduce information asymmetry. Table 8 provides evidence supporting the increase in AQ of firms after local corruption culture becomes weaker.

7. Concluding remarks

Given the essential role accounting information plays in capital markets, it is important to understand the impacts of various factors on the quality of accounting information. This paper focuses on local corruption culture and examines how the change in corruption culture driven by the arrest of corrupt top officials affects AQ of listed firms in the region.

We show that AQ is significantly higher following the improvement of local corruption culture. This finding is robust to a battery of robustness tests. We also find that the increase in AQ is greater when corrupt officials had relatively greater power and when affiliated firms were more dependent on local corrupt officials. Furthermore, we document that the positive effect on AQ is stronger in the post-2012 period due to the anti-corruption campaign initiated by Xi Jinping, which affects corruption culture at the national level.

Using the Chinese setting to examine the impact of local corruption culture on AQ may have important implications. Corruption is a global issue and a number of large global institutional actors (e.g., World Bank, IMF, and WTO) have spent substantial resources to fight this "evil", as corruption is believed to hold back political and economic advance and generate distrust (Everett et al., 2007). The Chinese government has recognised the serious negative consequences of corruption and exerts great effort in an attempt to eradicate corruption. This study provides direct evidence of the bright aspects of the fight against corruption on accounting quality, which is useful for economic advancement. As China is ranked high in terms of corruption, the findings from China could be generalizable to many other countries, especially emerging markets, and may serve as an inspiration to policymakers in other countries that are plagued by corruption.

Appendix A. Variable definitions

Variable	Definition
FRQ	Financial reporting quality, which is a proxy of accounting quality. The computation of FRQ is detailed in Appendix B.
-Abs_DA_Adjust	−1 × the absolute value of discretionary accruals, where discretionary accruals are estimated from the modified Jones model (Dechow et al., 1995).
-Abs_DA_Kothari	−1 × the absolute value of discretionary accruals, where discretionary accruals are estimated following Kothari et al. (2005).
-Abs_DA_DD	−1 × the absolute value of residuals of the Dechow-Dichev model (Dechow and Dichev, 2002).
Post	An indicator variable, which equals one if the firm-year observation is in the three years after the event year, and zero if the firm-year observation is in the three years before the event year.
Post_Pseudo	An indicator variable, which equals one if the firm-year observation is one year after the pseudo-event year, and zero if the firm-year observation is one year before the pseudo-event year. We assume the pseudo-event takes place two years before a corrupt official is actually arrested.

(*continued on next page*)

[36] In column (1)–(3) of Table 8, we use the probit model because the dependent variables are indicator variables, and control for industry, province, and year fixed effects. We also re-estimate the three regressions by using fixed effects on firm and year. The results are qualitatively similar and are unreported for the sake of brevity. Column (4) in Table 8 reports results using regression with firm and year fixed effects because the dependent variable is continuous. We also re-estimate the regression by controlling for industry, province, and year fixed effects, and the results are unchanged and are un-tabulated to save space.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Appendix A (*continued*)

