

Do Government Initiatives and Reasons for Auditor-Client Realignment Influence Audit Fees and Audit Quality? Evidence from China

政府舉措與會計師事務所改聘決定是否影響審計公費與審計品質？以中國為例

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Abstract

This study investigates whether the promotion of the initiative to expand and strengthen accounting firm practices by Chinese government since May 2007, and the decisions for auditor-client realignments will affect audit fees and audit quality. Analyzing data obtained from Chinese publicly listed companies from 2002 to 2014, the study first documents that the government initiative and state ownership are significantly influential in managerial decisions as to whether to reveal the reasons for realigning with auditors. We further classify our observations according to the realignment reasons disclosed and find that companies citing client-related drivers for realignments enjoy significant reductions in audit fees. In contrast, companies citing CPA firm-related reasons to switch auditors experience significant deterioration in audit quality after the government initiative to expand and strengthen accounting firm practices was promulgated in May 2007. Based on our experimental results, we draw policy implications and provide related suggestions to regulatory agencies, professional organizations, and accounting firms.

【Keywords】 government initiative, client, auditor realignment, audit fees, audit quality

摘要

本文探討中國政府自 2007 年 5 月推動會計師事務所「做大做強」的舉措，與企業改聘會計師事務所的決定是否會對審計公費與審計品質造成影響。通過對 2002 年至 2014 年中國上市公司資料的分析，本研究發現，政府的舉措和企業國有化程度對企業管理者是否揭示會計師改聘的原因有顯著的影響。再根據事務所所披露改聘的原因進行分類，本研究進一步發現，因客戶相關因素而造成會計師事務所的改聘，顯著地降低了審計公費。然而，因事務所相關因素而改聘會計師，在中國政府頒布會計師事務所做大做強的舉措後，審計品質明顯惡化。依據實證的結果，本研究向監管機構、會計專業組織，和會計師事務所提出相關建議。

【關鍵字】 政府舉措、客戶、會計師改聘、審計公費、審計品質

1. Introduction

The accounting profession has been positioned as one of the critical pillars to develop China's capital markets.¹ To enforce this mandate, the Chinese Institute of Certified Public Accountants (CICPA), with support from China's Ministry of Finance (MOF), issued a professional opinion – 《關於推動會計師事務所做大做強的意見》 (*Guanyu tuidong kuaijishi shiwusuo zuoda zuoqiang de yijian*) (referred to as “the government initiative” hereafter) in May 2007. The purpose of the initiative is to “expand” (做大) and “strengthen” (做強) professional services provided by domestic accounting firms in China, so that they can be competitive with and serve as an alternative to the international Big-4 auditors. If this initiative works as envisaged, it will help to reshape the professional environment domestically and create a new wave of auditor-client realignments. Through realignments between auditors and clients, corporate executives and management of accounting firms will likely open new rounds of negotiations over professional fees. One result of these negotiations is to revamp the audit market and overhaul the audit fee structure in China. Moreover, these realignments could potentially improve the quality of audit services provided by accounting firms owned and operated by Chinese nationals.

The purpose of this study is to explore whether the government initiative to expand and strengthen accounting firm practices domestically and the reasons for auditor-client realignment jointly affect audit fees and audit quality. To investigate this research inquiry, we must first find out whether auditor-client realignments have occurred and been documented. It is known that the Securities and Exchange Commission (SEC) has required its registrants to formally report auditor-client realignments in details since 1971.² Similar to their U.S. counterparts, China's regulators also *require* publicly listed companies in China to disclose auditor-client realignments as significant events in their

1 As part of the effort to strengthen the domestic accounting profession, the Shanghai National Accounting Institute, along with other two institutes, were established in September 2000 as a public service institution affiliated with the Ministry of Finance of China under the strong support of former Chinese Premier *Zhu Rongji*.

2 The SEC began requiring registrants in 1971 to disclose details of auditor-client realignment decisions in a timely manner on their Form 8-K, Item 4, filings. Required 8-K disclosures have evolved over time by providing expanded information regarding auditor-client realignments within the following categories: reportable events, other required disclosures, and voluntary disclosures. In particular, the SEC *encourages* registrants to voluntarily disclose any additional reasons for audit realignments, including (1) client-service related reasons, (2) fee disputes, and (3) verifiable or previously disclosed reasons.

annual financial reports. However, corporate executives working for Chinese companies have the flexibility regarding whether to reveal the reasons for such realignments. Because such revelations are *voluntary* in nature, and are subject to managerial discretion as to whether to make the realignment reasons known to the general public, some companies decide to disclose their reasons of realignments while others choose not to do so. These possible scenarios provide valuable opportunities for us to investigate whether the government initiative to expand and strengthen its domestic accounting profession and the reasons behind auditor-client realignment decisions jointly affect audit fees and audit quality.

To fulfill our objectives established herein, we investigate three questions empirically. First, we postulate that besides the government initiative, state ownership may influence auditor-client realignment decisions. This conjecture is made because executives employed by State-owned Enterprises (SOEs) and Non-state-owned Enterprises (NSOEs) may have different degrees of motivation or levels of pressure to follow governmental initiatives. To examine this issue, we divide the studied firms into SOEs and NSOEs. We argue that both the government initiative to expand and strengthen domestic accounting practices and the state ownership may influence auditor-client realignment decisions,³ and thus we first explore the joint effect of the government initiative and state ownership on managerial decisions to disclose auditor-client realignment reasons.

Second, the auditor-client realignment decisions could lead to new rounds of audit fee negotiations between auditors and their clients. While engaging in these negotiations, the reasons behind auditor-client realignment decisions may tip the balance of power between the two parties. As China's MOF and CICPA push for the initiative, this force could change the market dynamics and create a new wave of auditor switches. Consequently, auditor-client realignments probably will alter the mechanisms of the audit market and influence the audit fee structure in China. Therefore, it would be interesting to

3 Since there are no formal punishments attached in the initiative for not following it, some argue that firm management may not take the initiative seriously. However, the MOF has supervisory power over Chinese publicly listed firms, and regulators also can influence financial institutions regarding loan decisions. Moreover, the MOF has influences on whether public firms can issue additional bonds and/or equity shares. Under these scenarios, firm management will consider switching auditors even though there are no explicit punishments for not following the initiative. Driven by these incentives and comparing companies according to state ownership, the initiative to expand and strengthen accounting practices may also influence managerial decisions as to whether to reveal specific reasons for realigning with auditors.

find out whether the government initiative and the reasons for realignments jointly affect audit fees.

Third and finally, auditor-client realignment provides an opportunity for corporate executives to look for accounting professionals who possess the expertise necessary to address their needs. On the other hand, auditor-client realignment offers a scenario in which accounting firms can recruit clients that fit into their business strategies and broaden their client portfolios. Moreover, as DeAngelo (1981) orchestrates and Harford (2005) echoes, audit quality probably will improve when accounting firm size expands. With support of the government initiative to develop local accounting firms, the sizes of the Chinese Top 10, which are second-tier auditors in the country, presumably will increase. By expanding accounting firms' operations, it is expected that audit quality will improve as well. To detect this potential effect, we examine whether the government initiative to expand domestic accounting firms and strengthen their practices and the auditor-client realignment jointly influence audit quality.

To look into these empirical questions, we first group the observations by state ownership: SOEs and NSOEs (*STATE*). We further divide the data collected into three groups according to the reasons behind auditor-client realignment decisions: client-related (*REASON_CLIENT*), CPA firm-related (*REASON_CPA*), and government-related (*REASON_GOV*). To test the effects of the government initiative on audit fees and audit quality, we incorporate a dummy variable, *POST_2007*, into the regression models. Three dependent variables are analyzed in this study: disclosure of auditor-client realignment decisions (*REASON_DISCLOSURE*), audit fees (*LNAF*), and audit quality (*MAO*). To detect why certain clients decide to reveal their reasons to realign with auditors while others choose not to do so, we adopt the probit model developed by Sankaraguruswamy and Whisenant (2004). Next, we follow the regression model developed by Huang, Raghunandan, Huang, and Chiou (2015) to examine the joint effect of the government initiative and the reasons for auditor-client realignment on audit fees. Finally, we employ the model developed by Huang et al. (2015) to investigate whether the government initiative and the reasons for auditor-client realignment jointly affect audit quality.

This study uses Chinese publicly listed firms as the research setting. Following the sample selection processes, we collect and analyze 1,340 firm-year observations from 2002 to 2014. The empirical evidence obtained from our analyses shows that state ownership, SOEs versus NSOEs, and the government initiative, pre-2007 versus post-2007, jointly affect managerial decisions to disclose the reasons for auditor-client

realignment. By categorizing the realignment reasons into client-related, CPA firm-related, and government-related groups, the evidence obtained from our analyses illustrates that firms citing client-related reasons to realign with auditors enjoy significant audit fee reductions after the enactment of the government initiative. In contrast, firms citing CPA firm-related as the reason to realign with auditors experience a significant decline in audit quality after the government initiative promulgated in May 2007.

The remainder of this paper is organized as follows. Section 2 reviews the extant literature on auditor-client realignment. Based on what have been documented in these studies, we develop three research questions. Section 3 outlines the data collection processes, discusses the research methodology, and presents three regression models. Section 4 shows the empirical results. Section 5 demonstrates the results of a robustness test that validate the main findings reported in this study. Finally, Section 6 summarizes the study, provides further discussions regarding the policy implications from our research findings to regulatory agencies, professional organizations, and accounting firms; and then points out our research limitations at the end.

2. Literature Review and Research Questions

2.1 Auditor-Client Realignment Decisions

The auditing literature documents issues relating to auditor-client realignment decisions can be considered from several perspectives. From the view of the capital market, auditor-client realignment decisions may influence market perceptions of earnings quality and affect market reactions to earnings announcements. For instance, Hackenbrack and Hogan (2002) report that auditor-client realignments impact market responses, as measured by the Earnings Response Coefficients (ERCs) in the years surrounding these decisions. Hackenbrack and Hogan (2002) also note that ERCs are lower when auditors and clients decide to realign with one another. In addition, their study shows that market participants could use the auditor-client realignment decision as a source of information to supplement the content of earnings announcements. Specifically, disclosing fee-related issues as the reasons to realign with auditors sends a negative signal to capital markets regarding the quality of the reported earnings. Moreover, Aldhizer, Martin, and Cotter (2009) explore whether the disclosure of an auditor-client realignment decision conveys information to market participants. If it does, would such a disclosure influence stock returns? Measuring stock returns according to the amount of cumulative abnormal returns (CARs), these authors demonstrate that auditor-client realignment decisions indeed

convey information to market participants. Different from Hackenbrack and Hogan (2002); however, Aldhizer et al. (2009) reveal that auditor switches may positively affect CARs if a company switches its auditor from a local/regional accounting firm to a Big-4 international accounting firm, as such switch could be perceived as being upward, which implies better audit quality.

Second, auditor-client realignments can be important to accounting firms. As auditors are concerned regarding audit quality (e.g., Lee, Chen, and Tsai, 2020; Lin and Duh, 2020), accounting firms could take the auditor-client realignments as a window of opportunity to recruit and retain high quality clients. Thus these accounting firms not only can lower litigation risks, but also may be able to restructure the composition of their clients and create more desirable client portfolios. Echoing the possibilities mentioned above, Landsman, Nelson, and Rountree (2009) also indicate that accounting firms may drive auditor switches because they are sensitive to clients' business risks. Furthermore, auditor-client realignments can be made to address the accounting firms' other concerns. For instance, Cassell, Giroux, Myers, and Omer (2012) explore whether Big-N accounting firms take a client's corporate governance mechanisms into consideration when making client acceptance decisions. Since governance mechanisms are crucial in assessing client risks, clients' characteristics may also affect auditors' decisions as to whether to realign with those clients.

