# Abnormal Audit Fees and Audit Opinion – Further Evidence from China's Capital Market

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## Abstract

The existing literature on audit opinion shopping provides inconsistent evidence on whether such shopping has any association with abnormal audit fees. In this paper, we hypothesize that firms engage in audit opinion shopping and pay an abnormal audit fee only when their degree of accounting quality is low. To examine the issue, we group firms on the basis of their change in return on assets (ROA), and show that abnormal audit fees improve audit opinions only among firms that engage local auditors and have a low degree of ROA, but report a large increase in ROA, especially when the ROA change is the result of abnormal accruals. We find no association between abnormal audit fees and audit opinion improvement for other firms.

*JEL classification:* M41; M42

*Keywords:* Abnormal audit fees; Audit opinion shopping

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## 1. Introduction

Audit opinion shopping has been studied extensively in accounting research. A firm engages in opinion shopping by influencing or even manipulating its auditor's decision in certain ways to obtain an opinion that is more favorable that that warranted by the quality of its accounting information. If such behavior exists, then it would lead to a higher degree of information asymmetry between managers and investors and weaken auditing's protective effect on investors.

Empirical research has resulted in inconsistent evidence about whether a firm can influence its audit opinion in China's capital market by paying excessive fees. Chen, Su, and Wu (2005), for example, show that, absent an auditor switch, there is a positive correlation between a higher abnormal audit fee and an improvement in audit opinion. Employing a different research design, Fang and Hong (2008) also find that abnormal audit fees can lead to a better audit opinion. However, when they used the same data selection criterion as Chen, Su, and Wu (2005), the positive relationship between abnormal audit fees and audit opinion improvement disappeared. Other results reported by Fang and Hong (2008) are also counterintuitive. For example, they argue that domestic audit firms are less likely to allow audit opinion shopping than the international Big Four. Such a result is inconsistent with the general perception that the Big Four, enjoy a large customer base, are less likely to be pressured by clients.

In this paper, we reconsider the relationship between abnormal audit fees and audit opinion change, making several significant modifications to the research methodologies employed in the aforementioned papers. We believe that only a firm with a low degree of accounting quality has the incentive to pay an extra audit fee to avoid questions about that quality. If a firm improves its operating results in such a convincing way that its audit opinion improves, then there is no need for it to pay an extra fee to its auditors to obtain a better opinion. If, in contrast, the firm's earnings quality is not convincing, then it would have to pay the auditor an extra fee to induce it not to question that earnings quality. Hence, we believe that the relationship between abnormal audit fees and audit opinion improvement is most likely to exist among firms with a questionable improvement in profitability.

Previous studies have focused on the association between audit opinion improvement and abnormal audit fees, but there is one form of opinion shopping whose aim is to avoid the worsening of a firm's audit opinion. Unlike previous studies demonstrating opinion improvement, we observe no opinion change when a firm successfully maintains its audit opinion. In this paper, we extend the existing literature by considering a model of audit opinion deterioration, and test the role of abnormal audit fees. We then combine this model and our audit opinion improvement model into an ordinal logit model of audit opinion change, thus allowing us to combine information on both opinion improvement and deterioration.

We also introduce a number of improvements to the model for computing abnormal audit fees. Our model introduces fixed effects to account for unobserved factors in the normal audit fee among different firms, and includes a lagged audit fee to allow for systematic changes in the normal fee over time. These changes allow our model to integrate two different methods of calculating abnormal audit fees, that is, the ratio method employed by Fang and Hong (2008) and the residual method adopted by Chen, Su, and Wu (2005). The resulting model significantly improves the prediction accuracy of audit fees, thus allowing a more accurate determination of abnormal audit fees and increasing the efficiency of our tests of the hypotheses of interest. Our model also unifies the models for audit fee level and fee change, and thus addresses the inconsistency between these two types of models that Wu and Liu (2008) pointed out.

Our empirical results based on these improved models demonstrate that, holding the control factors fixed, high abnormal audit fees are associated with a greater chance of audit opinion improvements (or less chance of audit opinion deterioration) among firms with an abnormally high increase in profitability, but not among firms with a normal increase, or a decrease, in profitability. Further analysis indicates that this association stems from firms with a low level of profitability (even after controlling for an abnormally high increase in profitability). This finding is likely to be associated with China's corporate law system, which delists firms reporting three consecutive years of losses.

To further our understanding of the role of accounting, we decompose profitability change into operating cash flow change and accrual change. We expect – and empirically confirm – an association between high abnormal audit fees and opinion improvement among firms with a profitability increase that is driven by high abnormal accruals rather than high cash flows. Taking these findings together, we conclude that firms with a low degree of accounting quality use abnormal audit fees to obtain more favorable audit opinions.

Among firms that have switched auditors, we find no association between audit fees and audit opinion change, which is in line with the findings of Chen, Su, and Wu (2005). Unlike Fang and Hong (2008), however, we find no evidence of an association between abnormal audit fees and audit opinion change among the international Big Four in any of our samples.

## 2. Literature Review

The typical method of investigating audit opinion shopping in the existing literature is to compare the audit opinion before and after an auditor switch. Chow and Rice (1982), for example, find that an auditor switch does not improve audit opinion. Krishnan and Stephens (1995) too compare auditors' decision process before and after a switch and find no evidence of improvement in the audit opinion. Using an audit opinion forecasting model, Lennox (2000) arrives at the opposite result. In their investigation of China's capital market, Gen and Yang (2001) find that firms are more likely to obtain an unqualified than a qualified opinion after an auditor switch. Li, Huang, and Wang (2001) show that an auditor switch is positively correlated with a qualified opinion in the prior year. Employing a modified Lennox model, Li and Wu (2002) find that, among firms with qualified opinions in the prior year, switching auditors leads to a slightly lower probability of receiving a qualified opinion relative to firms making no such switch, although the result is not statistically significant. Lu and Tong (2003) find no evidence of audit opinion shopping in the year 2000, but weak evidence in 2001. Wu and Tan (2005) fail to find any improvement in audit opinion following an auditor switch. These results collectively show that there is no evidence to indicate that firms can improve their audit opinions by switching auditors.

A potential alternative is that a firm may improve its audit opinion by paying a higher audit fee to its current auditor, that is, it "purchases" a more favorable audit opinion without switching its auditor. Chen, Su, and Wu (2005) investigate firms that received a qualified opinion between 2000 and 2002, and find that, absent an auditor switch, a high abnormal audit fee is associated with an improvement in auditing outcome (with improvement in both profitability and audit opinion) in the subsequent year. Their finding indicates that an auditor's independence may be negatively affected by the economic incentive provided by its clients.

Extending their sample to include all firms in China's stock market and employing several different measures of abnormal audit fees, Fang and Hong (2008) also find a positive relationship between abnormal audit fees and audit opinion improvement. However, the inclusion of all firms in their regression leads to biased estimation results, as firms that received an unqualified opinion in the prior year are unable to realize any further improve in their audit opinion. The correct method would be either to exclude these firms, as they did in their robustness study following the approach adopted by Chen, Su, and Wu (2005), or, equivalently, to include indicator variables for the prior year's audit opinion. When Fang and Hong (2008) excluded firms with a prior unqualified opinion in their robustness study, however, there was no longer any significant relationship between abnormal audit fees and audit opinion improvement, even through their sample size was several times that of Chen, Su, and Wu's (2005). In addition, their results also indicate that local audit firms allow less opinion shopping than their international Big Four counterparts. This finding is counterintuitive, as it is generally believed that the Big Four have many more clients than local firms and are thus less likely to be concerned about the profits from each.

