

The Effect of Client Bankruptcy Experience on Audit Fees and Audit Quality

Abstract: We examine whether audit fees and audit quality are influenced by audit offices' exposure to client bankruptcy experiences (BEXP). Using 44,196 U.S. firm-year observations over the period of 2003-2018, we find that audit offices with BEXP charge 5.6% higher fees and provide audits with 25% fewer financial restatements, indicating improved quality. Further, these effects are more pronounced for audit offices with greater market concentration or auditing distressed clients. Difference-in-differences analyses and robustness checks confirm that BEXP heightens auditors' risk sensitivity, leading to greater effort and professional skepticism. However, BEXP auditors face client attrition and reduced market share, likely due to reputational stigma. Our findings link client bankruptcy experiences to audit outcomes, offering regulators and firms insights into how adverse events shape auditor behavior.

Keywords: bankruptcy experience, audit offices, audit fees, misstatements, audit quality

JEL: M42

1. Introduction

This study conducts audit office-level analysis to examine whether auditors' exposure to client bankruptcies leads to higher subsequent audit fees and improved audit quality. The auditing profession plays a critical role in capital markets, necessitating stringent regulatory oversight to ensure its integrity and effectiveness. Recent literature emphasizes audit office-level research (Lee et al., 2022; Beardsley et al., 2022; Nagy et al., 2023; Tan et al., 2024), recognizing that audit offices operate with a degree of autonomy, leading to variations in audit quality within the same firm. Recent audit failures and financial scandals often highlight deficiencies at the office level rather than firm-wide, drawing attention to the role of local offices in ensuring compliance and maintaining professional standards. Prior studies document significant inter-office variability in audit outcomes, driven by specific audit office characteristics, including office size and industry expertise (Gunn and Michas, 2018). Therefore, regulatory bodies, such as the Public Company Accounting Oversight Board (PCAOB) and the Financial Reporting Council (FRC), have increasingly focused on audit quality at the office level, reinforcing the need for deeper insights into office-specific experiences shaping auditors' judgments and behavior (Lee et al., 2020).

Extant literature has examined various auditor characteristics, such as age, gender, race, education, experience, social connections, and industry specialization (Lim and Tan, 2008; Chi and Chin, 2011; Gul et al., 2013; Hardies et al., 2016). A stream of studies examines the impact of specific experiences, such as industry expertise, international work experience, and early-life socioeconomic background (Chi et al., 2017; Chen et al., 2017; Tong et al., 2022). However, limited attention has been given to how auditors' bankruptcy experience (BEXP) influences audit fees and quality, representing a critical gap in the literature. This study aims to fill this gap by examining how auditors' office-level exposure to client bankruptcies affects their pricing decisions and audit quality.

BEXP is a distinct experience due to its implications for the audit process. Unlike general professional experiences, BEXP equips auditors with specialized skills, insights, and perspectives derived from pre-bankruptcy distress, including going concern assessments, asset impairments, debt restructuring, and litigation. These complexities enhance auditors' risk assessment abilities, professional skepticism, forensic techniques, and stakeholder interactions. Consequently, auditors with BEXP are well-positioned to enhance audit quality in firms facing substantial financial uncertainties or complex reporting requirements, leveraging their specialized expertise to navigate these challenges effectively. Furthermore, theories from psychology and behavioral economics suggest that highly impactful events, such as client bankruptcies, shape auditors' professional judgment and risk perception (Kim and Lee, 2014; He et al., 2016; Guo et al., 2022; Chen et al., 2024), underscoring the importance of examining how BEXP influences audit practices and outcomes.

We argue that BEXP alters audit offices' risk perceptions, affecting both audit pricing and quality. On the one hand, the experience of client bankruptcies may heighten auditors' awareness of potential risks and drive them to adopt a more cautious audit approach, increasing audit effort and resources, which translates into higher audit fees. The elevated risk perception may also prompt auditors to incorporate risk premiums into their pricing to compensate for perceived uncertainties. On the other hand, market perceptions may attribute client bankruptcies to auditors, reducing their bargaining power and competitiveness, potentially leading to lower audit fees. Therefore, the net effect on audit fees remains an empirical question. In terms of audit quality, BEXP may enhance professional skepticism and risk assessments, leading to more rigorous audits. However, if auditors with BEXP experience a reduced client base, they might issue more favorable audit opinions to retain or attract clients, potentially compromising audit quality. The empirical outcome depends on which of these competing effects dominates.

Using a sample of 44,196 firm-year observations from US listed firms between 2003 and 2018, we investigate the impact of BEXP on audit fees and quality. We employ proxies such as misstatements, misstatements due to undetected internal control weakness, misstatements with unmodified opinions, discretionary accruals, and discretionary revenues as our proxies for audit quality (e.g., Beardsley et al., 2021; Chou et al., 2021; Ege and Stuber, 2022). Our findings indicate that audit offices with BEXP charge higher fees and deliver higher-quality audits than those without BEXP. Robustness checks, including difference-in-differences analyses (DiD) and alternative dependent variables, confirm these findings. Further analyses reveal that audit offices experience a decline in their client base and market share following client bankruptcies, with increased auditor dismissals but fewer resignations. The relationship between BEXP and audit outcomes is more pronounced when audit offices dominate the market and in financially distressed firms. However, audit office's client base diversity weakens the association.

Our study contributes to the literature in several ways. To the best of our knowledge, this is the first to examine audit officers' responses to client bankruptcy. Prior research on audit quality has largely focused on auditor expertise and industry specialization (e.g., Lim and Tan, 2008; Gul et al., 2013). Another stream of research investigates auditors' experiences with financial restatements (i.e., audit failures) and their implications for auditors' market share, dismissal, or retention (e.g., Swanquist and Whited, 2015; He et al., 2016; Guo et al., 2022). However, client bankruptcy differs from financial restatements, as auditors are generally not held accountable for bankruptcies. As such, findings from studies on audit failures cannot be directly applied to auditor experiences with client bankruptcies. Our findings provide novel insights into the determinants of audit pricing and quality, demonstrating that BEXP enhances audit fees and quality.

Our paper is most related to Ivanova et al. (2024), which documents that auditors who engaged with bankrupt clients tend to exhibit increased conservatism and professional

skepticism and are more likely to avoid similar engagement in the future. However, because their analysis focuses on Swedish firms—including both private and public companies—limiting the generalizability of the findings to other markets. Moreover, Ivanova et al. (2024) focus on auditor-level rather than office-level, making it difficult to disentangle whether the observed effects stem from broader audit firm culture or office-level behaviours. Another related study is Guo et al. (2022), which examines whether former Arthur Andersen partners deliver higher-quality audits even years after the firm’s collapse. Analyzing four years of data (2017–2020) comprising 4,274 firm-year observations, the study finds that Andersen alumni provide higher audit quality and charge higher fees. However, their focus is on how auditors are affected by the bankruptcy of audit firms, such as Arthur Andersen, rather than the bankruptcy of client firms.

Beyond auditing literature, we contribute to the literature on the effects of adverse professional experiences. Prior studies show that directors and executives with bankruptcy experience exhibit varying risk-taking behavior (Gopalan et al., 2021; Ivanova et al., 2023; Chen, 2024), which leads to higher credit spreads and smaller bond sizes (Gatti et al., 2021) and ultimately increases bankruptcy risk and debt costs (Ivanova et al., 2023). While some executives become more cautious (Dittmar and Duchin, 2016), others increase firm risk (Hu et al., 2020; Chen et al., 2024). Unlike executives, auditors act as external monitors rather than decision-makers, leading to a fundamentally different approach to risk assessment. Our findings suggest that auditors with BEXP adopt a risk-averse approach, leading to higher fees and improved audit quality.

Our study also offers important policy implications. The PCAOB emphasized the need to identify determinants of audit fees and audit quality (Vanstraelen and Zou, 2022). Our findings highlight that auditors’ exposure to client bankruptcies significantly influences audit pricing and quality, providing regulators with insights into how past experiences shape audit outcomes.

Audit firms can leverage these findings to optimize resource allocation, assigning audit offices with BEXP to higher-risk clients. Additionally, companies can make more informed decisions when selecting auditors, recognizing the trade-offs between audit fees and quality. By deepening our understanding of how auditors' past experiences influence their judgments and decisions, this study contributes to advancing both research and policy in the field of auditing.

The remainder of the paper is structured as follows. Section 2 presents the literature review and hypothesis development. Section 3 outlines the sample selection and research design. Section 4 discusses the empirical results and their implications, while Section 5 concludes the paper.

2. Literature Review and Hypotheses Development

2.1 Behavioral Consequences of Bankruptcy Experiences

Corporate bankruptcy represents a significant adverse event that often carries enduring impacts not only on the affected firms but also for individuals associated with it (Lang and Stulz, 1992). Extant research focuses on the impact of bankruptcy on executives and directors, particularly examining whether the experience exerts financial or psychological effects that subsequently influence their professional behavior. For example, Gopalan et al. (2021) document that directors who experienced bankruptcy in a prior directorship display a greater propensity for risk-taking in their subsequent board roles. Similarly, Chen (2024), studying Japanese firms, finds that directors with prior bankruptcy experiences exhibit increased risk-taking behavior, notwithstanding the traditionally conservative governance norms in Japan.

The governance and financial market consequences of such behavioral shifts are also well-documented. Gatti et al. (2021) argue that bond investors perceive directors with bankruptcy histories as a source of governance risk, responding with higher credit spreads and smaller bond issuances. Similarly, Ivanova et al. (2023), using a sample of Swedish private firms, show

that executives with prior corporate distress experiences tend to lead firms with higher leverage, lower cash holdings, and increased bankruptcy risk, resulting in higher debt financing costs. Collectively, these studies suggest that prior bankruptcy experience may engender a more aggressive risk-taking approach among corporate decision makers.

