

An Empirical Study on the Legal Form of CPA Firms and

Auditors' Reporting Conservatism

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ABSTRACT

Previous analytical research demonstrates that limiting the liability of accountants poses a threat to audit quality. However, there is little empirical evidence to support this argument. We aim to take a step in this direction by investigating the association between the legal forms of CPA firms (unlimited liability versus limited liability) and the reporting conservatism of auditors. Based on a sample of 2,767 audits of Chinese listed companies for the period 2000 to 2002, we find that to compensate for higher risk and liability exposures, auditors in unlimited liability partnership firms are more likely to have a higher threshold for issuing clean audit reports, and thus are more conservative in their reporting. In addition, we find that a client that switches its auditor from a partnership firm to a limited liability firm is less likely to receive a modified report. This further supports our hypothesis that a limited liability regime induces less conservatism. Our research results have potential implications for policy makers not only in China but also in other economies as the impact of alternative legal form of organization for CPA firms on audit quality can affect the efficiency of all capital markets.

Key words: Legal form; auditor independence; reporting conservatism; modified audit opinions.

Data Availability: Data are available from the authors

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1. Introduction

Although limiting the legal liability of accountants may alleviate the accounting profession's legal exposure, recent theoretical models demonstrate that it poses a threat to audit quality and auditor independence (Dye [1993, 1995], Chan and Pae [1998]). The way in which the limited liability regime affects the behavior of auditors, which in turn affects audit quality and auditor independence, is an important issue for the accounting profession, academics, regulators, and policy makers. Previous research focuses on deriving testable theories on the association between the limited liability of auditors and audit quality, but there is little empirical evidence to support these arguments.

The objective of this paper is to empirically investigate the association between the legal form of CPA firms and auditor reporting conservatism in China. We study the issue in the Chinese setting because of the unique institutional environment. After the disaffiliation exercise in 1998, all state-owned CPA firms in China were required to separate themselves from their government-affiliated agents and to form independent CPA firms. In the restructuring process, these firms could choose to form a partnership firm or a limited liability firm. As all state-owned CPA firms have changed from government-supported agents to separate legal entities, their risk exposure levels have been substantially increased and their liabilities are no longer covered or guaranteed by the government (Yang et al. [2001]). The

risk factor thus becomes an important concern that has an impact on an auditor's practice behavior. Therefore, this reform of the CPA profession in China provides an excellent setting to empirically examine how the legal form of CPA firms affects auditors' reporting conservatism. We believe, our paper is the first to examine empirically the issue of alternative legal forms (partnership versus limited liability) for the CPA firms. While the limited liability partnerships (LLPs) in the U.S. limit the liabilities of non-negligent partners, the negligent partners' personal assets are still at risk. Thus, the negligent partners in a LLP have the same liability exposure level as those in a general partnership firm. In contrast, the limited liability CPA firms in China limit the liabilities of *both* the negligent partners and non-negligent partners. Therefore, our study contributes to the literature by providing clearer evidence on the impact of the liability exposure differences between a partnership firm and a limited liability firm on auditors' reporting behaviors.

While China is less litigious than the U.S., the risk of litigation and regulatory sanction is not negligible. Firth et al. [2005] provide evidence that auditors are subject to sanctions by China Securities Regulatory Commission (CSRC) if they fail to detect and report fraudulent financial reporting. These sanctions can be quite severe. For example, the practicing licenses of two CPA firms, namely *Su Du* CPA Firm and *Zhong Tian Qin* CPA Firm, were involuntarily terminated by CSRC for negligence in auditing the financial statements of *PT Hong Guang* and *Yin Guang Xia*, respectively. A recent court notice issued by the

Supreme Court of the PRC, *January 15 Notice*¹ formally documents the circumstances and procedures for investors to initiate litigations against listed companies and their auditors (Supreme Court [2002]). Litigation risks faced by auditors in China have become more severe (Zhang [2002]). Examples include the civil litigation against *PT Hong Guang, Da Qing Lian Yi, Mu Shi Hua, Jia Bao Shi Ye, and Yin Guang Xia* and their auditors (Zhang [2002]). In 2003, KPMG was included as one of the defendants in a civil case initiated by a shareholder of *Jinzhou Port* who suffered losses due to the company's misstatements in financial reporting². These cases illustrate the growth of enforcement actions and lawsuits bought against Chinese audit firms. Auditors are now well aware of the costs that follow from enforcement actions and this has affected their professional judgment and behavior. We contend, however, that the change in behavior is conditioned on the legal form of organization that the CPA firm has adopted.

Following Francis and Krishnan [1999, p. 135], we use an auditor's propensity to issue a modified audit opinion to proxy for auditor reporting conservatism. If auditors are more conservative, they are more likely to issue a modified audit opinion. Audit partners in an unlimited liability partnership firm share liabilities jointly and severally with other partners in the firm, whereas audit partners in a limited liability audit firm are only

¹ On January 15, 2002, the Supreme Court of China issued a *Notice on Processing Civil Litigation Cases Against Fraudulent Financial Reporting in Securities Markets*, which was abbreviated as *January 15 Notice* (Supreme Court [2002]). It is clearly defined in the notice that the negligent auditors would be involved as a defendant in the litigation, as long as the plaintiff can prove that they suffered losses from reliance on the audited financial statements and the auditors have been sanctioned by the CSRC before.

² The information is from <http://www.enorth.com.cn>

responsible for liabilities that are limited to their personal contribution to the capital of the CPA firm. Therefore, auditors in partnership firms have a higher potential risk and liability exposure than those in limited liability firms. We hypothesize that to alleviate this greater uncertainty and risk exposure, auditors in partnership firms are more conservative in their reporting and hence are more likely to issue a modified audit opinion.

The sample in this study consists of 2,767 audits of Chinese listed companies for the period 2000 to 2002. Consistent with our hypothesis, the results indicate that auditors in partnership CPA firms are more likely to issue modified audit reports. Our findings provide empirical support to the theoretical models developed by Dye [1993, 1995] and Chan and Pae [1998] that argue that limiting an auditor's liability may decrease audit quality and auditor independence. From an auditor-switch sub-sample of 158 observations, we also find that a client that switches from a partnership CPA firm to a limited liability CPA firm is less likely to receive a modified report than a client that switches in the reverse direction. *Ceteris paribus*, this implies that an unlimited liability regime provides a strong motivation for auditors to report conservatively. These results hold after controlling for several client and auditor characteristics, and are robust to alternative model specifications. The results imply that the legal form of a CPA firm affects its reporting conservatism due to the threat of litigation risk and liability.

Our research results have potential implications for policy makers not only in China

but also in other economies because the impact of alternative legal organization forms for the CPA firm on audit quality can affect the efficiency of all capital markets. In particular, our results should be helpful for regulators and the accounting profession as they consider safeguards in implementing a limited liability regime without reducing audit quality and auditor independence. For example, regulators should consider more stringent conditions for the establishment of limited liability CPA firms including the minimum capital requirement and corporate governance measures. Professional bodies may consider increasing the frequency of quality reviews.

The paper proceeds as follows: Section 2 describes the legal forms of CPA firms in China. Section 3 reviews literature on the relationship between auditors' liability exposures and audit quality and develops the hypotheses, and Section 4 describes the research methodology. The empirical results are presented in Section 5, and Section 6 documents the sensitivity tests. Section 7 concludes the paper.