The current paper extends the existing research in several ways. First, we classify firms based on accounting quality, which is similar to the approach adopted by Chen, Su, and Wu (2005). The model we adopt, however, bears greater similarity to that of Fang and Hong (2008), as it uses the audit opinion as the dependent variable, which is more intuitive and easier to interpret than the model in Chen, Su, and Wu (2005).

Second, and importantly, this research addresses the determination of abnormal audit fees. Chen, Su, and Wu (2005) employ a cross-sectional regression to determine the expected audit fee. However, in addition to known factors such as size, these fees are determined by a number of other unobserved factors. When unobserved factors exist, the residuals capture these factors and thus lead to bias in the abnormal fee. Fang and Hong (2008) measure an abnormal audit fee as a change in the audit fee-to-assets ratio, a method that overcomes some of the problems in Chen, Su, and Wu (2005), but creates new problems because the change in this ratio is driven by predictable factors and thus is not abnormal.

In this paper, we improve the audit fee model by including fixed effects and a lagged audit fee. Fixed effects capture unobserved factors in the audit fee, whereas the inclusion of a lagged audit fee allows dynamic change in these factors. Moreover, it allows us to integrate the two different approaches in Chen, Su, and Wu (2005) and Fang and Hong (2008), thus ensuring that our model includes both models as nested submodels. This approach significantly improves the accuracy of our abnormal audit fee calculations.

Third, the sample period in both Chen, Su, and Wu (2005) and Fang and Hong (2008) is 2000-2002, whereas we consider the 2002-2008 period, which results in a much larger sample and reflects the more up-to-date situation in China's audit market. Finally, we also include an audit opinion deterioration model, which provides independent verification of our hypotheses and adds greater credibility to our results. An ordinal logit model is then formed to combine information on both opinion improvement and deterioration.

## 3. Hypotheses Development and Research Design

To evaluate whether a firm pays a higher audit fee to obtain a more favorable audit opinion, it is necessary to understand the incentives a firm would have for doing so. Absent such incentives, firms are unlikely to make any extra payment. Our analysis is built upon this foundation.

A firm's need to obtain a more favorable audit opinion depends on two factors. First, we need to decide whether it is seeking to improve its audit opinion or maintain an already favorable opinion. Second, the foundation of a more favorable opinion is questionable. If a firm's earnings increase is solid and convincing, then the audit opinion will reflect that increase, and the firm thus has no need to offer its auditors an incentive to obtain a better opinion. If, in contrast, the firm's earnings increase has been obtained through questionable accounting practices, then it must find a way, such as paying a higher audit fee, to persuade its auditors to certify those earnings and give it a better audit opinion than the facts merit.

To proxy for the quality of a profitability increase, we consider two measures. The first measures whether that increase is normal. Although a high level of profitability does not necessarily imply an accounting quality problem, it is relatively unlikely that a firm's return on assets (ROA) would undergo a sudden and significant increase.

**Hypothesis I:** *Among firms with an abnormally large increase in profitability, a high abnormal audit fee is associated with an improvement in audit opinion. Among other firms, there is no association between an abnormal audit fee and an audit opinion change.*

The second measure considers an abnormal increase in accruals, which are relatively easy to manipulate. If a firm's profitability increase stems from a large increase in accruals, then that increase is likely to be of low quality.

To test this hypothesis, we employ the following model, which is similar to that in Fang and Hong (2008).

$$\textbf{Logit(Imp=1)} = ß_0 + ß_1 \text{ Abfee} + ß_2 \text{ Size} + ß_3\ \Delta\text{ROA} + ß_4\ \Delta\text{LEV} + ß_5 \text{ Growth} \\ + ß_6 \text{ Loss} + ß_7 \text{ Lastloss} + ß_8 \text{ Switch} + ß_9 \text{ Switch*Abfee} \\ + ß_{10} \text{ Big4} + \text{Prior Opinion Dummies} + \text{Year Dummies}, \qquad (1)$$

where Imp is a binary variable that indicates an improvement in audit opinion, Abfee is the variable of interest, that is, the abnormal audit fee, and ΔROA is the change in ROA (see Table 1 for definitions of the other variables). Among firms that have abnormally large values for ΔROA, we expect $ß_1 > 0$; among the remaining firms, we expect $ß_1 = 0$. Note that the model should include only those firms that have received qualified opinions, as these are the only firms that can have had an improvement in audit opinion.

The concern for firms whose audit opinion faces a downgrade would be to avoid that downgrade. To do so, they must show better profitability than is actually the case and persuade their auditors to accept this nominal profitability, potentially by paying a higher audit fee. An abnormal audit fee may thus reduce the likelihood of audit opinion deterioration.

**Hypothesis II:** *Among firms with an abnormally large increase in profitability, a high abnormal audit fee is associated with a lower probability of audit opinion deterioration. Among other firms, there is no association between an abnormal audit fee and an audit opinion change.*

The model employed to test Hypothesis II is similar to Model (1), but includes the dependent variable, Det, which is a binary variable that takes a value of 1 if the audit opinion in this period is worse than that in the prior period and 0 if it is better or unchanged. This model is specified as follows.

$$\textbf{Logit(Det=1)} = ß_0 + ß_1 \text{ Abfee} + ß_2 \text{ Size} + ß_3\ \Delta\text{ROA} + ß_4\ \Delta\text{LEV} + ß_5 \text{ Growth} \\ + ß_6 \text{ Loss} + ß_7 \text{ Lastloss} + ß_8 \text{ Switch} + ß_9 \text{ Switch*Abfee} \\ + ß_{10} \text{ Big4} + \text{Prior Opinion Dummies} + \text{Year Dummies}. \qquad (2)$$

Based on this coding, a coefficient has a meaning opposite to that in Model (1). Hence, Hypothesis II states that $ß_1 < 0$ for firms with abnormally large ΔROA values and $ß_1 = 0$ for other firms. Note that the model includes only firms with prior opinions better than the worst option (a disclaimer or adverse opinion) to ensure that deterioration is possible.

Given that an audit opinion may either improve or deteriorate, a better approach is to integrate both types of change. To do so, we employ an ordinal model with four categories, 0, –1, –2, and –3, to represent the four types of audit opinions ranging from best to worst. Assuming that a firm's audit opinion during t-1 is $OP_{t-1} = j$, we denote the conditional probability of the audit opinion in the t-th period, $OP_t = i$, as $Prob(OP_t = i \mid OP_{t-1} = j)$. The dependent variable of this ordinal model is the logit of probability, $Prob(OP_t \leq i \mid OP_{t-1}=j)$, which is the conditional probability that the opinion is no worse than i, given that the prior opinion is j. The ordinal model takes the form

$$\mathbf{Logit(OP_t \leq i \mid OP_{t-1}=j)} = ß_{i,0} - ß^{j,0} - ß_1\,Abfee - ß_2\,Size - ß_3\Delta ROA - ß_4\,\Delta LEV - ß_5\,Growth - ß_6\,Loss - ß_7\,Lastloss - ß_8\,Switch - ß_9\,Switch{*}Abfee - ß_{10}\,Big4 - \text{Year Dummies.} \quad (3)$$

The coefficients presented in the standard ordinal model are the opposite of the estimated value, and thus each ß coincides with that of a logit model when the data are binary (0-1). Note that for Model (3), we include all of the firms and dummy variables for the prior audit opinion, $ß^{j,0}$. The following hypothesis summarizes Hypotheses I and II.