However, the evidence on the behavioral consequences of bankruptcy is not uniformly consistent. Dittmar and Duchin (2016) document that managers with prior distress exposure tend to adopt more conservative financial policies post-bankruptcy. These managers reduce leverage and investment levels while maintaining high cash holdings, suggesting that bankruptcy may lead to increased risk aversion under certain conditions. Overall, while prior bankruptcy experience appears to influence managerial behavior, the direction of this influence remains mixed and context-dependent.

While executives and directors are typically directly accountable for corporate bankruptcy due to their central role in strategic and financial decision-making, less is known about how bankruptcy impacts external stakeholders who, although not directly responsible, are nonetheless implicated in the process. Auditors represent one such group. Although they do not engage in operational decision-making, auditors are responsible for evaluating the firm's financial statements and issuing opinions that may influence stakeholders' perceptions. When audited firms subsequently declare bankruptcy, auditors may be subject to reputational damage or scrutiny (DeFond et al., 2002; He et al., 2016). This raises an important but unexplored question: Does exposure to client bankruptcy alter auditors' subsequent professional behavior?

2.2 Professional Experience as a Determinant of Audit Outcome

Prior studies have explored the determinants of audit outcomes including audit fees and audit quality. Much of this literature focuses on auditor's demographic attributes, such as age, gender, and race (Chi and Chin, 2011; Gul et al., 2013; Hardies et al., 2016; Cameran et al.,

2017; Lee et al., 2019). Recently, scholars have turned attention to the role of auditors' professional experience in shaping audit pricing and quality.

In terms of audit fees, recent studies suggest a positive relationship between auditors' accumulated professional experience and the fees they command. For example, Lee et al. (2019) find that partners with more professional experience tend to charge higher audit fees. Similarly, Chen *et al.* (2017), using data from China, document a positive association between international work experience and audit fees. Desai *et al.* (2024) find that audit partners with limited industry experience initially price audits more competitively but subsequently raise fees to compensate for early engagement underpricing. Overall, the literature suggests that more experienced auditors, by virtue of their perceived competence and reputational capital, are better positioned to justify higher audit fees.

There is a relatively larger body of research examining auditor experience as a determinant of audit quality compared to studies focusing on audit fees. The findings, however, remain mixed. For example, Lee et al. (2019) find no significant association between a partner's professional tenure—measured as the number of years since their undergraduate degree—and audit quality. In contrast, Gunn and Michas (2018) show that multinational auditing experience is positively related to audit quality. Studies from non-U.S. contexts offer further insights. Gul et al. (2013), Guo et al. (2023), and Chen et al. (2017) demonstrate that factors such as an auditor's educational attainment, international experience, and hierarchical rank within the firm are positively associated with audit quality in China. Chi and Chin (2011) document that industry expertise enhances audit quality in Taiwan, while Tong et al. (2022) highlight the influence of early-life socioeconomic conditions. However, not all forms of experience yield positive outcomes. Ocak and Can (2019) report that government-experienced auditors in Turkey are less effective, citing slower performance and weaker detection of earnings management.

Taken together, these findings suggest that while professional experience generally contributes to improved audit outcomes, the nature and context of the experience matter. Understanding how auditors' prior encounters—particularly with high-stakes events such as client bankruptcies—shape audit behavior remains an important area for further investigation.

2.3 Client Bankruptcy Experience and Audit Fees

The literature in behavioral economics and psychology suggests that distressing events, such as bankruptcy, can exert lasting impacts on individual risk perception and decision-making (He et al., 2016; Guo et al., 2022). In this process, emotional memory plays a critical role as individuals tend to be more sensitive to losses than to gains (Tversky and Kahneman, 1991). In the context of auditors, witnessing client bankruptcy may increase sensitivity to audit risks and strengthen their aversion to potential litigation or reputational loss, thereby motivating a more conservative and risk-sensitive approach in subsequent engagements (Ivanova et al., 2024). Together, these factors lead to more vigilant and conservative decision-making during the auditing process. This shift in risk perception can result in two key outcomes: (1) increased audit effort to mitigate the perceived risks and (2) a higher assessment of audit risk overall. Both outcomes are known to be positively associated with audit fees.

Prior auditing literature support the notion that greater audit effort—whether due to complexity, regulatory requirements, or perceived client risk—translates into higher fees (Seidel, 2017; Bronson et al., 2017). For example, greater perceived risk often prompts auditors to allocate additional time to planning, substantive testing, and evaluation of internal controls (Seidel, 2017). This increased effort requires more time, resources, and expertise, thereby raising the overall cost of the audit and boosting audit fees (Seetharaman et al., 2002; Choi et al., 2009). Perceived audit risk is another key determinant of audit fees (DeFond and Zhang, 2014; Bronson et al., 2017). Auditors are incentivized to charge risk premiums in engagements

where the probability of audit failure—and its associated legal or reputational costs—is elevated (Simunic and Stein 1996; Ranasinghe et al., 2023). Overall, the above arguments suggest that auditors with client bankruptcy experiences are likely to perceive higher levels of audit risk and exert greater audit effort, both of which contribute to fee increases.

However, the relationship between client bankruptcy experience and audit pricing is not unambiguously positive. Prior research suggests that auditors may suffer reputational setbacks when clients fail, leading to a loss of market share (He et al., 2016; Ivanova et al., 2024). This weakened market position may reduce auditors' bargaining power and limit their ability to command premium fees in future engagements. In light of these competing mechanisms, the net effect of client bankruptcy experience on audit fees remains an open empirical question. Accordingly, we state our first hypothesis in null form:

Hypothesis 1: Auditors' exposure to client bankruptcy is not associated with future audit fees.

2.4 Client Bankruptcy Experience and Audit Quality

Beyond audit pricing, client bankruptcy experience may also influence audit quality. As noted earlier, adverse events such as bankruptcy can meaningfully reshape individuals' risk preferences and professional behavior (Tversky and Kahneman, 1991; Cowle et al., 2023). In the audit context, such experiences may instill greater professional skepticism and reduce auditors' tolerance for aggressive financial reporting (Venkataraman et al., 2008). The result may be a more cautious audit approach, characterized by heightened legal risk awareness, increased diligence, and more conservative judgment calls, all of which are associated with improved audit quality (AICPA 2011; Nelson, 2009; Xu et al., 2023).

Empirical evidence supports this view. Guo et al. (2022) argue that distressing experiences enhance auditors' vigilance, while Ivanova et al. (2024) show that bankruptcy experience

increases professional skepticism and is associated with higher audit quality in the Swedish market.

Nevertheless, there may also be offsetting effects. As previously discussed, auditors whose clients have experienced bankruptcy may face diminished reputational capital or downward pressure on fees, potentially attracting riskier or lower-quality clients (He et al., 2016). In such settings, lower observed audit quality may reflect client characteristics rather than a deterioration in auditor competence or effort.

In sum, the influence of client bankruptcy experience on audit quality is likely to reflect a combination of enhanced professional skepticism and altered client portfolios. To account for these opposing forces, we frame our second hypothesis in null form:

Hypothesis 2: Auditors' exposure to client bankruptcy is not associated with future audit quality.

3. Methodology

3.1 Data and Sample

We obtain auditing data from Audit Analytics, bankruptcy data from LoPucki Bankruptcy Research database, and financial data from Compustat. We start with 94,320 firm-year observations from Audit Analytics during 2003-2018 period. We begin our sample in 2003 to mitigate any confounding effects from the Sarbanes-Oxley Act of 2002, which introduced significant changes to auditor responsibilities (Deng et al., 2012). The sample ends in 2018 because our primary measure of audit quality—financial misstatements—is typically identified within three years of the original financial statement filings (Barua et al., 2020), and thus requires data from subsequent years.

We then exclude non-U.S. audit offices, reducing the sample to 90,501 firm-year observations. We then remove 24,082 observations with missing firm-level data and 22,223 observations with missing control variable data, resulting in a final sample of 44,196 firm-year observations from 5,771 unique firms. These observations represent 8,823 office-years across 1,267 unique audit offices. Our sample selection process is presented in Table 1.

<insert Table 1 about here>

3.2 Measures

Our first dependent variable (*AUD_FEES*) is the natural log of the total audit fees at the end of the fiscal year. This measure is commonly used in prior auditing studies (e.g., Abbott et al., 2012; Badertscher et al., 2014; Ettredge et al., 2014; Hossain et al., 2017; Chang et al., 2019; Beck et al., 2019). Our second dependent variable is audit quality, measured by the presence of restatements (*MISSTATE*), following Ashraf et al. (2020). Regulators, auditors, and investors consider misstatements a sign of poor audit quality (PCAOB 2015; Christensen et al., 2016). A misstatement reflects an error or omission in financial statements, which can result from either intentional fraud or unintentional mistakes, such as errors in accounting records or misapplication of accounting principles.

Our independent variable *BEXP* is an indicator variable coded as 1 if an auditor had any client that filed for bankruptcy prior to the issuance of the current auditee's audit report¹, and 0 otherwise.

¹ Both bankruptcy dates and issuance dates of audit reports are traceable. As such, we code *BEXP* as 0 if a firm's audit report was issued before any of the auditor's clients declared bankruptcy, and as 1 otherwise. Notably, approximately 2.70% of observations in our sample involve a client bankruptcy occurring in the same year the audit opinions were issued.