2. Legal Forms of CPA Firms in China

Currently, there are two types of CPA firms in China: partnership firms and limited liability firms. The current division of Chinese CPA firms is mainly due to the disaffiliation exercise in 1998. Before 1998, CPA firms took the form of accounting firms that were affiliated with the local or central government, a university, or a government department

(DeFond et al. [2000]). After the disaffiliation program that was promulgated by the Chinese Institute of Certified Public Accountants (CICPA) in 1998, all state-affiliated CPA firms had to be separated from their sponsoring government bodies. Disaffiliated CPA firms could choose to be registered in the form of an unlimited liability partnership firm or in the form of a limited liability firm.

According to the regulations that govern the establishment and supervision of partnership CPA firms and limited liability CPA firms³, the minimum personnel and capital requirements for the two forms of CPA firms are different. While there is no minimum capital requirement for the establishment of a partnership firm, the registered capital for setting up a limited liability firm should be at least RMB300,000 (equivalent to approximately US\$35,000). To establish a CPA firm, at least five audit partners are required for limited liability CPA firm but only two partners are required for a partnership firm. In addition to satisfying the above conditions for obtaining a practice license, CPA firms in China are required to have a special license to audit listed companies. Specifically, a partnership CPA firm needs to have at least RMB1 million net assets, but a limited liability CPA firm is required to have RMB 2 million or more capital to obtain such license. Except for this

³ The regulations that govern the establishment and inspection of partnership firms are *The Establishment and Approval of a Partnership Firm Tentative Regulations*, which were promulgated by the Ministry of Finance (MoF) in 1993. The regulations that govern the establishment and inspection of limited liability firms are the *Approving a Limited Liability Accounting Firm Tentative Regulations*, which were promulgated by the MoF in the year 1998. On May 18, 2005, the MoF combined the two regulations and issued a new tentative regulation to govern the formation of CPA firms and their corresponding inspection. The requirements for setting up the two forms of CPA firms in the new tentative regulations are similar to those in the old regulations.

difference, other criteria such as the number of qualified auditors and prior year revenue are the same for the two forms of CPA firms (MOF [2000]).

Besides the above differences in establishments and supervisions between these two forms of CPA firms, the fundamental difference is the liability exposure. Specifically, audit partners in a partnership firm are jointly and severally liable for the liabilities of other partners and the CPA firm. In contrast, if a lawsuit is brought against a limited liability CPA firm or its audit partners, then audit partners in the CPA firm have legal liabilities that are limited to the extent of their contribution to the firm, and the CPA firm itself has a limited liability. Given that organizational form is a matter of choice for CPA firms, the effects of different organizational forms on auditors' practicing behavior are of central concern to accounting practitioners, academics, regulators, and policy makers.

3. Hypothesis Development

3.1 LIABILITY EXPOSURE AND AUDIT QUALITY

Recent studies report that the liability exposure of auditors is one of the main determinants of audit effort, audit quality, and financial reporting credibility (Dye [1993, 1995], Chan and Pae [1998], Khurana and Raman [2004], Melumad and Thoman [1990]). In general, these studies find that an increased liability exposure induces a higher audit quality level. For example, Dye [1995] develops a model to show that in the presence of auditor

liability, the wealth of auditors is associated with perceived audit quality. Once auditors have the choice to incorporate, the wealthiest auditors may incorporate only part of their wealth into the firm to reduce their wealth-at-risk relative to what it was under unlimited liability. Such incorporation induces them to reduce the quality of their audits. Under the unlimited liability regime, in contrast, the wealthiest auditors have more wealth-at-risk and, as a consequence, provide higher quality audits.

Liability exposure also affects financial reporting credibility (Melumad and Thoman [1990], Khurana and Raman [2004]). In an adverse selection setting, the role of auditors is to give information to signal the type of client firm (whether “good” or “bad”). With the threat of litigation, auditors may decide to truthfully report their findings to reduce the probability of paying damages, and thus supply a higher audit quality (Melumad and Thoman [1990]). Khurana and Raman [2004] argue that Big 4 auditors in the U.S. have a higher perceived audit quality (which is a proxy for higher financial reporting credibility) than Big 4 auditors in other Anglo-American countries. The finding that Big 4 audits are perceived to be higher quality audits *only* in the U.S. suggests that it is litigation exposure, rather than reputation protection, that drives perceived audit quality. In other words, audit quality is associated with litigation risk and the level of potential damages faced by auditors.

Chan and Pae [1998] analyze the economic consequences of the legal reform in the U.S. that changed auditor liability from being governed by the Joint and Several Liability

Rule to being governed by the Proportionate Liability Rule. Compared with the Joint and Several Liability Rule, the Proportionate Liability Rule gives better liability protection to auditors and thus decreases equilibrium audit efforts and lawsuit probability. The key idea is that the disincentive effect of the Proportionate Liability Rule on the litigation decisions of users of financial statements (it discourages third parties from suing) can be so severe that it blunts the Rule's potential incentive effect on the auditor's effort decision. Consequently, the increase in liability protection for auditors may decrease the audit effort and audit quality.

Muzatko et al. [2004] empirically examine the association between the extent of IPO underpricing and the change of organizational form of a CPA firm from a general partnership to a limited liability partnership. They argue that due to reduced intra-firm monitoring, the conversion to a limited liability partnership reduces audit quality, which results in greater ex-ante uncertainty for investors and hence greater IPO underpricing. Although their results support the argument that the change of organizational form to a limited liability partnership is positively associated with greater IPO underpricing, they do not directly examine how the reporting behavior of auditors is affected by the limited liability regime.

In China, Mi [2002] argues that limiting an auditor's liability increases the possibility of fraudulent financial reporting. As the liabilities for individual partners and CPA firms are limited, the benefits from allowing or assisting financial statement manipulation may exceed the costs of being caught. Following the above theoretical models that investigate the

association between audit quality and the liability exposure level of auditors, we expect that increasing an auditor's liability exposure should motivate the auditor to have a better mutual monitoring, to provide better quality audits and report more conservatively, and that this motivation is largely driven by the auditor's level of wealth-at-risk (Dye [1993, 1995], Chan and Pae [1998]).

3.2 REPORTING CONSERVATISM AND MODIFIED AUDIT OPINIONS

Francis and Krishnan [1999] argue that the reporting conservatism of auditors is a rational mechanism through which auditors can achieve a desired level of audit risk for highly uncertain clients and lower the probability of being punished for failing to issue a modified report when it is appropriate to do so. Modified audit reports also play a defensive role in protecting auditors from subsequent litigation. Carcello and Palmrose [1994] and Gaeremynck and Willekens [2003] show that modified audit reports that are issued before bankruptcy are more likely to protect auditors from subsequent litigation if bankruptcy eventually occurs.

Thus, we argue that a partnership firm is more likely to issue modified audit reports to compensate for the higher risk and liability exposure that is implicitly linked with its organizational form. In contrast, other things being equal, a limited liability firm has less wealth-at-risk (Dye [1995]), and thus has a smaller risk and liability exposure. Consequently,

a partnership firm is more likely to have a higher threshold for issuing clean audit reports than a limited liability firm. Thus, we hypothesize that auditors in partnership firms are likely to be more conservative in reporting than auditors in limited liability firms due to the intrinsically higher risk and liability exposure. Our hypothesis is as follows.

H1: Ceteris paribus, an auditor in a partnership firm is more conservative and is more likely to issue modified audit reports than an auditor in a limited liability firm.

