

**I mpact o IF <sup>vs</sup> v rsus GAA on Au t F s an Go n Conc rn p n ons,  
Ev nc ro L st For n F r s**

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**Abstract<sub>y</sub>**

# Impact of IFRS versus GAAP on Audit Fees and Government Concerns Even in the Last Financial Crisis

## Introduction

As of June 2015, 116 jurisdictions around the world require their public traded companies to adopt International Financial Reporting Standards (IFRS) and 16 jurisdictions permit the use of IFRS for some entities (IFRS Foundation, 2015). The U.S. remains one of the few countries where

overall risk associated with an audit engagement.<sup>1</sup> For example, an increase in inherent risk (the probability that a material misstatement, either an error or fraud, will occur) and detection risk (the risk that auditor won't detect material misstatements) would lead to an increase in audit fees. Likewise, auditors may face higher litigation under more principles-based IFRS because fewer guidance can lead to opportunistic managerial interpretation and judgment (Li and Yang 2015), which would also increase audit fees. Another reason why IFRS may increase audit fees is because the IFRS option to fair value certain liabilities lowers its contracting value (Ball et al. 2015), which exposes auditors to higher reputation risk.

Prior research also indicates that auditors respond to increased engagement risk by issuing a going concern opinion (Chen and Church, 1992; Krishnan and Krishnan, 1996). We posit that auditors may apply a more conservative audit reporting strategy to mitigate risks associated with principle-based IFRS by lowering the threshold to issue a going concern opinion. In addition, IFRS and U.S. GAAP differ with respect to (1) the management's responsibility for performing the going-concern assessment, and (2) the guidance on how to perform a going concern assessment and when going concern disclosures would be required. Under IFRS, management is responsible for evaluating a reporting entity's ability to continue as a going concern, whereas there is no specific guidance under U.S. GAAP regarding the management assessment of going concern or the required disclosures (KPMG, 2015). By requiring management to perform the assessment, IFRS can enhance the timeliness, clarity, and consistency of disclosing uncertainties in an entity's

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<sup>1</sup> This engagement risk consists of three components: (1) client business risk – the risk associated with the client's ability to continue as a going concern; (2) audit risk – the risk that an auditor will express a wrong opinion when the financial statements are materially misstated; and (3) auditor business risk covering litigation risk and risk of other



We next investigate how the relations of accounting standards with audit fees and the issuance of going concern opinions vary cross-sectionally. We find the positive effects of IFRS on audit fees and the issuance of going concern opinions exist for firms with larger fair value assets and liabilities but not so for firms with smaller fair value assets and liabilities. This finding is

relatively constant and examine whether the type of accounting standards matters in audit fee determination and auditor judgments.

(PWC, 2016). We identify an audit cost associated with the use of IFRS for U.S. listed foreign



auditors to make judgments about the financial statements, with less rules-based standards forcing them to rely more on principles to guide behavior.

Nelson (2003) views accounting standards as a total body of principles and rules that apply to given accounting issues. He argues that rules affect the precision and complexity of an accounting standard, thereby affecting the behavior of various participants in the financial reporting process. Experimental studies examine this issue by exploring the effect of principles-based versus rules-based standards on the judgments of preparers and auditors. Agoglia et al. (2011) document that CFOs, in their experiment, report less aggressively under a more principles-based accounting standard than under a more rules-based standard. Evans et al. (2015), using a web-based experiment, find evidence that U.S. firms employing U.S. GAAP substitute accrual earnings management with real earnings management compared with U.S. firms employing IFRS. Examining the joint effects of principles-based versus rules-based standards and auditor type, Jamal and Tan (2010) find that under principles-based accounting standards, financial managers are less likely to report the lease transaction off balance sheet when the auditor is principles-based



(3) large volumes of interpretation guidance, and (4) a high level of detail. In almost all cases, the RBC score for an IFRS standard is less than or equal to the RBC score for the corresponding U.S. GAAP standard, suggesting that U.S. GAAP is more rule-based than IFRS.

Schipper (2003) speculates that lack of specificity in standards could give rise to volatility in reported accounting numbers. Jamal and Tan (2010) view less specific and prescriptive guidance under IFRS as increasing subjectivity in accounting measurement, giving managers more discretion over both their accounting choices and implementation of specific standards. Barth et al. (2012) also note that flexibility under IFRS requires more professional judgment in application. These views are consistent with the concern expressed by the SEC (2003) that principles only standards may present enforcement difficulties because they provide little guidance or structure for exercising professional judgment by preparers and auditors.

We posit that IFRS firms can incur higher external audit fees than those incurred by U.S. GAAP firms. The higher fees can be due to additional auditors' effort and/or a risk premium as a result of higher engagement risk, the overall risk associated with an audit engagement. Ambiguity in applying the accounting standards under IFRS can create more uncertainty for both preparers and auditors in following certain accounting standards and justifying certain estimates. A broad set of principles that are subject to managerial interpretation and judgment can not only increase inherent risk, the probability that a material misstatement will occur, but also detection risk, the risk that the auditor's own procedures will fail to detect material misstatements. Moreover, greater flexibility embedded in principles-based IFRS can give room for managerial opportunism (Ewert and Wagenhofer, 2005; Trompeter, 1994), potentially increasing the occurrence of a reporting error (audit risk). Thus, the use of IFRS can increase the time and effort put in by the auditors to ensure that the financial statements are in conformity with the accounting standards.

Auditors' business risk can also increase under IFRS compared with U.S. GAAP. The reduced guidance and more emphasis on professional judgment under IFRS could increase the disagreements in accounting treatments and hence exacerbate litigation risk for auditors without the "safe harbor" provided through the compliance with specific guidelines or established rules (Diehl, 2010). Consistent with this view, Donelson et al. (2012) find that firms are more likely to experience securities class action lawsuits when facing allegations of violating principles-based standards as opposed to rules-based standards. At the same time, with less detailed interpretation guidance, the cost of dealing with monitoring bodies including the PCAOB and audit committees increases because different parties may have more diverse understanding of the application of certain principles absent the detailed rules. Likewise, a strong tilt of IFRS toward fair value accounting can make financial statements prepared under IFRS less useful in debt contracts (Ball et al. 2015), which can expose auditors to higher reputation risk. The implication is that IFRS, by specifying broader requirements and requiring more judgment in application than U.S. GAAP, increase auditors' effort and engagement risk, which leads to higher audit fees.

This leads to the following hypothesis (stated in the alternative form):

**H<sub>2</sub>** *External audit fees are higher for firms using IFRS compared with firms using GAAP*

While this prediction is plausible, it may not necessarily be the case. One reason why IFRS may decrease engagement risk is because it can increase earnings informativeness and persistence, which exposes auditors to lower reputation risk. For example, Folsom et al. (2016) find that

comprehensiveness and quality of IFRS have positive effects on reporting quality, as they improve management accounting decisions and reduce judgment errors in complying with GAAP” (Kim et al. 2012). The improved financial reporting quality can reduce engagement risk and the audit fee. To the extent these countervailing arguments hold, they would work against finding results supporting H1.