Variable	Definition
Year_T-i_Dummy	An indicator variable, which equals one if the year is *i* years before the event year *T*, where *i* = 2 and 1, and zero otherwise.
Year_T + i_Dummy	An indicator variable, which equals one if the year is *i* years after the event year *T*, where *i* = 1, 2, and 3, and zero otherwise.
Corrupt	An indicator variable, which equals one if a firm is located in the municipality where the top government official has been arrested for corruption, and zero otherwise.
Corrupt_Principal	An indicator variable, which equals one if a firm is located in the municipality where the government official arrested for corruption is a principal official, and zero otherwise.
Corrupt_Vice	An indicator variable, which equals one if a firm is located in the municipality where the government official arrested for corruption is a vice official, and zero otherwise.
Corrupt_LongTenure	An indicator variable, which equals one if a firm is located in the municipality where the government official arrested for corruption has had a long tenure (above the median), and zero otherwise.
Corrupt_ShortTenure	An indicator variable, which equals one if a firm is located in the municipality where the government official arrested for corruption has had a short tenure (below the median), and zero otherwise.
Corrupt_Local	An indicator variable equal to one for firm-year observations associated with a corrupt officials at the municipal level that comes from the province the municipality belongs to, and zero otherwise.
Corrupt_NonLocal	An indicator variable equal to one for firm-year observations associated with a corrupt official at the municipal level that does not come from the province the municipality belongs to, and zero otherwise.
Corrupt_LocalGovControl	An indicator variable, which equals one if a firm located in the municipality of corrupt officials is controlled by the local government, and zero otherwise.
Corrupt_NonLocalGovControl	An indicator variable, which equals one if a firm located in the municipality of corrupt officials is not controlled by the local government, and zero otherwise.
Corrupt_PolConnect	An indicator variable, which equals one if the CEO or chair of a firm located in the municipality of corrupt officials was or is a local government official, and zero otherwise.
Corrupt_NonPolConnect	An indicator variable, which equals one if neither the CEO nor chair of a firm located in the municipality of corrupt officials was or is a local government official, and zero otherwise.
Corrupt_Subsidy	An indicator variable, which equals one if a firm located in the municipality of corrupt officials receives subsidies from the local government, and zero otherwise.
Corrupt_NonSubsidy	An indicator variable, which equals one if a firm located in the municipality of corrupt officials does not receive subsidies from the local government, and zero otherwise.
Corrupt_HighBankLoan	An indicator variable, which equals one if a firm located in the municipality of corrupt officials has a bank loan ratio above the median in the pre-event period, and zero otherwise. The bank loan ratio equals total bank loan divided by total debt.
Corrupt_LowBankLoan	An indicator variable, which equals one if a firm located in the municipality of corrupt officials has a bank loan ratio below the median in the pre-event period, and zero otherwise. The bank loan ratio equals total bank loan divided by total debt.
Corrupt_HighChgBankloan	An indicator variable, which equals one if a firm located in the municipality of corrupt officials experiences a large decline (i.e., above the median) in bank loan ratio in the post-event period, and zero otherwise. The bank loan ratio equals total bank loan divided by total debt.
Corrupt_LowChgBankloan	An indicator variable, which equals one if a firm located in the municipality of corrupt officials has a decline in bank loan ratio in the post-event period below the median, and zero otherwise. The bank loan ratio equals total bank loan divided by total debt.
Corrupt_After2012	An indicator variable, which equals one if a firm is located in the municipality where the government official was arrested for corruption during 2013 to 2016, and zero otherwise.
Corrupt_Before2012	An indicator variable, which equals one if a firm is located in the municipality where the government official was arrested for corruption during 2003 to 2012, and zero otherwise.
Post2012	An indicator variable, which equals 1 if the year is 2013 to 2018, and zero for the year of 2007 to 2012.
Ln_Assets	The natural logarithm of a firm's total assets.
Leverage	Financial leverage, measured by total liability divided by total assets.
Roa	Return on assets, measured by net income before tax divided by total assets.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Appendix A (*continued*)

Variable	Definition
MB	The market-to-book ratio, measured by a firm's market value of equity divided by the book value of equity.
Cash_Flow	Cash flow from operating activities scaled by total assets.
Tangibility	Tangible assets scaled by total assets.
Return	Annual stock return over the fiscal year.
Std_Return	The standard deviation of the firm-specific monthly return over the fiscal year.
Big10_Auditor	An indicator variable, which equals one if a firm has a Big 10 auditor, and zero otherwise.
High_LawScore	An indicator variable, which is equal to one if the firm's local legal environment (law score) is in the highest quartile, and zero otherwise. The measure of law score, following Fan and Wang (2012), uses the number of lawyers as a percentage of the population, the efficiency of local courts, and the protection of property rights.
SEO	An indicator variable, which equals one if a firm has issued secondary equity offering in year *t*, and zero otherwise.
IRR	Following Gebhardt et al. (2001), we use a discounted residual income model to estimate an implied cost-of-capital, the internal rate of return (IRR), by equating the current stock price to the present value of all future cash flows to common shareholders.
Change_Big10_Auditor	An indicator variable, which equals one in the years after a firm changes its auditor from a non-Big 10 to a Big 10 audit firm, and zero otherwise.
High_InterControl	An indicator variable, which equals one if a firm's internal control has no weakness, and zero otherwise.
High_Forecast	An indicator variable, which equals one if the number of a firm's management forecasts is above the median, and zero otherwise.
ΔForecast	The annual change in the number of management forecasts.
CorruptCity	An indicator variable, which equals 1 if a municipality has a top government official arrested for corruption in year *t* (corrupt municipality), and zero if a municipality has normal official turnover and no arrested officials in year *t*.
InvestRatio	The amount of infrastructure investment divided by GDP for a given city in year *t*.
RealestateRatio	The amount of real estate investment divided by GDP for a given city in year *t*.
GDPpercapita	The per capita GDP for a given city in year *t*.
GDPGrowth	The annual GDP growth rate for a given city in year *t*.
PopulationGrowth	The population growth rate for a given city in year *t*.
MeanAssets	The natural logarithm of the average assets of all listed firms for a given city in year *t*.
MeanRoa	The average return on assets of all listed firms for a given city in year *t*.
MeanMfee	The average enterprise entertainment expenses scaled by sales of all listed firms for a given city in year *t*.