Next, we examine what happens when a client switches its auditor from a partnership firm to a limited liability firm, and vice versa. In line with the same arguments as in the first hypothesis, we expect that when a client switches its auditor from a partnership firm to a limited liability firm, the probability of receiving modified audit reports will decrease, because auditors in a limited liability firm are less conservative and are less likely to issue a modified audit report than auditors in a partnership firm. Conversely, when a client switches its auditor from a limited liability firm to a partnership firm, the probability of receiving a modified audit report will increase. On the demand side of audit quality, clients may also shop for more favorable opinions when they switch their auditors (DeFond et al. [2000]). Thus fewer modified audit opinions would be expected when the clients switch their auditors from a partnership firm (higher reporting conservatism) to a limited liability firm (lower reporting conservatism). We hypothesize the following.

H2: Ceteris paribus, when a client changes its auditor from a partnership firm (limited liability) to a limited liability firm (partnership firm), it is less (more) likely to receive a modified audit report.

4. Research Method

4.1 SAMPLE DESCRIPTION

Our sample comprises firms that are listed in the Chinese A-share market from 2000 to 2002. We exclude B-share and H-share listed companies, because these companies use International Accounting Standards on top of the Chinese Generally Accepted Accounting Principles (GAAP). We then exclude firms that are in the first year of audit (initial public offering firms) and those that are in the utilities and finance sectors, because the reporting regulations that govern these industries are different from those that govern other industries. In addition, we exclude firms that have no auditor or client financial information and CPA firms that were engaged in merger exercises in the year of audit to filter out the effects of mergers and acquisitions. Because we focus on the choice of organizational forms that are made by CPA firms that disaffiliated themselves from the government, we exclude companies that are audited by CPA firms that are affiliated with international Big 5 CPA firms. The final sample consists of 2,767 audits of listed companies. Next, we identify an auditor-switch sub-sample that consists of 113 observations in which the clients switched their auditor from a partnership CPA firm to a limited liability CPA firm, and 45 observations in which the clients switched their auditor from a limited liability CPA firm to a partnership CPA firm. We use the full sample of 2,767 audits of listed companies to examine hypothesis H1. As we focus on examining the impact of an auditor switch from one legal form to another on the

likelihood that clients will receive a modified report, we use the auditor-switch sub-sample of 158 observations to test hypothesis H2. Table 1 Panel A reports the detailed sample collection procedure.

[Insert Table 1 About Here]

Panel B and Panel C document the descriptive statistics of the client firms and CPA firms, respectively, in our sample. As shown in Panel B, our sample consists of 569 audits that were undertaken by partnership CPA firms and 2,198 audits that were undertaken by limited liability CPA firms. The number and percentage of audits that were conducted by partnership CPA firms decrease yearly during the sample period. As reported in Panel C, the proportion of partnership CPA firms decreases from 30 percent in 2000 to around 15 percent in 2002, and there is a growth in the average number of clients per CPA firm for both groups during the sample period. According to the revenue statistics of the Top 100 CPA firms published by The Chinese Institute of Certified Public Accountants (CICPA), partnership firms in our sample have higher total revenues and audit revenues than limited liability firms do (see Panel C). However, the limited liability CPA firms have more CPAs and securities-licensed CPAs than partnership firms. It is noted that CPAs in China are required to pass a securities examination in order to have a license to audit and sign the audit reports for listed companies.

4.2 SPECIFICATION OF LOGISTIC REGRESSION MODELS

We construct two logistic regression models to investigate the impact of the two legal forms of CPA firms on the propensity of auditors to issue a modified audit opinion. The models are as follows.

$$\begin{aligned}
 MAO = & \alpha + \beta_1 PARTNER + \beta_2 TOP10 + \beta_3 GOV_DEP + \beta_4 ROE + \beta_5 LNTA \\
 & + \beta_6 LEVERAGE + \beta_7 CURRENT_RATIO + \beta_8 INVENTORY + \beta_9 AR \\
 & + \beta_{10} AGE + \beta_{11} YearDummies + \beta_{12} IndustryDummies + \varepsilon
 \end{aligned} \tag{1}$$

$$\begin{aligned}
 MAO = & \alpha + \beta_1 SW(PtoLC) + \beta_2 TOP10 + \beta_3 GOV_DEP + \beta_4 LagMAO + \beta_5 ROE \\
 & + \beta_6 LNTA + \beta_7 LEVERAGE + \beta_8 CURRENT_RATIO + \beta_9 INVENTORY \\
 & + \beta_{10} AR + \beta_{11} AGE + \beta_{12} \Delta ROE + \beta_{13} \Delta LNTA + \beta_{14} \Delta LEVERAGE \\
 & + \beta_{15} \Delta CURRENT_RATIO + \beta_{16} \Delta INVENTORY + \beta_{17} \Delta AR \\
 & + \beta_{18} YearDummies + \beta_{19} IndustryDummies + \varepsilon
 \end{aligned} \tag{2}$$

Model (1) is used to examine hypothesis H1 and Model (2) is used to examine hypothesis H2. The dependent variable for the two models is the issuance of a modified audit opinion (MAO). Modified audit opinions include unqualified opinions with explanatory notes, qualified opinions, disclaimer opinions, and adverse opinions. MAO has a value of 1 if the CPA firm issued a modified audit opinion, and 0 if the firm issued a standard unqualified opinion. In the examination of hypothesis H1, the main explanatory variable is PARTNER, which represents the legal form of a CPA firm and takes the value of 1 if the CPA firm is a partnership firm, and 0 if the firm is a limited liability firm. We expect a positive association between MAO and PARTNER. The test variable for Model (2), SW(PtoLC), captures an

auditor switch by a client firm. SW(PtoLC) has a value of 1 if a client switches auditor from a partnership firm to a limited liability firm, and 0 if a client switches auditor from a limited liability firm to a partnership firm. As hypothesized in H2, we expect SW(PtoLC) to be negatively associated with MAO.

4.3 CONTROL VARIABLES

We include several control variables that capture various characteristics of auditor and client financial information. TOP10 indicates auditor size, and is a control variable for the relationship between auditor size and audit quality (DeAngelo [1981], Gul et al. [2003]) that takes a value of 1 if the CPA firm is a top 10 auditor (based on the total assets of clients) in the year of audit, and 0 otherwise. Following the lead of DeFond et al. [2000] and Chen et al. [2001], we use the top ten auditors instead of the Big 4 used in U.S. studies; there is less audit firm concentration in China than in many other countries. We expect TOP10 to be positively associated with MAO. GOV_DEP indicates the economic and political influence from local government on a CPA firm, and equals 1 if the listed firm is audited by a local auditor and 0 otherwise. Following Chan et al. [2006], we classify an audit firm to be a local firm when the firm is located in the same jurisdiction (province or equivalent in China) as the client, and more than 50 percent of its clients' total assets come from the same jurisdiction. As government participation in CPA firms and client management was quite common during the economic development phase in China (Aharony et al. [2000], Chan et al. [2006], Chen

and Yuan [2004]), CPA firms that have clients concentrated in one jurisdiction and are located in the same jurisdiction of their clients are most vulnerable to the political influence of the local government. Thus, we expect GOV_DEP to be negatively associated with MAO (Chan et al. [2006]).