**Hypothesis III:** *Among firms with abnormally large increases in profitability, a high abnormal fee is associated with a higher probability of a better audit opinion, that is,* $ß_1 > 0$. *Among other firms, there is no association between an abnormal audit fee and the audit opinion level, that is,* $ß_1 = 0$.

To define an abnormal increase in profitability, we use two different criteria, ΔROA > P75 ($75^{th}$ percentile) and ΔROA > P90 ($90^{th}$ percentile). We thus consider three different subsamples for each hypothesis: ΔROA ≤ P75, ΔROA > P75, and ΔROA > P90.

In China, a listed firm receives special treatment (ST) if it suffers a loss in two consecutive years, and it is delisted if that loss continues into the third year. Firms are thus often under pressure to manage their earnings to avoid these possibilities. Firms that do so successfully usually have positive, though a low level of, profitability. They also need to persuade their auditors to accept their financial reports and issue a favorable audit opinion. Therefore, for firms with an abnormal increase in profitability, we also partition the sample into low (ROA < 0.01) and high (ROA > 0.01) profitability groups. We expect that audit opinion shopping exists mainly in the former group.

We now consider the estimation of abnormal audit fees. Chen, Su, and Wu (2005) adopt a residual method by constructing a regression model of the audit fee and obtaining the abnormal fee as the residual. Many factors are known to affect normal audit fees (see, for example, Simunic, 1980; Francis, 1984; Palmrose, 1986; and Francis and Stokes, 1986), including the client's assets, audit complexity, leverage, prior audit opinion, profitability, and auditor type (Big Four versus non-Big Four). Recent research has also found that the price premiums charged by international Big Four auditors have increased significantly relative to those of domestic Chinese firms over the sample period (see Cai, Sun, and Ye, 2009). Hence, we also include an interaction variable between the time and Big Four dummies. However, there are many other factors that affect the audit fee but which cannot be observed. If they are not taken into account in the audit fee model, then they will be captured in the abnormal audit fee. In addition, certain unobserved factors fluctuate over time. To account for these factors, we include a fixed effect and a lagged audit fee in our audit fee model:

$$\begin{aligned}\textbf{LnFee} = {} & ß_o + ß_1\,\text{LagLnfee} + ß_2\,\text{Size} + ß_3\,\text{Growth} + ß_4\,\text{ROA} \\ & + ß_5\,\text{LEV} + ß_6\,\text{CATA} + ß_7\,\text{Switch} + ß_8\,\text{Big4} + ß_9\,\text{Big4*Time} \\ & + \text{Prior Audit Opinion} + \text{Year Dummies} + \text{Firm fixed effect} + \varepsilon, \qquad (4)\end{aligned}$$

where LnFee is the logarithm of the audit fee, and LagLnFee is the lagged value of the dependent variable (see Table 1 for definitions of the other variables). The abnormal audit fee is measured as the residuals, ε, from the model.

An alternative method of measuring abnormal audit fees, that is, the ratio method, is used in Fang and Hong (2008), where an abnormal fee is defined as

$$\boldsymbol{\Delta}\textbf{Ln(Fee/Assets)} = \text{Ln(Audit Fee}_t\,/\text{Assets}_t\,) - \text{Ln(Audit Fee}_{t-1}/\text{Assets}_{t-1}). \qquad (5)$$

Although this measure is more effective than that adopted by Chen, Su, and Wu (2005) in eliminating the effects of the unobserved determinants of the audit fee, it assumes that the audit fee is proportional to assets, which is generally not true. Most empirical results show that this fee does not usually double when a client's assets double. In addition, this measure may also be driven by many predictable factors that, by their nature, are not abnormal.

Abnormal audit fees, measured as the residuals from Model (4), can also be regarded as a generalization of the ratio method because Equation (4) can be rewritten as

$$\begin{aligned}\boldsymbol{\Delta}\textbf{Ln(Fee/Assets)} = {} & ß_o + ß_1'\,\text{LagLnfee} + ß_2\,\text{Size} + ß_3'\,\text{Growth} + ß_4\,\text{ROA} \\ & + ß_5\,\text{LEV} + ß_6\,\text{CATA} + ß_7\,\text{Switch} + ß_8\,\text{Big4} + ß_9\,\text{Big4*Time} \\ & + \text{Prior Audit Opinion} + \text{Year Dummies} + \text{Firm fixed effect} + \varepsilon. (4')\end{aligned}$$

Note that Models (4) and (4') are mathematically equivalent, and thus the residuals are the same. In other words, the residuals from Model (4) are also the residuals from Model (4') that regress ΔLn(Fee/Assets) on the predictors. The Model (4) residuals thus also represent an improvement over the ratio difference in Fang and Hong (2008), with adjustment to the predictable factors. The new method introduced herein unifies and refines the residuals method employed by Chen, Su, and Wu (2005) and the ratio method employed by Fang and Hong (2008).

**Table 1. Definition of Variables**

| | |
|---|---|
| Optype | 0 = unqualified opinion; –1 = unqualified opinion with explanatory notes; –2 = qualified opinion with or without explanatory notes; and –3 = disclaimer or adverse opinion. |
| Imp | =1 when $Optype_t > Optype_{t-1}$, and 0 otherwise. |
| Det | =1 when $Optype_t < Optype_{t-1}$, and 0 otherwise. |
| LnFee | Logarithm of audit fee. |
| Abfee | Abnormal audit fee, calculated as the residuals of Model (4). |
| Size | Logarithm of total assets at fiscal year end. |
| ΔROA | Change in ROA, where ROA is net income divided by total assets at the beginning of the year. |
| ΔLEV | Change in leverage, where leverage is total liabilities divided by total assets. |
| Growth | = ΔSize is the growth rate of total assets. |
| Loss | = 1 if net income is negative, and 0 otherwise. |
| Lastloss | Lag variable of Loss. |
| Lastop=-1 | = 1 if the prior period audit opinion is "unqualified with explanations." |
| Lastop=-2 | = 1 if the prior period audit opinion is "qualified" with or without explanations. |
| Lastop=-3 | = 1 if the prior period audit opinion is negative, or if the auditor refuses to express an opinion. |
| Switch | = 1 if the auditor is different from that in the prior period, and 0 otherwise. |
| Big4 | = 1 if the auditor is one of the international Big Four, and 0 otherwise. |
| ΔACR | Abnormal change in accruals. |
| CATA | Current assets/total assets. |
| LagLnFee | Logarithm of prior period audit fee. |
| Time | Year = 2005, such that years 2002-2008 are coded as -3, -2, -1, 0, 1, 2, and 3, respectively. |

## 4. Sample Selection and Descriptive Statistics

Our initial sample includes all public firms with A shares in China's stock market. Financial data and auditor information are obtained from the CISMAR database. After removing firms with data missing for any of the variables, our sample consists of 7,028 firm-years. Auditor mergers or name changes are not treated as auditor switches. Because China switched to International Financial Reporting Standards (IFRS) in 2006, which could potentially have resulted in changes in profitability and other accounting measures, we also conduct a robustness check by re-running our tests on the pre-2006 sample, but the results remain qualitatively the same.