Appendix B. Variable construction of the dependent variable, FRQ

Financial reporting quality (*FRQ*) is the main measure of our accounting quality. As no single measure could capture all the aspects of FRQ, and in order to mitigate noise and potential bias in any individual proxy, we consider three most commonly used measures suggested by Dechow et al. (2010), and follow the spirit of Biddle et al. (2009) and Chen et al. (2011, 2017), among others, to aggregate these proxies of FRQ into one composite measure.[37] Specifically, we use the following three models: (a) Modified Jones model (Dechow et al., 1995); (b) Performance-adjusted discretionary accruals model (Kothari et al., 2005); and (c) Dechow-Dichev model (Dechow and Dichev, 2002). We estimate the following models for each year and each industry, requiring at least 20 observations per industry.

$$TCAC_{i,t} = \beta_0 + \beta_1(1/ASSETS_{i,t-1}) + \beta_2 \Delta REV\_REC_{i,t} + \beta_3 PPE_{i,t} + \mu_{i,t} \quad (a)$$

$$TCAC_{i,t} = \beta_0 + \beta_1(1/ASSETS_{i,t-1}) + \beta_2 \Delta REV_{i,t} + \beta_3 PPE_{i,t} + \beta_3 ROA_{i,t} + \mu_{i,t} \quad (b)$$

$$TCAC_{i,t} = \beta_0 + \beta_1 Cash\ \ Flow_{i,t-1} + \beta_2 Cash\ \ Flow_{i,t} + \beta_3 Cash\ \ Flow_{i,t+1} + \beta_4 \Delta REV_{i,t} + \beta_5 PPE_{i,t} + \mu_{i,t} \quad (c)$$

[37] We only adopt one of the four proxies of FRQ used in Biddle et al. (2009) because most of their measures are modified to focus on investment efficiency. While all the three measures of FRQ used in Chen et al. (2011), which is based on international data, are well-known standard accounting models, we use two of them (i.e., the first and third) in Chen et al. (2011) because the second model is not commonly used for Chinese data (Haw et al., 2005; Lennox et al., 2016). In robustness tests, we have exactly followed the three measures of Chen et al. (2011) and obtain consistent results (not reported for brevity).

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

In Eqs. (a)–(c), *TCAC* is the working capital accruals scaled by lagged total assets, and working capital accruals are calculated as the change in current non-cash assets minus the change in current non-interest liability; *ASSETS* is the total assets; $\triangle REV$ is the annual change in revenues scaled by lagged total assets; $\triangle REV\_REC$ is the annual change in revenues minus annual change in accounts receivable scaled by lagged total assets; *PPE* is property, plant, and equipment for firm *i* in year *t*, scaled by lagged total assets; *ROA* is return on assets; *Cash Flow* is the sum of income before extraordinary items, depreciation and amortization, and changes in current liabilities, minus changes in current assets, scaled by lagged total assets. The subscription *i,t* indicates firm *i* in year *t*.

First, for each industry in each year, we conduct regression (a)–(c) and obtain the residuals, which are measures for discretionary accruals. Second, we multiply each absolute value of discretionary accruals by −1. Thus, higher values of discretionary accruals represent higher FRQ. Finally, to mitigate measurement error in the individual FRQ components, we aggregate the three proxies into one aggregate score in order to provide evidence based on an overall FRQ metric. Specifically, following the spirit of Biddle et al. (2009) and Chen et al. (2011, 2017), we first normalize all proxies and then take the average of the three measures as our measure of financial reporting quality (*FRQ*).