Third, auditor-client realignments can be viewed from the clients' standpoints. For instance, corporate executives may use auditor-client realignments to engage successor auditors with a higher level of expertise than the skills possessed by the predecessor auditors in order to address their needs. Consistent with this view, Healy and Lys (1986) examine non-Big-8 clients' reactions when their auditors decide to merge with Big-8 accounting firms. They find that non-Big-8 audit clients may continue engaging with Big-8 acquirers following the mergers if they could benefit from a Big-8 firm's specialized services and/or reputation. On the other hand, non-Big-8 audit clients that do not perceive the benefits to continue contracting with Big-8 auditors after the mergers are more likely to switch to other non-Big-8 accounting firms. In addition, corporate executives may use realignments as opportunities to negotiate with their auditors in order to cut down the amount of professional fees paid. Like Johnson and Lys (1990) argue, clients have incentives to purchase audit services from the least costly suppliers. Thus, auditor-client realignments provide opportunities for corporate executives to negotiate lower audit fees if they choose to do so.

Fourth, some researchers investigate auditor-client realignment decisions by focusing on the potential economic consequences from such actions. For instance, Wells and Loudder (1997) examine the effect of auditor-client realignment decisions and demonstrate that companies tend to experience negative market returns when their auditors resign. Griffin and Lont (2010) also document that the market is likely to reduce firm value when the auditors choose to cease their relationships with clients. In particular, the extent of economic consequences derived from the auditor-client realignment decision is particularly pronounced when the audited clients encounter higher bankruptcy risks.

Fifth and finally, researchers conduct studies to examine whether clients will take directional changes (i.e., moving up or moving down) into consideration when pondering auditor-client realignments. Building on the political-economic perspective, Eichenseher, Hagigi, and Shields (1989) and Chan, Lin, and Mo (2006) analyze auditor switches and show that the market tends to react negatively toward a downward auditor switch (e.g., from a Big-4 international accounting firm to a local/regional accounting firm). On the other hand, the market tends to react favorably with positive CARs to companies switching their auditors from a local/regional accounting firm to a Big-4 international accounting firm because upward switches of accounting firms are likely to signal better audit quality (Aldhizer et al., 2009). Based on these empirical results, one would expect that corporate executives, as clients, would take the direction of an auditor switch into account when making realignment decisions.

2.2 Auditing Research Using China as a Setting

In addition to the empirical evidence reported in the prior literature using Western economies as the research setting, numerous scholars have examined auditing issues among Asian countries during the past two decades. Many of these studies investigate auditing issues by employing either a cross-country or a single-country setting. As Lin and Lin (2016) point out, cross-country studies tend to focus on audit demand, while single-country research is likely to investigate the effects of the regulatory changes on audit demand and audit supply.⁴ Among articles addressing auditing issues in Asia and published in highly-ranked academic journals, many of them take advantages of the available databases to incorporate the unique attributes of Chinese business, regulatory,

4 For a detailed review of studies on audit quality in Asia, please refer to Lin and Lin (2016).

and professional environments. Reflecting on the results reported, the extant literature examining China documents the effects of regulatory changes on earnings quality (e.g., Chen, Chen, and Su, 2001; Hsu and Wang, 2009; Lin and Lin, 2016; He, Pan, and Tian, 2017), audit quality (e.g., Chen et al., 2001; Chan et al., 2006; Chan and Wu, 2011; Huang et al., 2015; Huang, Chang, and Chiou, 2016; He et al., 2017; Leung, Liu, and Wong, 2019), audit fee (e.g., Hsu and Wang, 2009; Chan and Wu, 2011; Huang et al., 2015; Huang, Chang, and Chiou, 2016; He et al., 2017; Leung et al., 2019), and auditor switches (e.g., Chan et al., 2006).⁵

In our view, this study contributes to the audit literature because the auditor-client realignment decisions investigated are driven by the regulatory shift that in turn could influence supply and demand of audit services in China. Moreover, corporate executives working for Chinese enterprises have the flexibility as to whether to disclose their reasons for the realignments or conceal such information to the general public. Hence, building on the evidence reported in the U.S. markets and studies conducted using China as the setting, we develop three research questions in the following subsection. First, both the regulatory requirement in place and the unique corporate ownership structure in China allow us to explore the effect of state ownership and types of the realignment reason on clients' willingness to whether to reveal their choices. We then proceed to examine the joint effect of the government initiative to expand and strengthen domestic accounting firm practices and the reasons for auditor-client realignment on audit fees and audit quality, respectively.

2.3 Research Questions

Several studies have examined and reported the effect of government ownership on enterprises and the institutional environment in China's capital markets regarding auditor choices and their reporting behavior (e.g., Chan et al., 2006; Wang, Wong, and Xia, 2008; Chan, Lin, and Wong, 2010). Following these prior studies and taking the disclosure

5 Piotroski, Wong, and Zhang (2015) demonstrate that certain special events may influence executives' decisions. Chen, Kim, Li, and Liang (2018) also report that several personal, market, and institutional factors may affect managerial behavior. To advance our understandings on how special events in China and additional variables identified in these studies could influence the auditor-client realignment decisions, audit fees, and audit quality, researchers could incorporate factors examined and findings reported on both articles in future studies, in order to fully understand and appreciate the dynamics of auditor-client realignment decisions in China.

requirements into consideration, publicly listed companies in China are required to disclose auditor-client realignments as a significant event in their annual financial reports. However, they do have the flexibility regarding whether to release their reasons to realign with auditors. Hence, disclosing reasons to auditor switches is entirely *voluntary* and subject to managerial discretion. In spite of its voluntary nature, revealing the reasons for an auditor-client realignment may allow market participants to differentiate companies disclosing reasons from those that choose not to do so, and thus discern the implications behind such decisions.⁶ Moreover, disclosing the reasons for the realignment could be informative to market participants and regulators since it may reveal what factors have been taken into account by auditors and clients, in addition to what have been described in the auditor selection processes (Aldhizer et al., 2009).

Applying these rationales to this study, we argue that corporate executives have incentives to seriously take up the government initiative to help to expand and strengthen domestic accounting practices. One of the reasons has to do with the supervisory power of China's MOF on publicly listed companies. This power affects whether companies can issue bonds and/or offer additional equity shares when needed. The other reason has to do with the MOF's influences over financial institutions. Since most of Chinese financial institutions are owned by the government, the MOF plays an influential role as to whether a company can obtain loans from these institutions. Because CICPA issued this initiative to support the MOF's ambition to develop and strengthen the domestic accounting profession, revealing the reasons to realign with auditors demonstrates that corporate executives are willing to go along with the government, which in turn may benefit the affected companies. Therefore, the issuance of an initiative of this kind strengthens corporate executives' willingness to make the reasons for auditor-client realignment decisions known to the regulators, as well as to make them available to the general public.

As to the effect of state ownership on managerial decisions to disclose the reasons for auditor-client realignments, one may argue that SOEs have strong incentives to support the said initiative because they are under governmental control. To demonstrate their willingness to support it, corporate executives of SOEs can choose to release their reasons for auditor-client realignments. On the other hand, Wang et al. (2008) argue that SOEs

6 Chan et al. (2006) examine and find the existence of agency problems among Chinese enterprises that are dominated by government ownership. To mitigate this issue, in our view, corporate executives should supply credible accounting information, including the willingness to provide full disclosures via quality audits.

already have preferential access to capital versus NSOEs. To compete for funding, those working for NSOEs may be under higher pressure than those employed at SOEs in order to leave a good impression on the regulators. Thus, the executives of NSOEs could have stronger motivation than those employed at SOEs to follow the government policies. Hence, the government initiative to expand and strengthen the domestic accounting profession may also motivate individuals who work for NSOEs to reveal their reasons to realign with auditors. According to these arguments, this study develops the first research question.

Research Question 1: Do the government initiative and state ownership jointly influence managerial decisions to disclose the reasons for auditor-client realignment?

Referring to the extant literature, researchers have conducted surveys to find out why auditor-client realignment occurs (e.g., Burton and Roberts, 1967; Carpenter and Strawser, 1971; Bedingfield and Loeb, 1974). One of the many reasons surfacing from these surveys is that realignments occur because corporate executives may view switching auditors as a window of opportunity to negotiate lower professional fees paid to accounting firms. Applying this argument to our research inquiry, the launching of this initiative by CICPA under the direction of the MOF in China offers such an opportunity for corporate executives to negotiate lower professional fees paid to accounting firms. As Johnson and Lys (1990) noted, clients are inclined to purchase audit services from the least costly suppliers. Therefore, the government initiative to expand and strengthen domestic accounting practices is likely to revamp fee structures in the audit market.

Relating this logic to the reasons for auditor-client realignment, it is reasonable to expect that audit fee charges would be contingent upon the reasons for auditor switches. As Hackenbrack and Hogan (2002) report, the nature of the auditor-client realignment decision influences the responses of market participants, as measured by ERCs in the years surrounding auditor-client realignments. Specifically, they find that following the realignments, ERCs are lower when clients cite fee-related reasons for such decisions. In contrast, when clients cite service-related reasons for the realignments, audit fees tend to go up. These findings support the notion that the auditor-client realignment reasons probably have significant effects on audit fees. Moreover, Calderon and Ofobike (2007) find that auditor-initiated and client-initiated realignments can be driven by different interests. Consequently, the divergence of these interests also may affect audit fees.

Building on these theoretical arguments and empirical findings, this study postulates that accounting firms will be in a stronger position to negotiate for higher audit fees, if a realignment is driven by client-related reasons. On the other hand, clients will have an upper hand to bargain for lower audit fees, if a realignment serves an accounting firm's interests such as expanding its market share or strengthening accounting firms' position to compete for new clients. According to these arguments, this study develops the second research question.

Research Question 2: Do the reasons for auditor-client realignment and the government initiative to expand and strengthen accounting practices jointly affect audit fees?

When examining the joint effect of the reasons for auditor-client realignment and the government initiative on audit quality, it is essential to look at this issue from both the clients' and auditors' perspectives. When considering whether to realign with their auditors, corporate executives probably will consider these alignments as opportunities to seek out an accounting firm that has more suitable expertise than their current auditors to address their needs. While pondering their decisions, corporate executives may also consider the market reactions resulting from the auditor-client realignments. For instance, Aldhizer et al. (2009) document that the market will reward an upward switch of auditors. On the other hand, market participants may penalize companies when they make downward appointments to new auditors (Chan et al., 2006). Considering these factors and referring to the empirical findings in the prior literature, one would assume that auditor-client realignments could create possible rewards or lead to economic consequences to audit clients, which in turn may affect market participants' perceptions over audit quality.

From the accounting firms' perspectives, an auditor-client realignment renders an opportunity for them to recruit new clients in order to broaden/improve their client portfolios. Since the government initiative is intended to strengthen professional services domestically, accounting firms not only can be more selective in terms of audit clients, but also can pursue higher audit quality at the same time. Consistent with Landsman et al. (2009) and Cassell et al. (2012), concerns over audit quality could be one of the primary drivers that motivates accounting firms to realign with their clients. Based on the arguments above, this study develops the third research question.

Research Question 3: Do the reasons for auditor-client realignment and the government initiative to expand and strengthen accounting practices jointly improve audit quality?

3. Data Collection and Research Methodology

3.1 Data Collection

There are six panels in Table 1. Panel A presents the sample selection processes. As shown in the panel, we first obtain 3,507 observations from the *Taiwan Economic Journal (TEJ)* database. These observations range from 2002 to 2014.⁷ This pool of observations includes data with and without disclosing the reasons for auditor-client realignments. Those disclosing the reasons are classified into 14 categories in the *TEJ* database. Some observations are removed from the analyses due to the following reasons. First, we remove 1,609 observations citing accounting firm mergers as the reason for alignments. Second, we delete another 21 and 35 observations from the pool, because the changes were made due to audit fee disputes and other unspecified reasons, respectively. Another 38 observations are also excluded because they are financial firms. For the purpose of our analyses, we collect auditing and financial data required for the study from the *TEJ* and *China Stock Market and Accounting Research (CSMAR)* databases. Since 464 observations do not have auditing and financial data required for the analyses, we delete them from the pool of observations as well. Following these sample selection processes, in total 1,340 firm-year observations are collected to analyze the research questions raised in this study.