#### *Hypothesis H*

Prior literature suggests that auditors respond to heightened litigation risk, increased earnings management risk, and reduced accounting conservatism by issuing going concern opinions (e.g., Fargher and Jiang, 2008; Francis and Krishnan, 1999; DeFond et al., 2016). In warning financial statement users of impending going concern problems, auditors need to obtain and evaluate information from audit procedures and consider the adequacy of management’s financial statement disclosures to validate the going concern assumption. If the use of IFRS increases engagement risk, auditors can use a lower threshold for issuing a going concern opinion and issue more going concern opinions.

GAAPs are based on the going-concern principle, which means that the entity is expected to continue operations and meet its obligations as they become due in the ordinary course of business. However, the accounting standards for guidance on when and how to disclose going concern uncertainties also differ between IFRS and U.S. GAAP, which can affect an auditor’s decision to issue a going concern opinion. Under IFRS, the assessment of an entity’s ability to continue as a going concern is the responsibility of the entity’s management. While the appropriateness of the use of the going concern assumption is a matter for the auditor to consider on *every* audit engagement, IFRS specifically make management responsible for evaluating a reporting entity’s ability to continue as a going concern (KPMG, 2015). By requiring management



Detailed variable definitions are presented in Appendix A where subscripts  $i$ ,  $j$ , and  $t$  relate to a firm, country, and year. The dependent variable in model (1) is the natural logarithm of the audit fees in millions of U.S. dollars (LNAUDITFEE). Our variable of interest IFRS is a binary variable equal to one for U.S. listed foreign firms that use IFRS and zero for U.S. listed foreign firms that use U.S. GAAP. H1 predicts external audit fees to be higher for U.S. listed foreign firms using IFRS compared with U.S. listed foreign firms using U.S. GAAP. Hence, we expect a positive sign on the coefficient of IFRS under H1.

The control variables in model (1) are based on prior literature (Ashbaugh et al., 2003; Hay et al., 2006; Asthana et al., 2015; Choi et al., 2008; Bronson et al., 2016). We include BIG4 to capture the fee premium charged by Big 4 auditors. We control for client size by including the natural logarithm of market value of equity (LNMVE). MERGER, FINANCE, and MB represent client complexity associated with business combinations, financing needs, and growth opportunity. LEV, ROA, AR\_IN, NEG\_ROA, and SPEC\_ITEM are included to control for auditor's inherent and business risk. We control for the number of business segments (NBS) and the number of geographic segments (NGS) for additional client complexity, because more diversified and geographically dispersed firms need more audit effort. Gul et al. (2003) identify discretionary accruals as an important red flag for material misstatement, which can result in auditors exerting more effort and charging higher fees. Therefore, we include the absolute value of performance-matched discretionary accruals (PMDA) based on Kothari et al. (2005) and expect PMDA to be related to higher audit fees. We also include an indicator variable for the use of a U.S.-based principal auditor due to higher litigation risk compared with a home-country-based principal auditor (Asthana et al., 2015). Moreover, we control for the existence of auditors' internal control weakness report (ICW). We expect that auditors charge higher audit fees for clients with internal

control weakness to conduct additional tests and compensate for more time and effort spent on their clients for discussion (Raghunandan and Rama, 2006). We also include a PCAOB inspection variable (INSPECT) to control for the effect of PCAOB inspection on audit process (Krishnan et al., 2017). We define INSPECT as one if the PCAOB inspects the auditor during the year based on the end date of the PCAOB inspection and zero otherwise.<sup>6</sup>

In addition to the firm-specific variables, we include country-level variables to control for



(Bronson et al., 2016).<sup>7</sup> The details of these seven variables and the principal component process are in Appendix A. Finally, we include year and industry (2-digit sic codes) dummies to control for year and industry differences in audit fees.

*E p r c a o d e – e s t o f H*

To test H2, which examines whether the use of accounting standards (IFRS versus U.S. GAAP) is associated with the likelihood of an auditor issuing a going concern opinion, we estimate the following logistic model from DeFond et al. (2002, 2016), Bhaskar et al. (2017), and Reynolds and Francis (2000).

$$\begin{aligned}
 \text{OPINION}_{ijt} = & \beta_0 + \beta_1 \text{IFRS}_{ijt} + \beta_2 \text{ZSCORE}_{ijt} + \beta_3 \text{LOGAGE}_{ijt} + \beta_4 \text{BETA}_{ijt} + \beta_5 \text{RETURN}_{ijt} \\
 & + \beta_6 \text{VOLATILITY}_{ijt} + \beta_7 \text{LEV}_{ijt} + \beta_8 \text{CLEV}_{ijt} + \beta_9 \text{LLOSS}_{ijt} + \beta_{10} \text{OPCAFLOW}_{ijt} \\
 & + \beta_{11} \text{LNMVE}_{ijt} + \beta_{12} \text{INVESTMENT}_{ijt} + \beta_{13} \text{FUFINANCE}_{ijt} + \beta_{14} \text{BIG4}_{ijt} \\
 & + \beta_{15} \text{USAUDITOR}_{ijt} + \beta_{16} \text{ICW}_{ijt} + \beta_{17} \text{INSPECT}_{ijt} + \beta_{18} \text{GDP}_{jt} + \beta_{19} \text{FDI}_{jt} \\
 & + \beta_{20} \text{TURNOVER}_{jt} + \beta_{21} \text{SMCAP}_{jt} + \beta_{22} \text{BIG4PCT}_j + \beta_{23} \text{REGPWR}_j \\
 & + \beta_{24} \text{ROTATION}_j + \beta_{25} \text{AUCHAR}_j + \text{Year Dummies} + \text{Industry Dummies} \\
 & + \epsilon_{ijt}
 \end{aligned} \tag{2}$$

We define each variable in terms of firm *i* in country *j* of year *t* and present detailed variable definitions in Appendix A. The dependent variable in model (2) is a binary variable equal to one if an auditor issues a going concern opinion and zero otherwise. Consistent with Bhaskar et al. (2017), we include both distressed and non-distressed firms in this model. H2 predicts that the likelihood of an auditor issuing a going concern opinion is higher for U.S. listed foreign firms using IFRS compared with U.S. listed foreign firms using U.S. GAAP. We hence expect a positive coefficient on IFRS.

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<sup>7</sup> Brown et al. (2014) measure country level differences in audit environment using an audit and enforcement proxy. The audit, enforcement, or combined proxy is based mostly on the same survey data of IFAC. We also employ the audit, enforcement, or combined proxy to measure audit environment as in Brown et al. (2014), and the result in term of test variable is very similar with or without control for Brown et al. (2014).

Following DeFond et al. (2002), we include several variables that are associated with the likelihood of going concern opinions based on *A No* (AICPA, 1988). We include ZSCORE, the Altman's (1968) Z-score, to control for the probability of bankruptc

going concern opinions. We control for the presence of U.S.-based principal auditors (USAUDITOR) in the international setting (Asthana et al., 2015). ICW is included to control for the increased financial misstatement risk and auditor litigation risk associated with internal control weakness (Jiang et al., 2010). We control for the effect of PCAOB inspection of the specific auditor on audit process by including INSPECT. We also include several country-specific variables to control for variations in going concern decisions across different countries. These variables include GDP, FDI, TURNOVER, SMCAP, BIG4PCT, REGPWR, ROTATION, and AUCHAR and are defined in the same way as in model (1). We include year and industry dummy variables.

