The Impact of IFRS versus U.S. GAAP on Audit Fees and Going Concern Opinions: Evidence from U.S.-Listed Foreign Firms

Lucy Huajing Chen*
Associate Professor of Accounting
Villanova University
lucy.chen@villanova.edu

Inder K. Khurana
Professor of Accounting
University of Missouri-Columbia
Khurana@missouri.edu

March 29, 2017

*Corresponding Author

We thank Hollis Skaife and Yinqi Zhang, and workshop participants at American University, Temple University, University of Texas at San Antonio, and Virginia Tech University for valuable comments. Professor Chen gratefully acknowledges the research support provided by the Center for Global Leadership at Villanova School of Business.

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Abstract: In this paper, we empirically evaluate the effect of International Financial Reporting Standards (IFRS) versus U.S. Generally Accepted Accounting Standards (GAAP) on audit fees and auditor's decision to issue a going concern opinion. We posit 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 and higher likelihood of issuing a going concern opinion. We test our predictions using a sample of foreign firms listed in the U.S. with fiscal year ended from November 16, 2007 to December 31, 2014 that prepare their financial statements under either IFRS or U.S. GAAP. We find that, on average, foreign IFRS firms pay more audit fees than foreign U.S. GAAP firms and are more likely to receive going concern opinions than foreign U.S. GAAP firms. Further analyses of U.S. listed foreign firms reveal that audit fees and the likelihood of receiving a going concern opinion are higher for foreign IFRS firms with more transactional complexity and higher misstatement risk than foreign U.S. GAAP firms, and for foreign IFRS firms from developed markets. Overall, our evidence highlights the impact of accounting standards on auditing outcomes and should be useful to the U.S. Securities and Exchange Commission as it deliberates whether and how to incorporate IFRS information for U.S. domestic firms.

The Impact of IFRS versus U.S. GAAP on Audit Fees and Going Concern Opinions: Evidence from U.S.-Listed Foreign Firms

1. 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 the use of IFRS is not required or permitted by domestic firms, even though foreign companies listed in the U.S. are allowed to prepare financial statements in accordance with IFRS without reconciliation to U.S. GAAP (SEC, 2007b). There are over 500 foreign companies that report to the SEC using IFRS alone (SEC, 2015) and audits of these firms are conducted in accordance with US auditing standards (Steinberger, 1995, p. 160). These U.S. listed foreign firms provide a unique setting to investigate the effect of accounting standards choice within the context of the U.S. market. In this paper, we shed light on whether and how the use of IFRS and U.S. GAAP by U.S. listed foreign firms impacts audit fees and an auditor's propensity to issue an opinion on a client's ability to continue as a going concern.

Accounting textbooks, particularly international accounting textbooks (e.g., Doupnik and Perara, 2012), emphasize the centrality of IFRS as a more principles-based accounting system, and U.S. GAAP as a more rules-based system, and they stress the need for auditors to adjust their audit procedures in response to different accounting standards. Because IFRS rely more on principles, specify broader requirements, and entail more judgment in application than U.S. GAAP (Barth et al., 2012), we expect auditors of U.S. listed foreign firms using IFRS to charge higher audit fees for their services than that of U.S. listed foreign firms using U.S. GAAP. 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.[1] 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

[1] 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 costs such as lost reputation from an audit failure (DeFond et al. 2016). In this framework, audit risk is further decomposed into (1) the risks that a material misstatement occurs (inherent risk); (2) is not prevented or detected by client internal controls (control risk); and (3) is not detected by the auditor's procedures (detection risk).

ability to continue as a going concern. Moreover, the time horizon for the assessment (look-forward period) and the disclosure thresholds under IFRS and U.S. GAAP differ. Under IFRS, the time frame for assessing an entity's ability to continue as a going concern is at least, but not limited to 12 months, whereas the time frame under the U.S. GAAP is not to exceed 12 months (KPMG, 2015). These more stringent going-concern assessment requirements under IFRS can prompt auditors to issue going concern opinions. As such, we predict that the likelihood of auditors issuing going-concern opinions is higher for U.S. listed foreign firms using IFRS compared with U.S. listed foreign firms using U.S. GAAP.

Consistent with our predictions, we document the following results. First, 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. Second, we find that U.S. listed foreign IFRS firms are more likely to receive going concern opinions than U.S. listed foreign U.S. GAAP firms. Both set of results are robust to (i) alternative specifications of regression models by including country-fixed effects and time-variant country-specific variables as control variables; (ii) matching our IFRS firms with U.S. GAAP firms using a propensity score matching approach; (iii) other tests to address endogeneity concerns, including the use of Heckman's (1979) approach to control for potential selection bias, and the removal of observations during the first year when a firm adopts IFRS or U.S. GAAP. Economically, audit fees are 5.65 percent higher for foreign listed IFRS clients than foreign listed U.S. GAAP clients, which is equivalent to approximately $0.13 million higher audit fees for a representative IFRS firm in our sample. Further analyses reveal that audit delay is longer for U.S. listed foreign IFRS firms than for U.S. listed foreign U.S. GAAP firms, suggesting that additional auditor effort explains at least some of the observed premium.