3.3 Model Specifications

To test Hypothesis 1 (H1), we estimate the following regression model:

$$AUDIT_FEES_{it} = \beta_0 + \beta_1 BEXP + \beta_k \sum Controls + Year/Industry/Firm FE + \varepsilon_{it} \quad (1)$$

Here, *AUDIT_FEES* is the dependent variable, and *BEXP* is the key independent variable. Control variables include firm size (*SIZE*), leverage (*LEV*), financial distress and performance (*LOSS* and *ROA*), complexity (*SEGMENTS*), foreign sales (*FOREIGN*), discontinued operation (*DISCONTINUE*), busy season (*BUSY_SEASON*), proximity to PCAOB (*PROXPCAOB*), client importance (*CLIENT_IMPORTANCE*), client proximity (*CLIENT_PROXIMITY*), non-audit services (*NAF*), industry expert (*INDUSTRY_LEADER*), audit office size (*OFFICE_SIZE*), audit tenure (*AUDITOR_TENURE*) and going concern opinion (*GOING_CONCERN*). These controls are motivated by prior audit research (Choi et al., 2010; Swanquist and Whited, 2015; Beck et al., 2019; Hollingsworth et al., 2020; Lee et al., 2022; Guo et al., 2022). For instance, firm size is a primary determinant of audit fees due to scale and scope of operations (Ettredge et al., 2014), and higher leverage or financial distress increases audit risk and thus audit fees (Palmrose, 1986; Francis and Yu, 2009).

In addition, we control for several audit office characteristics that have been shown to influence audit fees (Lee et al., 2022). First, we include the audit office's proximity to PCAOB (*PROXPCAOB*), as prior studies suggest that auditors located close to PCAOB exert greater audit effort (DeFond et al., 2018; Lee et al., 2022). Second, we include the proximity between the client and the auditor (*CLIENT_PROXIMITY*), since a shorter distance can offer an information advantage (Choi et al., 2012), potentially reducing audit effort.

We also include client importance (*CLIENT_IMPORTANCE*), as auditors tend to devote more attention and effort to significant clients, leading to higher audit fees (Li, 2009). Further, we control for non-audit services (*NAF*), which could either increase audit efficiency or

strengthen economic ties between auditors and clients, thereby influencing audit fees (Lai et al., 2022).

Furthermore, we consider whether the auditor is an industry expert (*INDUSTRY_LEADER*), since such auditors may either perform audits more efficiently—leading to lower fees—or command a premium due to their specialized knowledge (Francis, 2004; Cahan et al., 2011; Gaver and Utke, 2019). Audit office size (*OFFICE_SIZE*) is included as well, given that larger offices often deliver higher quality audits, benefit from economies of scale, and enjoy stronger reputations—factors that collectively affect audit pricing (Choi et al., 2010; Lee et al., 2022; Tan et al., 2024).

We also control for audit tenure (*AUDITOR_TENURE*), since longer auditor-client relationships may increase audit efficiency and understanding of the client’s operations, or reflect better risk assessment—both of which can influence audit fees (Knechel and Vanstraelen, 2007). Finally, we include a going concern opinion (*GOING_CONCERN*), as prior research documents higher fees associated with such reports (Basioudis et al., 2008). Year and Industry/Firm fixed effects are also included in all models. Variable definitions are provided in Appendix A.

To test H2, we estimate the following model:

$$AUDIT_QUALITY_{it} = \beta_0 + \beta_1 BEXP + \beta_k Controls + \sum Year/Industry/Company FE + \varepsilon_{it} \quad (2)$$

The dependent variable *AUDIT_QUALITY* is based on the indicator *MISSTATE*, which reflects restatements associated with significant misstatements and is widely used in recent audit quality research (Beardsley et al., 2021; Lee et al., 2022).

Consistent with prior research, we control for several variables known to influence audit quality (Choi et al., 2010; Swanquist and Whited, 2015; Beck et al., 2019; Hollingsworth et al., 2020; Lee et al., 2022; Guo et al., 2022). Specifically, we include firm-specific factors, such as

firm size (*SIZE*), leverage (*LEV*), financial distress and performance (*LOSS* and *ROA*), complexity (*SEGMENTS*), foreign sales (*FOREIGN*), discontinued operation (*DISCONTINUE*), and busy season (*BUSY_SEASON*).

In addition, we control for several auditor characteristics that have been previously discussed, including proximity to the PCAOB (*PROXPCAOB*), client importance (*CLIENT_IMPORTANCE*), client proximity (*CLIENT_PROXIMITY*), non-audit services (*NAF*), industry expert (*INDUSTRY_LEADER*), audit office size (*OFFICE_SIZE*), and tenure (*AUDITOR_TENURE*). While these variables are described in more detail above, we additionally include firm age (*AGE*) in our audit quality models. Older firms may face greater reputational concerns and/or operate more complex businesses, thereby demanding higher audit quality (e.g., Docimo et al., 2021; Rajgopal et al., 2021). In addition, we exclude the going concern opinion (*GOING_CONCERN*) from our audit quality models, as prior studies in audit literature normally use it as a proxy for audit quality itself (Lim and Tan, 2008; Francis and Yu, 2009; Hossain et al., 2017). Finally, the regression models control for the year and firm fixed effects. In particular, we emphasize firm fixed effects across different specifications to address unobservable, time-invariant firm characteristics. Definitions and data sources for all variables are provided in Appendix A.

4. Results

4.1 Descriptive Statistics and Correlation Analysis

Table 2 outlines the summary statistics of the variables used in this study. The mean value of *BEXP* is 0.439, indicating that approximately 44% of client firm-years are audited by offices with prior client bankruptcy experience. The mean (median) fees paid to auditors is \$1.9 million (\$1 million). On average, 4.8% of the client firms of an audit office misstated (*MISSTATE*) their financial statements over the 2003-2018 period. The mean (median) values of our control

variables are generally consistent with prior literature. For instance, clients have an average debt-to-total-assets ratio (*LEVERAGE*) of 0.231; about 44% operate internationally, and 29% report a loss. Roughly 30% of clients are located in the same city as their audit office. All continuous variables are winsorized at the 1st and 99th percentiles to reduce the influence of outliers.

<insert Table 2 about here>

Table 3 displays the Pearson correlation coefficients of our variables of interest. Among the independent variables, the highest correlation (0.64) is between *OFFICE_SIZE* and *CLIENT_IMPORTANCE*, with only two other pairs—*ROA* and *LOSS*, and *PCAOBPROX* and *OFFICE_SIZE*—showing coefficients above 0.50. As all correlation values fall below the critical threshold of 0.70, multicollinearity is not a concern (Garson, 2012). Additionally, untabulated variance inflation factors (VIFs) are all below 4.0, well under the common cutoff of 10 (Neter et al., 1989), further confirming no multicollinearity issues.

The correlation results offer initial support for our hypotheses. As expected, *AUDFEES* is positively and significantly ($p < 0.01$) correlated with *BEXP*, suggesting that audit offices with bankruptcy experience charge higher fees. Meanwhile, *MISSTATE*, *MISSTATE_UO*, *DAC1*, and *DAC2* all show significant negative correlations ($p < 0.01$) with *BEXP*, indicating improved audit quality by these offices. Most control variables also exhibit significant associations with the dependent variables, supporting their inclusion in the regression models.

<insert Table 3 about here>

4.2 Main Results

Our regression results for audit fees are presented in Table 4. Column (1) presents estimates with firm-fixed effects, while Column (2) uses industry-fixed effects. In both columns, the coefficients on *BEXP* are significantly positive ($p < 0.01$), suggesting that audit

offices with bankruptcy experience charge higher audit fees. The effect is economically significant. According to Column (1), audit offices with *BEXP* charge approximately 5.6% ($e^{0.055} - 1$) more in fees than non-*BEXP* offices. This finding is consistent with Guo et al. (2022), who document a 4.4% increase in audit fees when the engagement partner is a former Arthur Andersen auditor.

<insert Table 4 about here>

We then report our results for audit quality in in Columns (3) and (4). Consistent with our expectations, we observe higher audit quality when audits are conducted by offices with *BEXP*. The coefficient for *MISSTATE* is negative and significant at 1% ($p < 0.01$) regardless of whether we use company- or industry-fixed effects. The effect size is also economically significant: a coefficient of -0.012 implies a 1.2 percentage point reduction in misstatement rates for audits conducted by *BEXP* offices. Given the mean misstatement rate of 4.8%, this reflects a 25% relative reduction, supporting the notion that *BEXP* enhances audit quality.

4.3. Endogeneity concerns

To address the potential endogeneity problem, we follow Liao *et al.* (2022) and implement a difference in differences (DiD) design. We estimate the following DiD models to test our hypotheses.

$$AUDIT_FEES_{it} = \beta_0 + \beta_1 Treatment * Post + \beta_k Controls + \sum Year/Company\ FE + \varepsilon_{it} \quad (3)$$

$$AUDIT_QUALITY_{it} = \beta_0 + \beta_1 Treatment * Post + \beta_k Controls + \sum Year/Company\ FE + \varepsilon_{it} \quad (4)$$

Here, *Treatment* is an indicator variable that equals 1 for all audit offices that have experienced client bankruptcy and 0 otherwise. *Post* equals 1 for the year of the bankruptcy event and all subsequent years, and 0 otherwise. The interaction term *Treatment* \times *Post* is our DiD estimator, capturing changes in audit fees and audit quality following bankruptcy

experience, relative to audit offices without such experience. All control variables and definitions are consistent with our main model and outlined in Appendix A. The results are presented in Columns (1) and (2) of Table 5 Panel A. It shows that the coefficient on *Treatment* \times *Post* is significantly positive for *AUDFEE* and negative for *MISSTATE* regression, suggesting that audit offices' exposure to client's bankruptcy is associated with higher audit fees and improved audit quality.