*a p e s e c t i o n*

We present our sample selection procedure in Table 1. For audit fee model, we obtain our sample from all foreign firm-year observations (9,015 observations) that were listed in the U.S. with fiscal year ended from November 16, 2007 to December 31, 2014.<sup>8</sup> Consistent with Srinivasan et al. (2015), we include both American Depository Receipts and firms directly listed on U.S. exchanges and define a firm as a foreign firm listed in the U.S. if its headquarter is outside the United States.<sup>9</sup> We begin our sample for firms with fiscal year ended from November 16, 2007 to minimize the effect of potential audit fee change due to the elimination of reconciliation rule (e.g., Chen and Khurana, 2015).<sup>10</sup> The accounting standards used by each firm-year are from Audit Analytics.<sup>11</sup> We remove 1,194 observations where foreign firms use home country GAAP. From

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<sup>8</sup> Following Srinivasan et al. (2015), we exclude over-the counter firms because such firms are not required to register with the U.S. SEC.

<sup>9</sup> As discussed in footnote 23, we obtain similar results if we remove firms directly listed on U.S. stock exchanges.

<sup>10</sup> The U.S. SEC removed the reconciliation requirement for foreign firms listed in the U.S. that prepared financial statements under IFRS as issued by the IASB with fiscal years ending after November 15, 2007.

the remaining 7,821 observations, we remove 827 observations with missing audit fee data from

observations in audit fee and going concern models, respectively) and Israel (520 and 373 observations in audit fee and going concern models, respectively).<sup>13</sup> IFRS firms from our audit fee model (going concern model) come from 36 (34) countries while U.S. GAAP firms come from 27 (26) countries.

*Insert a b e Here*

We present the industry distribution in Panel B of Table 2. The industry memberships of the sample firms are widely distributed. In the audit fee model, firms in the manufacturing industry (1,876 observations) and in the services and public administration industry (810 observations) consist of most observations. We observe a similar pattern in the going concern model. As noted

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inventory, discretionary accruals, fewer incidence of negative ROA, and fewer business and geographic segments, and is less likely to hire U.S. based principal auditors, receive internal control weakness reports, be inspected by the PCAOB than the U.S. GAAP sample. The IFRS and U.S. GAAP samples also differ in country-specific variables, with the IFRS sample coming from countries with higher GDP, market capitalization, and regulatory power, more firms using Big 4 auditors, lower stock turnover, and less likelihood to conduct audit rotation and joint auditor and licensing requirements than the U.S. GAAP sample. In Panel B, five percent of the IFRS sample receives going concern opinions, while four percent of the U.S. GAAP sample receives such opinions. The difference is not statistically significant. The IFRS sample has longer firm age, higher market beta, more operating cash flow, but lower stock volatility and investment, and experiences fewer losses in the previous year than the U.S. GAAP sample. Other variables are

Panel A of Table 4 reports the regression result of the audit fee model using different specifications. We include year and industry fixed effects in all regression models. In column (1), we run a baseline model according to model (1). The coefficient on IFRS is positive (coefficient = 0.055) and significant (t-statistic = 1.92), suggesting that on average, auditors charge higher audit fees for U.S. listed foreign IFRS clients than for U.S. listed foreign U.S. GAAP clients. Economically, holding other variables constant, audit fees are 5.65% ( $e^{0.055}$ )

In column (2), we additionally include country dummy variables to control for the variation of audit fees among different home countries. To run this model, we remove any time-invariant country variables such as BIG4PCT and three audit environment variables (REGPWR, ROTATION, and AUCCHAR). We find the coefficient on IFRS in column (2) to be positive and more significant (t-statistic = 2.17), confirming that our baseline result in column (1) is robust to controlling for country fixed effects. The results on other control variables are similar to what we report in column (1) except that the coefficient on GDP is not significant any more.

Although the use of IFRS or U.S. GAAP is a country choice for most



address the selection bias, we remove 279 observations that adopt IFRS for the first time and rerun model (1) in column (3) of Table 4. The result shows that the coefficient on IFRS is still positive and significant (t-statistic = 2.52), suggesting that our baseline result is not driven by selection bias.

Second, we follow the procedure developed by Heckman (1979) to control for potential selection bias. We implement a two-stage approach in which the first stage predicts the use of IFRS and the second stage estimates the audit fees. The first-stage model is as follows:

$$\begin{aligned} \text{IFRS}_{ijt} = & \beta_0 + \beta_1 \text{RD}_{ijt} + \beta_2 \text{EXPLORE}_{ijt} + \beta_3 \text{USINST}_{ijt} + \beta_4 \text{USAUDITOR}_{ijt} + \beta_5 \text{ANALYST}_{ijt} \\ & + \beta_6 \text{IFRSDOMI}_{ijt} + \beta_7 \text{LNMVE}_{ijt} + \beta_8 \text{LEV}_{ijt} + \beta_9 \text{ROA}_{ijt} + \text{Year Dummies} \\ & + \text{Industry Dummies} + \text{Country Dummies} + \epsilon_{ijt} \end{aligned} \quad (3)$$

where all variables are defined in Appendix A.

We model the determinants of IFRS as a function of the reporting impact, the need of key stakeholders, the comparability with global industry peers, and others, following Burnett et al. (2015). The variables proxied for the reporting impact are the presence of R&D expenses (RD) and exploration expense (EXPLORE).<sup>17</sup> IFRS allow firms to capitalize certain R&D and exploration expenses while such capitalization is generally prohibited under U.S. GAAP. As a result, firms are more likely to report under IFRS when they have R&D and exploration expenses. To capture the needs of key stakeholders, we include the percentage of U.S. institutional ownership. Bradshaw et al. (2004) argue that U.S. institutional investors exhibit home bias in selecting firms more conforming to U.S. GAAP because of their familiarity of U.S. GAAP, reducing information processing costs. We also include the presence of U.S. principal auditors and the number of analysts following and expect them to prefer U.S. GAAP. In addition, we expect that firms are

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<sup>17</sup> We do not include RD, EXPLORE, USINST, ANALYST, COMMONLAW in the audit fee model since these variables are not commonly used control variables in audit fee model (e.g., Ashbaugh et al., 2003; Hay et al., 2006). To ensure that our result is not driven by the omission of these five variables, we additionally control these variables in audit fee model, and the statistical inference regarding IFRS remains unchanged.

more likely to choose IFRS over U.S. GAAP to enhance comparability if the majority of their industry peers employ IFRS (IFRSDOMI). Following Joos and Leung (2013), we define IFRSDOMI as a binary variable equal to one if IFRS is the predominant accounting standards used among the largest 20 global firms (based on market capitalization) for each two-digit SIC industry in a given year and zero otherwise. We argue that IFRSDOMI affects the firm's decision to choose accounting standards but IFRSDOMI is not associated with audit fees.<sup>18</sup> Furthermore, we control for firm size (LNMVE), leverage (LEV), and performance (ROA), but do not predict any sign. Finally, industry, year, and country fixed effects are included to control for variation of IFRS decision at the industry, year, and country levels. The first stage result is presented in Appendix B. The area under the ROC curve is 0.93, suggesting that the first stage model generates reasonable discriminatory power (Hosmer and Lemeshow, 2000). All independent variables are significant except LEV.