In addition, we control for several client characteristics in the models. Following Dopuch et al. [1987] and Chen et al. [2001], we include several profitability and liquidity measures, ROE, LEVERAGE, and CURRENT_RATIO, in the equations. ROE represents the return on equity. LEVERAGE represents the financial leverage of the client and is computed as the total long-term liabilities over the total assets of the client. CURRENT_RATIO represents the current ratio of clients, and is computed as the total current assets over total current liabilities. Generally, the lower the profitability and liquidity levels, the more likely it is that an auditor will issue a modified audit opinion. We thus expect ROE and CURRENT_RATIO to be negatively correlated with MAO, and LEVERAGE to be positively correlated with MAO. We include LNTA as a measure of client size, which is calculated as the natural logarithm of the total assets of the client, and we expect a smaller client to be more likely to receive a modified audit opinion (DeFond et al. [2000], Dopuch et al. [1987]).

We include two other variables that characterize the complexity of a firm's operations. INVENTORY and AR measure the year-end inventory and accounts receivables of the client firms (scaled by the total assets of the clients), respectively. The U.S. literature shows that a

large number of financial statement fraud cases involve inventories and accounts receivable manipulation (Feroz et al. [1991]). St. Pierre and Anderson [1984] also report a high frequency of lawsuits against auditors because of issues that are related to inventories and receivables. As in DeFond et al. [2000], we expect a positive association between a firm's complexity (as captured by INVENTORY and AR) and the issuance of audit modifications (MAO). We also include AGE, which is calculated as the number of years that a client has been listed on the stock market. Chen et al. [2001] report a positive relationship between the listing age of clients and the frequency of receiving a modified report. We therefore expect a positive association between AGE and MAO.

In addition to the control variables that are included in Model (1), we also include the opinions received by the clients in the previous year (LagMAO) to control for the possible effects of the lag opinions on the issuance of current opinions in Model (2). LagMAO takes a value of 1 if the client receives a MAO in the previous year (i.e. before the switch) and 0 otherwise. We expect LagMAO to be positively correlated with MAO. In addition, we include several change variables to control for the change in a firm's characteristics on the propensity of auditors to issue a modified audit opinion. We include Δ ROE, Δ LNTA, Δ LEVERAGE, Δ CURRENT_RATIO, Δ INVENTORY, and Δ AR, which represent a change in a client's return on equity, total assets, financial leverage, current ratio, inventory, and accounts receivables, respectively. We expect Δ ROE, Δ LNTA, and Δ CURRENT_RATIO to

be negatively associated with MAO, and Δ LEVERAGE, Δ INVENTORY, and Δ AR to be positively associated with MAO. Finally, we include year dummies and industry dummies to control for possible year and industry effects on the probability of audit modifications for the two models.

5. Empirical Results

5.1 DESCRIPTIVE STATISTICS OF SAMPLE FIRMS

Table 2 provides the descriptive statistics on the selected characteristics of the sample firms partitioned by the organizational form of the CPA firms. As reported in the Table, more partnership CPA firms are TOP 10 firms and are less influenced by the government (captured by GOV_DEP) than limited liability CPA firms. The differences are statistically significant at the 1 percent level.

Table 2 also shows that the clients of partnership CPA firms have a higher financial leverage (LEVERAGE), higher inventory level (INVENTORY), and are older (AGE) than the clients of limited liability CPA firms. However, there are no significant differences in return on equity (ROE), client size (TA), current ratio (CURRENT_RATIO), accounts receivable (AR), and firm size (TA).

[Insert Table 2 About Here]

5.2 LEGAL FORM OF CPA FIRMS AND AUDIT OPINIONS

5.2.1 Univariate Tests and Correlation Matrix. Table 3 presents the main univariate test results for hypothesis H1. As shown in Panel A, companies receiving modified audit opinions are more likely to be audited by partnership CPA firms (PARTNER) and their auditors are less likely to be influenced by the government (GOV_DEP) than companies that received clean opinions, and the differences are statistically significant at the 1 percent and 5 percent levels respectively. Panel B shows that there are significant differences in return on equity (ROE), total assets (TA), current ratio (CURRENT_RATIO), financial leverage (LEVERAGE), accounts receivable (AR), and listing age (AGE) between clients that receive modified audit opinions and clients that received clean opinions. By and large, clients that receive modified audit opinions have lower profitability, are smaller, and have lower liquidity than clients that receive a clean opinion.

[Insert Table 3 About Here]

Table 4 shows the correlation matrix of the dependent and independent variables. The correlations are broadly consistent with the univariate test results. PARTNER, LEVERAGE, AR, and AGE are positively associated with MAO, whereas GOV_DEP, ROE, LNNTA, and CURRENT_RATIO are negatively associated with MAO. In sum, our findings provide preliminary support for hypothesis H1 that companies that are audited by partnership CPA firm are more likely to receive a modified audit opinion than companies that are audited by a

limited liability CPA firm.

[Insert Table 4 About Here]

5.2.2 Multivariate Tests. Table 5 reports the main regression results to test hypothesis H1. It shows that the positive relationship between PARTNER and MAO is statistically significant at the 1 percent level. The results support hypothesis H1 that auditors' reporting conservatism is higher when the CPA firm is registered in partnership form. The negative coefficients of government influence (GOV_DEP), return on equity (ROE), client size (LN_TA), and current ratio (CURRENT_RATIO), and the positive coefficients of the accounts receivable (AR), and listing age (AGE) are consistent with our predictions. The statistical significance of these control variables show that poor client financial performance and a higher complexity of a firm's operations are associated with a higher frequency of receiving modified audit opinions. Consistent with Chan et al. [2006], auditors that are subject to government influence are less likely to issue modified audit opinion.

[Insert Table 5 About Here]

5.3 AUDITOR SWITCH AND AUDIT OPINIONS

5.3.1 Univariate Tests. Table 6 presents the univariate test results for the auditor-switch sub-sample. By and large, the results show that there is a lower occurrence of modified audit opinions for clients that switched their auditors from a partnership to a limited liability firm (SW(PtoLC)), and that the difference is statistically significant at the 5 percent

level. Table 6 also shows that the incoming limited liability auditors are generally smaller (as captured by TOP10) and have more influence from government than the incoming partnership CPA firms. However, there is no significant difference in LagMAO between clients that switched their auditors from a partnership CPA firm to a limited liability CPA firm and clients that switched in the opposite direction. In addition, except for accounts receivable, there are no significant difference in client characteristics between the clients that made different directions of auditor switches

[Insert Table 6 About Here]

5.3.2 Multivariate Tests. Table 7 reports the multivariate test results for the auditor-switch sub-sample. The result supports hypothesis H2 that a client that switches its auditor from a partnership firm to a limited liability firm is less likely to receive a modified audit report compared with a client that makes the opposite switch. The negative relationship between SW(PtoLC) is statistically significant at the 1 percent level. For the control variables, we find that a top 10 auditor (TOP 10) is more likely to issue modified audit opinions, that clients receiving a modified audit opinion in the previous year are more likely to receive a modified opinion in the current year (positive coefficient on LagMAO), and that a smaller ROE and CURRENT_RATIO, a decrease in the total assets of clients (negative coefficient on Δ LNTA), and an increase in the inventory levels of clients (positive coefficient on Δ INVENTORY) are associated with the issuance of more modified audit opinions in the

auditor-switch sub-sample. The results concur with our predictions that poorer financial performance and higher complexity of operations of the clients are more likely to lead to modified audit reports.

[Insert Table 7 About Here]

6. Sensitivity Tests

We conduct various robustness checks on the results. First, we include discretionary accruals in the models to examine their possible effects on the reporting conservatism of auditors (Francis and Krishnan [1999]). In an earlier study, Chen et al. [2001] found that earnings management was associated with modified audit reports in China. Table 8 presents the logistic regression results that include total accruals (Test (1)) and discretionary accruals (Tests (2) and (3)).