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 consistent with the idea that the use of fair value measurements intensifies uncertainty, subjectivity, and audit risk, and auditors are more likely to charge higher fees and report more conservatively for clients using IFRS than for U.S. GAAP clients when auditing fair value accounts in response to more judgment under IFRS. We also find that auditors charge higher audit fees and issue more going concern opinions under IFRS when the risk of misstatement is high, suggesting that auditors facing higher misstatement risk respond by expending additional effort for judgment-based IFRS. Moreover, we find the positive association of IFRS with audit fees to be more pronounced after clients receive SEC comment letters. Lastly, we find audit fees and the likelihood of receiving a going concern opinion are higher for U.S. listed foreign IFRS firms than U.S. listed foreign U.S. GAAP firms from developed markets, suggesting that auditors exert greater effort and audit more conservatively to reduce engagement risk in countries with strong regulatory infrastructure.

Our paper contributes to prior literature in the following ways. We add to the literature examining the consequences of using IFRS and U.S. GAAP. Prior research (e.g., Barth et al., 2012) has examined the comparability of financial reporting under IFRS (by international firms) and U.S. GAAP (by U.S. firms). They find that when international firms adopt IFRS, they exhibit greater accounting system and value relevance comparability with U.S. firms compared with when they applied domestic standards. We extend this research by examining the implications of these two accounting standards for audit fees and auditors' going concern decisions. Moreover, by focusing on firms listed in a single country (the U.S.), we are able to hold the regulatory environment

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

We also complement the literature examining the effects of IFRS on audit verification. Several single-country and cross-country studies examine the effects of transition from local accounting standards to IFRS on audit verification costs (De George et al., 2013; Griffin et al., 2009; Kim et al., 2012). A unique feature of our research design is that we examine the consequences of using IFRS and U.S. GAAP in the U.S. market over an eight year time period rather than the one-time adoption of IFRS from local GAAP. Our result points to a higher cost associated with the use of IFRS in comparison with that of U.S. GAAP, even if both are deemed to be high quality accounting standards.

Our paper is related to but distinct from Folsom et al. (2016) and Donelson et al. (2012), who examine the consequences of more rules-based versus principles-based standards within the U.S. GAAP. An advantage of our approach is that we examine IFRS and U.S. GAAP rather than the difference within U.S. GAAP. Moreover, we can potentially reduce measurement errors in identifying specific standards within U.S. GAAP as principle- versus rules-based standards, which can be correlated to the underlying complexity of the transaction.[2]

Lastly, our paper is directly relevant to the SEC's policy debate between IFRS and U.S. GAAP, especially because continued global adoption of IFRS affects US businesses through cross-border, merger and acquisition activity, and the IFRS reporting demands of non-US stakeholders

[2] Compared to Folsom et al. (2016) and Donelson et al. (2012) that use the sample before year 2007, we use more recent years covering the 2007 through 2014 time period. This is important because IFRS and U.S. GAAP evolve over time. Among 16 IFRS issued by the International Accounting Standards Board (IASB), ten of them have effective dates after year 2007. Hence, our study can speak more directly to recent IFRS. Second, the U.S. SEC proposed to consider IFRS for U.S. domestic firms starting year 2007 (SEC, 2007a). The SEC's consideration may create differential incentives for auditors to view the riskiness of IFRS and U.S. GAAP clients.

(PWC, 2016). We identify an audit cost associated with the use of IFRS for U.S. listed foreign firms and auditors react more conservatively in issuing going concern opinions for IFRS clients. In addition, our cross-sectional evidence documenting the role of firm characteristics in affecting the IFRS-audit outcome relations should also be of substantial interest to the U.S. regulators and policy makers, who have not yet decided to move toward IFRS. It can help better understand what factors can mediate the impact of IFRS vis-à-vis U.S. GAAP on audit outcomes.

We organize the remainder of our paper as follows. Section 2 provides literature review and hypotheses development. We outline our research design and sample selection in Section 3. Sections 4 presents the results of the test of hypotheses. In section 5 and 6, we report and discuss the results of partitioned and additional analyses, respectively. Section 7 concludes the paper.