Panel B presents the sample distribution by industry. As presented in the panel, manufacturing firms account for over 60% of total observations. As to the observations in

7 Some argue that there were many institutional changes from 2002 to 2014 in addition to the government initiative to expand and strengthen China's accounting practices and that these changes may have substantial effects on the auditing industry. For example, *the Interim Provision on Encouraging Large- and Medium-Sized Audit Firms to Adopt LLP as their Organizational Structure* issued by the MOF during the studied period was aimed to address issues related to the tax burden and potential litigation faced by accounting firms. However, there were only a few lawsuits filed against auditors. Therefore, litigation should not be a major confounding effect on this study. In addition, this interim provision, issued by the MOF, encourages large- and medium-sized audit firms to adopt the Limited Liability Partnership (LLP) as their organizational structures. As a pass-through organization, LLP relax the tax burden on accounting firms. Since our research questions do not relate to the issue of tax burden, this interim provision should not significantly affect the conclusions drawn in this study either.

other industries, the number of observations varies from 11 in communication and culture to 123 in information technology. As shown in Panel C, auditor changes occur quite evenly across the years under analyses, ranging from the lowest of 60 in 2003 to the highest of 213 in 2012. Panel D provides the sample distribution according to the directional changes in auditors by state ownership. As demonstrated in this panel, there is a relatively small number of SOEs and NSOEs switching their auditors from Big-4 to Top 10 Chinese accounting firms prior to the enactment of the initiative. However, such type of switches increases more significantly after the promulgation of the government initiative to expand and strengthen domestic accounting practices. As to the upward switches (i.e., from local Chinese accounting firms to Top 10 ones), when comparing SOEs to NSOEs based on the percentage of switches, it appears that NSOEs may have stronger incentives to follow the government policies than SOEs in order to leave a good impression on the Chinese government and its regulators.

Panel E illustrates the number of observations according to whether the auditor-client realignment reasons having been disclosed. As reported in the panel, 638 realignments are disclosed with reasons provided (47.61% of all observations) while 702 realignments are disclosed without revealing reasons (52.39% of all observations). Among those realignments with reasons disclosed as shown in Panel F, the observations are classified into three groups: client-related ($n = 286$, 42.00%), CPA firm-related ($n = 268$, 39.35%), and government-related ($n = 127$, 18.65%).^{8,9}

8 Some firms cited more than one reason for the auditor-client realignment decisions. Therefore, the number of observations in Panel E ($n = 681$) is higher than the number of observations in Panel E ($n = 638$) of Table 1.

9 As shown in Panel F of Table 1, the number of observations disclosed to be government-related as the reason for auditor switches increase during the post-2007 period from 31 to 96. However, the extent of increase is smaller than client-related reasons and CPA firm-related reasons of auditor realignments. Although this increase is not as large as the other two categories, it indicates that the promulgation of the government initiative has been taken seriously by firms' management. Moreover, according to the *TEJ* and *China Stock Market and Accounting Research (CSMAR)* databases, some companies citing government-related reasons to realign with auditors are SOEs. This revelation shows that the State-owned Assets Supervision and Administration Commission (SASAC) may be involved in the auditor realignment decisions. Since SASAC is a government agency, companies being supervised by the agency (i.e., SOEs) may not have the same level of incentives as NSOEs to disclose the reasons regarding their decisions to realign with auditors. Hence, the possible involvement of SASAC may reduce the number of companies in the government-related category to disclose their reasons to realign with auditors.

Table 1 Sample Description

Panel A: Sample Selection Processes		
Process	Number of Observations	
TEJ auditor change observations (firm-years) between 2002 and 2014		3,507
Less: Change due to audit firm merger	1,609	
Less: Change due to fee disputes	21	
Less: Change due to other reasons	35	
Less: Financial firms	38	
Less: Auditing and financial data missing	464	-2,167
Total number of observations		<u>1,340</u>
Panel B: Sample Distribution by Industry		
Industry	Number of Observations	%
Agriculture, Forestry, and Fishing	18	1.34
Mining	34	2.54
Manufacturing	814	60.75
Electric, Gas, and Sanitary Services	50	3.73
Construction	29	2.16
Transportation and Storage	55	4.10
Information Technology	123	9.18
Wholesale and Retail Trades	70	5.22
Real Estate	71	5.30
Public Administration	33	2.46
Communication and Culture	11	0.82
Miscellaneous	<u>32</u>	<u>2.39</u>
Total number of observations	<u>1,340</u>	<u>100.00</u>

Panel C: Samples Distribution by Year		
Year	Number of Observations	%
2002	65	4.85
2003	60	4.48
2004	79	5.90
2005	85	6.34
2006	85	6.34
2007	84	6.27
2008	95	7.09
2009	96	7.16
2010	75	5.60
2011	120	8.96
2012	213	15.9
2013	163	12.16
2014	<u>120</u>	<u>8.96</u>
Total number of observations	<u>1,340</u>	<u>100.00</u>

Notes: We attempt to understand the reasons behind the significant increase in auditor-client realignments in 2012. According to public press, there were 12 accounting firms sanctioned by Chinese regulators. It is possible that these sanctions help to explain the increase in the number of auditor switches observed in 2012.

	SOEs			NSOEs		
	Pre-2007	Post-2007	Total	Pre-2007	Post-2007	Total
Big-4 to Top 10	16	22	38	4	8	12
Local to Top 10	<u>54</u>	<u>157</u>	<u>211</u>	<u>11</u>	<u>113</u>	<u>124</u>
Total	<u>70</u>	<u>179</u>	<u>249</u>	<u>15</u>	<u>121</u>	<u>136</u>

Panel E: Sample Distribution Based on Whether or Not to Disclose the Reasons for Realignment		
Disclose/Not to Disclose	Number of Observations	%
Disclosed	638	47.61
Decision Not to Disclose	<u>702</u>	<u>52.39</u>
Total number of observations	<u>1,340</u>	<u>100.00</u>

Panel F: Sample Distribution Based on Reasons behind Auditor-Client Realignment Decisions				
Reason	Pre-2007	Post-2007	Full Sample	%
Client-Related	41	245	286	42.00
CPA Firm-Related	43	225	268	39.35
Government-Related	<u>31</u>	<u>96</u>	<u>127</u>	<u>18.65</u>
Total number of observations	<u>115</u>	<u>566</u>	<u>681</u>	<u>100.00</u>

Note: The 681 observations presented in this panel are greater than the 638 observations in Panel E because some firms disclose multiple reasons for the realignments.

3.2 Research Methodology

3.2.1 Reasons to Disclose Auditor-Client Realignment Decisions

This study first explores why certain firms decide to disclose their reasons for auditor-client realignment, while others choose not to do so. For this analysis, the study postulates that state ownership and the issuance of the government initiative would influence such a disclosure decision. According to Research Question 1, the variables of interest are *STATE*, *POST_2007*, and *STATE* × *POST_2007*. To examine this question, we follow Sankaraguruswamy and Whisenant (2004) and develop the following probit regression model:

$$\begin{aligned} REASON_DISCLOSURE = & \beta_0 + \beta_1 STATE + \beta_2 POST_2007 + \beta_3 STATE \times POST_2007 \\ & + \beta_4 LN TA + \beta_5 D_LN TA + \beta_6 CFOTA + \beta_7 NEWFINANCING \\ & + \beta_8 TIE + \beta_9 DA + \beta_{10} LEGALFORMLLP \\ & + \beta_{11} LEGALFORMLLC + \beta_{12} TOP10 + \beta_{13} LOCAL \\ & + \beta_{14} CMI + \beta_{15} GDI + \beta_{16} LEI + \beta_{17} ISSUEB + \beta_{18} ISSUEH \\ & + EXCHANGE + INDUSTRY + \varepsilon. \end{aligned} \quad (1)$$

As indicated in Model (1), the dependent variable, *REASON_DISCLOSURE*, is an indicator variable. This variable is coded “1” if the firm discloses a reason for the auditor change and “0” otherwise. As shown in Model (1), the tested variables are *STATE*, *POST_2007*, and *STATE* × *POST_2007*. Like the dependent variable, *STATE* is also an indicator variable. It is coded “1” for firms controlled and operated by the state and “0” otherwise. Because we are interested in exploring the effects of the initiative to expand and strengthen accounting firm practices on the disclosure over the reasons for auditor-client realignment and because this initiative was launched in 2007, *POST_2007* is treated as an indicator variable in Equation (1). This variable is coded “1” if observations are obtained from 2007 to 2014 and “0” if observations are obtained from 2002 to 2006. For the purpose of analysis, *STATE* × *POST_2007* represents the interactive effect of state ownership and the initiative on the decisions to disclose the reasons for realignments.

As for the control variables, we follow Sankaraguruswamy and Whisenant (2004). Moreover, we include several control variables in the regression models according to the findings by Huang et al. (2015) to explicitly take specific characteristics of Chinese-listed firms into account. As shown in Equation (1), these control variables are *LEGALFORMLLP*, *LEGALFORMLLC*, *TOP10*, *LOCAL*, *CMI*, *GDI*, *LEI*, *ISSUEB*,

ISSUEH, and *EXCHANGE*. The definitions of these control variables (and others shown in the following equations) are in Appendix.

Appendix: Variable Definitions

Variable	Definition
<i>DEPENDENT VARIABLES</i>	
<i>REASON_DISCLOSURE</i>	= Coded 1 if a firm discloses the reason for its auditor change and 0 otherwise.
<i>LNAF</i>	= Natural logarithm of audit fees.
<i>MAO</i>	= Coded 1 if a firm receives a modified audit opinion and 0 otherwise.
<i>D_MAO</i>	= Coded -1 if a firm receives a modified opinion from the predecessor auditor, but a standard unmodified opinion from the successor auditor. Coded 0 if a firm receives a standard unmodified or modified opinion from both predecessor and successor auditors. Coded 1 if a firm receives a standard unmodified opinion from the predecessor auditor, but a modified opinion from the successor auditor.
<i>INDEPENDENT VARIABLES</i>	
<i>REASON_CLIENT</i>	= Coded 1 if the auditor change is driven by the client and 0 otherwise.
<i>REASON_CPA</i>	= Coded 1 if the auditor change is driven by the accounting firm and 0 otherwise.
<i>REASON_GOV</i>	= Coded 1 if the auditor change is driven by the government and 0 otherwise.
<i>STATE</i>	= Coded 1 if the observation is obtained from a state-owned enterprise and 0 otherwise.
<i>POST_2007</i>	= Coded 1 if the observation is obtained on or after 2007 and 0 otherwise.
<i>CONTROL VARIABLES</i>	
<i>LNTA</i>	= The natural logarithm of total assets.
<i>CFOTA</i>	= The amount of cash flow from operations divided by the amount of total assets.
<i>NEWFINANCING</i>	= The sum of new debt and equity divided by the amount of total assets.
<i>TIE</i>	= The amount of operating income divided by the amount of interest expenses (times interest earned).
<i>DA</i>	= The amount of total liabilities divided by the amount of total assets.
<i>RECTA</i>	= The amount of account receivables divided by the amount of total assets.

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Variable	Definition
<i>CONTROL VARIABLES</i>	
<i>INVTA</i>	= The amount of ending inventories divided by the amount of total assets.
<i>QUICK</i>	= The sum of cash, short-term investments, and account receivables divided by current liabilities (quick ratio).
<i>LIQ</i>	= The amount of current assets divided by the amount of current liabilities (current ratio).
<i>ROA</i>	= The amount of net income divided by the amount of beginning total assets (return on assets).
<i>TURNOVER</i>	= The amount of sales revenue divided by the amount of total assets.
<i>LOSS</i>	= Coded 1 if a firm reports a net loss and 0 otherwise.
<i>ADJRETURN</i>	= The firm's market-adjusted annual return.
<i>BETA</i>	= The firm's systematic risk.
<i>STDRET</i>	= The standard deviation of residuals from the market model, estimated by daily returns during the year.
<i>EM</i>	= Coded 1 if a firm reports ROA between 0 and 1% (small profits), ROA lower than the median value of other loss-making firms' ROA (downward earnings management), or ROE between 6-7% (CSRC's rights offering requirement), as in Chen, Sun, and Wu (2010).
<i>CIFIRM</i>	= The firm's logged assets divided by the sum of the audit firm's clients' logged assets (client importance).
<i>CICPA</i>	= The firm's logged assets divided by the sum of the audit partners' clients' logged assets (client importance).
<i>EXPFIRM</i>	= Coded 1 if the audit firm has more than 10% market share measured by total audit fees and 0 otherwise.
<i>EXPCPA</i>	= Coded 1 if any of two audit partners has more than 10% market share of total audit fees in the industry and 0 otherwise.
<i>SIZEFIRM</i>	= The sum of the audit firm's clients' logged assets.
<i>SIZECPA</i>	= The sum of the audit partners' clients' logged assets.
<i>LMAO</i>	= Coded 1 if a firm receives a modified audit opinion in the prior year and 0 otherwise.
<i>LEGALFORMLLP</i>	= Coded 1 if the audit firm is formed as a limited liability partnership and 0 otherwise.
<i>LEGALFORMLLC</i>	= Coded 1 if the audit firm is formed as a limited liability corporation and 0 otherwise.
<i>TOP10</i>	= Coded 1 if the auditor is one of China's local Top 10 audit firms, measured by the market share of total audit fees and 0 otherwise.