[Insert Table 8 About Here]

We calculate the total accruals (Test (1)) and discretionary accruals (Test (2)) based on the modified cross-sectional Jones [1991] model as described in Dechow et al. [1995]. We also employ another version of the modified Jones [1991] model that was developed by Ashbaugh et al. [2003] to calculate discretionary accruals (Test (3)), in which the accruals are adjusted by the lagged return on assets. The findings show that the discretionary accruals have significant effect on the reporting conservatism of auditors in China. The higher the

discretionary accruals, the more likely that a modified opinion will be issued. The findings in these sensitivity tests are qualitatively similar to the results in Table 5 Model (1)⁴, and show positive and significant associations between PARTNER and MAO across all three models.

Second, we separate the sample period by year to investigate the association between the legal form of CPA firms and the reporting conservatism of auditors in different years. The findings for each year are qualitatively the same as the main results that are reported in Table 5. In addition, it could be possible that larger auditors (i.e. Top 10 auditors) behave more conservatively to protect their reputation (Reynolds and Francis [2001]) rather than because of perceived litigation risk than smaller auditors (non-Top 10 auditors). To resolve the possibility of the reputation effects on auditors' practicing behaviors, we run the original Model (1) by excluding those sample firms that are audited by the Top 10 auditors (650 observations). As shown in Table 9, the coefficient of PARTNER is positively significant at the 5 percent level, while the overall results are qualitatively similar to the results in Table 5. These results suggest that the organizational form of CPA firms has significant effects on auditors' reporting behavior (after controlling for audit firm size and other factors), and our results are robust to these sensitivity analyses.

[Insert Table 9 About Here]

⁴ We also perform similar tests for Model (2) by including total accruals and discretionary accruals. The results (unreported) are qualitatively similar to those that are reported in the multivariate tests section.

7. Conclusion and Discussion

This paper examines the association between the legal form of CPA firms and the reporting conservatism of auditors in China. As risk and liability exposures have become important concerns for auditors, we specifically investigate how these factors affect the reporting behavior of auditors across different organizational forms. In sum, our results support hypothesis H1 that auditors in a partnership CPA firm report more conservatively than auditors in a limited liability CPA firm and they do so in order to compensate for the higher risk and liability exposure in a unlimited liability regime. In addition, a client that switches its auditor from a partnership firm to a limited liability firm is less likely to receive a modified audit report (H2). The findings are also robust after we control for several auditor and client characteristics and various model specifications.

To the best of our knowledge, our paper is the first empirical study that examines directly how the difference in intrinsic liability exposure affects an auditor's propensity to issue modified audit opinions. Although there are analytical studies that examine the costs and benefits of limiting the liability of accountants, there are no empirical studies that investigate the impact of implementing the limited liability regime on the practicing behavior of auditors. We focus on the current development of the Chinese accounting profession and explore the relationship between the legal form of CPA firms and the reporting behavior of auditors.

The limited liability regime provides a better protection for CPA firms and audit partners from legal lawsuits. However, our findings show that the unlimited liability form of CPA firms induces more conservative behavior, and therefore partnerships are more likely to issue modified audit opinions. These results should be useful for regulators and the accounting profession as they consider safeguards in implementing a limited liability regime without reducing audit quality or auditor independence. Regulators and policy makers could consider more stringent conditions for the establishment of limited liability audit firms, say by increasing the minimum capital and staffing requirements. Alternatively, professional bodies could consider setting up a peer review regime to self-regulate the behavior of auditors. Future research could also examine the various effects of the legal form of CPA firms on audit pricing and risk assessment.

TABLE 1
Sample Description

<i>Panel A: Sample Collection</i>			
	<u>Total</u>		
	<u>Firm-Year Observations</u>		
Total A-share Listed Companies from 2000 to 2002			3487
Less: Initial public offering companies			(236)
Utilities and finance companies			<u>(117)</u>
			3134
Less: Companies with no auditor information			(72)
Companies with no financial statement data			(79)
Companies' auditors merged during the sample period			(51)
Companies' auditors affiliated with an international Big Five audit firm			<u>(165)</u>
Final Sample (for testing Hypothesis H1)			<u>2767</u>
Auditor-Switch Sub-sample (for testing Hypothesis H2)			
Clients switch auditors from partnerships to limited liability firms			113
Clients switch auditors from limited liability firms to partnerships			<u>45</u>
Total Sample			<u>158</u>
<i>Panel B: Sample Descriptions – Sample Firms</i>			
	<u>Number (Percentage) of Observations</u>		
	<u>Audited by</u> <u>Partnership</u> <u>CPA Firms</u>	<u>Audited by</u> <u>Limited Liability</u> <u>CPA Firms</u>	<u>Total</u>
(1) Total Number of Sample Firms	569 (20.6%)	2198 (79.4%)	<u>2767 (100%)</u>
(2) Number of Sample Firms			
- Year 2000	213 (26.3%)	597 (73.7%)	<u>810 (100%)</u>
- Year 2001	177 (18.5%)	778 (81.5%)	<u>955 (100%)</u>
- Year 2002	179 (17.9%)	823 (82.1%)	<u>1002 (100%)</u>

TABLE 1 (Cont'd)
Sample Description

Panel C: Sample Descriptions – CPA Firms

	<u>Number (Percentage) of Observations</u>		
	<u>Partnership</u>	<u>Limited Liability</u>	<u>Total</u>
	<u>CPA Firms</u>	<u>CPA Firms</u>	
(1) Number of CPA Firms			
- Year 2000	21 (30.0%)	49 (70.0%)	<u>70 (100%)</u>
- Year 2001	10 (15.2%)	56 (84.8%)	<u>66 (100%)</u>
- Year 2002	10 (15.2%)	56 (84.8%)	<u>66 (100%)</u>
(2) Average Number of Clients per CPA Firm			
- Year 2000	10.1	12.2	
- Year 2001	17.7	13.9	
- Year 2002	17.9	14.7	
	<u>Partnership</u>	<u>Limited Liability</u>	
	<u>CPA Firms</u>	<u>CPA Firms</u>	
	<u>(Mean)</u>	<u>(Mean)</u>	<u>t-statistics</u>
(3) Total Revenue (in million RMB)	14,900	8,358	1.719*
(4) Total Audit Revenue (in million RMB)	17.674	9.020	3.211***
(5) Total Number of CPAs	82.6	101.5	-2.168**
(6) Total Number of Securities-Licensed CPAs	25.2	27.1	-1.607

*** (**, *) indicates significance at the 1 % (5%, 10 %) level for two-tailed test

TABLE 2
Descriptive Statistics of the Sample Firms (n = 2767)

The variables are defined as follows: PARTNER = 1 if the CPA firm is a partnership firm; 0 if the CPA firm is a limited liability firm. TOP 10 = 1 if the CPA firm is a top 10 auditor (based on clients' total assets) in the year of audit; 0 if otherwise. GOV_DEP = 1 if both the CPA firm and the client are in the same provincial location and more than 50 percent of the CPA firm's clients total assets come from the same jurisdiction; 0 otherwise. ROE = return on equity of the client. TA = total assets of the client. LEVERAGE = financial leverage of the client, represented by total long-term liabilities divided by total assets of the client. CURRENT_RATIO = total current assets over total current liabilities. INVENTORY = client's inventory level (scaled by total assets). AR = client's accounts receivables level (scaled by total assets). AGE = number of years the client has been listed on the market.