Table 2 describes the transition matrix of auditor opinions. Of the 7,028 firm-years, the audit opinion improved in 342 cases (4.9%), remained unchanged in 6,351 cases (90.4%), and worsened in 355 cases (4.8%). Of the 659 cases in which the firms started out with a qualified opinion or worse, 51.9% received a better opinion in the following year.

**Table 2. Distribution and Transition Matrix of Audit Opinions**

| | Audit opinion at period t | | | | |
|---|---|---|---|---|---|
| | 0 | –1 | –2 | –3 | Total |
| Audit opinion at period t-1 | | | | | |
| 0 | 6,106 | 154 | 86 | 23 | 6,369 |
| –1 | 185 | 149 | 25 | 26 | 385 |
| –2 | 66 | 33 | 71 | 15 | 111 |
| –3 | 8 | 31 | 9 | 41 | 163 |
| Total | 6,365 | 367 | 129 | 167 | 7,028 |

Table 3 presents the descriptive statistics of the variables. We winsorized the top and bottom 1% of extreme observations for ROA, ΔROA, ΔLEV, and Growth, which reduced the impact of extreme observations by reducing the effective sample size. If extreme observations are not controlled for, then the results may be unreliable and driven by a few peculiar firms. The statistics provided in Table 3 are based on the winsorized data. The sample size is 7,028.

**Table 3. Descriptive Statistics**

| Variable | Mean | StDev | Minimum | Maximum |
|---|---|---|---|---|
| Imp | 0.05 | 0.22 | 0 | 1 |
| Det | 0.95 | 0.21 | 0 | 1 |
| LnFee | 13.01 | 0.53 | 10.31 | 16.59 |
| Abfee | 0 | 0.20 | -1.98 | 2.39 |
| Size | 21.26 | 1.03 | 18.03 | 27.30 |
| ROA | 0.017 | 0.10 | -0.85 | 0.40 |
| ΔROA | -0.01 | 0.11 | -1.02 | 1.54 |
| ACR | 0.001 | 0.09 | -0.96 | 0.75 |
| LEV | 0.50 | 0.28 | 0.07 | 3.89 |
| ΔLEV | -0.03 | 0.12 | -0.48 | 1.43 |
| CATA | 0.52 | 0.20 | 0.07 | 0.98 |
| Growth | 0.10 | 0.24 | -0.82 | 1.56 |
| Loss | 0.14 | 0.35 | 0 | 1 |
| Big4 | 0.06 | 0.23 | 0 | 1 |
| Switch | 0.10 | 0.30 | 0 | 1 |

Table 4 presents the correlation coefficients. This table demonstrates a low degree of correlation among the variables, which suggests that there is no serious multicollinearity in the regression models. We also examine the variance inflation factor (VIF) to test multicollinearity. The VIF values are all less than 3, which is significantly below the critical value of 10 for multicollinearity.

**Table 4. Correlation Coefficients (Lower Triangle is Pearson, Upper Triangle is Spearman)**

| | Imp | Det | LnFee | Abfee | Size | ΔROA | LEV | CATA | Growth | Big4 | Switch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Imp | 1 | 0.051 | -0.019 | 0.010 | -0.125 | 0.162 | 0.208 | 0.005 | -0.095 | -0.037 | 0.070 |
| Det | 0.051 | 1 | 0.045 | -0.017 | 0.110 | 0.222 | -0.082 | 0.000 | 0.193 | 0.031 | -0.036 |
| LnFee | -0.021 | 0.049 | 1 | 0.369 | 0.619 | 0.013 | 0.080 | -0.027 | 0.098 | 0.326 | -0.007 |
| Abfee | -0.011 | -0.010 | 0.293 | 1 | 0.000 | 0.000 | 0.000 | 0.000 | -0.021 | 0.000 | 0.000 |
| Size | -0.116 | 0.107 | 0.596 | -0.014 | 1 | 0.008 | -0.064 | -0.105 | 0.310 | 0.267 | -0.008 |
| ΔROA | 0.136 | 0.183 | 0.011 | -0.009 | 0.020 | 1 | 0.157 | -0.014 | 0.121 | -0.002 | -0.007 |
| LEV | 0.141 | -0.089 | 0.167 | -0.011 | 0.119 | 0.092 | 1 | 0.050 | -0.107 | -0.065 | 0.030 |
| CATA | 0.005 | 0.001 | -0.025 | 0. 000 | -0.099 | 0.004 | 0.088 | 1 | 0.074 | -0.050 | 0.007 |
| Growth | -0.108 | 0.199 | 0.097 | -0.038 | 0.295 | 0.038 | -0.128 | 0.070 | 1 | 0.043 | -0.054 |
| Big4 | -0.037 | 0.031 | 0.229 | -0.010 | 0.204 | -0.005 | -0.070 | -0.046 | 0.048 | 1 | 0.008 |
| Switch | 0.070 | -0.036 | -0.016 | -0.003 | -0.012 | 0.029 | 0.045 | 0.008 | -0.051 | 0.008 | 1 |

## 5. Empirical Results

### *5.1. Estimation of Audit Fee Model*

To estimate the abnormal audit fee, we use Equation (4), which is listed in Table 5 as Model (III). For comparison purposes, we also include two submodels: Model (I) is a conventional audit fee model that does not include either fixed effects or a lagged audit fee, similar to the model in Chen, Su, and Wu (2005). Model (II) adds fixed effects, but no lagged audit fee.

Table 5 presents the results of all three models. Model (I) produces results similar to those of a typical audit fee model, where firm size (Size), leverage (LEV), and the current assets ratio (CATA) all have positive and significant coefficients, 0.31 (t = 59.5), 0.17 (t = 8.86), and 0.135 (t = 5.76), respectively, thus indicating that the audit fee increases with firm size and audit risk. The international Big Four have a significant price premium over local firms. The coefficient of Big4 is 0.462 (t = 21.37), thus indicating that in 2005 (Time = 0), these firms enjoyed a premium of $e^{0.462} - 1 = 58.7\%$. The interaction term for Big4 and Time has a positive and significant coefficient of 0.143 (t = 13.59), which indicates that the premium increased over the sample period. The coefficient reduces slightly when fixed effects and the lagged audit fee are included, thus showing that the trend cannot be attributed to a change in the sample.

Model (I) includes the most important determinants of the audit fee. Its $R^2$, 39.28%, is also roughly in line with the results obtained in existing audit fee research. In Model (II), however, the $R^2$ increases very substantially to 81.89%, which indicates that the fixed effects make a highly significant contribution. In other words, a very large portion of the audit fee that is attributable to differences in individual firms cannot be explained by known factors. If fixed effects were not taken into account, then the difference among firms would be classified as abnormal audit fees.