Variable	Definition
<i>CONTROL VARIABLES</i>	
<i>LOCAL</i>	= Coded 1 if a firm engages an audit firm that is neither an international Big-4 nor a local Top 10 audit firm and 0 otherwise.
<i>CMI</i>	= The credit market index, derived by Wang et al. (2008).
<i>GDI</i>	= The government decentralization index, derived by Wang et al. (2008).
<i>LEI</i>	= The legal environment index, derived by Wang et al. (2008).
<i>ISSUEB</i>	= Coded 1 if the client issues B shares and 0 otherwise.
<i>ISSUEH</i>	= Coded 1 if the client issues H shares and 0 otherwise.
<i>EXCHANGE</i>	= Coded 1 if the firm is listed in the Shanghai Stock Exchange and 0 otherwise.

3.2.2 Effect on Audit Fees

To analyze the joint effect of the reasons for auditor-client realignment and of the government initiative to expand and strengthen Chinese accounting firm practices on audit fees, we follow Huang et al. (2015) and develop the following regression model:

$$\begin{aligned}
 LNAF = & \beta_0 + \beta_1 REASON_CLIENT + \beta_2 REASON_CPA + \beta_3 REASON_GOV \\
 & + \beta_4 POST_2007 + \beta_5 REASON_CLIENT \times POST_2007 \\
 & + \beta_6 REASON_CPA \times POST_2007 + \beta_7 REASON_GOV \times POST_2007 \\
 & + \beta_8 LNTA + \beta_9 RECTA + \beta_{10} INVTA + \beta_{11} LIQ + \beta_{12} DA + \beta_{13} ROA \\
 & + \beta_{14} ADJRETURN + \beta_{15} STDRET + \beta_{16} CIFIRM + \beta_{17} CICPA + \beta_{18} EXPFIRM \\
 & + \beta_{19} EXPCPA + \beta_{20} LEGALFORMLLP + \beta_{21} LEGALFORMLLC + \beta_{22} TOP10 \\
 & + \beta_{23} LOCAL + \beta_{24} MAO + \beta_{25} STATE + \beta_{26} CMI + \beta_{27} GDI + \beta_{28} LEI \\
 & + \beta_{29} ISSUEB + \beta_{30} ISSUEH + EXCHANGE + INDUSTRY + \varepsilon.
 \end{aligned} \tag{2}$$

As demonstrated in Model (2) above, the dependent variable is *LNAF*. The independent variable, auditor-client realignment reasons, is divided into three categories. *REASON_CLIENT* is coded “1” if the auditor changes are driven by audit clients and “0” otherwise. Likewise, *REASON_CPA* is coded “1” if the auditor changes are driven by the predecessor auditors and “0” otherwise. Similarly, *REASON_GOV* is coded “1” if the auditor changes are driven by the government and “0” otherwise. For the purpose of the analyses, we include three intersection variables, *REASON_CLIENT* × *POST_2007*, *REASON_CPA* × *POST_2007*, and *REASON_GOV* × *POST_2007*, to investigate the joint effect of the reasons for auditor-client realignment and the initiative issued by CICPA with

support from China's MOF. We also control for variables that are identified in prior audit fee studies, such as Francis and Wang (2005) and Wang et al. (2008).

3.2.3 Effects on Audit Quality

To analyze the effect of the reasons for auditor-client realignment and of the government initiative on audit quality, we use the modified audit opinions as a proxy for the dependent variable. Below, we develop the probit regression model according to Huang et al. (2015):

$$\begin{aligned}
 MAO = & \beta_0 + \beta_1 REASON_CLIENT + \beta_2 REASON_CPA + \beta_3 REASON_GOV \\
 & + \beta_4 POST_2007 + \beta_5 REASON_CLIENT \times POST_2007 \\
 & + \beta_6 REASON_CPA \times POST_2007 + \beta_7 REASON_GOV \times POST_2007 \\
 & + \beta_8 LNTA + \beta_9 QUICK + \beta_{10} RECTA + \beta_{11} INVTA + \beta_{12} DA + \beta_{13} TURNOVER \\
 & + \beta_{14} ROA + \beta_{15} LOSS + \beta_{16} ADJRETURN + \beta_{17} BETA + \beta_{18} STDRET + \beta_{19} EM \\
 & + \beta_{20} CIFIRM + \beta_{21} CICPA + \beta_{22} EXPFIRM + \beta_{23} EXPCPA + \beta_{24} SIZEFIRM \\
 & + \beta_{25} SIZECPA + \beta_{26} LMAO + \beta_{27} LEGALFORMLLP + \beta_{28} LEGALFORMLLC \\
 & + \beta_{29} TOP10 + \beta_{30} LOCAL + \beta_{31} STATE + \beta_{32} CMI + \beta_{33} GDI + \beta_{34} LEI \\
 & + \beta_{35} ISSUEB + \beta_{36} ISSUEH + EXCHANGE + INDUSTRY + \varepsilon.
 \end{aligned} \tag{3}$$

As illustrated in Model (3) above, the dependent variable of the regression model is modified audit opinion (*MAO*). This variable is code "1" if a firm receives a modified audit opinion and "0" otherwise.¹⁰ For this analysis, variables of our research interest are *REASON_CLIENT*, *REASON_CPA*, *REASON_GOV*, *POST_2007*, *REASON_CLIENT* × *POST_2007*, *REASON_CPA* × *POST_2007*, and *REASON_GOV* × *POST_2007*. As shown in Model (3), we include all the control variables identified in Huang et al. (2015).

4. Empirical Results

4.1 Descriptive Statistics and Univariate Analysis

Table 2 reports the descriptive statistics of the study. As shown in the table, the mean of *REASON_DISCLOSURE* is 0.476 (47.6%), indicating that less than half the firms in the pool of observations chose to disclose their reasons for auditor-client realignment. As for the means of *STATE* and *POST_2007*, these values are 0.641 (64.1%) and 0.721 (72.1%),

¹⁰ In this study, auditors issuing any opinion other than "standard unmodified" are treated as *MAO*.

respectively. These statistics show that governmental units in China control approximately two-thirds of the firms included in the pool of observations. There are also more observations during the post-2007 time period, from 2007 to 2014, and fewer during the pre-2007 time period, from 2002 to 2006.

To analyze the effects of reasons for auditor-client realignment on audit fees and audit quality, we obtain data indicating the realignment reasons from the *TEJ* database. This data source classifies reasons for realignment into 14 categories, as pointed out in early discussions. For the purpose of our analyses, we reclassify these reasons into three categories. The client-related category includes location issues, corporate restructuring, controlling shareholders' requirements, long tenure, and corporate strategy as the reasons for auditor-client realignments. The CPA-related category includes changing auditor(s) after the accounting firm merged with another firm, personnel assignment issues with the predecessor auditor, resignation of the predecessor auditor, sanctions on the predecessor auditor, and other reasons related to the predecessor auditor for auditor-client realignments. We also put those firms listing fulfilling governmental requirement(s) as the reasons for their auditor switches into the government-related category. Additionally, some firms in the database listed "other reasons" as their rationale for auditor-client realignments. Since the exact reasons behind their switches are unknown, we remove these observations from our analyses.

Table 2 Descriptive Statistics

Variable	N	Mean	STD	Q1	Median	Q3
<i>REASON_DISCLOSURE</i>	1,340	0.476	0.500	0.000	0.000	1.000
<i>LNAF</i>	1,340	13.222	0.663	12.766	13.122	13.528
<i>MAO</i>	1,340	0.106	0.308	0.000	0.000	0.000
<i>REASON_CLIENT</i>	1,340	0.213	0.410	0.000	0.000	0.000
<i>REASON_CPA</i>	1,340	0.200	0.400	0.000	0.000	0.000
<i>REASON_GOV</i>	1,340	0.095	0.293	0.000	0.000	0.000
<i>STATE</i>	1,340	0.641	0.480	0.000	1.000	1.000
<i>POST_2007</i>	1,340	0.721	0.449	0.000	1.000	1.000
<i>LNTA</i>	1,340	21.554	1.249	20.709	21.424	22.278
<i>D_LNTA</i>	1,340	0.202	0.532	-0.011	0.086	0.227
<i>CFOTA</i>	1,340	0.037	0.081	-0.004	0.039	0.080
<i>NEWFINANCING</i>	1,340	0.239	0.205	0.057	0.212	0.366
<i>TIE</i>	1,340	2.637	44.237	-1.857	1.912	6.094
<i>DA</i>	1,340	0.522	0.269	0.336	0.510	0.668

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Variable	N	Mean	STD	Q1	Median	Q3
<i>RECTA</i>	1,340	0.120	0.109	0.031	0.090	0.181
<i>INVTA</i>	1,340	0.163	0.157	0.060	0.124	0.206
<i>QUICK</i>	1,340	1.454	1.959	0.534	0.856	1.475
<i>LIQ</i>	1,340	1.910	2.109	0.877	1.301	2.059
<i>ROA</i>	1,340	0.006	0.231	0.007	0.026	0.054
<i>TURNOVER</i>	1,340	0.640	0.477	0.325	0.530	0.817
<i>LOSS</i>	1,340	0.157	0.364	0.000	0.000	0.000
<i>ADJRETURN</i>	1,340	0.086	0.560	-0.211	-0.032	0.231
<i>BETA</i>	1,340	1.081	0.262	0.921	1.095	1.250
<i>STDRET</i>	1,340	0.024	0.008	0.019	0.023	0.028
<i>EM</i>	1,340	0.254	0.436	0.000	0.000	1.000
<i>CIFIRM</i>	1,340	0.030	0.038	0.007	0.018	0.037
<i>CICPA</i>	1,340	0.223	0.134	0.123	0.189	0.323
<i>EXPFIRM</i>	1,340	0.124	0.330	0.000	0.000	0.000
<i>EXPCPA</i>	1,340	0.010	0.098	0.000	0.000	0.000
<i>SIZEFIRM</i>	1,340	2266.710	2465.985	563.343	1179.770	2979.161
<i>SIZECPA</i>	1,340	138.766	90.151	70.807	116.889	173.654
<i>LMAO</i>	1,340	0.136	0.343	0.000	0.000	0.000
<i>LEGALFORMLLP</i>	1,340	0.334	0.472	0.000	0.000	1.000
<i>LEGALFORMLLC</i>	1,340	0.619	0.486	0.000	1.000	1.000
<i>TOP10</i>	1,340	0.518	0.500	0.000	1.000	1.000
<i>LOCAL</i>	1,340	0.423	0.494	0.000	0.000	1.000
<i>CMI</i>	1,340	5.498	1.995	3.850	5.880	7.435
<i>GDI</i>	1,340	6.737	1.265	6.050	7.130	7.890
<i>LEI</i>	1,340	6.043	1.391	5.050	6.240	7.290
<i>ISSUEB</i>	1,340	0.062	0.241	0.000	0.000	0.000
<i>ISSUEH</i>	1,340	0.019	0.138	0.000	0.000	0.000