Although Heckman model controls for selection on “unobservable”, it does not controls for selection on “observable” (Lennox et al., 2012). To address this issue, we also conduct the propensity score matching procedure. We first use the same first stage model to estimate the probability of firms using IFRS. For each IFRS observation, we then match (sample without replacement) by year, industry, and closest propensity score with a caliper distance of 0.10 to get a U.S. GAAP observation. This yields 516 matched pairs of IFRS and U.S. GAAP observations. After matching, the majority of the variables in Table 3 are not statistically different between IFRS and U.S. GAAP samples.<sup>19</sup> We report the regression result of model (1) using this reduced sample size in column (5) of Table 4. Consistent with columns (1)-(4), the coefficient on IFRS in column (5) is positive and significant (t-statistic = 3.19), suggesting that our inferences are unlikely to be driven by the differences in firm characteristics of IFRS and U.S. GAAP firms.

#### *4 Regression results on the use of IFRS on going concern opinions*

We next report the effect of IFRS on going concern opinions in Table 5. In column (1), we present the result for the baseline model as in model (2). The coefficient on IFRS is positive

short-term and long-term investments (INVESTMENT), fewer Big 4 auditors (BIG4), and more internal control weakness.<sup>20</sup> The Pseudo R<sup>2</sup>

shows that the positive effect of IFRS on going concern opinions is robust to including and excluding non-distressed firms.

#### **partition analysis**

We next explore the cross-sectional variations in the association between the use of accounting standards and audit fees (issuance of a going concern opinion).

##### *transaction complexity*

The first partitioning variable is transaction complexity. We argue that the association of both audit fees and auditors' tendency to issue going concern opinions with the use of IFRS increases for more complex transactions. More complex transactions entail more professional judgments by managers and auditors and hence increase the auditors' engagement risk assessment. Auditors, recognizing the increased risk under more complex transactions, are more likely to charge higher audit fees and to issue going concern opinions in response to more uncertainty under IFRS. We measure transaction complexity by the level of fair value assets and liabilities a firm holds. Christensen et al. (2012) argue that increased complexity in financial reporting over the past two decades has particularly due to the move to fair value, which contains estimation of uncertainty and subjectivity. The uncertainty and subjectivity come from not only the difficulties in measuring firms' underlying fundamentals at fair value, but also pervasive management contracting incentives to bias fair value measurements (DeFond et al., 2015).

Empirically, we define a fair value measurement (FVM) variable, equal to the sum of fair value assets and liabilities over the sum of total assets and liabilities. We then partition our sample based on the median of FVM and estimate the audit fee model and going concern model, separately, for the subsamples with high and low FVM. We report the partitioning result in Table 6. For brevity, we do not tabulate the coefficient estimates on the control variables. When the dependent

variable is audit fees in Panel A of Table 6, the use of IFRS is positively associated with audit fees for firms holding more than median amounts of fair value assets and liabilities. For firms with smaller fair value assets and liabilities, the relation between the use of IFRS and audit fees is

We then partition the sample into high and low PSCORE based on the median value as the cutoff. In Panel A of Table 6, the coefficient on IFRS is positive and significant only for firms with higher misstatement risk (that is, higher than median PSCORE) and but not so for firms with lower misstatement risk. The chi-square to test the difference for the coefficient estimate on IFRS is 13.93, which is statistically significant. Similarly, the positive effect of IFRS on going concern opinions is only evident for high misstatement group and the difference between high and low misstatement groups is statistically significant (chi-square = 12.11). Overall, the results are consistent with the notion that auditors charge higher audit fees and issue more going concern opinions under IFRS when the misstatement risk is high.

#### *EC comment letter*

The next partitioning variable is the regulatory action from the SEC. We partition on whether the client was issued a SEC comment letter in the previous year. Under Sarbanes-Oxley Act Section 408, the SEC should periodically review the financial reporting and disclosure practices of its registrants. If the SEC filings are deemed to be deficient in some way (e.g., reasonableness of the company accounting policies in accordance with GAAP and/or the adequacy of the disclosure), the SEC will issue comment letters to its registrants (Cassell et al., 2013). The SEC review process helps “improve the information quality available to investors and may uncover possible violation of the securities laws” (SEC, 2009, 49). Gietzmann and Pettinicchio (2014) find that auditors reassess their reputational and litigation risk after their clients receive the SEC comment letters. Moreover, Gietzmann and Isidro (2013) document that the SEC questions the application of IFRS more than the application of U.S. GAAP in the comment letters. Hence, we expect that the positive association of IFRS with audit fees and the likelihood of issuing a going concern opinion is more pronounced after clients receive SEC comment letters.





requirements, more judgments, and increased risk under IFRS in a strong vis-à-vis weak regulatory environment, we expect higher audit fees and more going concern opinions associated with IFRS in a stronger regulatory environment compared to a weaker regulatory environment.

Following Fang et al. (2015) and Hail et al. (2014), we proxy the strength of a country-level regulatory infrastructure by separating countries into developed countries and emerging countries using the MSCI market classification.<sup>22</sup> In Panel A where LNAUDITFEE is the dependent variable, we obtain 2,428 observations from developed countries and 1,847 observations from emerging countries, respectively. The coefficient on IFRS is positive and significant for firms from developed countries, suggesting that IFRS users from developed countries experience higher fees compared with U.S. GAAP users. However, we do not observe such an association for firms from emerging countries. The difference between two coefficients on IFRS is statistically significant, with chi-square being 5.88. For the going concern model in Panel B, we again observe a positive coefficient on IFRS in the subsample from developed countries but not so from emerging countries, with the difference being significant (chi-square = 4.68). Together, our result supports that firms from strong regulatory environments are more sensitive to the effect of IFRS on auditor actions.

## 6 A t o n a a n a y s

In this section, we examine whether the use of IFRS over U.S. GAA

$$\begin{aligned} &+ \beta_{20} \text{REGPWR}_j + \beta_{21} \text{ROTATION}_j + \beta_{22} \text{AUCCHAR}_j + \text{Year Dummies} \\ &+ \text{Industry Dummies} + \epsilon_{ijt} \end{aligned} \quad (4)$$

The dependent variable LNAUDELAY is the natural logarithm of the number of days from the fiscal year end to date of the auditor's report.<sup>23</sup> Our test variable is IFRS. If increased audit effort due to the use of IFRS manifests in audit delay, then the coefficient on IFRS in model (4) should be positive.

In model (4), we control for variables that are commonly used in prior literature to explain audit delay (e.g., Ettredge et al., 2006; Krishnan and Yang, 2009). We include firm size (LNMVE)

level joint auditor and licensing requirements (AUCCHAR), and negatively associated with firm size (LNMVE), firm leverage (LEV), firm return on assets (ROA), the use of U.S. based principal auditors (USAUDITOR), the PCAOB inspection of the auditor (INSPECT), and country-level stock market turnover (TURNOVER). We obtain consistent results on IFRS after controlling for country fixed effects, removing first-time IFRS or U.S. GAAP adopters, employing Heckman (1979) approach, and using propensity matching technique. These results indicate that additional auditor effort explains at least some of the observed premium for U.S. listed foreign IFRS firms.