**Table 5. Regression Models for Audit Fee**

| | Model (I) | | Model (II) | | Model (III) | |
|---|---|---|---|---|---|---|
| | Estimate | t-value | Estimate | t-value | Estimate | t-value |
| LagLnFee | | | | | 0.202 | 17.28*** |
| Size | 0.310 | 59.50*** | 0.219 | 20.52*** | 0.184 | 17.43*** |
| Growth | -0.185 | -8.37*** | -0.072 | -4.46*** | -0.036 | -2.26** |
| LEV | 0.170 | 8.86*** | 0.097 | 4.99*** | 0.087 | 4.59*** |
| CATA | 0.135 | 5.76*** | 0.004 | 0.10 | -0.001 | -0.02 |
| Lastloss | -0.002 | -0.12 | -0.012 | -1.09 | -0.009 | -0.78 |
| ΔROA | 0.013 | 0.30 | 0.018 | 0.61 | 0.014 | 0.48 |
| Big4 | 0.462 | 21.37*** | 0.329 | 12.87*** | 0.296 | 11.86*** |
| Time | 0.015 | 5.00*** | 0.023 | 10.28*** | 0.019 | 8.68*** |
| Big4*Time | 0.143 | 13.59*** | 0.126 | 17.01*** | 0.105 | 14.33*** |
| Switch | -0.029 | -1.80* | -0.013 | -1.27 | -0.019 | -1.83** |
| Lastop=-1 | 0.086 | 3.83*** | 0.048 | 3.03*** | 0.043 | 2.78*** |
| Lastop=-2 | 0.110 | 3.53*** | 0.056 | 2.47** | 0.047 | 2.12** |
| Lastop=-3 | 0.113 | 2.39*** | 0.025 | 0.75 | 0.038 | 1.13 |
| Intercept | 6.279 | 55.74*** | 8.321 | 36.84*** | 6.439 | 26.23*** |
| Year | | included | | included | | included |
| Firm effects | | | | included | | included |
| $R^2$(adj) | | 39.28% | | 81.89% | | 82.81% |
| Sample size | | 7,028 | | 7,028 | | 7,028 |

**, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.*

Model (III) introduces the lagged audit fee variable to account for a time series change in a firm's audit fee. Its $R^2$ is 82.81%, a statistically significant increase from the 81.89% of Model (II). The lagged audit fee has a coefficient of 0.202 (t = 17.28), which is as significant as firm size in this regression.

When Model (III) is rewritten into Equation (4'), we obtain an $R^2$ of 61.4% (unlisted), which shows that Fang and Hong's (2008) abnormal audit fee measure is predictable to a large extent. Model (III) produces an abnormal audit fee that excludes the predictable component. Hence, for the following analysis, we employ the residuals from Model (III).

## *5.2. Abnormal Audit Fee and Audit Opinion Change: Empirical Results*

Table 6 lists the estimation results for the audit opinion improvement and deterioration models. For each model, we consider three subsamples based on ΔROA: ΔROA ≤ P75, ΔROA > P75, and ΔROA > P90, where Px is the x-th percentile. The results for the ΔROA > P75 and ΔROA > P90 subsamples are provided as robustness checks.

We first consider the audit opinion improvement model shown in Table 6. This model is estimated for the sample of firms that started out with qualified opinions. In all three cases, the most significant variable is "Loss," which has negative and significant coefficients (-1.063, -1.743, and -2.12, respectively), thus indicating that loss is a major factor in reducing the likelihood of audit opinion improvement. An increase in leverage (ΔLEV) is also negatively associated with such improvement, whereas asset growth has a positive association, although it is not always significant. These results are consistent with intuition and the existing literature.

**Table 6. Audit Opinion Improvement and Deterioration Models**

| | **Model (1): Audit Opinion Improvement** | | | **Model (2): Audit Opinion Deterioration** | | |
|---|---|---|---|---|---|---|
| | **ΔROA ≤ P75** | **ΔROA > P75** | **ΔROA > P90** | **ΔROA ≤ P75** | **ΔROA > P75** | **ΔROA > P90** |
| **Abfee** | **-0.205** | **1.610** | **2.598** | **0.477** | **-3.000** | **-2.471** |
| | **(-0.24)** | **(2.02**)** | **(2.86***)** | **(1.23)** | **(-2.43**)** | **(-1.76*)** |
| **Switch *Abfee** | **-2.099** | **-0.506** | **-1.731** | **1.263** | **3.406** | **3.255** |
| | **(-1.22)** | **(-0.32)** | **(-0.99)** | **(1.39)** | **(1.32)** | **(1.15)** |
| **Sum** | **-2.304** | **1.103** | **0.857** | **1.740** | **0.406** | **0.784** |
| | **(-1.54)** | **(0.78)** | **(0.55)** | **(2.12**)** | **(0.18)** | **(0.32)** |
| **Big4** | **-0.507** | **-0.685** | **-2.386** | **-0.371** | | |
| | **(-0.54)** | **(-0.64)** | **(-1.38)** | **(-0.89)** | | |
| ΔROA | 0.260 | -0.872 | -0.597 | -4.102 | -1.048 | -2.171 |
| | (0.31) | (-1.18) | (-0.75) | (-6.62***) | (-0.59) | (-0.97) |
| Size | 0.201 | 0.076 | -0.062 | 0.088 | -0.309 | -0.374 |
| | (1.45) | (0.48) | (-0.33) | (1.06) | (-1.42) | (-1.38) |
| Loss | -1.063 | -1.743 | -2.120 | 2.085 | 2.026 | 2.084 |
| | (-3.11***) | (-4.71***) | (-4.79***) | (11.48***) | (5.07***) | (4.66***) |
| Lastloss | -0.549 | 0.095 | 0.241 | 0.353 | 1.905 | 0.962 |
| | (-1.36) | (0.24) | (0.35) | (1.66) | (3.47***) | (1.18) |
| ΔLEV | -1.360 | -0.449 | -0.631 | 1.555 | 1.848 | 2.134 |
| | (-1.73*) | (-0.74) | (-1.05) | (2.20***) | (1.34) | (1.41) |
| Growth | 1.224 | 0.984 | 0.445 | -1.089 | -1.694 | -1.107 |
| | (2.24**) | (1.83*) | (0.72) | (-2.93***) | (-1.91*) | (-1.12) |
| Switch | 0.520 | -0.807 | -0.439 | 0.063 | 0.527 | 0.43 |
| | (1.56) | (-2.27**) | (-1.05) | (0.27) | (1.11) | (0.76) |
| Lastop=-1 | -0.326 | -2.466 | -2.476 | 0.020 | -0.502 | -0.155 |
| | (-1.08) | (-4.89***) | (-4.498***) | (0.08) | (-1.10) | (-0.31) |
| Lastop=-2 | | -1.439 | -1.365 | -1.293 | | |
| | | (-2.75**) | (-2.38**) | (-3.30***) | | |
| Lastop=-3 | 0.134 | | | | | |
| | (0.24) | | | | | |
| Intercept | -4.374 | 1.715 | 3.389 | -6.480 | 1.641 | 4.037 |
| | (-1.43) | (0.52) | (0.87) | (-3.60***) | (0.36) | (0.70) |
| N | 349 | 306 | 237 | 4,903 | 1,479 | 566 |
| Pseudo-$R^2$ | 21.21% | 18.59% | 22.01% | 29.67% | 31.74% | 26.36% |

*Notes: 1. All models include the year dummies. The coefficients are not displayed.*
*2.*, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. The t-values are given in*

*parentheses.*
*3. The row entitled "Sum" gives the coefficient sum of Abfee and Switch*Abfee.*
*4. The coefficients of Lastop= -j are given in the equation (3) as* $\beta^{j,0}$.