Note: *REASON_DISCLOSURE* is coded 1 if a firm discloses the reason for its auditor change and 0 otherwise. *LNAF* is natural logarithm of audit fees. *MAO* is coded 1 if a firm receives a modified audit opinion and 0 otherwise. *D_MAO* is coded -1 if a firm receives a modified opinion from the predecessor auditor, but a standard unmodified opinion from the successor auditor, coded 0 if a firm receives a standard unmodified or modified opinion from both predecessor and successor auditors, and coded 1 if a firm receives a standard unmodified opinion from the predecessor auditor, but a modified opinion from the successor auditor. *REASON_CLIENT* is coded 1 if the auditor change is driven by the client and 0 otherwise. *REASON_CPA* is coded 1 if the auditor change is driven by the accounting firm and 0 otherwise. *REASON_GOV* is coded 1 if the auditor change is driven by the government and 0 otherwise. *STATE* is coded 1 if the observation is obtained from a state-owned enterprise and 0 otherwise. *POST_2007* is coded 1 if the observation is obtained on or after 2007 and 0

otherwise. *LNTA* is the natural logarithm of total assets. *CFOTA* is the amount of cash flow from operations divided by the amount of total assets. *NEWFINANCING* is the sum of new debt and equity divided by the amount of total assets. *TIE* is the amount of operating income divided by the amount of interest expenses (times interest earned). *DA* is the amount of total liabilities divided by the amount of total assets. *RECTA* is the amount of account receivables divided by the amount of total assets. *INVTA* is the amount of ending inventories divided by the amount of total assets. *QUICK* is the sum of cash, short-term investments, and account receivables divided by current liabilities (quick ratio). *LIQ* is the amount of current assets divided by the amount of current liabilities (current ratio). *ROA* is the amount of net income divided by the amount of beginning total assets (return on assets). *TURNOVER* is the amount of sales revenue divided by the amount of total assets. *LOSS* is coded 1 if a firm reports a net loss and 0 otherwise. *ADJRETURN* is the firm's market-adjusted annual return. *BETA* is the firm's systematic risk. *STDRET* is the standard deviation of residuals from the market model, estimated by daily returns during the year. *EM* is coded 1 if a firm reports ROA between 0 and 1% (small profits), ROA lower than the median value of other loss-making firms' ROA (downward earnings management), or ROE between 6-7% (CSRC's rights offering requirement), as in Chen et al. (2010). *CIFIRM* is the firm's logged assets divided by the sum of the audit firm's clients' logged assets (client importance). *CICPA* is the firm's logged assets divided by the sum of the audit partners' clients' logged assets (client importance). *EXPFIRM* is coded 1 if the audit firm has more than 10% market share measured by total audit fees and 0 otherwise. *EXPCPA* is coded 1 if any of two audit partners has more than 10% market share of total audit fees in the industry and 0 otherwise. *SIZEFIRM* is the sum of the audit firm's clients' logged assets. *SIZECPA* is the sum of the audit partners' clients' logged assets. *LMAO* is coded 1 if a firm receives a modified audit opinion in the prior year and 0 otherwise. *LEGALFORMLLP* is coded 1 if the audit firm is formed as a limited liability partnership and 0 otherwise. *LEGALFORMLLC* is coded 1 if the audit firm is formed as a limited liability corporation and 0 otherwise. *TOP10* is coded 1 if the auditor is one of China's local Top 10 audit firms, measured by the market share of total audit fees and 0 otherwise. *LOCAL* is coded 1 if a firm engages an audit firm that is neither an international Big-4 nor a local Top 10 audit firm and 0 otherwise. *CMi* is the credit market index, derived by Wang et al. (2008). *GDI* is the government decentralization index, derived by Wang et al. (2008). *LEI* is legal environment index, derived by Wang et al. (2008). *ISSUEB* is coded 1 if the client issues B shares and 0 otherwise. *ISSUEH* is coded 1 if the client issues H shares and 0 otherwise. *EXCHANGE* is coded 1 if the firm is listed in the Shanghai Stock Exchange and 0 otherwise. The variable labelled with "D_" reflects that annual report data are calculated between years.

The mean values for *REASON_CLIENT*, *REASON_CPA*, and *REASON_GOV* are 0.213 (21.3%), 0.200 (20.0%), and 0.095 (9.5%), respectively. Furthermore, we present the statistics for a modified audit opinion (*MAO*) as well. Since *MAO* is a binary variable, the study follows Huang et al. (2015) and codes it as "1" if a firm received a modified audit opinion in the previous year and "0" otherwise. The mean value of *MAO* is 0.106, indicating that 10.6% of our sample firm-year observations receive non-standard audit opinions from the auditors.

For the purpose of our examination, we conduct a difference-in-differences analysis. As shown in Table 3, all observations are divided into the pre-2007 and post-2007 time periods. We also group observations according to state ownership as SOEs and NSOEs. As illustrated in the table, the difference in SOEs disclosing their realignment reasons before and after 2007 is significant (difference = 18.9%, p -value < 0.001). Moreover, the difference in NSOEs disclosing their realignment reasons before and after 2007 is significant as well (difference = 43.5%, p -value < 0.001). Comparing this difference between SOEs and NSOEs during the pre-2007 time period, we find that the between-group difference in disclosing realignment reasons is significant (difference = 15.15%, p -value = 0.001). This difference is also significant during the post-2007 time period (difference = -9.45%, p -value = 0.004). Taking these results together, it is evident that companies included in our analyses tend to support the government initiative to expand and strengthen accounting firm practices, regardless of state ownership. Moreover, NSOEs appear to be more aggressive regarding supporting this initiative, which is consistent with the statistics in Panel D of Table 1.

Table 3 Difference-In-Differences Analysis on Reasons for Disclosing Auditor-Client Realignment

		POST_2007			
		Pre-2007	Post-2007	Difference	p -value
STATE	SOEs	32.69%	51.59%	18.90%	<0.001
	NSOEs	<u>17.54%</u>	<u>61.04%</u>	<u>43.50%</u>	<0.001
	Difference	15.15%	-9.45%	-24.60%	<0.001
p -value		0.001	0.004		

With these findings in mind, we then conduct a univariate analysis, whereby we treat the managerial decision to disclose the reasons for realignment as the dependent variable in order to further analyze the joint effect of state ownership (*STATE*) and of the initiative (*POST_2007*) on the managerial decision to disclose the realignment reasons. Referring to Table 4, the preliminary evidence obtained from these analyses shows that the decision to disclose the reason for auditor-client realignment may be driven by state ownership (p -value = 0.088). The result is consistent with the findings reported from the difference-in-differences analysis shown in Table 3. However, the decision to make the disclosure of the realignment reasons could be influenced by the government initiative (p -value < 0.001). Similar results presented in Table 3 are in line with the findings demonstrated in Table 4. In addition, we investigate the relationship between *MAO* and *REASON_DISCLOSURE*. The results reveal that firms receiving *MAO* are less likely to disclose their reasons for realigning with auditors (p -value = 0.003).

Table 4 Univariate Analysis

Variable	Reason_Disclosure		Reason_Disclosure		Reason_Disclosure		Reason_Disclosure	
	STATE		Post_2007		MAO		MAO	
Grouped by	Yes	No	Yes	No	Yes	No	Yes	No
Disclose	394 (45.87%)	244 (50.73%)	533 (55.18%)	105 (28.07%)	51 (7.99%)	91 (12.96%)		
Not disclose	465 (54.13%)	237 (49.27%)	433 (44.82%)	269 (71.93%)	587 (92.01%)	611 (87.03%)		
# of observations	<u>859</u>	<u>481</u>	<u>966</u>	<u>374</u>	<u>638</u>	<u>702</u>		
Total								
T-Test								
Mean	45.87%	50.73%	52.50%	28.07%	7.99%	12.96%		
Difference	-4.86%		24.43%		-4.97%			
p-value	0.088		<0.001		0.003			

4.2 Regression Analysis

4.2.1 Reasons to Disclose Auditor-Client Realignment Decisions

As stated in Research Question 1, we investigate whether state ownership and the government initiative influence managerial decisions to disclose the reasons for auditor-client realignment. As one can find in Model (1), the dependent variable is *REASON_DISCLOSURE*. Since the dependent variable is binary, “to disclose” versus “not to disclose,” state ownership (*STATE*) and the government initiative (*POST_2007*) are treated as independent variables. Thus, we are able to examine the joint effect of these two independent variables on decisions to disclose the reasons for realignment.

Table 5 Effects of State Ownership and of the Governmental Initiative on Reasons for Disclosing Auditor-Client Realignment

Variable	Coefficient	<i>p</i> -value
<i>Intercept</i>	-2.082	0.016
<i>STATE</i>	0.430	0.009
<i>POST_2007</i>	1.001	<0.001
<i>STATE</i> × <i>POST_2007</i>	-0.645	0.001
<i>LNTA</i>	0.051	0.175
<i>D_LNTA</i>	0.124	0.089
<i>CFOTA</i>	-0.635	0.177
<i>NEWFINANCING</i>	0.162	0.412
<i>TIE</i>	-0.002	0.050
<i>DA</i>	-0.382	0.013
<i>LEGALFORMLLP</i>	0.308	0.128
<i>LEGALFORMLLC</i>	-0.029	0.875
<i>TOP10</i>	0.067	0.687
<i>LOCAL</i>	0.220	0.198
<i>CMI</i>	0.025	0.285
<i>GDI</i>	-0.026	0.519
<i>LEI</i>	0.038	0.198
<i>ISSUEB</i>	-0.265	0.089
<i>ISSUEH</i>	-0.262	0.329
<i>EXCHANGE</i>	CONTROLLED	
<i>INDUSTRY</i>	CONTROLLED	
Pseudo <i>R</i> ²	0.1488	
<i>p</i> -value	<0.001	
<i>N</i>	1,340	

Note: *REASON_DISCLOSURE* is coded 1 if a firm discloses the reason for its auditor change and 0 otherwise. *STATE* is coded 1 if the observation is obtained from a state-owned enterprise and 0 otherwise. *POST_2007* is coded 1 if the observation is obtained on or after 2007 and 0 otherwise. *LNTA* is the natural logarithm of total assets. *CFOTA* is the amount of cash flow from operations divided by the amount of total assets. *NEWFINANCING* is the sum of new debt and equity divided by the amount of total assets. *TIE* is the amount of operating income divided by the amount of interest expenses (times interest earned). *DA* is the amount of total liabilities divided by the amount of total assets. *LEGALFORMLLP* is coded 1 if the audit firm is formed as a limited liability partnership and 0 otherwise. *LEGALFORMLLC* is coded 1 if the audit firm is formed as a limited liability corporation and 0 otherwise. *TOP10* is coded 1 if the auditor is one of China's local Top 10 audit firms, measured by the market share of total audit fees and 0 otherwise. *LOCAL* is coded 1 if a firm engages an audit firm that is neither an international Big-4 nor a local Top 10 audit firm and 0 otherwise. *CMI* is the credit market index, derived by Wang et al. (2008). *GDI* is the government decentralization index, derived by Wang et al. (2008). *LEI* is legal environment index, derived by Wang et al. (2008). *ISSUEB* is coded 1 if the client issues B shares and 0 otherwise. *ISSUEH* is coded 1 if the client issues H shares and 0 otherwise. *EXCHANGE* is coded 1 if the firm is listed in the Shanghai Stock Exchange and 0 otherwise. The variable labelled with "D_" reflects that annual report data are calculated between years.

As shown in Table 5, the model examined for this inquiry is significant at the 1% level with a pseudo R^2 of 0.1488 (p -value < 0.001). Moreover, the coefficient of *STATE* is positive and significant at the 1% level (coefficient = 0.430, p -value = 0.009). Overall, these statistics suggest that SOEs are more likely to disclose the reasons for auditor-client realignment than NSOEs. Furthermore, *POST_2007* significantly and positively affects *REASON_DISCLOSURE* at the 1% level (coefficient = 1.001, p -value < 0.001). This statistic demonstrates that firms are more likely to disclose the reasons for auditor-client realignment after 2007.