The above DiD design is based on the full sample. To ensure the robustness of the design, we further conduct two alternative analysis. First, we restrict the analysis to a seven-year window around the treatment event to mitigate potential confounding effects from distant time periods. Specifically, we include three years prior to treatment, the year of treatment, and three years post treatment. We identify treatment observations by examining bankruptcy events, including the three years preceding each bankruptcy, the bankruptcy year itself, and the three years following the event. For each treated observation, we then match corresponding control observations using nearest neighbor matching with replacement based on firm characteristics (e.g., all control variables), industry, auditor city, year, and pre-treatment trends. We then re-estimate our DiD models and present the results in Columns (3) and (4) of Table 5 Panel A. The coefficients for the interaction *Treatment* \times *Post* remain consistent with the baseline findings. Second, we use propensity score matching (PSM) to construct a control group that maximises the comparability of the treatment group and the control group. In the first stage, we estimate the probability that a firm is audited by an auditor with bankruptcy experience ($BEXP = 1$) using a logistic regression model. This model incorporates the same set of control variables as our baseline specifications. We then extract propensity scores and match (with replacement) each control observation to a treatment observation with the closest propensity score and a maximum caliper distance of 0.025 using pre-treatment trends. In the second stage we re-estimate the above regressions using this sample. The results are presented in Columns

(5) and (6) of Table 5 Panel A. The coefficient on *Treatment* \times *Post* is significant for both column (5) and (6), reassuring the *BEXP* effect on audit fees and audit quality.

<insert Table 5 about here>

To further validate the DiD design, we conduct a parallel trends test using a dynamic DiD model. We construct seven year-specific indicators: three for pre-treatment years (*Pre_3rdYR*, *Pre_2ndYR*, *Pre_1stYR*), one for the treatment year (*Current_YR*), and three for post-treatment years (*Post_1stYR*, *Post_2ndYR*, *Post_3rdYR&above*). Results are reported in Table 5, Panel B. For both audit fee and audit quality outcomes, the interaction terms between *Treatment* and the pre-treatment indicators are statistically insignificant, supporting the parallel trends assumption. In contrast, *Treatment* \times *Current_YR* and post-treatment interactions are significantly positive in the audit fee model and significantly negative in the audit quality model, confirming that audit offices experiencing client bankruptcy are associated with increased fees and improved audit quality.

4.4 Robustness tests

4.4.1 Impact of BEXP on Going Concern

In the main analysis, we examine audit quality and audit fees as the dependent variables. As an alternative analysis, we use the issuance of going concern opinions (GC) to explore whether audit offices with client bankruptcy experience are more likely to issue GC opinions after gaining such experience. We posit that auditors with client bankruptcy experience adopt a more conservative reporting approach, increasing the likelihood of issuing GC opinions.

We investigate the association between BEXP and GC opinions by focusing on audit offices that failed to issue GC opinions prior to their clients' bankruptcy. This focus is necessary because BEXP is largely driven by prior GC issuance—most audit offices that issued GC before client failure are already categorized as BEXP auditors. Thus, to isolate the impact of BEXP,

we construct a subsample excluding offices that had issued GC prior to becoming BEXP auditors. We use two measures for GC opinions: 1) *AO_GC*- the number of clients receiving GC opinions, scaled by the audit office's total clients in a given year; 2) *GOING_CONCERN*- a binary variable coded 1 if a client received a GC opinion, 0 otherwise. We estimate OLS regressions using *AO_GC* and *GOING_CONCERN* as the dependent variables, respectively, and *BEXP* as the independent variable. A logistic model is also used for the binary GC regression. We use the same control variables as in the baseline audit quality model. Table 6 Columns (1) & (2) presents the summary results. We find that the coefficients on *BEXP* are significantly positive (at the 1% level) in both models, suggesting that audit offices previously failing to issue GC opinions are now more likely to issue such opinions after experiencing client bankruptcy. This finding further corroborates the enhanced audit quality of BEXP auditors, consistent with our baseline analysis.

<insert Table 6 about here>

4.4.2 Alternative measures of audit quality

As no single measure can fully captures audit quality, using multiple proxies is recommended (DeFond and Zhang, 2014). Accordingly, we employ the following alternative measures of audit quality. The first one is *MISSTATE_IC*, measured as misstatements due to undetected internal control weaknesses (Cowle and Rowe, 2022). The second one is *MISSTATE_UO*, which refers to misstatements of financial statements accompanied by unmodified audit opinions (Chan et al., 2021). The third and fourth measures are abnormal accruals based on McNichols (2002) and Stubben (2010), respectively, labelled as *DAC1* and *DAC2* (see Appendix B for details).

Table 6 Columns (3) to (6) presents the results. A significantly negative coefficients ($p < 0.01$) for *MISSTATE_IT* reaffirm our main findings. The results also hold when using

MISSTATE_UO, with a negative and significant coefficient indicating that *BEXP* auditors are less likely to issue clean opinions on misstated financials.

For the accrual-based measures, both *DAC1* and *DAC2* are significantly negatively associated with *BEXP*, regardless of whether firm or industry fixed effects are included. These results are both statistically and economically meaningful.

4.4.3 Alternative measures for client bankruptcy experience

Beyond using various dependent variables, we also use alternative measures for our independent variable, *BEXP*. The first one is *Ln_num_BEXP*, calculated as the natural logarithm of the total number of client bankruptcies experienced by an audit office from the first recorded bankruptcy to the end of the sample period. The second measure is *Ln_BEXP_days*, computed as the natural logarithm of number of days between the audit opinion date and the most recent client bankruptcy experience. Observations with no *BEXP* are assigned zero. We re-estimate our models using these alternative measures. Though the results are not tabulated for brevity, they are consistent with our primary findings.

4.4.4 Removing bankruptcies due to fraudulent activities

One might argue that fraudulent client bankruptcies drive the observed relationship between *BEXP* and audit outcomes. Fraud-related bankruptcies may be perceived as audit failures and could lead to greater changes in auditor behavior. To account for this, we exclude bankruptcies tied to fraud and re-estimate our regression models. Table 6 Columns (7) and (8) show that our findings remain robust after excluding fraud cases, suggesting that the effects of *BEXP* are not solely driven by fraud-related client failures.

5. Additional Analyses

5.1 Impact of *BEXP* on audit office's client base and market share

Our main results indicate that audit offices with BEXP tend to charge higher audit fees and deliver higher-quality audits than those without such experiences. This could be attributed to audit offices losing clients after experiencing BEXP. Prior studies suggest that clients avoid “contaminated” audit offices (Swanquist and Whited, 2015; Ege et al., 2025). To restore their reputation and market presence, such offices may exert more effort, leading to improved audit performance. We examine whether audit offices lose clients or market share post-BEXP by constructing two variables, namely, *Changes_in_clients* (measured as net change in the number of clients from the previous year) and *Decrease_clients* (coded as 1 if an office lost at least two clients compared to the previous year). We then regress *Changes_in_clients* and *Decrease_clients* on *BEXP* in separate models, using the same control variables as in our audit fee model. The results are presented in Table 7 Panel A. It shows that the coefficients on *BEXP* are significantly negative (at 1%) in Columns (1) and (2), indicating a higher likelihood of losing clients following a client bankruptcy at an audit office. Also, in Columns (3) and (4), we find negative and significant (at 1%) coefficients on *BEXP*, suggesting a decline in clients soon after a client of an office files for bankruptcy. Together, both changes in clients and decrease in clients suggest that audit offices’ exposure to clients’ bankruptcy is associated with reduction in number of clients.

We also investigate market share changes from two perspectives: *Change_MKTshare_industry* – change in an office’s industry-level market share, and *Change_MKTshare_city* – change in its city-level market share. We also use two indicator dummies *Decrease_MKTshare_industry* and *Decrease_MKTshare_city* – to represent any drop in respective market shares.

Table 7 Panel B shows the regression results for both industry and city-level market share changes post-BEXP. The coefficient on *BEXP* is significantly negative (at 1%) for *Change_MKTshare_industry* regression (Column (1)) and positive (at 1%) for

Decrease_MKTshare_industry regression (Column (2)), indicating a decline in audit office's industry level market share after a client declares bankruptcy. The results remain consistent in Columns (3) and (4) where we use the city level to determine auditor offices' market share change.

Next, we investigate the termination of auditor-client relationships by identifying two distinct exit modes: *DISMIS* – coded as 1 if the auditor was dismissed, and 0 otherwise, and *RESIGN* – coded as 1 if the auditor resigned, and 0 otherwise. We employ a PSM approach for this analysis. Specifically, we first estimate the likelihood of a firm being audited by a BEXP auditor using a logistic regression model, where the covariates correspond to all control variables included in our audit quality model. Based on the estimated propensity scores, we match each treatment observation ($BEXP = 1$) to a control observation ($BEXP = 0$) with the closest propensity score, allowing for replacement and imposing a maximum caliper of 0.025. Using the matched sample, we then estimate separate regressions of *DISMIS* and *RESIGN* on *BEXP* along with the full set of control variables.

As presented in Table 7 Panel C, the coefficient on *BEXP* is significantly positive for *DISMIS* and significantly negative for *RESIGN*, suggesting that BEXP audit office exits are more likely to be initiated by clients through dismissal, rather than by auditors through voluntary resignation.

In sum, BEXP negatively affects audit firms' client retention and market share, likely due to reputational damage (e.g., He et al., 2016). These challenges, however, may drive greater conservatism, audit effort, and professional skepticism—enhancing audit quality. Auditors may also attempt to reposition themselves in the market after experiencing BEXP.