For firms with profitability not exceeding the 75th percentile ($\Delta$ROA ≤ P75), the coefficient of abnormal audit fee (Abfee) is -0.205 (t = -0.24), which is not statistically significant. This result indicates that among firms with no abnormally large profitability increase, there is no evidence of an association between abnormal audit fees and an audit opinion change. Among those with $\Delta$ROA > P75 and $\Delta$ROA > P90, the coefficients of Abfee are 1.61 and 2.598 (t = 2.02 and 2.86), which are significant at the 0.05 and 0.01 levels, respectively. These results indicate that among firms with an abnormally large profitability increase, a higher audit fee is associated with a greater likelihood of audit opinion improvement, after controlling for all of the other variables, which is consistent with Hypothesis I.

In the estimation, the coefficient for the Big Four indicator variable (Big4) is negative but statistically insignificant in all cases. The interaction between this indicator and an abnormal audit fee is insignificant (not shown in the table) for the $\Delta$ROA ≤ P75 sample, and we lack sufficient data on Big Four firms in the other cases. Therefore, unlike Fang and Hong (2008), we find no evidence to suggest that a high abnormal audit fee is more associated with audit opinion improvement for Big Four firms than for their local counterparts.

Model (2) in Table 6 is the audit opinion deterioration model. Note that the meanings of the coefficients here are opposite to those in the audit opinion improvement model. These estimation results show that Loss, Lastloss, and $\Delta$LEV tend to have positive coefficients, thus indicating that a loss and an increase in financial leverage are associated with audit opinion deterioration. The $\Delta$ROA variable has a negative coefficient, which suggests that decreases in ROA are also associated with such deterioration, which is intuitive.

For firms with $\Delta$ROA ≤ P75, the coefficient of Abfee is 0.477 (t = 1.23), which is not significantly different from 0. There is thus no evidence to suggest that higher abnormal fees lead to better audit opinions for these firms. For firms with $\Delta$ROA > P75, however, the coefficient of Abfee is –3.0 (t = -2.43), significant at the 5% level. This result indicates that among firms with an abnormally large profitability increase, a high abnormal fee is associated with less likelihood of avoiding audit opinion deterioration, which is consistent with audit opinion shopping. A similar result also holds for firms with $\Delta$ROA > P90 (coefficient = -2.471. t = -1.76, significant at the 10% level). These results support Hypothesis II.

For firms that have undergone an auditor switch, we find that the coefficients of the interaction term of auditor switch and Abfee have signs opposite to those of Abfee for the ΔROA > P75 and ΔROA > P90 subsamples in both the audit improvement and deterioration models. The sums of the coefficients for Abfee are insignificant, which indicates that there is no evidence of an association being the payment of a high audit fee and a better audit opinion in the ΔROA > P75 or ΔROA > P90 subsamples. This result is consistent with that reported by Chen, Su, and Wu (2005).

In Table 7, we integrate the audit opinion improvement and deterioration models into the ordinal model of audit opinion. For comparison purposes, we employ two different measures of abnormal audit fees: first, the Model (4) measure in this paper and, second, the ratio method in Fang and Wu (2008). It can be seen that the lagged audit opinion variables become much more significant in Table 7 than they were in Table 6. The difference is because we use all observations in the sample in Table 7, and thus the prior audit opinion becomes highly significant. All of the lagged opinion dummies have a negative coefficient, thus indicating that, compared to firms with a prior unqualified opinion, those with a prior qualified opinion have a much lower probability of receiving an unqualified opinion in the current period. We can also see from Table 7 that the Loss, Lastloss, and ΔLEV variables have a negative association with audit opinion, whereas Size and Growth have a possible association with it. These results are similar to those in Table 6, but generally appear to be more significant here.

**Table 7. Ordinal Logit Model for Audit Opinion**

| | Abnormal Audit Fee from Model (4) | | | | | Abnormal Audit fee from Model (5) | | |
|---|---|---|---|---|---|---|---|---|
| | ΔROA≤P75 | ΔROA>P75 All | ΔROA>P75 ROA<0.01 | ΔROA>P75 ROA>0.01 | ΔROA>P90 | ΔROA≤P75 | ΔROA>P75 | ΔROA>P90 |
| **Abfee** | **-0.383** | **1.817** | **3.616** | **-0.114** | **2.206** | **-0.180** | **0.518** | **0.772** |
| | **(-1.11)** | **(3.11***)** | **(3.75***)** | **(-0.14)** | **(3.45***)** | **(-0.87)** | **(1.40)** | **(1.91*)** |
| **Switch *Abfee** | **-1.616** | **-1.055** | **-3.859** | **1.525** | **-1.840** | **-0.976** | **0.361** | **0.054** |
| | **(-2.23**)** | **(-0.94)** | **(-1.50)** | **(1.23)** | **(-1.37)** | **(-2.41**)** | **(0.79)** | **(0.10)** |
| **Sum** | **-2.000** | **0.762** | **0.366** | **1.41** | **0.366** | **-1.155** | **0.879** | **0.825** |
| | **(-3.13***)** | **(0.79)** | **(0.31)** | **(1.43)** | **(0.31)** | **(-3.07***)** | **(2.09**)** | **(1.70*)** |
| **Big4** | **0.188** | **0.070** | **-1.422** | | **-0.318** | **0.224** | **0.002** | **-0.533** |
| | **(0.53)** | **(0.09)** | **(-1.47)** | | **(-0.37)** | **(0.63)** | **(0.00)** | **(-0.62)** |
| ΔROA | 2.884 | -0.364 | -1.008 | -0.426 | -0.101 | 2.931 | -0.278 | -0.012 |
| | (5.63***) | (-0.66) | (-0.79) | (-0.66) | (-0.17) | (5.53***) | (-0.50) | (-0.02) |
| Size | 0.005 | 0.267 | 0.049 | 0.272 | 0.173 | -0.001 | 0.277 | 0.194 |
| | (0.06) | (2.31**) | (0.27) | (1.70) | (1.27) | (0.01) | (2.39**) | (1.42) |
| Loss | -1.876 | -1.861 | -1.609 | | -2.218 | -1.879 | -1.814 | -2.176 |
| | (-11.93***) | (-7.05***) | (-4.88***) | | (-7.31***) | (-11.95***) | (-6.83***) | (-7.13***) |
| Lastloss | -0.220 | -0.882 | | -0.362 | -0.515 | -0.213 | -0.828 | -0.468 |
| | (-1.17) | (-3.09***) | | (-.97) | (-1.17) | (-1.14) | (-2.92***) | (-1.08) |
| ΔLEV | -1.315 | -0.536 | -2.905 | 0.196 | -0.845 | -1.228 | -0.621 | -0.946 |
| | (-2.45**) | (-1.11) | (-2.83***) | (0.31) | (-1.58) | (-2.30**) | (-1.29) | (-1.78**) |
| Growth | 1.264 | 0.936 | 2.017 | 0.320 | 0.445 | 0.922 | 1.547 | 1.230 |
| | (3.97***) | (2.29***) | (2.54**) | (0.66) | (1.03) | (2.30**) | (2.87***) | (2.12**) |
| Switch | 0.012 | -0.448 | -0.423 | -0.864 | -0.177 | 0.078 | -0.436 | -0.144 |
| | (0.07) | (-1.75*) | (-0.97) | (-2.49) | (-0.57) | (0.39) | (-1.70*) | (-0.46) |
| Lastop=-1 | -2.548 | -2.767 | -2.028 | -4.014 | -2.746 | -2.410 | -2.765 | -2.705 |
| | (-14.65***) | (-10.61***) | (-5.56***) | (-8.84***) | (-8.65***) | (-14.59***) | (-10.58***) | (-8.58***) |
| Lastop=-2 | -3.000 | -3.403 | -2.317 | -5.142 | -3.563 | -3.020 | -3.376 | -3.488 |
| | (-12.96***) | (-10.86***) | (-5.09***) | (-9.94***) | (-9.30***) | (-13.02***) | (-10.77***) | (-9.19***) |
| Lastop=-3 | -4.825 | -3.930 | -2.653 | -4.975 | -4.006 | -4.693 | -3.968 | -4.003 |
| | (-9.45***) | (-10.22***) | (-4.30***) | (-8.43***) | (-9.13***) | (-9.31***) | (-10.25***) | (-9.08***) |