Appendix C. Results for propensity score matching probit regression

This table reports the results for the probit model of propensity score matching. The dependent variable is *CorruptCity*, which equals 1 if a municipality has a top government official arrested for corruption in year *t* (corrupt municipality), and zero if a municipality has normal official turnover and no corrupt officials in year *t*. The sample of corrupt officials covers the period from 2003 to 2016. The regression includes year and province fixed effects. The z-statistics based on standard errors clustered at the city level are reported in parentheses. Variable definitions are provided in Appendix A. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Variable	(1) *CorruptCity*
InvestRatio	0.241
	(1.23)
RealestateRatio	0.174**
	(2.06)
GDPpercapita	0.088**
	(2.10)
GDPGrowth	−3.209*
	(−1.82)
PopulationGrowth	−0.006
	(−0.16)
MeanAssets	0.400**
	(2.01)
MeanRoa	−0.337
	(−0.57)
MeanMfee	0.468**
	(2.16)
Constant	−11.357***
	(−2.73)
Year and Province fixed effects	Yes
Obs.	838
Pseudo R2	0.15

References

Ang, A., Bai, J., Zhou, H., 2016. The great wall of debt: the cross section of Chinese local government credit spreads. Working Paper.
Ball, R., Robin, A., Wu, J., 2003. Incentives versus standards: properties of accounting income in four East Asian countries. J. Account. Econ. 36 (1–3), 235–270.
Bao, B.H., Bao, D.H., 2004. Income smoothing, earnings quality and firm valuation. J. Bus. Fin. Account. 31 (9–10), 1525–1557.
Bardhan, P., 1997. Corruption and development: a review of issues. J. Econ. Lit. 35 (3), 1320–1346.
Bertrand, M., Mullaianathan, S., 2003. Enjoy the quiet life? Corporate governance and managerial preferences. J. Political Econ. 111 (5), 1043–1075.
Bhattacharya, U., Daouk, H., Welker, M., 2003. The world price of earnings opacity. Account. Rev. 78 (3), 641–678.
Biddle, G.C., Hilary, G., Verdi, R.S., 2009. How does financial reporting quality relate to investment efficiency?. J. Account. Econ. 48 (2), 112–131.
Bushman, R., Chen, Q., Engel, E., Smith, A., 2004. Financial accounting information, organizational complexity and corporate governance systems. J. Account. Econ. 37 (2), 167–201.
Cai, H.B., Fang, H.M., Xu, C., 2011. Eat, drink, firms and government: An investigation of corruption from the entertainment and travel costs of Chinese firms. J. Law Econ. 54 (1), 55–78.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Chaney, P.K., Faccio, M., Parsley, D., 2011. The quality of accounting information in politically connected firms. J. Account. Econ. 51 (1), 58–76.
Chen, F., Hope, O.K., Li, Q., Wang, X., 2011. Financial reporting quality and investment efficiency of private firms in emerging markets. Account. Rev. 86 (4), 1255–1288.
Chen, K.C., Yuan, H., 2004. Earnings management and capital resource allocation: evidence from China's accounting-based regulation of rights issues. Account. Rev. 79 (3), 645–665.
Chen, J.Z., Lobo, G.J., Zhang, J.H., 2017. Accounting quality, liquidity risk, and post-earnings-announcement drift. Contemp. Account. Res. 34 (3), 1649–1680.
Chen, Y.S., Chen, D., Wang, W., Zheng, D.J., 2018a. Political uncertainty and firms' information environment: evidence from China. J. Account. Public Policy 37 (1), 39–64.
Chen, Y.S., Xie, Y., You, H., Zhang, Y.N., 2018b. Does crackdown on corruption reduce stock price crash risk? Evidence from China. J. Corp. Financ. 51, 125–141.
Claessens, S., Feijen, E., Laeven, L., 2008. Political connections and preferential access to finance: the role of campaign contributions. J. Financ. Econ. 88 (3), 554–580.
Clarke, G., Xu, C., 2004. Privatization, competition, and corruption: how characteristics of bribe takers and payers affect bribes to utilities. J. Public Econ. 88, 2067–2097.
Dass, N., Nanda, V., Xiao, S.C., 2017. Is there a local culture of corruption in the U.S.? Working Paper, available on the internet at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2981302.
DeAngelo, L.E., 1981. Auditor size and audit quality. J. Account. Econ. 3 (3), 183–199.
Debacker, J., Heim, B., Tran, A., 2015. Importing corruption culture from overseas: evidence from corporate tax evasion in the United States. J. Financ. Econ. 117 (1), 122–138.
Dechow, P.M., Dichev, I.D., 2002. The quality of accruals and earnings: the role of accrual estimation errors. Account. Rev. 77 (1), 35–59.
Dechow, P.M., Sloan, R.G., Sweeney, A.P., 1995. Detecting earnings management. Account. Rev. 70 (2), 193–225.
Dechow, P., Ge, W., Schrand, C., 2010. Understanding earnings quality: a review of the proxies, their determinants and their consequences. J. Account. Econ. 50 (2-3), 344–401.
DeFond, M.L., Wong, T.J., Li, S., 2000. The impact of improved auditor independence on audit market concentration in China. J. Account. Econ. 28 (3), 269–305.
Ehrich, I., Lui, F., 1999. Bureaucratic corruption and endogenous economic growth. J. Political Econ. 107 (6), 270–293.
Everett, J., Neu, D., Rahaman, A.S., 2007. Accounting and the global fight against corruption. Account. Organ. Soc. 32 (6), 513–542.
Faccio, M., 2006. Politically connected firms. Am. Econ. Rev. 96 (1), 369–386.
Faccio, M., Masulis, R.W., McConnell, J.J., 2006. Political connections and corporate bailouts. J. Fin. 61 (6), 2597–2635.
Fan, G., Wang, X., 2012. The Report on the Relative Process of Marketization of each region in China. Economic Science Press.