<insert Table 7 about here>

5.2 Cross-sectional variation analysis

5.2.1 Clients' industry diversity

In this section, we investigate the cross-sectional variation in the association between BEXP and audit outcomes. First, we examine whether this association is moderated by the audit office's client industry diversity. We hypothesize that the effects of BEXP on audit fee and quality are less pronounced in offices with a more diverse client portfolio. Audit offices serving clients across a broad range of industries may be better positioned to absorb reputational shocks stemming from client- or industry-specific bankruptcies. In such cases, the potential for the spillovers effects from the client bankruptcy may be mitigated, and the overall impact of a single client's bankruptcy experience may be diluted within a diversified client base. We follow Beardsley et al. (2022) to construct a variable *Industry_Diversity* using clients' two-digit SIC code. For each client, we calculate a diversity weight by dividing the number of clients audited by the office in different industries (i.e., excluding the client's own industry) by the total number of clients audited by that office. This weight captures how diversified the office's portfolio is with respect to that client. We then average these diversity weights across all clients within the audit office to compute the office-level *Industry_Diversity* measure. This measure ranges from zero to one, with higher values indicating greater industry diversity in the audit office's client base. After constructing the *Industry_Diversity* measure, we re-estimate our baseline regressions by including the interaction term $BEXP * Industry_Diversity$.

The results are presented in Table 8 Panel A. Columns 1 and 2 report the regression results for audit fees and audit quality, respectively. In the audit fee model, the coefficient on $BEXP * Industry_Diversity$ is -0.121 and is statistically significant at the 1% level. This suggests that the association between BEXP and audit fees is weaker in audit offices that have clients from different industries. Turning to the audit quality model, the coefficient on $BEXP * Industry_Diversity$ is 0.019 and significant at the 1% level, indicating a less pronounced association between audit offices with BEXP and audit quality. Overall, the findings support

our hypothesis that greater industry diversity within an audit office mitigates the spillover effects of client bankruptcy experience on subsequent audit outcomes.

<insert Table 8 about here>

5.2.2 Audit office's market concentration

Our second moderation analysis examines whether audit offices' market concentration plays a role in influencing the effect of *BEXP* on audit fees and audit quality. Audit offices with a higher market concentration are normally more vulnerable to negative incidents because they face greater reputational contagion. Given their dominant market position, these offices tend to attract higher visibility and may be subject to increased scrutiny following adverse client events such as bankruptcy. If so, the impact of *BEXP* on subsequent audit outcomes may be amplified in such offices. We follow Ettredge et al. (2021) to compute the Herfindahl index (*HHI*) of audit office market concentration. *HHI* is calculated as the sum of squares of the ratios of each audit office's size (measured as the total audit fees earned in a year) to the total size of the audit market in the audit office's city. We then re-run our regression, including the interaction term *BEXP*HHI*, to examine how audit office's market concentration moderates the association between *BEXP* and audit fees and quality. Table 8 Panel B presents the regression results.

In Column (1) of Panel B, the coefficient on *BEXP*HHI* is significantly positive ($p < 0.01$), indicating that the increase in audit fees associated with bankruptcy experience is more pronounced for audit offices with higher market concentration. In Column (2), the coefficient on *BEXP*HHI* is significantly negative ($p < 0.01$), implying that the improvement in audit quality following bankruptcy experience is also more evident in highly concentrated markets. Together, these findings support the notion that market-dominant offices respond more strongly to client bankruptcy incidents, likely due to their greater exposure to reputational spillovers and their greater need to maintain credibility in the eyes of clients and regulators.

5.2.3 Financially distressed clients

Our final moderation analysis investigates whether the effects of BEXP on audit fees and audit quality are more pronounced among firms facing financial distress, specifically those with a higher risk of bankruptcy. Firms in financial distress are more likely to file for bankruptcy (Stice, 1991), and prior literature suggests that auditors face increased litigation risk when auditing such clients (Krishnan and Krishnan, 1997). Consequently, bankruptcy-experienced auditors may adopt an even more cautious and conservative approach compared to non-BEXP auditors when serving distressed clients, leading to a more pronounced effect of BEXP on audit fees and audit quality in these cases.

To identify financially distressed firms, we follow the Altman (1968) bankruptcy model, as applied in Kuang et al. (2021). Firms with a Z-score below 1.81 are classified as distressed, while those with a Z-score of 1.81 or above are considered non-distressed. Based on this classification, we create a dummy variable, *DISTRESS*, which equals 1 for distressed firms and 0 otherwise. We re-estimate our main regressions by including the interaction term *BEXP*DISTRESS*. Table 8 Panel C presents the results for both audit fees and audit quality.

For the audit fee model, we find that the coefficient on the interaction term is positive and significant at the 1% level, suggesting that the positive association between audit offices with client bankruptcy experience and audit fees are more pronounced for distressed clients than for non-distressed ones. Regarding audit quality, the coefficient on *BEXP*DISTRESS* is negative and significant, suggesting that the negative association between BEXP and misstatement (a proxy for low audit quality) is also more pronounced among distressed firms. These findings are robust to the use of an alternative method for identifying financially distressed companies — specifically, those with either negative net income or negative cash flow from operations (DeFond et al., 2002). These results collectively indicate that auditors with bankruptcy

experience respond more strongly to the heightened risk environment posed by financially distressed clients, both in terms of fee adjustments and audit quality.

6. Conclusion

While there is broad consensus in the literature that directors' bankruptcy experience influences corporate decisions (Gopalan et al., 2021), evidence regarding how auditors' prior bankruptcy experience affects current audit practices is less well established. The bankruptcy experience of individual auditors may extend to other auditors within the same audit office, potentially shaping a distinct audit approach and justifying a fee premium.

This study investigates whether and how auditors' bankruptcy experience (BEXP) impacts audit fees and audit quality. We hypothesize a significant association between BEXP and both audit fees and audit quality. These hypotheses rest on the assumption that BEXP alters auditors' risk preferences and incentive structures, thereby influencing their audit behavior. Using data from the U.S. market between 2003 and 2018, we test our hypotheses and find that BEXP is positively associated with both higher audit fees and improved audit quality. Our findings remain robust across alternative model specifications.

This study is the first to examine audit officers' responses to client bankruptcy. While prior studies show that directors and executives with bankruptcy experience exhibit varying risk-taking behavior, we provide novel evidence that auditors as external monitors become more prudent upon experiencing client's bankruptcy. By deepening our understanding of how clients' failure influences auditor judgments and decisions, this study contributes to both academic inquiry and policy development in the field of auditing. Despite these contributions, our study has several limitations that open avenues for future research. First, our analysis is conducted at the audit office level. While this level of aggregation captures important organizational dynamics, future studies could investigate BEXP effects at the partner level, particularly as

partner identity data have become available since 2016. Second, it would be valuable to explore how BEXP influences auditors' client portfolio management, including the selection and engagement of new clients. Finally, future research might examine whether BEXP plays a role in shaping human capital decisions within audit offices, such as the departure or recruitment of engagement partners. Together, these extensions would help further illuminate the consequences of auditor exposure to client bankruptcies.

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Appendix A

Variable Definitions

<i>Variable</i>	<i>Definition</i>	<i>Data Source</i>
<i>AUDIT_FEES</i>	Natural logarithm of the statutory audit fee reported in the financial statements.	Audit Analytics
<i>MISSTATE</i>	The percentage of an audit office's publicly traded clients that restated their year-t financial statements as '4.02 restatements'.	Audit Analytics
<i>MISSTATE_IC</i>	The percentage of an audit office's publicly traded clients that restated their year t financial statements as there was an internal control issue.	Audit Analytics
<i>MISSTATE_UO</i>	The percentage of the audit office's publicly traded clients that received an 'unqualified opinion' for financial statements in year t that were subsequently restated and announced as '4.02 restatements'.	Audit Analytics
<i>DAC1</i>	Discretionary accruals estimated as the residuals following McNichols (2002).	Compustat
<i>DAC2</i>	Discretionary revenues estimated as the residuals following Stubben (2010).	Compustat
<i>GOING_CONCERN</i>	Indicator variable coded as 1 if the external auditor issued a going concern opinion in a year, and 0 otherwise.	Audit Analytics
<i>AO_GC</i>	The number of clients receiving GC opinions, scaled by the audit office's total clients in a given year.	Audit Analytics
<i>BEXP</i>	Indicator variable coded as 1 if the audit office of a company has prior bankruptcy experience, 0 otherwise. Prior bankruptcy experience refers to an audit office with any of its clients having filed for bankruptcy before the issuance of the audit report on financial statements of year t, or in any previous year (t-n) within the sample period from 2003 to 2018.	LoPucki BRD; Audit Analytics
<i>Ln_num_BEXP</i>	Natural logarithm of the total number of client bankruptcies experienced by an audit office from the first recorded bankruptcy to the end of the sample period.	LoPucki BRD; Audit Analytics