| | Abnormal Audit Fee from Model (4) | | | | | Abnormal Audit fee from Model (5) | | |
|---|---|---|---|---|---|---|---|---|
| | ΔROA≤P75 | ΔROA>P75 | | | ΔROA>P90 | ΔROA≤P75 | ΔROA>P75 | ΔROA>P90 |
| | | All | ROA<0.01 | ROA>0.01 | | | | |
| Cut1 | -4.120 | 1.350 | -2.281 | 0.821 | -0.144 | -4.275 | 1.581 | 0.377 |
| | (-2.67**) | (0.56) | (-0.58) | (0.24) | (-0.05) | (-2.77***) | (0.65) | (0.13) |
| Cut2 | -5.474 | -0.741 | -4.605 | -1.219 | -2.439 | -5.632 | -0.494 | -1.889 |
| | (-3.55***) | (-0.31) | (-1.16) | (-0.36) | (-0.86) | (-3.64***) | (-0.20) | (-0.66) |
| Cut3 | -7.263 | -2.431 | -6.257 | -3.252 | -4.010 | -7.433 | -2.171 | -3.449 |
| | (-4.68***) | (-1.00) | (-1.57) | (-0.94) | (-1.41) | (-4.77***) | (-0.89) | (-1.21) |
| N | 4,940 | 1,687 | 313 | 1,374 | 697 | 4,940 | 1,687 | 697 |
| Pseudo-$R^2$ | 38.36% | 45.36% | 35.12% | 46.86% | 38.95% | 36.77% | 41.87% | 36.96% |

*Notes: 1. All models include year dummies, although the coefficients and t-values are not presented.*

*2. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.*

*3. "Cut1," "Cut2," and "Cut3" represent the intercepts $ß_{i,0}$, i = -1, -2, and -3 for the ordinal model.*

*4. The row entitled "Sum" gives the coefficient sum of Abfee and Switch*Abfee.*

*5. The coefficients of Lastop= -j are given in the equation (3) as $ß^{j,0}$.*

We first consider the model in which abnormal audit fees are estimated from Model (4). For firms with ΔROA ≤ P75, the coefficient for Abfee is -0.383 (t = -1.11), thus suggesting no significant relationship between Abfee and audit opinion. For ΔROA > P75 (the entire sample) and ΔROA > P90, the coefficients of Abfee are 1.817 (t = 3.11) and 2.206 (t = 3.45), respectively, both significant at the 0.01 level. These coefficients indicate that, among firms with an abnormal profitability increase, a higher abnormal audit fee is associated with a better audit opinion, thus supporting Hypothesis III. Among firms that have switched auditors, however, the coefficients for Abfee (as the sum of the coefficient for Abfee and Switch*Abfee) are significant for both ΔROA > P75 (the entire sample) and ΔROA > P90, which indicates that among firms with an abnormal profitability increase, abnormal audit fees play no significant role in improving audit opinion when there has been an auditor switch.

One of the major incentives for earnings manipulation in China's capital market is to avoid reporting a loss, as firms with two consecutive losses are given an ST designation, and those with three consecutive losses are delisted. We thus separate the ΔROA > P75 subsample into two groups, a low profitability group (ROA ≤ 0.01) and a high profitability group (ROA > 0.01). We use 0.01 as the threshold simply for convenience. The coefficients of Abfee differ significantly between the two groups. For the former (ROA ≤ 0.01), Abfee is highly significant (coefficient = 3.616, t = 3.75), whereas for the latter (ROA > 0.01), it is not significant (coefficient = -0.114, t = -0.14). This finding indicates that the association between abnormal audit fees and better audit opinions is due primarily to firms with ROA ≤ 0.01, not to the more profitable firms. Further analysis (not provided in the tables) shows that there is no significant difference in the coefficient of Abfee between firms with negative ROA (ROA ≤ 0) and those with a small but positive level of profitability (0 < ROA ≤ 0.01). Such a result is possible if the improvement in ROA is important for a firm even if it does not cross the threshold of 0.

Table 7 also presents the results with abnormal audit fees calculated from Equation (5) using the ratio method in Fang and Hong (2008). The coefficients of Abfee are of the same sign as when these fees are calculated using the regression residuals from Equation (4), although they become insignificant or less significant. Our explanation is that the abnormal audit fees calculated using the ratio method contain a significant portion of normal audit fees. Indeed, Equation (4') re-expresses Equation (4) using the abnormal audit fees from the ratio method as the dependent variable, and obtains an $R^2$ of 61.4% (not given in the tables). In other words, 61.4% of the variation in abnormal audit fees calculated using the ratio method is explainable by other systematic factors. Hence, this method does not truly capture these fees, and results based on it are likely to be weaker than those obtained with other methods.

In sum, we conclude that (1) higher abnormal audit fees are associated with better audit opinions among firms with an abnormally large profitability increase but a low degree of profitability if these firms have not switched auditors, controlling for all known factors; (2) for all other firms, we find no significant association between abnormal audit fees and audit opinions.

### *5.3. Earnings Quality, Abnormal Audit Fee, and Audit Opinion Change: More Tests*

In this paper, we have employed a large increase in profitability as a measure of poor earnings quality. To further examine the relationship between abnormal audit fees and audit opinion, in this section, we decompose the increase in profitability into an increase in cash flows from operations (CFO) and accruals. Because changes in accruals often reflect changes in CFO, we regress the former on the latter, and use the residuals as our measure of abnormal change in accruals. By doing so, we decompose the change in profitability into the change in CFO (ΔCFO) and the abnormal change in accruals (ΔACR). Again, we divide the sample into three subsamples, X ≤ P75, X > P75, and X > P90, where X is either ΔCFO or ΔACR.