*Insert Table 7 Here*

Panel B of Table 7 shows the partitioning result for audit delay model. The IFRS clients delay their audit more in both developed and emerging countries, but the relation between IFRS and audit delay is more pronounced in developed countries than in emerging countries, although the difference is not statistically significant (chi-square = 1.49). In addition, the coefficients on IFRS are positive and significant in firms with both larger and smaller fair value assets and liabilities, but the difference is not statistically significant (chi-square = 0.24). Furthermore, auditors from firms with both high and low misstatement risk delay their audits under IFRS, and the effect is more pronounced for high misstatement risk group (chi-square = 12.45). Lastly, audit delay is more pronounced for firms that received comment letters in the previous year and the difference between firms that received and did not receive comment letters is statistically significant (chi-square = 7.58).

### **Conclusion**

This study provides empirical evidence regarding the effect of accounting standards on audit outcomes. Specifically, we examine the effect of IFRS versus U.S. GAAP on audit fees and auditor's going concern opinions for a sample of foreign firms listed in the U.S. market. Using the

arguments in prior research that IFRS rely more on principles, specify broader requirements, and require more judgment in application than U.S. GAAP, we posit that the use of IFRS by U.S. listed foreign firms increases auditors' effort and auditors' engagement risk, and hence contributing to higher audit fees and more going concern opinions. Moreover, the difference in IFRS and U.S. GAAP in disclosing going concern uncertainties can affect auditors' perceptions of the engagement risk for clients using IFRS and hence their threshold to report a going concern opinion, which also leads to an increase in the issuance of going concern opinions.

We test these predictions using foreign firms listed in the U.S. market from November 16, 2007 to December 31, 2014 that prepare financial statements under either IFRS or U.S. GAAP. Consistent with our prediction, we find that on average, auditors charge higher audit fees for U.S. listed foreign firms that use IFRS than those that use U.S. GAAP. We also find U.S. listed foreign IFRS firms are more likely to receive going concern opinions than foreign U.S. GAAP firms.

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D p n nt ar ab s an st ar ab or F r n Country: E n Y ar t

AUDITFEE<sub>ijt</sub>

$LEV_{ijt}$  = The firm's long-term debt divided by its total assets at the end of year;

ZSCORE<sub>ijt</sub> = A categorical variable to predict bankruptcy based on Altman's (1968) Z-Score. Z-score is calculated as: Z-score =  $3.3 \times \text{earnings before interest and taxes} / \text{total assets} + 0.99 \times \text{net sales} / \text{total assets} + 0.6 \times \text{market value of}$

Variable	Pred. Sign	Audit Fee Coef. (Z-Stat.)	Going Concern Coef. (Z-Stat.)
Intercept	?	2.389** (2.27)	0.941 (1.20)
RD <sub>ijt</sub>	+	-0.696*** (-6.10)	-0.636*** (-4.37)
EXPLORE <sub>ijt</sub>	+	0.567*** (3.28)	0.782*** (3.71)
USINST <sub>ijt</sub>	-	-2.996*** (-8.03)	-3.078*** (-6.51)
USAUDITOR <sub>ijt</sub>	-	-4.299*** (-11.58)	-5.193*** (-9.89)
ANALYST <sub>ijt</sub>	-	-0.461*** (-8.33)	-0.522*** (-7.62)
IFRSDOMI <sub>ijt</sub>	+	0.536*** (4.88)	0.504*** (3.55)
LN MVE <sub>ijt</sub>	?	0.474*** (16.33)	0.547*** (14.74)
LEV <sub>ijt</sub>	?	-0.500 (-1.42)	0.020 (0.04)
ROA <sub>ijt</sub>	?	-1.043*** (-3.73)	-0.662*** (-2.78)
Year Fixed Effect		Yes	Yes
Industry Fixed Effect		Yes	Yes
Country Fixed Effect		Yes	Yes
N		4,326	2,940
Pseudo R <sup>2</sup>		51.21%	53.45%
ROC curve		0.93	0.94

**ab**  
Sample selection

	Firm-year observations in audit fee model	Firm-year observations in going concern model
Fiscal year end	11/16/2007-12/31/2014	11/16/2007-12/31/2013
All U.S. listed foreign firm-year observations listed in the U.S. with the respective fiscal year end	9,015	7,873
Less: Firm-year observations with home country GAAP	(1,194)	(1,185)
Less: Firm-year observations with missing data on the dependent variable	(827)	(0)
Less: Firm-year observations with missing data to compute firm-specific control variables	(2,153)	(3,462)
Less: Firm-year observations with missing data to compute country-specific control variables	(515)	(286)
Final firm-year observations	4,326	2,940

**ab**

Sample distribution by country and industry

Panel A: Sample distribution by country

Country	Obs in audit fee model			Obs in going concern model		
	IFRS obs	US GAAP obs	Total	IFRS obs	US GAAP obs	Total
Australia	49	4	53	37	3	40
Belgium	12	7	19	11	6	17
Brazil	63	31	94	31	17	48
Canada	419	326	745	270	227	497
Chile	46	0	46	36	0	36
China	119	1,155	1,274	89	691	780
Cyprus	1	4	5	0	2	2
Denmark	14	4	18	12	0	12
Finland	8	0	8	7	0	7
France	56	29	85	46	25	71
Germany	39	14	53	26	11	37
Greece	5	138	143	3	103	106
Hong Kong	35	99	134	30	81	111
Hungary	4	0	4	4	0	4
India	33	39	72	36	27	63
Indonesia	8	0	8	8	0	8
Ireland	32	103	135	23	56	79
Israel	89	431	520	55	318	373
Italy	20	12	32	14	8	22
Japan	2	122	124	0	97	97
Luxembourg	33	13	46	28	8	36
Mexico	52	1	53	35	1	36
Netherlands	58	96	154	33	62	95
New Zealand	6	0	6	6	0	6
Norway	7	0	7	7	0	7
Peru	9	0	9	4	0	4
Philippines	7	2	9	7	0	7
Portugal	8	0	8	7	0	7
Russia	2	31	33	2	28	30
Singapore	9	28	37	8	22	30
South Africa	32	16	48	25	12	37
South Korea	23	23	46	15	15	30
Spain	25	10	35	10	9	19
Sweden	8	8	16	7	7	14
Turkey	8	0	8	7	0	7
United Kingdom	<u>164</u>	<u>75</u>	<u>239</u>	<u>115</u>	<u>50</u>	<u>165</u>
Total	1,505	2,821	4,326	1,054	1,886	2,940

ab =Continued

Panel B: Sample distribution by industry

Industry	Obs in audit fee model			Obs in going concern model		
	IFRS obs	US GAAP obs	Total	IFRS obs	US GAAP obs	Total
Agriculture, Forestry, and Fishing (SIC 0000-0999)	5	13	18	2	6	8
Mining and Construction (SIC 1000-1999)	367	186	553	270	139	409
Manufacturing (SIC 2000-3999)	508	1,368	1,876	370	929	1,299
Transportation Communication, and Utilities (SIC 4000-4999)	327	275	602	265	213	478
Wholesale and Retail (SIC 5000-5999)	39	129	168	28	79	107
Finance, Insurance, and Real Estate (SIC 6000-6999)	172	127	299	48	54	102
Services and Public Administrations (SIC 7000-9999)	<u>87</u>	<u>723</u>	<u>810</u>	<u>71</u>	<u>466</u>	<u>537</u>
Total	1,505	2,821	4,326	1,054	1,886	2,940