<i>Ln_BEXP_days</i>	Natural logarithm of one plus the number of days between the audit opinion date and the most recent client bankruptcy experience. Observations with no BEXP are assigned zero.	LoPucki BRD; Audit Analytics
<i>SIZE</i>	Natural logarithm of the total assets of a company.	Compustat
<i>LEVERAGE</i>	Total liabilities divided by total assets.	Compustat
<i>AGE</i>	Natural logarithm of a firm's age in a given year, where age is measured as the number of years since the firm first appears in the Compustat database.	Compustat
<i>ROA</i>	Net income divided by total assets at the beginning of the year.	Compustat
<i>LOSS</i>	Indicator variable coded as 1 if a firm reports a loss for a year, and 0 otherwise.	Compustat
<i>SEGMENTS</i>	The number of business segments of a firm in a given year.	Compustat
<i>FOREIGN</i>	Indicator variable coded as 1 if a firm has foreign operations in a year, 0 otherwise.	Compustat
<i>DISCONTINUE</i>	Indicator variable coded as 1 if a firm has discontinued operations in a year, 0 otherwise.	Compustat
<i>BUSY_SEASON</i>	Indicator variable coded as 1 if a firm's fiscal year ends in December, 0 otherwise.	Audit Analytics
<i>PROXPCAOB</i>	Indicator variable coded as 1 if an audit office is located in the same city as the PCAOB headquarter (Washington, DC) or its regional offices (Atlanta, GA; Ashburn, VA; Boston, MA; Chicago, IL; Charlotte, NC; Denver, CO; Fort Lauderdale, FL; Irvine, CA; Irving, TX; Houston, TX; Los Angeles, CA; New York City, NY; Philadelphia, PA; San Mateo, CA; and Tampa, FL), and 0 otherwise.	Audit Analytics
<i>CLIENT_IMPORTNC</i>	Audit fees paid by a client firm divided by the total audit fees of all client firms in a given year.	Audit Analytics
<i>CLIENT_PROXIMITY</i>	Coded as 1 if an audit office and a client firm are located in the same city, and 0 otherwise.	Audit Analytics
<i>NAF_TO_AF</i>	The ratio of non-audit fees to audit fees paid to an audit office in a year.	Audit Analytics

<i>INDUSTRY_LEADER</i>	Indicator variable coded as 1 if an audit office has the highest market share in an industry for a given year. Industries are defined using two-digit SIC codes. Market share is calculated as total audit fees received by an audit office divided by total audit fees in an industry for a given year.	Audit Analytics
<i>OFFICE_SIZE</i>	Natural log of total audit fees charged to all public audit clients by an audit office in a given year.	Audit Analytics
<i>AUDITOR_TENURE</i>	Natural logarithm of the number of years the current audit firm has been auditing the firm.	Audit Analytics
<i>DISMIS</i>	Indicator variable coded as 1 if the auditor was dismissed, 0 otherwise.	Audit Analytics
<i>RESIGN</i>	Indicator variable coded as 1 if the auditor resigned, 0 otherwise.	Audit Analytics
<i>Changes_in_clients</i>	Net change in the number of clients from the previous year.	Audit Analytics
<i>Decrease_clients</i>	Indicator variable coded as 1 if an office lost at least two clients compared to the previous year.	Audit Analytics
<i>Change_MKTshare_industry</i>	Change in an office's industry-level market share compared to the previous year.	Audit Analytics
<i>Change_MKTshare_city</i>	Change in its city-level market share compared to the previous year.	Audit Analytics
<i>Decrease_MKTshare_industry</i>	Indicator variable coded as 1 if there was a decrease in industry-level market share compared to the previous year, and 0 otherwise.	Audit Analytics
<i>Decrease_MKTshare_city</i>	Indicator variable coded as 1 if there was a decrease in city-level market share compared to the previous year, and 0 otherwise.	Audit Analytics
<i>Industry_Diversity</i>	Industry diversity following Beardsley et al. (2022) . The diversity weight for each client is calculated by dividing the number of clients audited by the office in industries different from that of the client by the total number of clients audited by the office. <i>Industry_Diversity</i> is the sum of diversity weights divided by the total number of clients in the office.	Audit Analytics; Compustat

<i>HHI</i>	Herfindahl index of market concentration calculated as the sum of squares of the ratios of each audit office's size (audit fees) to the total size of the audit market in the auditor city.	Audit Analytics
<i>DISTRESS</i>	Firms with an Altman Z-score below 1.81 are classified as distressed and coded as 1, while those with a Z-score of 1.81 or above are considered non-distressed and coded as 0.	Compustat

Appendix B

Following contemporary studies, we use accrual-based measures to assess audit quality. Our first measure is the standard deviation of abnormal working capital accruals (*DAC1*), estimated using the models proposed by Dechow and Dichev (2002) and McNichols (2002). Specifically, we adopt McNichols' (2002) approach and estimate abnormal accruals using the following equation:

$$CAC_t = \alpha + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \beta_4 \Delta REV_t + \beta_5 PPE_t + \varepsilon_t \dots\dots(4)$$

where CAC_t (current accruals) is calculated as net income before extraordinary items plus depreciation and amortization, minus cash flows from operations (*CFO*). All variables in Equation (4) are scaled by total assets at the beginning of the year t . The standard deviation of the residuals over a four-year period (from year t to $t-3$) is used as the audit quality metric. McNichols (2002) argues that the standard deviation better captures managerial discretion in accruals. Contemporary research also employs the standard deviation of residuals as a proxy for audit quality (e.g., Chou et al., 2021; Li et al., 2022).

Our second audit quality measure is the absolute value of discretionary revenues (*DAC2*). To estimate this, we rely on the model from Stubben (2010), which captures residuals using the following equation:

$$\Delta AR_{i,t} = \alpha + \beta \Delta REV_{i,t} + \varepsilon_{i,t} \dots\dots\dots(5)$$

where, $\Delta AR_{i,t}$ represents the change in accounts receivable, and $\Delta REV_{i,t}$ denotes the change in revenues. According to Stubben (2010), this measure is less susceptible to measurement error than alternative discretionary accrual measures.

Table 1: Sample selection process

Criteria	Firm-years	Office-years
Firm-level observations in Audit Analytics 2003-2018	94,320	15,041
Less: observations with non-U.S. audit offices	(3,819)	(1,671)
	90,501	13,370
Less: Observations with missing financial data in Compustat	(24,082)	(1,440)
	66,419	11,930
Less: Observations with missing values of required control variables	(22,223)	(3,107)
Final sample	44,196	8,823
Number of unique clients (audit offices)	5,771	1,267

Table 2: Descriptive statistics

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max	(6) p25	(7) p50	(8) p75
<i>AUDIT_FEES</i>	44,196	13.753	1.200	9.510	16.784	12.910	13.768	14.576
<i>MISSTATE</i>	44,196	0.048	0.090	0.000	1.000	0.000	0.000	0.067
<i>MISSTATE_IC</i>	44,196	0.018	0.048	0.000	1.000	0.000	0.000	0.015
<i>MISSTATE_UO</i>	44,196	0.042	0.085	0.000	1.000	0.000	0.000	0.056
<i>DAC1</i>	23,981	0.057	0.071	0.000	0.464	0.018	0.034	0.066
<i>DAC2</i>	37,273	0.025	0.037	0.000	0.284	0.004	0.012	0.031
<i>GOING_CONCERN</i>	44,196	0.026	0.158	0.000	1.000	0.000	0.000	0.000
<i>BEXP</i>	44,196	0.439	0.496	0.000	1.000	0.000	0.000	1.000
<i>SIZE</i>	44,196	6.748	1.993	2.009	11.940	5.363	6.814	8.139
<i>LEVERAGE</i>	44,196	0.231	0.229	0.000	1.039	0.035	0.175	0.360
<i>AGE</i>	44,196	2.698	0.776	0.693	4.043	2.197	2.773	3.258
<i>ROA</i>	44,196	-0.015	0.209	-1.252	0.398	-0.013	0.023	0.070
<i>LOSS</i>	44,196	0.289	0.453	0.000	1.000	0.000	0.000	1.000
<i>SEGMENTS</i>	44,196	1.943	1.718	1.000	17.000	1.000	1.000	3.000
<i>FOREIGN</i>	44,196	0.440	0.496	0.000	1.000	0.000	0.000	1.000
<i>DISCONTINUE</i>	44,196	0.175	0.380	0.000	1.000	0.000	0.000	0.000
<i>BUSY_SEASON</i>	44,196	0.744	0.437	0.000	1.000	0.000	1.000	1.000
<i>PROXPCAOB</i>	44,196	0.390	0.488	0.000	1.000	0.000	0.000	1.000
<i>CLIENT_IMPORTNC</i>	44,196	0.044	0.125	0.000	1.000	0.002	0.008	0.026
<i>CLIENT_PROXIMITY</i>	44,196	0.308	0.462	0.000	1.000	0.000	0.000	1.000
<i>NAF_TO_AF</i>	44,196	0.226	0.282	0.000	1.915	0.039	0.137	0.305
<i>INDUSTRY_LEADER</i>	44,196	0.045	0.207	0.000	1.000	0.000	0.000	0.000
<i>OFFICE_SIZE</i>	44,196	18.536	1.799	11.204	21.360	17.682	18.928	19.700
<i>AUDITOR_TENURE</i>	44,196	1.889	0.595	0.693	3.045	1.386	1.946	2.398

Table 2 presents the descriptive statistics of the variables used in the study. The sample covers the period from 2003 to 2018. See Appendix A for variable definitions.