Fan, J.P., Guan, F., Li, Z., Yang, G., 2014. Relationship networks and earnings informativeness: evidence from corruption cases. J. Bus. Fin. Account. 41 (7–8), 83–866.
Fan, J.P., Rui, O., Zhao, M., 2008. Public governance and corporate finance: evidence from corruption cases. J. Comp. Econ. 36 (3), 343–364.
Fan, J.P., Wong, T.J., Zhang, T., 2007. Politically connected CEOs, corporate governance, and post-IPO performance of China's newly partially privatized firms. J. Financ. Econ. 84 (2), 330–357.
Fernandez, R., 2011. Does Culture Matter? Handbook of Social Economics. Amsterdam.
Fisman, R., 2001. It's not what you know: estimating the value of political connections. Am. Econ. Rev. 91 (4), 1095–1102.
Fisman, R., Gatti, R., 2002. Decentralization and corruption: evidence across countries. J. Public Econ. 83 (2), 325–345.
Fisman, R., Miguel, E., 2007. Corruption, norms, and legal enforcement: evidence from diplomatic parking tickets. J. Political Econ. 115 (6), 1020–1048.
Francis, J., LaFond, R., Olsson, P., Schipper, K., 2005. The market pricing of accruals quality. J. Account. Econ. 39 (2), 295–327.
Gebhardt, W.R., Lee, C.M.C., Bhaskaran, S., 2001. Toward an implied cost of capital. J. Account. Res. 39 (1), 135–176.
Glaeser, E.L., Saks, R.E., 2006. Corruption in America. J. Public Econ. 90 (6), 1053–1072.
Gold, T., Guthrie, D., 2002. Social Connections in China: Institutions, Culture, and the Changing Nature of Guanxi. Cambridge University Press.
Gomez, E.T., 1990. Politics in Business UMNO's Corroborate Investments. Forum, Kuala Lumpur.
Gopalan, R., Jayaraman, S., 2012. Private control benefits and earnings management: evidence from insider controlled firms. J. Account. Rese. 50 (1), 117–157.
Griffin, J.M., Liu, C., Shu, T., 2016. Is the Chinese anti-corruption campaign effective? Working Paper, available on the internet at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2779429.
Guiso, L., Sapienza, P., Zingales, L., 2006. Does culture affect economic outcomes? J. Econ. Perspect. 20 (2006), 23–48.
Gul, F.A., 2006. Auditors' response to political connections and cronyism in Malaysia. J. Account. Res. 44 (5), 931–963.
Haw, I., Qi, D., Wu, D., Wu, W., 2005. Market consequences of earnings management in response to security regulations in China. Contemp. Account. Res. 22 (1), 95–140.
Holthausen, R., 2003. Testing the relative power of accounting standards versus incentives and other institutional features to influence the outcome of financial reporting in an international setting. J. Account. Econ. 36 (1–3), 271–283.
Hope, O.K., Yue, H., Zhong, Q., 2019. China's anti-corruption campaign and financial reporting quality. Forthcoming, available on the internet at https://doi.org/10.1111/1911-3846.12557.
Hribar, P., Craig Nichols, D., 2007. The use of unsigned earnings quality measures in tests of earnings management. J. Account. Res. 45 (5), 1017–1053.
Hung, M.Y., Wong, T.J., Zhang, F., 2015. The value of political ties versus market credibility: evidence from corporate scandals in China. Contemp. Account. Res. 32 (4), 1641–1675.
Ke, B., Liu, N., Tang, S., 2017. The effect of anti-corruption campaign on shareholder value in a weak institutional environment: evidence from China. Working Paper, available on the internet at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2963478.
Kothari, S.P., Leone, A.J., Wasley, C.E., 2005. Performance matched discretionary accrual measures. J. Account. Econ. 39 (1), 163–197.
Krueger, A.O., 1974. Political economy of the rent-seeking society. Am. Econ. Rev. 64 (3), 291–303.
La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 1999. The quality of government. J. Law Econ. Organ. 15 (1), 222–279.
Lennox, C., Wu, X., Zhang, T., 2016. The effect of audit adjustments on earnings quality: evidence from China. J. Account. Econ. 61, 545–562.
Leuz, C., Nanda, D., Wysocki, P.D., 2003. Earnings management and investor protection: an international comparison. J. Financ. Econ. 69 (3), 505–527.
Leuz, C., Oberholzer-Gee, F., 2006. Political relationships, global financing, and corporate transparency: evidence from Indonesia. J. Financ. Econ. 81 (2), 411–439.
Li, H., Meng, L., Wang, Q., Zhou, L.A., 2008. Political connections, financing and firm performance: evidence from Chinese private firms. J. Dev. Econ. 87 (2), 283–299.
Li, H., Zhou, L., 2005. Political turnover and economic performance: the incentive role of personnel control in China. J. Public Econ. 89 (9–10), 1743–1762.
Lin, C., Morck, R., Yeung, B., Zhao, X., 2016. Anti-corruption reforms and shareholder valuations: event study evidence from China. Working Paper, available on the internet at http://www.nber.org/papers/w22001.
Liu, X., 2016. Corruption culture and corporate misconduct. J. Financ. Econ. 122 (2), 307–327.
Liu, L.X., Shu, H., Wei, K.C., 2017. The impacts of political uncertainty on asset prices: evidence from the Bo scandal in China. J. Financ. Econ. 125 (2), 286–310.
Mauro, P., 1995. Corruption and growth. Q. J. Econ. 110 (3), 681–712.
McChesney, F., 1987. Rent extraction and rent creation in the economic theory of regulation. J. Leg. Stud. 16, 101–118.
McGregor, R., 2010. The Party: The Secret World of China's Communist Rulers. Penguin, UK.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698