**ab 3**  
Descriptive statistics  
Panel A: Descriptive statistics for audit fee model

Variable	IFRS sample (N = 1,505)		U.S. GAAP sample (N = 2,821)		T-statistics <sup>a</sup>	Wilcoxon Z <sup>a</sup>
	Mean	Median	Mean	Median		
AUDITFEE <sub>ijt</sub>	7.49	1.82	2.34	0.71	15.42***	18.42***
BIG4 <sub>ijt</sub>	0.92	1.00	0.74	1.00	16.92***	14.35***
LN MVE <sub>ijt</sub>	8.06	8.44	5.91	5.65	27.47***	25.28***
MERGER <sub>ijt</sub>	0.21	0.00	0.19	0.00	1.35	1.37
FINANCE <sub>ijt</sub>	0.41	0.00	0.38	0.00	1.63	1.63
MB <sub>ijt</sub>	2.68	1.66	2.51	1.51	1.66*	5.15***
LEV <sub>ijt</sub>	0.16	0.13	0.11	0.02	10.16***	14.48***
ROA <sub>ijt</sub>	0.01	0.03	0.03	0.04	-3.75***	-2.88***
AR_IN <sub>ijt</sub>	0.17	0.12	0.23	0.19	-11.84***	-10.68***
NEG_ROA <sub>ijt</sub>	0.29	0.00	0.32	0.00	-2.59***	-2.59**
SPEC_ITEM <sub>ijt</sub>	0.63	1.00	0.55	1.00	4.92***	4.86***
NBS <sub>ijt</sub>	0.91	0.69	0.95	0.69	-1.72*	-2.00**
NGS <sub>ijt</sub>	1.14	1.10	1.24	1.10	-4.21***	-3.91***
PMDA <sub>ijt</sub>	0.09	0.05	0.12	0.07	-7.78***	-7.92***
USAUDITOR <sub>ijt</sub>	0.01	0.00	0.23	0.00	-26.63***	-19.19***
ICW <sub>ijt</sub>	0.03	0.00	0.05	0.00	-4.65***	-4.20***
INSPECT <sub>ijt</sub>	0.29	0.00	0.34	0.00	-3.51***	-3.46***

ab § =Cont nu ( )  
 Panel B: Descriptive statistics for going concern model

Variable	IFRS sample (N = 1,054)		U.S. GAAP sample (N = 1,886)		T-statistics <sup>a</sup>	Wilcoxon Z <sup>a</sup>
	Mean	Median	Mean	Median		
OPINION <sub>ijt</sub>	0.05	0.00	0.04	0.00	0.92	0.94
ZSCORE <sub>ijt</sub>	0.98	1.00	0.93	1.00	1.39	1.43
LOGAGE <sub>ijt</sub>	2.26	2.40	1.81	1.95	12.79***	12.60***
BETA <sub>ijt</sub>	1.21	1.18	1.09	1.02	5.96***	6.67***
RETURN <sub>ijt</sub>	0.07	0.01	0.14	-0.04	-2.54**	0.91
VOLATILITY <sub>ijt</sub>	0.001	0.0004	0.002	0.001	-12.17***	-18.17***
LEV <sub>ijt</sub>	0.16	0.14	0.10	0.02	10.25***	12.90***
CLEV <sub>ijt</sub>	0.22	0.00	0.25	0.00	0.53	2.94***
LLOSS <sub>ijt</sub>	0.23	0.00	0.31	0.00	-4.93***	-4.78***
OPCAFLOW <sub>ijt</sub>	0.07	0.09	0.05	0.07	3.84***	7.22***
LN MVE <sub>ijt</sub>	8.21	8.59	5.92	5.59	24.56***	22.35***
INVESTMENT <sub>ijt</sub>	0.21	0.13	0.28	0.22	-8.10***	-9.94***
FUFINANCE <sub>ijt</sub>	0.35	0.00	0.33	0.00	1.22	1.22
BIG4 <sub>ijt</sub>	0.93	1.00	0.78	1.00	11.67***	10.13***
USAUDITOR <sub>ijt</sub>	0.01	0.00	0.19	0.00	-19.60***	-14.43***
ICW <sub>ijt</sub>	0.02	0.00	0.06	0.00	-4.54***	-4.06***
INSPECT <sub>ijt</sub>	0.34	0.00	0.32	0.00	1.23	1.24
GDP <sub>jt</sub>	33.96	37.74	26.13	28.56	12.69***	13.73***
FDI <sub>jt</sub>	5.16	2.60	5.18	3.59	-0.06	-6.10***
TURNOVER <sub>jt</sub>	87.38	73.54	115.33	111.05	-13.21***	-11.61***
SMCAP <sub>jt</sub>	99.50	107.19	91.56	66.41	2.80***	8.31***
BIG4PCT <sub>j</sub>	0.58	0.61	0.49	0.46	11.45***	11.32***
REGPWR <sub>j</sub>	0.49	0.67	0.10	-0.30	14.04***	13.76***
ROTATION <sub>j</sub>	0.49	0.72	1.00	1.21	-15.53***	-18.34***
AUCHAR <sub>j</sub>	-0.38	0.30	0.06	0.34	-11.46***	-3.33***

\*, \*\*, \*\*\* Denote significance at the 10 percent, 5 percent, and 1 percent levels (two-tailed), respectively.  
 a The t-tests are for the difference in sample means between the U.S. listed foreign IFRS and U.S. listed foreign U.S. GAAP samples. The Wilcoxon Z (based on the rank sum test) tests for difference in location, that is, whether the observations from the IFRS and U.S. GAAP samples are from populations with different medians. All variables are defined in Appendix A.

**ab**

USAUDITOR <sub>ijt</sub>	+	0.078*	0.064	0.055	0.046	0.361***
		(1.67)	(1.35)	(1.15)	(0.93)	(2.65)
ICW <sub>ijt</sub>	+	0.282***	0.275***	0.273***	0.273***	0.135
		(5.70)	(5.52)	(5.36)	(5.50)	(1.13)
INSPECT <sub>ijt</sub>	?	0.034	0.041	0.065*	0.042	0.007
		(1.01)	(1.20)	(1.82)	(1.25)	(0.11)
GDP <sub>jt</sub>	+	0.014***	0.006	0.012**	0.007	0.010
		(2.61)	(0.64)	(2.18)	(1.41)	(0.39)
FDI <sub>jt</sub>	+	0.001	-0.001	-0.001	-0.0002	-0.006
		(0.13)	(-0.15)	(-0.11)	(-0.04)	(-0.52)
TURNOVER <sub>jt</sub>	?	0.001*	0.001	0.001*	0.001*	0.002
		(1.77)	(1.49)	(1.69)	(1.92)	(1.64)
SMCAP <sub>jt</sub>	?	-0.002***	-0.003***	-0.002***	-0.002***	-0.003
		(-3.10)	(-3.89)	(-3.24)	(-3.57)	(-1.56)
BIG4PCT <sub>j</sub>	+	0.448		0.722	0.75	0.552
		(0.90)		(1.48)	(1.51)	(0.23)
REGPOWER <sub>t</sub>	?	0.034		0.028	0.143	0.153
		(0.26)		(0.22)	(1.10)	(0.45)
ROTATION <sub>j</sub>	?	0.162*		0.190**	0.151*	0.884
		(1.75)		(2.05)	(1.64)	(0.48)
AUCHAR <sub>j</sub>	?	0.207**		0.160*	0.238***	3.635
		(2.41)		(1.95)	(2.78)	(0.55)
IMR <sub>ijt</sub>	?				0.211	
					(1.55)	
Year Fixed Effect		Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect		Yes	Yes	Yes	Yes	Yes
Country Fixed Effect			Yes			
N		4,326	4,326	4,047	4,326	1,018
Adjusted R <sup>2</sup>		84.04%	84.07%	84.31%	84.03%	80.38%