Table 3: Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) AUDFEES	1.00										
(2) MISSTATE	-0.05***	1.00									
(3) MISSTATE_IC	0.02***	0.40***	1.00								
(4) MISSTATE_UO	-0.06***	0.95***	0.39***	1.00							
(5) DAC1	-0.27***	0.01**	-0.01	0.01	1.00						
(6) DAC2	-0.11***	0.03***	0.00	0.03***	0.12***	1.00					
(7) GOING_CONCERN	-0.11***	0.00	0.00	-0.01	0.15***	0.01	1.00				
(8) BEXP	0.38***	-0.08***	0.00	-0.08***	-0.12***	-0.07***	-0.05***	1.00			
(9) SIZE	0.74***	-0.08***	-0.01***	-0.08***	-0.35***	-0.17***	-0.20***	0.28***	1.00		
(10) LEVERAGE	0.23***	-0.01**	0.01**	-0.01***	-0.11***	-0.08***	0.07***	0.12***	0.26***	1.00	
(11) AGE	0.19***	-0.04***	0.00	-0.03***	-0.19***	-0.07***	-0.10***	0.02***	0.23***	-0.04***	1.00
(12) ROA	0.20***	0.01**	-0.01**	0.01***	-0.43***	0.01***	-0.35***	0.08***	0.35***	-0.03***	0.23***
(13) LOSS	-0.16***	0.01**	0.03***	0.01*	0.32***	0.04***	0.23***	-0.04***	-0.36***	0.05***	-0.21***
(14) SEGMENTS	0.28***	0.02***	0.00	0.03***	-0.16***	-0.03***	-0.05***	0.05***	0.25***	0.01**	0.38***
(15) FOREIGN	0.45***	-0.02***	0.02***	-0.02***	-0.10***	0.00	-0.07***	0.16***	0.17***	0.02***	0.13***
(16) DISCONTINUE	0.18***	0.06***	0.01**	0.06***	-0.08***	-0.02***	-0.01*	0.03***	0.12***	0.14***	0.12***
(17) BUSY_SEASON	0.04***	-0.03***	0.01	-0.03***	0.08***	-0.01	0.03***	0.04***	0.13***	0.11***	-0.16***
(18) PROXPCAOB	0.12***	0.02***	0.02***	0.02***	-0.02***	0.00	0.02***	0.24***	0.05***	0.06***	-0.03***
(19) CLIENT_IMPORTNC	-0.04***	-0.02***	-0.02***	-0.02***	-0.04***	-0.01**	0.00	-0.19***	0.05***	-0.01	0.05***
(20) CLIENT_PROXIMITY	0.15***	-0.01*	0.01**	-0.01**	-0.10***	-0.05***	-0.02***	0.06***	0.17***	0.09***	0.04***
(21) NAF_TO_AF	-0.01***	0.05***	-0.01**	0.06***	-0.05***	0.01	-0.04***	0.00	0.11***	0.05***	0.02***
(22) INDUSTRY_LEADER	0.21***	0.00	0.00	0.00	-0.07***	-0.02***	-0.02***	0.12***	0.16***	0.04***	0.02***
(23) OFFICE_SIZE	0.35***	-0.02***	0.04***	-0.02***	-0.01**	-0.02***	0.00	0.40***	0.15***	0.09***	-0.02***
(24) AUDITOR_TENURE	0.36***	-0.16***	0.01	-0.16***	-0.12***	-0.12***	-0.07***	0.25***	0.34***	0.07***	0.36***
Variables	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
(12) ROA	1.00										
(13) LOSS	-0.60***	1.00									
(14) SEGMENTS	0.13***	-0.14***	1.00								
(15) FOREIGN	0.11***	-0.03***	0.12***	1.00							
(16) DISCONTINUE	0.04***	0.00	0.16***	0.18***	1.00						
(17) BUSY_SEASON	-0.08***	0.04***	-0.04***	-0.09***	0.02***	1.00					
(18) PROXPCAOB	-0.02***	0.02***	-0.01***	0.05***	0.05***	0.06***	1.00				
(19) CLIENT_IMPORTNC	0.03***	-0.04***	0.03***	-0.05***	-0.01	0.00	-0.23***	1.00			
(20) CLIENT_PROXIMITY	0.06***	-0.04***	0.04***	0.03***	0.06***	0.03***	0.06***	-0.02***	1.00		
(21) NAF_TO_AF	0.07***	-0.09***	0.05***	0.04***	0.07***	-0.03***	0.00	0.03***	0.01**	1.00	
(22) INDUSTRY_LEADER	0.05***	-0.04***	0.03***	0.08***	0.04***	0.02***	0.11***	-0.03***	0.07***	0.01**	1.00
(23) OFFICE_SIZE	0.00	0.03***	0.02***	0.19***	0.05***	0.02***	0.58***	-0.64***	0.09***	-0.05***	0.14***
(24) AUDITOR_TENURE	0.13***	-0.16***	0.12***	0.14***	0.02***	0.00	-0.02***	-0.02***	0.09***	-0.02***	0.07***

Table 3 presents the Pearson correlations between the selected variables used in the study. *, **, *** indicate two-tailed significance at the 0.10, 0.05, and 0.01 levels, respectively. See Appendix A for variable definitions.

Table 4: Impact of client bankruptcy experience of audit offices on audit fees and audit quality

VARIABLES	(1) <i>AUDFEES</i>	(2) <i>AUDFEES</i>	(3) <i>MISSTATE</i>	(4) <i>MISSTATE</i>
<i>BEXP</i>	0.059*** (0.005)	0.171*** (0.006)	-0.013*** (0.002)	-0.010*** (0.001)
<i>SIZE</i>	0.361*** (0.003)	0.464*** (0.002)	0.002** (0.001)	-0.001 (0.000)
<i>LEVERAGE</i>	0.100*** (0.012)	0.063*** (0.012)	0.004 (0.004)	0.002 (0.002)
<i>AGE</i>	-	-	-0.003* (0.002)	-0.000 (0.001)
<i>ROA</i>	-0.143*** (0.012)	-0.131*** (0.015)	0.001 (0.004)	0.006 (0.003)
<i>LOSS</i>	0.049*** (0.004)	0.109*** (0.006)	0.003** (0.001)	0.004*** (0.001)
<i>SEGMENTS</i>	0.016*** (0.002)	0.028*** (0.001)	-0.000 (0.001)	0.000 (0.000)
<i>FOREIGN</i>	0.082*** (0.006)	0.302*** (0.006)	-0.004** (0.002)	-0.002** (0.001)
<i>DISCONTINUE</i>	0.044*** (0.005)	0.120*** (0.006)	0.002* (0.001)	0.003*** (0.001)
<i>BUSY_SEASON</i>	0.034*** (0.012)	0.056*** (0.006)	0.001 (0.003)	-0.003*** (0.001)
<i>PROXPCAOB</i>	-0.118 (0.297)	0.851*** (0.261)	-0.081 (0.089)	-0.310*** (0.046)
<i>CLIENT_IMPORTNC</i>	1.048*** (0.031)	1.730*** (0.038)	-0.027*** (0.009)	-0.020*** (0.007)
<i>CLIENT_PROXIMITY</i>	0.030*** (0.011)	0.029*** (0.005)	-0.002 (0.003)	0.000 (0.001)
<i>NAF_TO_AF</i>	-0.242*** (0.006)	-0.241*** (0.008)	0.002 (0.002)	0.002 (0.001)
<i>INDUSTRY_LEADER</i>	0.101*** (0.009)	0.173*** (0.011)	-0.001 (0.003)	0.001 (0.002)
<i>OFFICE_SIZE</i>	0.165*** (0.007)	0.240*** (0.010)	-0.002 (0.002)	-0.000 (0.002)
<i>AUDITOR_TENURE</i>	0.041*** (0.004)	0.042*** (0.004)	-0.000 (0.001)	-0.004*** (0.001)
<i>GOING_CONCERN</i>	0.102*** (0.011)	0.162*** (0.015)	-	-
Constant	7.890*** (0.279)	4.949*** (0.269)	0.137* (0.084)	0.359*** (0.047)
Observations	44,196	44,196	44,196	44,196
Adj. R-squared	0.505	0.854	0.077	0.207
Auditor city control	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Industry FE	NO	YES	NO	YES
Firm FE	YES	NO	YES	NO

Table 4 examines the association between audit office's experience of client bankruptcy and audit fees and audit quality. The sample period covers audit-office years from 2003 to 2018. *BEXP* is an indicator variable coded as 1 if the audit office of a company has prior bankruptcy experience, and 0 otherwise. Columns (1) and (2) show the results for audit fees using firm-fixed effect and industry-fixed effect, respectively. Columns (3) and (4) present the regression results for audit quality using firm-fixed effect and industry-fixed effect, respectively. See Appendix A for detailed variable definitions. Standard errors are presented in parentheses. *, **, *** indicate two-tailed significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table 5: Endogeneity tests

Panel A: Regression results for audit fee and audit quality using the DiD model

	(1) Full Sample	(2) Full Sample	(3) Seven-year Window	(4) Seven-year Window	(5) PSM	(6) PSM
VARIABLES	<i>AUDFEE</i>	<i>MISSTATE</i>	<i>AUDFEE</i>	<i>MISSTATE</i>	<i>AUDFEE</i>	<i>MISSTATE</i>
<i>Treatment*Post</i>	0.056*** (0.005)	-0.012*** (0.002)	0.166*** (0.007)	-0.007*** (0.001)	0.043** (0.023)	-0.021*** (0.003)
Constant	7.917*** (0.278)	0.137*** (0.084)	3.872*** (0.267)	0.334*** (0.043)	7.237*** (1.467)	0.338** (0.174)
Observations	44,196	44,196	32,695	32,445	4,197	4,197
Adj. R-squared	0.657	0.203	0.841	0.217	0.878	0.626
Controls	YES	YES	YES	YES	YES	YES
Auditor city control	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES

Panel B: Regression results for audit fee and audit quality using dynamic DiD

VARIABLES	(1) <i>AUDFEE</i>	(2) <i>MISSTATE</i>
<i>Pre_3rdYR*Treatment</i>	-0.001 (0.005)	0.001 (0.002)
<i>Pre_2ndYR*Treatment</i>	-0.0003 (0.005)	0.002 (0.001)
<i>Pre_1stYR*Treatment</i>	0.004 (0.005)	-0.002 (0.001)
<i>Current_YR*Treatment</i>	0.009* (0.005)	-0.003** (0.001)
<i>Post_1stYR*Treatment</i>	0.027*** (0.009)	-0.003* (0.001)
<i>Post_2ndYR*Treatment</i>	0.018* (0.011)	-0.005** (0.003)
<i>Post_3rdYR&above*Treatment</i>	0.024*** (0.008)	-0.006** (0.002)
Constant	8.661*** (0.268)	0.137* (0.084)
Observations	44,196	44,196
Adj. R-squared	0.475	0.204
Controls	YES	YES
Auditor city control	YES	YES
Year FE	YES	YES
Firm FE	YES	YES

Table 5 presents the relationship between *BEXP* and audit fee and audit quality using alternative approaches to Difference in Differences (DiD) specifications. Panel A shows the DiD estimates using full sample, seven-year window ($t - 3$ through $t + 3$) sample, and propensity score matching (PSM) sample. *Treatment* is an indicator variable that equals 1 for all audit offices that have experienced client bankruptcy and 0 otherwise. *Post* equals 1 for the year of the bankruptcy event and all subsequent years, and 0 otherwise. Columns (1) and (2) present the results using DiD for audit fees and quality, respectively. Columns (3) and (4) estimate the DiD using a seven-year window. Column (5) and (6) report the results of PSM-DiD. Panel B reports the results of parallel DiD. We use seven time indicators: three for pre-treatment years (*Pre_3rdYR*, *Pre_2ndYR*, *Pre_1stYR*), one for the treatment year (*Current_YR*), and three for post-treatment years (*Post_1stYR*, *Post_2ndYR*, *Post_3rdYR&above*). The interaction terms between *Treatment* and time indicators indicate the validity of parallel trend assumption. Detailed variable definitions are provided in Appendix A.