**Table 8. Ordinal Model of Audit Opinion: Grouping by Accruals and Cash Flows**

| | **Abnormal Change in Accruals** | | | **Change in Cash Flows from Operations** | | |
|---|---|---|---|---|---|---|
| | **ΔACR≤P75** | **ΔACR>P75** | **ΔACR>P90** | **ΔCFO≤P75** | **ΔCFO>P75** | **ΔCFO>P90** |
| **Abfee** | **-0.399** | **1.849** | **1.45** | **0.044** | **0.259** | **-0.441** |
| | **(-1.17)** | **(3.22***)** | **(2.01**)** | **(0.13)** | **(0.43)** | **(-0.50)** |
| **Switch*Abfee** | **-0.979** | **-3.059** | **-1.972** | **-1.262** | **-1.767** | **-0.686** |
| | **(-1.17)** | **(-2.71***)** | **(-1.31)** | **(-1.63)** | **(-1.34)** | **(-0.34)** |
| **Sum** | **-1.377** | **-1.210** | **-0.522** | **-1.218** | **-1.508** | **-1.127** |
| | **(-1.80*)** | **(-1.26)** | **(-0.39)** | **(-1.77*)** | **(-1.29)** | **(-0.62)** |
| **Big4** | **0.347** | **-0.536** | **-0.651** | **0.182** | **0.024** | **-0.386** |
| | **(0.92)** | **(-0.85)** | **(-0.52)** | **(0.51)** | **(0.03)** | **(-0.34)** |
| ΔROA | 3.876 | 0.329 | 0.128 | 1.32 | 1.755 | 1.755 |
| | (6.41***) | (0.70) | (0.26) | (3.34***) | (2.98***) | (2.05***) |
| Size | -0.016 | 0.306 | 0.504 | 0.041 | 0.324 | 0.284 |
| | (-0.22) | (2.79***) | (3.47***) | (0.60) | (2.75***) | (1.57) |

| | Abnormal Change in Accruals | | | Change in Cash Flows from Operations | | |
|---|---|---|---|---|---|---|
| | ΔACR≤P75 | ΔACR>P75 | ΔACR>P90 | ΔCFO≤P75 | ΔCFO>P75 | ΔCFO>P90 |
| Loss | -1.773 | -2.118 | -2.336 | -1.964 | -1.681 | -1.637 |
| | (-11.04***) | (-8.24***) | (-6.86***) | (-13.17***) | (-6.48***) | (-4.08***) |
| Lastloss | -0.369 | -0.327 | -0.478 | -0.219 | -0.968 | -1.601 |
| | (-2.04**) | (-1.19) | (-1.17) | (-1.35) | (-3.70***) | (-4.00***) |
| ΔLEV | -1.098 | -1.072 | -0.518 | -1.49 | -1.062 | -1.352 |
| | (-1.88*) | (-2.30**) | (-1.01) | (-3.48***) | (-1.64) | (-1.46) |
| Growth | 0.877 | 0.942 | 0.451 | 1.743 | 0.857 | 0.333 |
| | (2.42**) | (2.51**) | (1.08) | (5.54***) | (2.04**) | (0.56) |
| Switch | 0.022 | -0.554 | -0.585 | 0.093 | -0.774 | -0.898 |
| | (0.11) | (-2.19**) | (-1.80*) | (0.50) | (-3.00***) | (-2.25**) |
| Lastop=-1 | -2.589 | -2.866 | -2.889 | -2.901 | -1.954 | -1.717 |
| | (-15.05***) | (-10.70***) | (-8.07***) | (-17.59***) | (-7.28***) | (-4.33***) |
| Lastop=-2 | -2.881 | -3.683 | -3.777 | -3.181 | -3.09 | -2.413 |
| | (-10.65***) | (-9.58***) | (-7.39***) | (-12.45***) | (-8.03***) | (-4.39***) |
| Lastop=-3 | -2.721 | -3.896 | -4.143 | -3.273 | -2.825 | -2.932 |
| | (-8.08***) | (-9.29***) | (-7.69***) | (-10.85***) | (-6.10***) | (-4.13***) |
| Cut1 | -4.658 | 2.661 | 6.316 | -2.714 | 2.711 | 2.01 |
| | (-2.98***) | (1.14) | (2.13**) | (-1.88*) | (1.09) | (0.53) |
| Cut2 | -6.016 | 0.541 | 4.01 | -4.239 | 1.015 | 0.056 |
| | (-3.84***) | (0.23) | (1.36) | (-2.94***) | (0.41) | (0.01) |
| Cut3 | -7.814 | -1.105 | 2.52 | -6.000 | -0.673 | -1.387 |
| | (-4.96***) | (-0.47) | (0.85) | (-4.13***) | (-0.27) | (-0.36) |
| N | 4,919 | 1,708 | 717 | 4,982 | 1,645 | 653 |
| Pseudo-$R^2$ | 37.87% | 45.17% | 44.20% | 39.27% | 39.81% | 40.65% |

*Notes: 1. All models include the year dummies. The coefficients and t-values are not presented.*
*2. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.*
*3. "Cut1," "Cut2," and "Cut3" represent the intercepts $ß_{i,0}$, i = -1, -2, and -3 for the ordinal model.*
*4. The row entitled "Sum" gives the coefficient sum of Abfee and Switch*Abfee.*
*5. The coefficients of Lastop= -j are given in the equation (3) as $ß^{j,0}$.*

Table 8 presents the estimation results from the ordinal model of audit opinion. When the sample is grouped by abnormal accruals (ΔACR), the results are similar to those using the profitability increase grouping: when the accruals increase is not abnormally high (ΔACR ≤ P75), then the coefficient of Abfee is -0.399 (t = -1.17), which is not significant at the 0.1 level; for the ΔACR > P75 and ΔACR > P90 subsamples, the coefficients are 1.849 (t = 3.22) and 1.45 (t = 2.01), both of which are positive and significant at the 0.05 level. These results show that high abnormal audit fees are associated with better audit opinions among firms with an abnormally large increase in accruals, controlling for all other factors. We find no evidence of such an association among the other firms.

When the sample is classified on the basis of an increase in cash flows (ΔCFO), the coefficients of Abfee are statistically insignificant for all of the subsamples. This result indicates that when the profitability increase stems from cash flows, which are considered to be higher-quality earnings components, there is no evidence of an association between abnormal audit fees and audit opinion improvements.

In sum, the results presented in Table 8 confirm that the association between abnormal audit fees and audit opinion shopping can be observed only if the firm's earnings quality is questionable.

## 6. Conclusion

In this paper, we investigate whether a listed firm can obtain a better audit opinion by paying a higher audit fee to its current auditor. Using data from China's capital markets for the 2002 to 2008 period, we examine whether a high abnormal audit fee can help firms to achieve a better audit opinion or avoid being given an unfavorable such opinion.

Building on the existing literature, we conclude that only firms with low-quality earnings have an incentive to engage in opinion shopping. In conducting our tests, we improve the audit fee model to increase the accuracy of the abnormal audit fee measurement. We also introduce an audit opinion deterioration model and an ordinal model of audit opinion to allow for a general pattern of audit opinion shopping. Our results demonstrate that, among firms with a large increase in profitability but a low degree of profitability, a high abnormal audit fee is associated with a better audit opinion, all else being equal. This finding also holds true if the increase in profitability is due to accounting accruals.

The results presented in this paper suggest that investors and regulators should pay special attention to firms that have experienced a large increase in accounting profitability that is driven by accruals and that have an unexplained audit fee increase.

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