Column (1) reports the baseline result based on model (1). Column (2) reports the result after including country fixed effects. The result in column (3) is after removing the observations with first year of adopting IFRS or U.S. GAAP, the result in column (4) is based on the second stage of Heckman approach, and the result in column (5) is based on the propensity-score matching model. \*, \*\*, \*\*\* Denote significance at the 10 percent, 5 percent, and 1 percent levels (two-tailed), respectively.

All variables are defined in Appendix A. The result of the first stage Heckman approach is in Appendix B.

**ab**

**Regression result of the use of IFRS on going concern opinions (dependent variable = OPINION)**

Variable	Pred. Sign	Baseline	Country Fixed Effect	Removing First-time standard adoption	Heckman Model	PSM Model	Financial Distress Firms only
		Coef. (Z stat.)	Coef. (Z stat.)	Coef. (Z stat.)	Coef. (Z stat.)	Coef. (Z stat.)	Coef. (Z stat.)
Column		(1)	(2)	(3)	(4)	(5)	(6)
Intercept	?	-5.775 (-1.27)	-19.055 (-0.62)	-8.290 (-0.98)	-4.833 (-0.96)	-26.454 (-0.30)	-29.110 (-0.07)
IFRS <sub>ijt</sub>	?	1.261*** (3.33)	1.248*** (3.27)	1.140*** (2.66)	1.022** (2.47)	2.167** (2.25)	1.287*** (3.10)
ZSCORE <sub>ijt</sub>	+	0.576*** (3.02)	0.574*** (3.01)	0.586*** (2.74)	0.571*** (2.96)	-0.101 (-0.16)	0.337* (1.72)
LOGAGE <sub>ijt</sub>	-	-0.146 (-0.91)	-0.136 (-0.84)	-0.129 (-0.75)	-0.120 (-0.74)	0.992 (1.59)	-0.096 (-0.57)
BETA <sub>ijt</sub>	+	0.267 (1.33)	0.258 (1.28)	0.295 (1.37)	0.205 (1.00)	0.118 (0.19)	0.061 (0.29)
RETURN <sub>ijt</sub>	-	-0.276 (-1.43)	-0.273 (-1.42)	-0.554** (-2.43)	-0.177 (-0.93)	-0.178 (-0.28)	-0.139 (-0.81)
VOLATILITY <sub>ijt</sub>	+	53.017 (1.11)	56.291 (1.19)	90.965* (1.91)	46.127 (0.96)	781.761** (2.37)	48.491 (1.24)
LEV <sub>ijt</sub>	?	-1.971** (-2.13)	-1.953** (-2.12)	-1.573 (-1.60)	-1.858** (-2.00)	-1.108 (-0.37)	-1.068 (-1.07)
CLEV <sub>ijt</sub>	?	-0.214* (-1.75)	-0.221* (-1.77)	-0.334* (-1.87)	-0.221* (-1.73)	-0.394 (-1.37)	-0.158 (-1.37)
LLOSS <sub>ijt</sub>	+	1.187*** (4.11)	1.181*** (4.10)	1.246*** (4.01)	1.226*** (4.20)	2.247** (2.12)	0.931 (2.97)
OPCAFLOW <sub>ijt</sub>	-	-3.852*** (-5.23)	-3.799*** (-5.15)	-3.904*** (-5.22)	-3.658*** (-4.88)	3.746 (1.57)	-3.408*** (-5.08)
LNLMVE <sub>ijt</sub>	-	-0.572*** (-5.01)	-0.573*** (-4.97)	-0.501*** (-4.14)	-0.659*** (-5.22)	-1.138*** (-2.85)	-0.465*** (-3.86)
INVESTMENT <sub>ijt</sub>	-	-3.450*** (-4.50)	-3.507*** (-4.51)	-3.372*** (-4.07)	-3.440*** (-4.43)	-4.117* (-1.68)	-3.726*** (-4.57)
FUFINANCE <sub>ijt</sub>	-	0.278 (1.12)	0.284 (1.14)	0.313 (1.17)	0.273 (1.09)	0.802 (0.91)	0.229 (0.86)
BIG4 <sub>ijt</sub>	?	-0.739** (-2.12)	-0.719** (-2.06)	-0.840** (-2.26)	-0.685* (-1.95)	-0.478 (-0.42)	-0.687* (-1.88)
USAUDITOR <sub>ijt</sub>	?	-0.638 (-1.10)	-0.661 (-1.14)	-1.078* (-1.70)	-0.395 (-0.65)	0.802 (0.24)	-0.570 (-0.93)

ICW <sub>ijt</sub>	?	1.377*** (3.29)	1.415*** (3.38)	1.499*** (3.27)	1.405*** (3.28)	4.122** (2.39)	1.385*** (3.06)
INSPECT <sub>ijt</sub>	?	0.031 (0.08)	0.048 (0.12)	0.276 (0.60)	-0.021 (-0.05)	-3.026* (-1.84)	0.008 (0.02)
GDP <sub>jt</sub>	?	-0.112 (-1.51)	-0.033 (-0.36)	-0.084 (-1.20)	-0.113 (-1.47)	-2.599 (-1.35)	-0.015 (-0.14)
FDI <sub>jt</sub>	?	0.067 (0.79)	0.079 (0.91)	0.062 (0.76)	0.076 (0.90)	-3.726** (-2.57)	0.117 (1.25)
TURNOVER <sub>jt</sub>	?	0.004 (0.64)	0.002 (0.28)	0.006 (0.87)	0.004 (0.67)	0.298** (2.58)	0.000 (0.04)
SMCAP <sub>jt</sub>	?	0.003 (0.36)	0.007 (0.77)	0.004 (0.39)	0.004 (0.40)	-0.202* (-1.80)	0.009 (1.00)
BIG4PCT <sub>j</sub>	?	-0.402 (-0.07)		5.635 (0.60)	1.185 (0.19)	96.606 (1.09)	-73.640 (-0.12)
REGPOWER <sub>j</sub>	?	2.125 (1.32)		0.386 (0.17)	1.653 (0.96)	-12.961 (-0.49)	8.117 (0.23)
ROTATION <sub>j</sub>	?	2.752 (1.20)		3.108 (0.64)	3.163 (1.24)	6.544 (0.28)	22.486 (0.14)
AUCHAR <sub>j</sub>	?	2.113 (0.85)		-0.163 (-0.08)	2.431 (0.88)	27.885 (0.39)	54.150 (0.21)
IMR <sub>ijt</sub>	?				-2.874 (-1.53)		
Year Fixed Effect		Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect		Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effect			Yes				
N		2,940	2,940	2,724	2,940	644	1,115
Pseudo R <sup>2</sup>		47.39%	47.71%	48.28%	47.83%	66.01%	49.52%