Table 6: Robustness tests

VARIABLES	(1) <i>AO_GC</i>	(2) <i>GOING_CONCERN</i>	(3) <i>MISSTATE_IC</i>	(4) <i>MISSTATE_UO</i>	(5) <i>DAC1</i>	(6) <i>DAC2</i>	(7) <i>AUDFEE</i>	(8) <i>MISSTATE</i>
<i>BEXP</i>	0.003*** (0.001)	0.390*** (0.148)	-0.006*** (0.001)	-0.012*** (0.001)	-0.003*** (0.001)	-0.001* (0.001)	0.058*** (0.005)	-0.012*** (0.002)
Constant	- 0.179*** (0.042)	-1.701 (2.028)	-0.042 (0.048)	0.163*** (0.079)	0.087** (0.039)	-0.014 (0.022)	7.826*** (0.278)	0.139*** (0.084)
Observations	17,984	15,928	44,196	44,196	23,981	37,273	43,532	43,532
Adj. R-squared/ Pseudo R ²	0.067	0.413	0.012	0.151	0.025	0.015	0.659	0.149
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Auditor city control	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES

Table 6 presents the robustness tests of the association between audit office's experience of client bankruptcy and audit fees and audit quality. The sample period covers audit-office years from 2003 to 2018. *BEXP* is an indicator variable coded as 1 if the audit office of a company has prior bankruptcy experience, 0 otherwise. We use going concern opinions (GC), alternative measures of audit quality, and excluding bankruptcies due to fraudulent activities. We use GC as an alternative analysis to examine how *BEXP* affects the propensity to issue GC. We use two measures for GC opinions: 1) *AO_GC*- the number of clients receiving GC opinions, scaled by the audit office's total clients in a given year; 2) *GOING_CONCERN*- a binary variable coded 1 if the client received a GC opinion, 0 otherwise. Column (1) and (2) show the results for *AO_GC* and *GOING_CONCERN*, respectively. Next, we use four alternative measures of audit quality: 1) *MISSTATE_IC*- measured as misstatements due to undetected internal control weaknesses; 2) *MISSTATE_UO* measured as misstatements accompanied by unmodified audit opinions; 3) *DAC1* is discretionary accruals following McNichols (2002); 4) *DAC2* is abnormal accruals following Stubben (2010). Column (3) to Column (6) portray the results for alternative proxies of audit quality. Columns (7) and (8) present the regression results for audit fees and audit quality, respectively, using a subsample where we exclude the bankruptcy cases due to fraudulent activities. See Appendix A for detailed variable definitions. Standard errors are presented in parentheses. *, **, *** indicate two-tailed significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table 7: Impact of BEXP on audit office client base, market share and auditor dismissal**Panel A: Impact of BEXP on audit office client base**

VARIABLES	(1) <i>Change in clients</i>	(2) <i>Change in clients</i>	(3) <i>Decrease Clients</i>	(4) <i>Decrease Clients</i>
<i>BEXP</i>	-1.908*** (0.149)	-0.698*** (0.081)	0.448*** (0.042)	0.332*** (0.028)
Constant	14.687** (7.679)	2.290** (1.128)		-7.797*** (1.315)
Observations	41,180	41,180	38,985	41,177
Adj. R-squared/ Pseudo R2	0.107	0.039	0.0470	0.0683
Controls	YES	YES	YES	YES
Auditor city control	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Firm FE	YES	NO	YES	NO
Industry FE	NO	YES	NO	YES

Panel B: Impact of BEXP on audit office market share

VARIABLES	(1) <i>Change_ MKTshare industry</i>	(2) <i>Decrease_ MKTshare industry</i>	(3) <i>Change_ MKTshare city</i>	(4) <i>Decrease_ MKTshare city</i>
<i>BEXP</i>	-0.002*** (0.005)	0.114*** (0.040)	-0.079** (0.031)	0.319*** (0.041)
Constant	0.012*** (0.004)		1.142*** (0.315)	
Observations	41,180	39,353	41,180	39,395
Adj. R-squared/ Pseudo R ²	0.071	0.0215	0.015	0.011
Controls	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES

Panel C: Impact of BEXP on auditor dismissal and auditor resignation

VARIABLES	(1) <i>DISMIS</i>	(2) <i>RESIGN</i>
<i>BEXP</i>	0.363** (0.167)	-0.847*** (0.317)
Constant	5.176*** (1.753)	-1.686** (3.317)
Observations	7,361	5,185
Pseudo R2	0.613	0.428
Controls	YES	YES
Year FE	YES	YES
Industry FE	YES	YES

Table 7 examines the impact of *BEXP* on audit office client base, market share, and auditor dismissal, using alternative measures. *BEXP* is an indicator variable coded as 1 if the audit office of a company has prior bankruptcy experience, 0 otherwise. Panel A shows the impact of *BEXP* on audit office client base. We use two measures of client base: 1) *Change_in_clients* and 2) *Decrease_in_clients*. *Change_in_clients* is the net change in the number of clients from the previous year. *Decrease_in_clients* is an indicator variable coded 1 if there was a decrease of at least two clients of an audit office, compared to previous year. Columns (1) and (2) of Panel A show results for *Changes_in_clients* using firm-fixed effect and industry-fixed effect, respectively. Panel B displays the effect of *BEXP* on audit office market share. We use the net change in and a decrease in industry-level and city-level market share. Columns (1) and (2) present the results for industry-level effect while Columns (3) and (4) show the city-level effect. Panel C investigates *BEXP* effect on auditor retention. We use two

indicator variables: 1) *DISMIS* is an indicator variable coded as 1 if the auditor was dismissed, and 0 otherwise; 2) *RESIGN* is an indicator variable coded as 1 if the auditor resigned the company, and 0 otherwise. Columns (1) and (2) demonstrate the regression results. See Appendix A for detailed variable definitions. Standard errors are presented in parentheses. *, **, *** indicate two-tailed significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table 8: Cross-section variation of the relationship between BEXP and audit outcome

Panel A: BEXP and clients' industry diversity

VARIABLES	(1) <i>AUDFEE</i>	(2) <i>MISSTATE</i>
<i>BEXP*Industry_Diversity</i>	-0.121*** (0.029)	0.019*** (0.009)
<i>BEXP</i>	0.148*** (0.025)	-0.029*** (0.007)
<i>Diversity</i>	0.079*** (0.013)	0.023*** (0.004)
Constant	9.826*** (0.276)	0.119*** (0.083)
Observations	44,196	44,196
Adj. R-squared	0.561	0.205
Controls	YES	YES
Auditor city control	YES	YES
Year FE	YES	YES
Industry FE	YES	YES

Panel B: BEXP and market concentration

VARIABLES	(1) <i>AUDFEE</i>	(2) <i>MISSTATE</i>
<i>BEXP*HHI</i>	0.001*** (0.001)	-0.001*** (0.0001)
<i>BEXP</i>	0.038*** (0.008)	-0.008*** (0.002)
<i>HHI</i>	-0.003*** (0.001)	-0.002*** (0.0001)
Constant	9.799*** (0.277)	0.093*** (0.084)
Observations	44,196	44,196
Adj. R-squared	0.561	0.205
Controls	YES	YES
Auditor city control	YES	YES
Year FE	YES	YES
Industry FE	YES	YES

Panel C: BEXP and distressed clients

VARIABLES	(1) <i>AUDFEE</i>	(2) <i>MISSTATE</i>
<i>BEXP×DISTRESS</i>	0.019** (0.008)	-0.005** (0.002)
<i>BEXP</i>	0.051*** (0.006)	-0.010*** (0.002)
<i>DISTRESS</i>	0.033*** (0.007)	0.003* (0.002)
Constant	7.891*** (0.279)	0.659*** (0.058)
Observations	44,196	44,196

Adj. R-squared	0.574	0.229
Controls	YES	YES
Auditor city control	YES	YES
Year FE	YES	YES
Firm FE	YES	YES

Table 8 presents the cross-sectional variation on the relationship between *BEXP* and audit fees and audit quality. Panel A reports how clients' industry diversity moderates the association between *BEXP* and audit outcome. Panel B presents how audit office's market concentration influences the *BEXP* effects. Panel C shows how client firm's financial distress affects the association. See Appendix A for detailed variable definitions. Standard errors are presented in parentheses. *, **, *** indicate two-tailed significance at the 0.10, 0.05, and 0.01 levels, respectively.