Comparing the results presented in Table 5 to the findings shown in Panel D of Table 1 and Table 3, we find it consistent that in terms of making disclosure of the realignment reasons, the percentage of SOEs is higher than that of NSOEs, which supports the notion that there is a significantly positive coefficient of *STATE*, as illustrated in Table 5. Since the percentage increase in firms disclosing realignment reasons from the pre-2007 to post-2007 periods among NSOEs is higher than that of SOEs, we also find that the interaction term, $STATE \times POST_2007$, is significantly negative (coefficient = -0.645, $p = 0.001$). Taking these results together, we conclude that state ownership and the government initiative jointly affect firm management decisions to disclose realignment reasons.

4.2.2 Effects on Audit Fees

As outlined in Research Question 2, we examine whether the reasons for auditor-client realignment and the government initiative jointly affect audit fees. Therefore, the dependent variable in Model (2) is the amount of audit fees paid by clients to auditors. Following the extant literature (e.g., Huang et al., 2015), we measure audit fees by taking their natural logarithm (*LNAF*). This transformation allows us to convert the dependent variable from a discontinuous one into a continuous one. To examine the impact of the reasons for auditor-client realignment on audit fees, we follow the above analysis by categorizing realignment reasons into client-related (*REASON_CLIENT*), CPA firm-related (*REASON_CPA*), and government-related (*REASON_GOV*). We also include the initiative (*POST_2007*) as an independent variable.

Table 6 Effects of Reasons for Auditor-Client Realignment and of the Governmental Initiative on Audit Fees

Variable	Coefficient	<i>p</i> -value
<i>Intercept</i>	7.053	<0.001
<i>REASON_CLIENT</i>	0.184	0.018
<i>REASON_CPA</i>	0.085	0.268
<i>REASON_GOV</i>	-0.081	0.367
<i>POST_2007</i>	0.119	0.005
<i>REASON_CLIENT</i> × <i>POST_2007</i>	-0.163	0.058
<i>REASON_CPA</i> × <i>POST_2007</i>	-0.067	0.434
<i>REASON_GOV</i> × <i>POST_2007</i>	0.096	0.352
<i>LNTA</i>	0.293	<0.001
<i>RECTA</i>	0.091	0.500
<i>INVTA</i>	-0.051	0.609
<i>LIQ</i>	-0.027	0.001
<i>DA</i>	0.001	0.992
<i>ROA</i>	-0.162	0.010
<i>ADJRETURN</i>	-0.017	0.490
<i>STDRET</i>	2.959	0.126
<i>CIFIRM</i>	-0.188	0.638
<i>CICPA</i>	-0.043	0.673
<i>EXPFIRM</i>	0.018	0.686
<i>EXPCPA</i>	0.298	0.036
<i>LEGALFORMLLP</i>	0.142	0.045
<i>LEGALFORMLLC</i>	0.040	0.528
<i>TOP10</i>	-0.555	<0.001

Variable	Coefficient	p-value
<i>LOCAL</i>	-0.632	<0.001
<i>MAO</i>	0.061	0.225
<i>STATE</i>	-0.120	<0.001
<i>CMI</i>	-0.009	0.261
<i>GDI</i>	0.019	0.188
<i>LEI</i>	0.031	0.003
<i>ISSUEB</i>	0.281	<0.001
<i>ISSUEH</i>	0.476	<0.001
<i>EXCHANGE</i>	<i>CONTROLLED</i>	
<i>INDUSTRY</i>	<i>CONTROLLED</i>	
Adjusted <i>R</i> ²	0.5218	
p-value	<0.001	
<i>N</i>	1,340	

Note: *LNAF* is natural logarithm of audit fees. *REASON_CLIENT* is coded 1 if the auditor change is driven by the client and 0 otherwise. *REASON_CPA* is coded 1 if the auditor change is driven by the accounting firm and 0 otherwise. *REASON_GOV* is coded 1 if the auditor change is driven by the government and 0 otherwise. *POST_2007* is coded 1 if the observation is obtained on or after 2007 and 0 otherwise. *LNTA* is the natural logarithm of total assets. *RECTA* is the amount of account receivables divided by the amount of total assets. *INVTA* is the amount of ending inventories divided by the amount of total assets. *LIQ* is the amount of current assets divided by the amount of current liabilities (current ratio). *DA* is the amount of total liabilities divided by the amount of total assets. *ROA* is the amount of net income divided by the amount of beginning total assets (return on assets). *ADJRETURN* is the firm's market-adjusted annual return. *STDRET* is the standard deviation of residuals from the market model, estimated by daily returns during the year. *CIFIRM* is the firm's logged assets divided by the sum of the audit firm's clients' logged assets (client importance). *CICPA* is the firm's logged assets divided by the sum of the audit partners' clients' logged assets (client importance). *EXPFIRM* is coded 1 if the audit firm has more than 10% market share measured by total audit fees and 0 otherwise. *EXPCPA* is coded 1 if any of two audit partners has more than 10% market share of total audit fees in the industry and 0 otherwise. *LEGALFORMLLP* is coded 1 if the audit firm is formed as a limited liability partnership and 0 otherwise. *LEGALFORMLLC* is coded 1 if the audit firm is formed as a limited liability corporation and 0 otherwise. *TOP10* is coded 1 if the auditor is one of China's local Top 10 audit firms, measured by the market share of total audit fees and 0 otherwise. *LOCAL* is coded 1 if a firm engages an audit firm that is neither an international Big-4 nor a local Top 10 audit firm and 0 otherwise. *MAO* is coded 1 if a firm receives a modified audit opinion and 0 otherwise. *STATE* is coded 1 if the observation is obtained from a state-owned enterprise and 0 otherwise. *CMI* is the credit market index, derived by Wang et al. (2008). *GDI* is the government decentralization index, derived by Wang et al. (2008). *LEI* is legal environment index, derived by Wang et al. (2008). *ISSUEB* is coded 1 if the client issues B shares and 0 otherwise. *ISSUEH* is coded 1 if the client issues H shares and 0 otherwise. *EXCHANGE* is coded 1 if the firm is listed in the Shanghai Stock Exchange and 0 otherwise.

As reported in Table 6, the model employed to investigate this research question is significant, with an adjusted R^2 of 0.5218 (p -value < 0.001). This analysis finds that *POST_2007* positively and significantly affects the amount of audit fees paid after the issuance of the government initiative to expand and strengthen domestic accounting firm practices in China. These findings are consistent with those reported in Kim, Liu, and Zheng (2012) and Lin and Yen (2016). Kim et al. (2012) claim that audit fees increase after mandatory IFRS adoption in European Union countries due to audit complexity. This result further confirms what has been reported in Lin and Yen (2016) using China as a research setting. In a similar vein, a regulatory change such as the government initiative examined herein would raise the amount of audit fee charged. In addition, we find that, among the three reasons for auditor-client realignment decisions, the coefficient of *REASON_CLIENT* is positive and significant at the 5% level (coefficient = 0.184, p -value = 0.018). This result suggests that companies deciding to realign with their auditors likely will pay higher audit fees.

As to the interactive effect between auditor-client realignment reasons and the government initiative, our study shows a significant and negative interactive effect between *REASON_CLIENT* and *POST_2007* on audit fees (coefficient = -0.163, p -value = 0.058). Since the sign of this interactive effect is negative, it suggests that CICPA's initiative may reduce audit fees. Since *POST_2007* by itself positively and significantly affects audit fees charged, it is evident that the government initiative to expand and strengthen accounting firm practices may have opened up opportunities for clients to negotiate professional fees with auditors. Because accounting firms are keen to compete for clients, the level of competition may have escalated during this period. Hence, the clients appear to have the upper hand to reduce professional fees charged when dealing with the auditors.

4.2.3 Effects on Audit Quality

Research Question 3 examines whether the reasons for auditor-client realignment and the government initiative improve audit quality. To address this inquiry, we develop Model (3) by employing *MAO* as the dependent variable. Since *MAO* is a binary variable, we follow the extant literature (e.g., Huang et al., 2015) and code it as "1" if a firm receives a modified audit opinion and "0" otherwise. Since our research interest is to investigate the effect of reasons for auditor-client realignment on audit quality, we classify auditor-client realignment reasons into client-related (*REASON_CLIENT*), CPA firm-related (*REASON_*

CPA), and government-related (*REASON_GOV*). Similar to the analysis conducted in Section 4.2.2 to investigate the effect of government initiative on audit fees, we include the initiative (*POST_2007*) as an independent variable.

Table 7 Effects of Reasons for Auditor-Client Realignment and of the Governmental Initiative on Audit Quality (Level Model)

Variable	Coefficient	p-value
<i>Intercept</i>	6.220	0.002
<i>REASON_CLIENT</i>	0.299	0.427
<i>REASON_CPA</i>	1.177	<0.001
<i>REASON_GOV</i>	-0.240	0.687
<i>POST_2007</i>	0.092	0.695
<i>REASON_CLIENT × POST_2007</i>	-0.532	0.239
<i>REASON_CPA × POST_2007</i>	-0.769	0.040
<i>REASEONGOV × POST_2007</i>	-0.420	0.603
<i>LNTA</i>	-0.410	<0.001
<i>QUICK</i>	0.073	0.118
<i>RECTA</i>	-0.972	0.224
<i>INVTA</i>	-0.615	0.272
<i>DA</i>	1.465	<0.001
<i>TURNOVER</i>	-0.136	0.462
<i>ROA</i>	-1.509	0.193
<i>LOSS</i>	0.788	<0.001
<i>ADJRETURN</i>	-0.443	0.007
<i>BETA</i>	0.226	0.440
<i>STDRET</i>	13.909	0.162
<i>EM</i>	0.237	0.186
<i>CIFIRM</i>	3.499	0.084
<i>CICPA</i>	-0.636	0.459
<i>EXPFIRM</i>	-0.174	0.637
<i>EXPCPA</i>	1.606	0.028
<i>SIZEFIRM</i>	0.000	0.598
<i>SIZECPA</i>	-0.002	0.162
<i>LMAO</i>	1.404	<0.001
<i>LEGALFORMLLP</i>	-0.188	0.622
<i>LEGALFORMLLC</i>	-0.027	0.930
<i>TOP10</i>	-0.625	0.106
<i>LOCAL</i>	-0.766	0.043

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Variable	Coefficient	<i>p</i> -value
<i>STATE</i>	0.053	0.752
<i>CMI</i>	-0.016	0.728
<i>GDI</i>	-0.094	0.247
<i>LEI</i>	0.086	0.153
<i>ISSUEB</i>	0.456	0.092
<i>ISSUEH</i>	0.283	0.688
<i>EXCHANGE</i>	<i>CONTROLLED</i>	
<i>INDUSTRY</i>	<i>CONTROLLED</i>	
Pseudo <i>R</i> ²	0.6442	
<i>p</i> -value	<0.001	
<i>N</i>	1,340	

Note: *MAO* is coded 1 if a firm receives a modified audit opinion and 0 otherwise. *REASON_CLIENT* is coded 1 if the auditor change is driven by the client and 0 otherwise. *REASON_CPA* is coded 1 if the auditor change is driven by the accounting firm and 0 otherwise. *REASON_GOV* is coded 1 if the auditor change is driven by the government and 0 otherwise. *POST_2007* is coded 1 if the observation is obtained on or after 2007 and 0 otherwise. *LNTA* is the natural logarithm of total assets. *QUICK* is the sum of cash, short-term investments, and account receivables divided by current liabilities (quick ratio). *RECTA* is the amount of account receivables divided by the amount of total assets. *INVTA* is the amount of ending inventories divided by the amount of total assets. *DA* is the amount of total liabilities divided by the amount of total assets. *TURNOVER* is the amount of sales revenue divided by the amount of total assets. *ROA* is the amount of net income divided by the amount of beginning total assets (return on assets). *LOSS* is coded 1 if a firm reports a net loss and 0 otherwise. *ADJRETURN* is the firm's market-adjusted annual return. *BETA* is the firm's systematic risk. *STDRET* is the standard deviation of residuals from the market model, estimated by daily returns during the year. *EM* is coded 1 if a firm reports ROA between 0 and 1% (small profits), ROA lower than the median value of other loss-making firms' ROA (downward earnings management), or ROE between 6-7% (CSRC's rights offering requirement), as in Chen et al. (2010). *CIFIRM* is the firm's logged assets divided by the sum of the audit firm's clients' logged assets (client importance). *CICPA* is the firm's logged assets divided by the sum of the audit partners' clients' logged assets (client importance). *EXPFIRM* is coded 1 if the audit firm has more than 10% market share measured by total audit fees and 0 otherwise. *EXPCPA* is coded 1 if any of two audit partners has more than 10% market share of total audit fees in the industry and 0 otherwise. *SIZEFIRM* is the sum of the audit firm's clients' logged assets. *SIZECPA* is the sum of the audit partners' clients' logged assets. *LMAO* is coded 1 if a firm receives a modified audit opinion in the prior year and 0 otherwise. *LEGALFORMLLP* is coded 1 if the audit firm is formed as a limited liability partnership and 0 otherwise. *LEGALFORMLLC* is coded 1 if the audit firm is formed as a limited liability corporation and 0 otherwise. *TOP10* is coded 1 if the auditor is one of China's local Top 10 audit firms, measured by the market share of total audit fees and 0 otherwise. *LOCAL* is coded 1 if a firm engages an audit firm that is neither an international Big-4 nor a local Top 10 audit firm and 0 otherwise. *STATE* is coded 1 if the

observation is obtained from a state-owned enterprise and 0 otherwise. *CMI* is the credit market index, derived by Wang et al. (2008). *GDI* is the government decentralization index, derived by Wang et al. (2008). *LEI* is legal environment index, derived by Wang et al. (2008). *ISSUEB* is coded 1 if the client issues B shares and 0 otherwise. *ISSUEH* is coded 1 if the client issues H shares and 0 otherwise. *EXCHANGE* is coded 1 if the firm is listed in the Shanghai Stock Exchange and 0 otherwise.