Column (1) reports the baseline result based on model (2). Column (2) reports the result after including country fixed effects. The result in column (3) is after removing the observations with first year of adopting IFRS or U.S. GAAP and the result in column (4) is based on the second stage of Heckman approach. Column (5) reports the result based on the propensity-score matching

ab 6

Partitioning result

Panel A: Audit fee model (Dependent variable= LNAUDITFEE)

Variable	Fair value		Misstatement risk		SEC comment letter		Country development	
	High	Low	High	Low	Yes	No	Developed	Emerging
	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)
IFRS <sub>ijt</sub>	0.154***	-0.098*	0.206***	-0.042	0.149***	0.007	0.147***	-0.004

All variables are defined in Appendix A. In both panels, the first partitioning variable fair value measurement (FVM) is equal to  $(\text{total fair value assets} + \text{total fair value liabilities}) / (\text{total assets} + \text{total liabilities})$ . We partition based on the median FVM as computed above. The second partitioning variable is client risk computed from pscore in Lobo and Zhao (2013). We partition based on the median client risk. The third partitioning variable is whether the client received a SEC comment letter in the previous year. The last partitioning variable is based on whether the firms are from the developed countries or emerging countries.

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**ab**

Additional analysis: The use of IFRS on audit delay

Panel A: The Regression result of the use of IFRS on audit delay (Dependent variable = LNAUDELAY)

Variable	Pred. Sign	Baseline	Country fixed effect	Removing first-time standard adopters	Heckman model	PSM model
		Coef. (T-stat.) (1)	Coef. (T-stat.) (2)	Coef. (T-stat.) (3)	Coef. (T-stat.) (4)	Coef. (T-stat.) (5)
Intercept	?	4.423*** (12.89)	4.916*** (9.66)	4.444*** (13.04)	4.548*** (13.15)	2.075 (1.27)
IFRS <sub>ijt</sub>	?	0.108*** (9.16)	0.105*** (8.90)	0.102*** (8.02)	0.087*** (6.43)	0.098*** (5.58)
LN MVE <sub>ijt</sub>	-	-0.049*** (-19.18)	-0.050*** (-19.56)	-0.048*** (-17.99)	-0.053*** (-18.98)	-0.053*** (-10.84)
LEV <sub>ijt</sub>	+	-0.055* (-1.72)	-0.054* (-1.67)	-0.077** (-2.31)	-0.056* (-1.73)	0.126** (2.04)
ROA <sub>ijt</sub>	-	-0.058*** (-4.07)	-0.061*** (-4.28)	-0.057*** (-3.72)	-0.059*** (-4.13)	-0.046* (-1.89)
EXT <sub>ijt</sub>	+	0.018 (0.60)	0.019 (0.62)	0.025 (0.80)	0.023 (0.75)	0.065 (1.01)
NBS <sub>ijt</sub>	+	0.006 (0.78)	0.004 (0.53)	0.007 (0.87)	0.008 (1.03)	-0.008 (-0.55)
LOSS <sub>ijt</sub>	+	0.042*** (3.63)	0.039*** (3.34)	0.040*** (3.36)	0.040*** (3.49)	0.010 (0.44)
RESTATE <sub>ijt</sub>	+	0.038 (1.26)	0.038 (1.27)	0.036 (1.14)	0.038 (1.27)	0.043 (0.74)
AUDCHG <sub>ijt</sub>	+	-0.004 (-0.22)	-0.005 (-0.37)	-0.005 (-0.32)	-0.008 (-0.51)	0.022 (0.59)
BUSYYREND <sub>ijt</sub>	+	0.051*** (3.95)	0.052*** (4.08)	0.055*** (4.10)	0.051*** (4.03)	0.067*** (2.62)
BIG4 <sub>ijt</sub>	+	0.032** (2.18)	0.034** (2.35)	0.041*** (2.72)	0.041*** (2.79)	-0.075*** (-2.61)
USAUDITOR <sub>ijt</sub>	?	-0.140*** (-7.28)	-0.141*** (-7.36)	-0.139*** (-7.04)	-0.111*** (-5.28)	-0.133*** (-2.55)
ICW <sub>ijt</sub>	+	0.168*** (7.50)	0.167*** (7.47)	0.170*** (7.40)	0.170*** (7.61)	0.223*** (4.47)
INSPECT <sub>ijt</sub>	?	-0.050*** (-3.59)	-0.048*** (-3.42)	-0.047*** (-3.13)	-0.054*** (-3.81)	-0.023 (-0.92)

GDP <sub>jt</sub>	?	0.003 (1.06)	0.008* (1.91)	0.001 (0.49)	-0.001 (-0.24)	0.006 (0.58)
FDI <sub>jt</sub>	?	-0.002 (-1.32)	-0.001 (-0.71)	-0.002 (-1.16)	-0.002 (-1.07)	0.000 (0.03)
TURNOVER <sub>jt</sub>	?	-0.000* (-1.65)	-0.001** (-2.09)	-0.000 (-1.27)	-0.000 (-1.40)	-0.001** (-2.50)
SMCAP <sub>jt</sub>	?	-0.000 (-0.76)	-0.000 (-0.12)	-0.000 (-0.36)	-0.000 (-1.04)	0.000 (0.12)
BIG4PCT <sub>j</sub>	?	-0.010 (-0.48)		-0.210 (-0.93)	-0.043 (-0.19)	2.907 (1.16)
REGPOWER <sub>j</sub>	?	-0.056 (-1.08)		-0.026 (-0.49)	0.019 (0.37)	1.043*** (3.31)
ROTATION <sub>j</sub>	?	-0.019 (-0.44)		-0.036 (-0.84)	0.007 (0.17)	-0.361 (-1.03)
AUCHAR <sub>j</sub>	?	0.107*** (2.61)		0.149*** (3.61)	0.130*** (3.17)	-0.629** (-2.11)
IMR <sub>ijt</sub>					-0.203*** (-3.46)	
Year Fixed Effect		Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect		Yes	Yes	Yes	Yes	Yes
Country Fixed Effect			Yes			

Panel B: The partitioning result

Variable	Fair value		Misstatement risk		SEC comment letter		Country development	
	High Coef. (T-stat.)	Low Coef. (T-stat.)	High Coef. (T-stat.)	Low Coef. (T-stat.)	Yes Coef. (T-stat.)	No Coef. (T-stat.)	Developed Coef. (T-stat.)	Emerging Coef. (T-stat.)
IFRS <sub>ijt</sub>	0.099** *	0.115** *	0.198** *	0.097** *	0.160** *	0.089** *	0.131** *	0.092** *
	(4.26)	(5.07)	(9.95)	(4.62)	(7.91)	(6.06)	(9.69)	(3.74)
Control Variables	Include	Include	Include	Include	Include	Include	Include	Include
N	1,324	1,324	1,806	1,806	1,760	3,511	3,050	2,156
Adjusted R <sup>2</sup>	44.73%	42.93%	51.75%	38.26%	42.89%	33.04%	43.46%	17.95%
Chi-square to test the								