<i>Variable</i>	<i>Firms Audited by Partnership CPA Firm (PARTNER = 1) n = 569</i>	<i>Firms Audited by Limited Liability CPA Firm (PARTNER = 0) n = 2198</i>	<i>χ^2 statistics or t-statistics</i>
	<u>Mean (Median)</u>	<u>Mean (Median)</u>	
TOP 10	0.276 (0.000)	0.224 (0.000)	6.761***
GOV_DEP	0.564 (1.000)	0.691 (1.000)	12.364***
ROE	0.074 (0.064)	-0.178 (0.064)	0.751
TA (in millions)	1732 (1128)	1727 (1164)	0.058
LEVERAGE	0.084 (0.030)	0.056 (0.022)	3.629***
CURRENT_RATIO	1.653 (1.287)	1.683 (1.390)	-0.367
INVENTORY	0.205 (0.114)	0.146 (0.118)	1.882*
AR	0.097 (0.066)	0.103 (0.083)	-1.234
AGE	7.392 (7.074)	6.910 (6.734)	4.158***

*** (*) indicates significance at the 1 % (10 %) level for two-tailed test

TABLE 3
Univariate Tests for the Association between the Legal Form of CPA Firms and Audit Opinions (full sample; n = 2767)

The variables are defined as follows: MAO = 1 if the CPA firm issued a modified audit opinion for the client; 0 if a clean opinion is issued. PARTNER = 1 if the CPA firm is a partnership firm; 0 if the CPA firm is a limited liability firm. TOP 10 = 1 if the CPA firm is a top 10 auditor (based on clients' total assets) in the year of audit; 0 if otherwise. GOV_DEP = 1 if both the CPA firm and the client are in the same provincial location and more than 50 percent of the CPA firm's clients total assets come from the same jurisdiction; 0 otherwise. ROE = return on equity of the client. TA = total assets of the client. LEVERAGE = financial leverage of the client, represented by total long-term liabilities divided by total assets of the client. CURRENT_RATIO = total current assets over total current liabilities. INVENTORY = client's inventory level (scaled by total assets). AR = client's accounts receivables level (scaled by total assets). AGE = number of years the client has been listed on the market.

Panel A: Auditor characteristics			
<i>Variable</i>	<i>Modified Audit Opinions (MAO = 1)</i> <i>n = 447</i>	<i>Clean Opinions (MAO = 0)</i> <i>n = 2320</i>	<i>χ² statistics</i>
	<u>Mean</u>	<u>Mean</u>	
PARTNER	0.282	0.191	19.052***
TOP 10	0.242	0.233	0.140
GOV_DEP	0.622	0.674	4.487**

Panel B: Client characteristics			
<i>Variable</i>	<i>Modified Audit Opinions (MAO = 1)</i> <i>n = 447</i>	<i>Clean Opinions (MAO = 0)</i> <i>n = 2320</i>	<i>t-statistics</i>
	<u>Mean (Median)</u>	<u>Mean (Median)</u>	
ROE	-1.017 (0.009)	0.045 (0.067)	-2.886***
TA (in millions)	1362 (899.8)	1798 (1207)	-4.362***
LEVERAGE	0.077 (0.015)	0.058 (0.025)	2.139**
CURRENT_RATIO	1.436 (1.073)	1.723 (1.432)	-3.134***
INVENTORY	0.140 (0.102)	0.162 (0.119)	-0.646
AR	0.115 (0.081)	0.099 (0.080)	3.209***
AGE	7.878 (7.463)	6.842 (6.658)	8.226***

*** (**) indicates significance at the 1 % (5 %) level for two-tailed test

TABLE 4***Pearson (Spearman's rho) Correlations for the Association between the Legal Form of CPA Firms and Audit Opinions (full sample; n = 2767)***

The variables are defined as follows: MAO = 1 if the CPA firm issued a modified audit opinion for the client; 0 if a clean opinion is issued. PARTNER = 1 if the CPA firm is a partnership firm; 0 if the CPA firm is a limited liability firm. TOP 10 = 1 if the CPA firm is a top 10 auditor (based on clients' total assets) in the year of audit; 0 if otherwise. GOV_DEP = 1 if both the CPA firm and the client are in the same provincial location and more than 50 percent of the CPA firm's clients total assets come from the same jurisdiction; 0 otherwise. ROE = return on equity of the client. LNTA = natural logarithm of total assets of the client. LEVERAGE = financial leverage of the client, represented by total long-term liabilities divided by total assets of the client. CURRENT_RATIO = total current assets over total current liabilities. INVENTORY = client's inventory level (scaled by total assets). AR = client's accounts receivables level (scaled by total assets). AGE = number of years the client has been listed on the market.

	<i>Pearson Correlations (Upper Half) and Spearman's Rho Ranked Correlations (Lower Half)</i>										
	MAO	PARTNER	TOP 10	GOV_DEP	ROE	LNTA	LEVERAGE	CURRENT_RATIO	INVENTORY	AR	AGE
MAO		0.083***	0.007	-0.040**	-0.259***	-0.140***	-0.043**	-0.225***	-0.068***	0.016	0.168***
PARTNER	0.083***		0.049***	-0.109***	-0.008	-0.030	0.039**	-0.070***	-0.030	-0.055***	0.068***
TOP 10	0.007	0.049***		-0.033*	0.101***	0.111***	-0.032*	-0.056***	0.032*	-0.069***	0.177***
GOV_DEP	-0.040**	-0.109***	-0.033*		0.009	0.100***	0.026	-0.017	0.018	-0.004	0.107***
ROE	-0.055***	0.014	0.013	-0.034*		0.107***	-0.009	0.053***	0.028	-0.048**	-0.092***
LNTA	-0.163***	-0.041**	0.115***	0.096***	0.026		0.244***	-0.004	0.076***	-0.008	-0.070***
LEVERAGE	0.041**	0.069***	-0.033*	0.004	0.007	0.025		-0.092***	-0.046**	-0.056***	-0.044**
CURRENT_RATIO	-0.060***	-0.007	0.019	0.001	0.012	-0.041**	-0.024		0.097***	0.158***	-0.256***
INVENTORY	-0.012	0.036*	0.047**	0.053***	0.000	-0.047**	-0.007	-0.020		0.183***	0.080***
AR	0.061***	-0.023	-0.035*	-0.026	-0.002	-0.043**	-0.074***	0.006	0.307***		-0.070***
AGE	0.155***	0.079***	0.184***	0.090***	-0.002	-0.056***	-0.008	-0.144***	0.071***	-0.019	

*** (**, *) indicates significance at the 1 % (5 %, 10 %) level for two-tailed test

TABLE 5**Multivariate Tests for the Association between the Legal Form of CPA Firms and Audit Opinions
(full sample; n = 2767)**

$$\text{Model (1): } MAO = \alpha + \beta_1 \text{PARTNER} + \beta_2 \text{TOP10} + \beta_3 \text{GOV_DEP} + \beta_4 \text{ROE} + \beta_5 \text{LNTA} + \beta_6 \text{LEVERAGE} + \beta_7 \text{CURRENT_RATIO} \\ + \beta_8 \text{INVENTORY} + \beta_9 \text{AR} + \beta_{10} \text{AGE} + \beta_{11} \text{YearDummies} + \beta_{12} \text{IndustryDummies} + \varepsilon$$

The variables are defined as follows: MAO = 1 if the CPA firm issued a modified audit opinion for the client; 0 if a clean opinion is issued. PARTNER = 1 if the CPA firm is a partnership firm; 0 if the CPA firm is a limited liability firm. TOP 10 = 1 if the CPA firm is a top 10 auditor (based on clients' total assets) in the year of audit; 0 if otherwise. GOV_DEP = 1 if both the CPA firm and the client are in the same provincial location and more than 50 percent of the CPA firm's clients total assets come from the same jurisdiction; 0 otherwise. ROE = return on equity of the client. LNTA = natural logarithm of total assets of the client. LEVERAGE = financial leverage of the client, represented by total long-term liabilities divided by total assets of the client. CURRENT_RATIO = total current assets over total current liabilities. INVENTORY = client's inventory level (scaled by total assets). AR = client's accounts receivables level (scaled by total assets). AGE = number of years the client has been listed on the market.