As reported in Table 7, the model used to examine this research question is significant, with a pseudo R^2 of 0.6442 (p -value < 0.001). Among the reasons for auditor-client realignment, the results indicate that the coefficient of *REASON_CPA* is positive and significant at the 1% level (coefficient = 1.177, p -value < 0.001), suggesting that audit quality would likely improve if the decision to realign with an auditor is driven by CPA firm-related reasons. On the other hand, there are no significant differences in audit quality if such a decision is driven by either client-related or government-related reasons. Similar to the findings on the effects of the government initiative on audit fees, *POST_2007* alone does not significantly influence audit quality. However, the interactive effect between *REASON_CPA* and *POST_2007* has a significant and negative impact on audit quality at the 5% level (coefficient = -0.769, p -value = 0.040). The negative sign of this joint effect suggests that CICPA opinion and CPA firm-related reasons for realignments reduce the likelihood of firms receiving modified audit opinions after the issuance of the government initiative to expand and strengthen domestic accounting firm practices in China. According to the evidence obtained from these analyses, it is alarming that audit quality may have deteriorated after the CICPA issued the initiative.

5. Robustness Test

To ensure the robustness of the evidence reported in Section 4, we develop the following model to examine the effects of auditor-client realignment reason and of the government initiative on audit quality by using changes in *MAO* between years as a proxy for audit quality. The purpose of using a change model, instead of a level model, is to prevent the stickiness problem related to the *MAO*. Adopting the methodology employed by Huang et al. (2015), we develop the following ordered probit regression model (McKelvey and Zavoina, 1975) and label it as Model (4):

$$\begin{aligned}
 D_MAO = & \beta_0 + \beta_1 + \beta_2 REASON_CLIENT + \beta_3 REASON_CPA + \beta_4 REASON_GOV \\
 & + \beta_5 POST_2007 + \beta_6 REASON_CLIENT \times POST_2007 \\
 & + \beta_7 REASON_CPA \times POST_2007 + \beta_8 REASON_GOV \times POST_2008 \\
 & + \beta_9 D_LNNTA + \beta_{10} D_QUICK + \beta_{11} D_RECTA + \beta_{12} D_INVTA + \beta_{13} D_DA \\
 & + \beta_{14} D_TURNOVER + \beta_{15} D_ROA + \beta_{16} D_LOSS + \beta_{17} D_ADJRETURN \\
 & + \beta_{18} D_BETA + \beta_{19} D_STDRET + \beta_{20} D_EM + \beta_{21} D_CIFIRM + \beta_{22} D_CICPA \\
 & + \beta_{23} D_EXPFIRM + \beta_{24} D_EXPCPA + \beta_{25} D_SIZEFIRM + \beta_{26} D_SIZECPA \\
 & + \beta_{27} D_LMAO + \beta_{28} D_LEGALFORMLLP + \beta_{29} D_LEGALFORMLLC \\
 & + \beta_{30} TOP10 + \beta_{31} LOCAL + \beta_{32} STATE + \beta_{33} CMI + \beta_{34} GDI + \beta_{35} LEI \\
 & + \beta_{36} ISSUEB + \beta_{37} ISSUEH + EXCHANGE + INDUSTRY + \varepsilon. \quad (4)
 \end{aligned}$$

As demonstrated in Model (4), the dependent variable is *D_MAO*. It is coded as “-1” if the firm received a modified opinion from the predecessor auditor but obtained a standard unmodified opinion from the successor auditor. On the other hand, *D_MAO* is coded as “0” if the firm received a standard unmodified or modified opinion from both predecessor and successor auditors. Finally, *D_MAO* is coded as “1” if the firm received a standard unmodified opinion from the predecessor auditor but obtained a modified opinion from the successor auditor. As illustrated in Model (4), all variables generated from annual reports have been labelled with “D.” This label reflects that annual report data are calculated between years. Table 8 presents the descriptive statistics of the variables included in the model.

Table 8 Descriptive Statistics of Variables Used to Examine the Effects of Reasons for Auditor-Client Realignment on Audit Quality (Change Model)

Variable	N	Mean	STD	Q1	Median	Q3
<i>D_MAO</i>	1,323	-0.031	0.320	0.000	0.000	0.000
<i>REASON_CLIENT</i>	1,323	0.201	0.401	0.000	0.000	0.000
<i>REASON_CPA</i>	1,323	0.184	0.387	0.000	0.000	0.000
<i>REASON_GOV</i>	1,323	0.098	0.298	0.000	0.000	0.000
<i>POST_2007</i>	1,323	0.619	0.486	0.000	1.000	1.000
<i>D_LNTA</i>	1,323	0.183	0.578	-0.018	0.078	0.216
<i>D_QUICK</i>	1,323	-0.142	1.252	-0.200	-0.028	0.110
<i>D_RECTA</i>	1,323	-0.006	0.082	-0.023	0.000	0.015
<i>D_INVTA</i>	1,323	-0.001	0.075	-0.022	0.000	0.017
<i>D_DA</i>	1,323	0.053	0.823	-0.026	0.014	0.064
<i>D_TURNOVER</i>	1,323	-0.001	0.231	-0.065	0.001	0.074
<i>D_ROA</i>	1,323	0.013	0.125	-0.023	-0.001	0.023
<i>D_LOSS</i>	1,323	-0.008	0.460	0.000	0.000	0.000
<i>D_ADJRETURN</i>	1,323	0.041	0.747	-0.309	0.004	0.357
<i>D_BETA</i>	1,323	-0.002	0.266	-0.161	0.013	0.159
<i>D_STDRET</i>	1,323	0.001	0.010	-0.003	0.001	0.005
<i>D_EM</i>	1,323	-0.025	0.557	0.000	0.000	0.000
<i>D_CIFIRM</i>	1,323	-0.001	0.047	-0.017	-0.004	0.011
<i>D_CICPA</i>	1,323	0.030	0.166	-0.060	0.010	0.118
<i>D_EXPFIRM</i>	1,323	0.051	0.395	0.000	0.000	0.000
<i>D_EXPCPA</i>	1,323	-0.002	0.078	0.000	0.000	0.000
<i>D_SIZEFIRM</i>	1,323	606.292	2541.683	-435.250	239.133	1327.277
<i>D_SIZECPA</i>	1,323	-15.774	122.452	-79.549	-6.606	46.068
<i>D_LMAO</i>	1,323	0.025	0.326	0.000	0.000	0.000
<i>D_LEGALFORMLLP</i>	1,323	0.153	0.371	0.000	0.000	0.000
<i>D_LEGALFORMLLC</i>	1,323	-0.128	0.484	0.000	0.000	0.000
<i>TOP10</i>	1,323	0.509	0.500	0.000	1.000	1.000
<i>LOCALNON10</i>	1,323	0.413	0.493	0.000	0.000	1.000
<i>STATE</i>	1,323	0.677	0.468	0.000	1.000	1.000
<i>CMI</i>	1,323	5.443	2.020	3.850	5.880	7.200
<i>GDI</i>	1,323	6.709	1.259	6.050	7.120	7.610
<i>LEI</i>	1,323	6.046	1.399	5.050	6.240	7.290
<i>ISSUEB</i>	1,323	0.080	0.272	0.000	0.000	0.000
<i>ISSUEH</i>	1,323	0.037	0.189	0.000	0.000	0.000

Note: The variable labelled with “*D_*” reflects that annual report data are calculated between years. *D_MAO* is coded -1 if a firm receives a modified opinion from the predecessor auditor, but a standard unmodified opinion from the successor auditor, coded 0 if a firm receives a standard unmodified or modified opinion from both predecessor and successor auditors, and coded 1 if a firm receives a standard unmodified opinion from the predecessor auditor, but a modified opinion from the successor auditor. *REASON_CLIENT* is coded 1 if the auditor change is driven by the client and 0 otherwise. *REASON_CPA* is coded 1 if the auditor change is driven by the accounting firm and 0 otherwise. *REASON_GOV* is coded 1 if the auditor change is driven by the government and 0 otherwise. *POST_2007* is coded 1 if the observation is obtained on or after 2007 and 0 otherwise. *LNTA* is the natural logarithm of total assets. *QUICK* is the sum of cash, short-term investments, and account receivables divided by current liabilities (quick ratio). *RECTA* is the amount of account receivables divided by the amount of total assets. *INVTA* is the amount of ending inventories divided by the amount of total assets. *DA* is the amount of total liabilities divided by the amount of total assets. *TURNOVER* is the amount of sales revenue divided by the amount of total assets. *ROA* is the amount of net income divided by the amount of beginning total assets (return on assets). *LOSS* is coded 1 if a firm reports a net loss and 0 otherwise. *ADJRETURN* is the firm’s market-adjusted annual return. *BETA* is the firm’s systematic risk. *STDRET* is the standard deviation of residuals from the market model, estimated by daily returns during the year. *EM* is coded 1 if a firm reports ROA between 0 and 1% (small profits), ROA lower than the median value of other loss-making firms’ ROA (downward earnings management), or ROE between 6-7% (CSRC’s rights offering requirement), as in Chen et al. (2010). *CIFIRM* is the firm’s logged assets divided by the sum of the audit firm’s clients’ logged assets (client importance). *CICPA* is the firm’s logged assets divided by the sum of the audit partners’ clients’ logged assets (client importance). *EXPFIRM* is coded 1 if the audit firm has more than 10% market share measured by total audit fees and 0 otherwise. *EXPCPA* is coded 1 if any of two audit partners has more than 10% market share of total audit fees in the industry and 0 otherwise. *SIZEFIRM* is the sum of the audit firm’s clients’ logged assets. *SIZECPA* is the sum of the audit partners’ clients’ logged assets. *LMAO* is coded 1 if a firm receives a modified audit opinion in the prior year and 0 otherwise. *LEGALFORMLLP* is coded 1 if the audit firm is formed as a limited liability partnership and 0 otherwise. *LEGALFORMLLC* is coded 1 if the audit firm is formed as a limited liability corporation and 0 otherwise. *TOP10* is coded 1 if the auditor is one of China’s local Top 10 audit firms, measured by the market share of total audit fees and 0 otherwise. *LOCAL* is coded 1 if a firm engages an audit firm that is neither an international Big-4 nor a local Top 10 audit firm and 0 otherwise. *STATE* is coded 1 if the observation is obtained from a state-owned enterprise and 0 otherwise. *CMI* is the credit market index, derived by Wang et al. (2008). *GDI* is the government decentralization index, derived by Wang et al. (2008). *LEI* is legal environment index, derived by Wang et al. (2008). *ISSUEB* is coded 1 if the client issues B shares and 0 otherwise. *ISSUEH* is coded 1 if the client issues H shares and 0 otherwise.