Mcmillan, J., Woodruff, C., 2002. The central role of entrepreneurs in transition economies. J. Econ. Perspect. 16 (3), 153–170.
Miller, A., 2004. Corruption between morality and legitimacy in the context of globalization. Between Morality Law: Corrupt., Anthropol. Comp. Soc., 53–67
Piotroski, J.D., Wong, T.J., 2012. Institutions and information environment of Chinese listed firms. In: Capitalizing China. University of Chicago Press, pp. 201–242.
Piotroski, J.D., Wong, T.J., Zhang, T., 2015. Political incentives to suppress negative information: evidence from Chinese listed firms. J. Account. Res. 53 (2), 405–459.
Rajan, R., Zingales, L., 2003. Saving Capitalism from the Capitalists. Crown Business, New York.
Rose-Ackerman, S., 1975. The economics of corruption. J. Public Econ. 4 (2), 187–203.
Schipper, K., 1989. Commentary on earnings management. Account. Horiz. 3 (4), 91–102.
Shleifer, A., Vishny, R., 1993. Corruption. Q. J. Econ. 108 (3), 599–617.
Smith, J.D., 2016. US political corruption and firm financial policies. J. Financ. Econ. 121 (2), 350–367.
Sobjak, A., 2018. Corruption risks in infrastructure investments in Sub-Saharan Africa. OECD Global Anti-Corruption & Integrity Forum.
Svensson, J., 2005. Eight questions about corruption. J. Econ. Perspect. 19 (3), 19–42.
Wang, Q., Wong, T.J., Xia, L., 2008. State ownership, the institutional environment, and auditor choice: evidence from China. J. Account. Econ. 46 (1), 112–134.
Watts, R.L., Zimmerman, J.L., 1986. Positive Accounting Theory. Prentice-Hall, N.J..
Wei, S.J., 2001. Corruption in Economic Transition and Development: Grease or Sand? United Nations Economic Commission for Europe, Geneva.
Wiedman, C.I., Hendricks, K.B., 2013. Firm accrual quality following restatements: a signaling view. J. Bus. Fin. Account. 40 (9–10), 1095–1125.
Xu, C., 2011. The fundamental institutions of China's reforms and development. J. Econ. Lit. 49 (4), 1076–1151.

Please cite this article as: Y. Chen, L. Che, et al., Corruption culture and accounting quality, J. Account. Public Policy, https://doi.org/10.1016/j.jaccpubpol.2019.106698