<i>Dependent Variable: Modified Opinion (1) vs. Clean Opinion (0)</i>			
<i>Variable</i>	<i>Expected Sign</i>	<i>Coefficient</i>	<i>Wald</i>
PARTNER	+	0.344	7.201***
TOP 10	+	-0.055	0.168
GOV_DEP	-	-0.195	2.743**
ROE	-	-0.142	7.660***
LNTA	-	-0.499	54.047***
LEVERAGE	+	0.570	1.932
CURRENT_RATIO	-	-0.130	4.969**
INVENTORY	+	-1.251	6.207***
AR	+	1.999	11.929***
AGE	+	0.156	37.673***
Year dummies		Included	
Industry dummies		Included	
Intercept	?	8.030	31.912***
Chi-Square		231.021***	

*** (**) indicates significance at the 1 % (5 %) level for two-tailed test

TABLE 6**Univariate Tests for the Association between Auditor Switch and Audit Opinions
(auditor-switch sub-sample; n = 158)**

The variables are defined as follows: MAO = 1 if the CPA firm issued a modified audit opinion for the client; 0 if a clean opinion is issued. SW(PtoLC) = 1 if the client's auditor changed from a partnership firm to a limited liability firm; 0 otherwise. TOP 10 = 1 if the CPA firm is a top 10 auditor (based on clients' total assets) in the year of audit; 0 if otherwise. GOV_DEP = 1 if both the CPA firm and the client are in the same provincial location and more than 50 percent of the CPA firm's clients total assets come from the same jurisdiction; 0 otherwise. LagMAO = 1 if a modified opinion was received by the client in lag one year; 0 otherwise. ROE = return on equity of the client. TA = total assets of the client. LEVERAGE = financial leverage of the client, represented by total long-term liabilities divided by total assets of the client. CURRENT_RATIO = total current assets over total current liabilities. INVENTORY = client's inventory level (scaled by total assets). AR = client's accounts receivables level (scaled by total assets). AGE = number of years the client has been listed on the market. ΔROE = change in return on equity of the client. ΔTA = change in total assets of the client. ΔLEVERAGE = change in financial leverage of the client. ΔCURRENT_RATIO = change in current ratio of the client. ΔINVENTORY = change in client's inventory level (scaled by total assets). ΔAR = change in client's accounts receivables level (scaled by total assets).

Panel A: Auditor characteristics

Variable	<i>Clients that switched their auditors from a partnership firm to a limited liability firm (SW(PtoLC) = 1)</i>	<i>Clients that switched their auditors from a limited liability firm to a partnership firm (SW(PtoLC) = 0)</i>	χ^2 statistics
	<i>n = 113</i>	<i>n = 45</i>	
	<u>Mean</u>	<u>Mean</u>	
MAO	0.212	0.378	4.581**
TOP 10	0.150	0.378	9.849***
GOV_DEP	0.417	0.244	4.166**
LagMAO	0.333	0.293	0.612

Panel B: Client characteristics

Variable	<i>Clients that switched their auditors from a partnership firm to a limited liability firm (SW(PtoLC) = 1)</i>	<i>Clients that switched their auditors from a limited liability firm to a partnership firm (SW(PtoLC) = 0)</i>	t-statistics
	<i>n = 113</i>	<i>n = 45</i>	
	<u>Mean (Median)</u>	<u>Mean (Median)</u>	
ROE	0.064 (0.055)	-0.103 (0.068)	1.076
TA (in millions)	1698 (1110)	1594 (1205)	0.363
LEVERAGE	0.053 (0.027)	0.054 (0.027)	-0.108
CURRENT_RATIO	1.582 (1.347)	1.645 (1.363)	-0.341
INVENTORY	0.178 (0.125)	0.125 (0.114)	1.400
AR	0.100 (0.082)	0.066 (0.048)	2.349**
AGE	7.166 (6.986)	6.680 (6.573)	1.160
ΔROE	0.190 (-0.012)	-0.003 (-0.003)	0.682
ΔTA (in millions)	120.0 (76.29)	251.0 (98.21)	-1.215
ΔLEVERAGE	-0.005 (0.000)	-0.003 (-0.002)	-0.144
ΔCURRENT_RATIO	-0.295 (-0.146)	-0.568 (-0.255)	1.439
ΔINVENTORY	0.010 (-0.005)	-0.004 (-0.001)	0.486
ΔAR	-0.013 (-0.008)	-0.012 (-0.003)	-0.203

*** (**) indicates significance at the 1 % (5 %) level for two-tailed test

TABLE 7
Multivariate Tests for the Association between Auditor Switch and Audit Opinions
(auditor-switch sub-sample; n = 158)

$$\begin{aligned} \text{Model (2): } MAO = & \alpha + \beta_1 SW(\text{PtoLC}) + \beta_2 TOP10 + \beta_3 GOV_DEP + \beta_4 LagMAO + \beta_5 ROE + \beta_6 LNNTA + \beta_7 LEVERAGE \\ & + \beta_8 CURRENT_RATIO + \beta_9 INVENTORY + \beta_{10} AR + \beta_{11} AGE + \beta_{12} \Delta ROE + \beta_{13} \Delta LNNTA \\ & + \beta_{14} \Delta LEVERAGE + \beta_{15} \Delta CURRENT_RATIO + \beta_{16} \Delta INVENTORY + \beta_{17} \Delta AR + \beta_{18} YearDummies \\ & + \beta_{19} IndustryDummies + \varepsilon \end{aligned}$$

The variables are defined as follows: MAO = 1 if the CPA firm issued a modified audit opinion for the client; 0 if a clean opinion is issued. SW(PtoLC) = 1 if the client's auditor changed from a partnership firm to a limited liability firm; 0 otherwise. TOP 10 = 1 if the CPA firm is a top 10 auditor (based on clients' total assets) in the year of audit; 0 if otherwise. GOV_DEP = 1 if both the CPA firm and the client are in the same provincial location and more than 50 percent of the CPA firm's clients total assets come from the same jurisdiction; 0 otherwise. LagMAO = 1 if a modified opinion was received by the client in lag one year; 0 otherwise. ROE = return on equity of the client. LNNTA = natural logarithm of total assets of the client. LEVERAGE = financial leverage of the client, represented by total long-term liabilities divided by total assets of the client. CURRENT_RATIO = total current assets over total current liabilities. INVENTORY = client's inventory level (scaled by total assets). AR = client's accounts receivables level (scaled by total assets). AGE = number of years the client has been listed on the market. ΔROE = change in return on equity of the client. ΔLNNTA = change in natural logarithm of total assets of the client. ΔLEVERAGE = change in financial leverage of the client. ΔCURRENT_RATIO = change in current ratio of the client. ΔINVENTORY = change in client's inventory level (scaled by total assets). ΔAR = change in client's accounts receivables level (scaled by total assets).