Upon collecting all required data for the analysis, we run the regression to re-test Research Question 3. Since the purpose of this examination is to explore the reasons for auditor-client realignment and whether the government initiative improves audit quality, the dependent variable in Model (4) is *D_MAO*. The mean value of *D_MAO* is -0.031 (-3.1%). The negative coefficient of *D_MAO* indicates that more firms received MAO from predecessor auditors and obtained non-MAO from successor auditors than firms that received non-MAO from predecessor auditors and then obtained MAO from successor auditors. As noted in the analysis, we classify the realignment reasons according to client-related (*REASON_CLIENT*), CPA firm-related (*REASON_CPA*), and government-related (*REASON_GOV*) categories. Moreover, we include the government initiative (*POST_2007*) in the model as an independent variable as well.

As reported in Table 9, the model used to investigate this inquiry is significant with a pseudo R^2 of 0.3647 (p -value < 0.001). Compared to the main analysis done according to Model (3), as expected, the change model specified in Model (4) yields a lower pseudo R^2 . With regard to the three reasons for an auditor-client realignment decision, the results show that the coefficient of *REASON_CPA* is significant at the 1% level (coefficient = 1.100, p -value < 0.001). This result is similar to what has already been reported earlier in this study. Moreover, the coefficient of *REASON_CPA* is positive. Therefore, it shows that audit quality is likely to improve if a firm's decision to realign with its auditors is driven by CPA firm-related reasons. On the other hand, there are no significant differences in audit quality when such a decision is driven by either client-related or government-related reasons. Moreover, the variable *POST_2007* reflects that the government initiative to expand and strengthen domestic accounting practices does not significantly affect audit quality. When considering the joint effect of *REASON_CPA* \times *POST_2007* on audit quality, however, this interactive effect is significant at the 1% level (coefficient = -0.892, p -value = 0.005). Because the coefficient of the interactive effect is significant and negative, we conclude that the auditor-client realignment decision may deteriorate audit quality, if the realignment reason is driven by the CPA firms after the issuance of the initiative by CICPA under the directive of China's MOF.

Table 9 Effects of Reasons for Auditor-Client Realignment and of the Governmental Initiative on Audit Quality (Change Model)

Variable	Coefficient	p-value
<i>Intercept</i>	-2.654	<0.001
<i>Intercept 2</i>	1.468	<0.001
<i>REASON_CLIENT</i>	0.022	0.939
<i>REASON_CPA</i>	1.100	<0.001
<i>REASON_GOV</i>	0.542	0.151
<i>POST_2007</i>	0.208	0.148
<i>REASON_CLIENT × POST_2007</i>	-0.062	0.851
<i>REASON_CPA × POST_2007</i>	-0.892	0.005
<i>REASON_GOV × POST_2007</i>	-0.602	0.159
<i>D_LNTA</i>	-0.302	0.005
<i>D_QUICK</i>	0.005	0.910
<i>D_RECTA</i>	-0.815	0.162
<i>D_INVTA</i>	-1.028	0.091
<i>D_DA</i>	0.069	0.276
<i>D_TURNOVER</i>	0.069	0.745
<i>D_ROA</i>	-0.709	0.226
<i>D_LOSS</i>	0.466	<0.001
<i>D_ADJRETURN</i>	-0.144	0.038
<i>D_BETA</i>	0.306	0.101
<i>D_STDRET</i>	10.890	0.030
<i>D_EM</i>	0.303	0.002
<i>D_CIFIRM</i>	1.861	0.115
<i>D_CICPA</i>	0.874	0.054
<i>D_EXPFIRM</i>	-0.009	0.959
<i>D_EXPCPA</i>	-0.443	0.499
<i>D_SIZEFIRM</i>	0.000	0.975
<i>D_SIZECPA</i>	0.001	0.148
<i>D_LMAO</i>	-1.606	<0.001
<i>D_LEGALFORMLLP</i>	-0.059	0.787
<i>D_LEGALFORMLLC</i>	0.076	0.630
<i>TOP10</i>	0.043	0.848
<i>LOCAL</i>	-0.115	0.607
<i>STATE</i>	0.134	0.248
<i>CMI</i>	0.005	0.872
<i>GDI</i>	0.027	0.623
<i>LEI</i>	0.001	0.974

Variable	Coefficient	p-value
<i>ISSUEB</i>	0.100	0.599
<i>ISSUEH</i>	0.089	0.768
<i>EXCHANGE</i>	<i>CONTROLLED</i>	
<i>INDUSTRY</i>	<i>CONTROLLED</i>	
Pseudo R^2	0.3647	
p-value	<0.001	
<i>N</i>	1,323	

Note: The variable labelled with “*D_*” reflects that annual report data are calculated between years.

D_MAO is coded -1 if a firm receives a modified opinion from the predecessor auditor, but a standard unmodified opinion from the successor auditor, coded 0 if a firm receives a standard unmodified or modified opinion from both predecessor and successor auditors, and coded 1 if a firm receives a standard unmodified opinion from the predecessor auditor, but a modified opinion from the successor auditor. *REASON_CLIENT* is coded 1 if the auditor change is driven by the client and 0 otherwise. *REASON_CPA* is coded 1 if the auditor change is driven by the accounting firm and 0 otherwise. *REASON_GOV* is coded 1 if the auditor change is driven by the government and 0 otherwise. *POST_2007* is coded 1 if the observation is obtained on or after 2007 and 0 otherwise. *LNTA* is the natural logarithm of total assets. *QUICK* is the sum of cash, short-term investments, and account receivables divided by current liabilities (quick ratio). *RECTA* is the amount of account receivables divided by the amount of total assets. *INVTA* is the amount of ending inventories divided by the amount of total assets. *DA* is the amount of total liabilities divided by the amount of total assets. *TURNOVER* is the amount of sales revenue divided by the amount of total assets. *ROA* is the amount of net income divided by the amount of beginning total assets (return on assets). *LOSS* is coded 1 if a firm reports a net loss and 0 otherwise. *ADJRETURN* is the firm’s market-adjusted annual return. *BETA* is the firm’s systematic risk. *STDRET* is the standard deviation of residuals from the market model, estimated by daily returns during the year. *EM* is coded 1 if a firm reports ROA between 0 and 1% (small profits), ROA lower than the median value of other loss-making firms’ ROA (downward earnings management), or ROE between 6-7% (CSRC’s rights offering requirement), as in Chen et al. (2010). *CIFIRM* is the firm’s logged assets divided by the sum of the audit firm’s clients’ logged assets (client importance). *CICPA* is the firm’s logged assets divided by the sum of the audit partners’ clients’ logged assets (client importance). *EXPFIRM* is coded 1 if the audit firm has more than 10% market share measured by total audit fees and 0 otherwise. *EXPCPA* is coded 1 if any of two audit partners has more than 10% market share of total audit fees in the industry and 0 otherwise. *SIZEFIRM* is the sum of the audit firm’s clients’ logged assets. *SIZECPA* is the sum of the audit partners’ clients’ logged assets. *LMAO* is coded 1 if a firm receives a modified audit opinion in the prior year and 0 otherwise. *LEGALFORMLLP* is coded 1 if the audit firm is formed as a limited liability partnership and 0 otherwise. *LEGALFORMLLC* is coded 1 if the audit firm is formed as a limited liability corporation and 0 otherwise. *TOP10* is coded 1 if the auditor is one of China’s local Top 10 audit firms, measured by the market share of total audit fees and 0 otherwise. *LOCAL* is coded 1 if a firm engages an audit firm that is neither an international Big-4 nor a local Top 10 audit firm and 0 otherwise. *STATE* is coded 1 if the

observation is obtained from a state-owned enterprise and 0 otherwise. *CMI* is the credit market index, derived by Wang et al. (2008). *GDI* is the government decentralization index, derived by Wang et al. (2008). *LEI* is legal environment index, derived by Wang et al. (2008). *ISSUEB* is coded 1 if the client issues B shares and 0 otherwise. *ISSUEH* is coded 1 if the client issues H shares and 0 otherwise. *EXCHANGE* is coded 1 if the firm is listed in the Shanghai Stock Exchange and 0 otherwise.

6. Summary, Policy Implications, and Conclusions

This study examines the following research questions empirically. First, do state ownership and the government initiative to expand and strengthen Chinese accounting firm practices jointly affect clients' willingness to reveal their reasons for switching auditors? Second, do client realignment reasons and the Chinese government initiative jointly affect the fees paid to auditors? Finally, do client realignment reasons and the Chinese government initiative jointly affect the level of audit quality? To address these questions, our primary interest rests on the interactive effect between client realignment reasons and the government initiative. According to the empirical results reported in this study, we find that state ownership and the initiative jointly influence corporate executives' decisions to disclose the reasons to realign with auditors. Moreover, client-driven realignment reasons and the initiative jointly and significantly reduce the audit fees paid by clients to CPA firms. Finally, audit quality is likely to deteriorate after the issuance of the government initiative when auditor-client realignments are driven by CPA firm-related reasons.

Based on the empirical findings reported in this study, several policy implications can be drawn to regulatory agencies, professional organizations, and those in charge of accounting firms. For regulatory agencies, ensuring high audit quality is crucial to maintain order in capital markets and to achieve efficient resource allocation in society. Since the evidence demonstrated by this study indicates that after the issuance of the government initiative, audit fees fell, it is plausible to infer that such an initiative may lead to auditor lowballing because it opened up a window of opportunity for CPA firms to compete for clients. Under this scenario, the government initiative to expand and strengthen domestic accounting firm practices may have had unintended and unforeseen consequences, including the creation of severer competition among accounting firms in China. To mitigate the potential drawbacks, certain restrictions or additional monitoring mechanisms should be put in place by regulators to ensure that shareholders' interests are protected strongly, and that the order of capital markets can be properly maintained.

With regard to professional organizations, this study suggests that the government initiative examined herein may not improve the quality of accounting firm practices in China. In addition, this governmental initiative also may have *uneven* effects on the various constituencies in this profession as well. For instance, our findings indicate that this government initiative produced results that are inconsistent with the government's goal to strengthen accounting firm practices by improving audit quality. In contrast, it appears to have reshaped the accounting industry's cost structure, profitability, and long-term success. Specifically, larger domestic accounting firms may benefit more from this regulatory initiative than smaller ones. To address this concern, professional organizations should carefully consider what negative consequences could arise from similar initiatives or from position statements issued by government authorities. To address these concerns, it is imperative for those in charge of professional bodies to provide additional guidance and revise existing standards when needed, so that the accounting profession can realize its full potential. Furthermore, instead of addressing more general issues in the accounting profession, it may also be worthwhile to take accounting expertise and client characteristics into account when launching these types of initiatives.

As for management of accounting firms, this study shows that strong government support for the growth of domestic accounting practices and firm sizes has fueled the growth of second-tier auditors in China. This outcome supports the notion that government regulations may significantly affect firm operations, the audit market, and competition among accounting firms which in turn influence the amount of audit fees charged. Given the impacts derived from such regulatory shifts, it is essential for accounting firms to proactively monitor regulatory changes, assess their impacts, and identify the appropriate course of actions in order to confront them in more effective and efficient manner. Moreover, it is crucial for researchers to conduct additional studies to further explore other impacts of auditor-client realignment decisions and regulatory controls, so that shareholders, creditors, and market participants can benefit from an improved regulatory environment and professional oversight.

Like other empirical studies, our examination has its own limitations. Since our study covers a 14-year period, certain events that occurred during this time span may have confounding effects on our findings and conclusions. Albeit we have made efforts to address some of them, there are issues still left unaddressed. For example, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) has issued several rules aimed at improving audit quality for state-owned enterprises during

the studied period. Despite these rules may be important to the research questions investigated in this study, we are not able to discern the theoretical underpinnings regarding their effects on audit fees or audit quality. To advance our understandings, it will be beneficial for researchers to further develop theories, expand the scope of current study, explore additional variables, and conduct investigations to examine the effects of these newly issued rules and the reasons for auditor-client realignment on audit fees and audit quality.

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