<i>Dependent Variable: Modified Opinion (1) vs. Clean Opinion (0)</i>			
<i>Variable</i>	<i>Expected Sign</i>	<i>Coefficient</i>	<i>Wald</i>
SW(PtoLC)	-	-2.891	6.432***
TOP 10	+	2.272	4.578**
GOV_DEP	-	0.046	0.003
LagMAO	+	3.563	7.259***
ROE	-	-5.051	4.562**
LNNTA	-	-0.838	1.830
LEVERAGE	+	8.668	1.143
CURRENT_RATIO	-	-1.325	5.311**
INVENTORY	+	0.301	0.005
AR	+	-7.470	1.075
AGE	+	-0.751	5.010**
ΔROE	-	1.458	0.523
ΔLNNTA	-	-11.264	12.413***
ΔLEVERAGE	+	-12.367	1.366
ΔCURRENT_RATIO	-	-0.062	0.015
ΔINVENTORY	+	19.589	4.607**
ΔAR	+	3.152	0.149
Year dummies		Included	
Industry dummies		Included	
Intercept	?	16.216	1.637***
Chi-Square		121.199***	

*** (**, *) indicates significance at the 1 % (5 %, 10 %) level for two-tailed test

TABLE 8***Sensitivity Tests for the Association between the Legal Form of CPA Firms and Audit Opinions***

Model:

$$MAO = \alpha + \beta_1 PARTNER + \beta_2 TOP10 + \beta_3 GOV_DEP + \beta_4 ROE + \beta_5 LNNTA + \beta_6 LEVERAGE + \beta_7 CURRENT_RATIO + \beta_8 INVENTORY + \beta_9 AR + \beta_{10} AGE + \beta_{11} YearDummies + \beta_{12} IndustryDummies + \beta_{13} TAC + \beta_{14} DAC + \varepsilon$$

The variables are defined as follows: MAO = 1 if the CPA firm issued a modified audit opinion for the client; 0 if a clean opinion is issued. PARTNER = 1 if the CPA firm is a partnership firm; 0 if the CPA firm is a limited liability firm. TOP 10 = 1 if the CPA firm is a top 10 auditor (based on clients' total assets) in the year of audit; 0 if otherwise. GOV_DEP = 1 if both the CPA firm and the client are in the same provincial location and more than 50 percent of the CPA firm's clients total assets come from the same jurisdiction; 0 otherwise. ROE = return on equity of the client. LNNTA = natural logarithm of total assets of the client. LEVERAGE = financial leverage of the client, represented by total long-term liabilities divided by total assets of the client. CURRENT_RATIO = total current assets over total current liabilities. INVENTORY = client's inventory level (scaled by total assets). AR = client's accounts receivables level (scaled by total assets). AGE = number of years the client has been listed on the market. TAC = absolute value of the total accruals. DAC = absolute value of the discretionary accruals.

<i>Dependent Variable: Modified Opinion (1) vs. Clean Opinion (0)</i>							
<i>Variable</i>	<i>Exp. Sign</i>	<i>Test (1) (n = 2660)^a</i>		<i>Test (2) (n = 2660)</i>		<i>Test (3) (n = 2655)</i>	
		<i>Coefficient</i>	<i>Wald</i>	<i>Coefficient</i>	<i>Wald</i>	<i>Coefficient</i>	<i>Wald</i>
PARTNER	+	0.346	6.953***	0.352	7.203***	0.357	7.423***
TOP 10	+	-0.068	0.242	-0.091	0.430	-0.079	0.327
GOV_DEP	-	-0.222	3.414**	-0.222	3.385**	-0.227	3.534**
ROE	-	-0.139	7.378***	-0.141	7.463***	-0.135	7.115***
LNNTA	-	-0.494	50.344***	-0.490	48.267***	-0.501	50.925***
LEVERAGE	+	0.452	1.405	0.373	1.087	0.427	1.270
CURRENT_RATIO	-	-0.120	4.346**	-0.121	4.392**	-0.120	4.346**
INVENTORY	+	-1.251	5.952***	-1.223	5.725***	-1.225	5.731***
AR	+	2.108	12.384***	2.093	12.150***	2.114	12.408***
AGE	+	0.154	35.204***	0.157	36.015***	0.155	35.202***
Year dummies		Included		Included		Included	
Industry dummies		Included		Included		Included	
TAC	+	0.375	2.250	-	-	-	-
DAC	+	-	-	0.553	3.610**	0.417	2.197*
Intercept	?	7.873	29.003***	7.765	27.297***	8.004	29.413***
Chi-Square			215.145***		219.174***		216.672***

^aTest (1) adds one variable – TAC (absolute total accruals), which is calculated by the modified cross-sectional Jones (1991) model in Dechow et al. (1995). Test (2) and Test (3) include the variable DAC (absolute discretionary accruals). DAC for Test (2) is calculated by the modified cross-sectional Jones (1991) model in Dechow et al. (1995), while DAC for Test (3) is calculated by the return-adjusted cross-sectional Jones (1991) model in Ashbaugh et al. (2003).

^bWe also perform similar tests for the Model (2) as described in the text and in Table 8. The results are qualitatively similar to those that are reported.

*** (**, *) indicates significance at the 1 % (5 %, 10 %) level for one-tailed test

TABLE 9***Sensitivity Tests for the Association between the Legal Form of CPA Firms and Audit Opinions
(Excluding Top 10 Auditors) (sample size; n = 2117)***

$$\text{Model: } MAO = \alpha + \beta_1 \text{PARTNER} + \beta_2 \text{GOV_DEP} + \beta_3 \text{ROE} + \beta_4 \text{LNTA} + \beta_5 \text{LEVERAGE} + \beta_6 \text{CURRENT_RATIO} \\ + \beta_7 \text{INVENTORY} + \beta_8 \text{AR} + \beta_9 \text{AGE} + \beta_{10} \text{YearDummies} + \beta_{11} \text{IndustryDummies} + \varepsilon$$

The variables are defined as follows: MAO = 1 if the CPA firm issued a modified audit opinion for the client; 0 if a clean opinion is issued. PARTNER = 1 if the CPA firm is a partnership firm; 0 if the CPA firm is a limited liability firm. GOV_DEP = 1 if both the CPA firm and the client are in the same provincial location and more than 50 percent of the CPA firm's clients total assets come from the same jurisdiction; 0 otherwise. ROE = return on equity of the client. LNTA = natural logarithm of total assets of the client. LEVERAGE = financial leverage of the client, represented by total long-term liabilities divided by total assets of the client. CURRENT_RATIO = total current assets over total current liabilities. INVENTORY = client's inventory level (scaled by total assets). AR = client's accounts receivables level (scaled by total assets). AGE = number of years the client has been listed on the market.

<i>Dependent Variable: Modified Opinion (1) vs. Clean Opinion (0)</i>			
<i>Variable</i>	<i>Expected Sign</i>	<i>Coefficient</i>	<i>p-value</i>
PARTNER	+	0.346	5.072**
GOV_DEP	-	-0.209	2.380*
ROE	-	-0.082	2.787**
LNTA	-	-0.492	37.288***
LEVERAGE	+	0.469	1.564
CURRENT_RATIO	-	-0.737	47.961***
INVENTORY	+	-0.160	0.093
AR	+	2.392	11.277***
AGE	+	0.161	26.988***
Year dummies		Included	
Industry dummies		Included	
Intercept	?	8.627	25.940***
Chi-Square			253.099***

*** (**, *) indicates significance at the 1 % (5 %, 10%) level for one-tailed test

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