2. Hypotheses development

2.1. Prior literature

GAAP refer to a set of accounting principles that govern the preparation of audited financial statements (Kothari et al., 2010). GAAP define how to consistently measure and report a transaction across different entities (Knechel, 2013). While managers use accounting standards to report in ways that are in their best interest (Watts and Zimmerman, 1979), auditors' role is to evaluate the appropriateness of a client's accounting methods within the accounting standards for external financial reporting.

An important issue in the choice of accounting standards is the debate on principles versus rules in the development of accounting standards. In a rules-based regime, GAAP provide detailed guidance, requiring professional expertise in researching the authoritative literature. In contrast, principles-based standards have less bright-line guidance; therefore more judgment is required in applying them. In either case, accounting standards serve as the guideline for managers and

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 oriented than when the auditor is rules-based oriented. Cohen et al. (2013) provide evidence that auditors are more likely to constrain aggressive reporting behavior under principles-based accounting standards compared to rules-based standards, irrespective of the strength of regulatory regimes. Using auditors as subjects in an experiment, Peytcheva et al. (2014) find that principles-based standards increase auditors' process accountability, which increases auditor's epistemic motivation and demands for audit evidence.

While there is evidence from experimental data on how the use principles-based and rules-based accounting standards affect the behavior of auditors, there is paucity of empirical evidence using archival data on this issue in the context of IFRS and U.S. GAAP. In this paper, we focus on

the effects of IFRS and U.S. GAAP on audit outcomes in the U.S. market using data on U.S.-listed foreign firms. A key factor that strengthens the comparison at hand is that even though IFRS and U.S. GAAP differs, auditors of all U.S. listed foreign firms follow U.S. Generally Accepted Auditing Standards in conducting their audits. Although the U.S. auditing standards are to be followed, it is possible that audits of financial statements of these U.S. listed foreign firms may be subject to other appropriate auditing standards or procedures in their home countries, irrespective of their accounting standards (e.g., IFRS or U.S. GAAP) used.[3]

2.2. Hypotheses development

2.2.1 Hypothesis H1

Both IFRS and U.S. GAAP are moving targets, constantly changing. Nevertheless, preparers and users consider IFRS as being more principles based and U.S. GAAP as being more rules based (SEC, 2008). Because IFRS emphasize the essence of an economic transaction rather than rules in preparing financial statements, IFRS generally rely more on broad principles and hence specify fewer bright-line thresholds, fewer scope and treatment exemptions, fewer interpretation guidance, and less details than U.S. GAAP.[4] For each U.S. standard examined by the SEC (2003), Donelson et al. (2012) compute the rule based characteristics (RBC) score for the corresponding IFRS standard including (1) bright-line thresholds, (2) scope and legacy exceptions,

[3] An examination of IFAC (2012) reveals that most of our sample countries adopt International Standards on Auditing (ISA) as their national auditing standards. With the convergence of ISA and the U.S. auditing standards, the difference between home countries' auditing standards and U.S. auditing standards can be small (e.g., IFAC, 2012), which do not necessarily result in additional audit work.

[4] For example, in one of their accounting and financial reporting guide on similarities and differences between IFRS and U.S. GAAP, PwC (2016) states that "US GAAP revenue recognition guidance is extensive and includes a significant number of standards issued by the Financial Accounting Standards Board (FASB), the Emerging Issues Task Force (EITF), the American Institute of Certified Public Accountants (AICPA), and the US Securities and Exchange Commission (SEC). The guidance tends to be highly detailed and is often industry-specific. While the FASB's codification has put authoritative US GAAP in one place, it has not impacted the volume and/or nature of the guidance. IFRS has two primary revenue standards and four revenue-focused interpretations. The broad principles laid out in IFRS are generally applied without further guidance or exceptions for specific industries."

(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):

H1. *External audit fees are higher for U.S. listed foreign firms using IFRS compared with U.S. listed foreign firms using U.S. 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 firms relying on more principles-based U.S. accounting standards exhibit more informative and persistent earnings and a larger positive association between earnings and future cash flows. Thus, IFRS clients may pose less reputation risk to their auditors. It is also possible that "the

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.

2.2.2 Hypothesis H2

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

to perform the assessment, auditors can assess an entity's disclosures of uncertainties in an entity's ability to continue as a going concern in a more timely manner. By contrast, there are no such specific disclosure requirements under U.S. GAAP (Mosco and Crowley, 2014).[5] Moreover, the time horizon for the assessment (look-forward period) and the disclosure thresholds under IFRS and U.S. GAAP differ. Under IFRS, the time frame for assessing an entity's ability to continue as a going concern is at least, but not limited to 12 months, whereas the time frame under the U.S. GAAP is not to exceed 12 months (KPMG, 2015). These more stringent disclosure requirements under IFRS should prompt auditors to discover and report more going concern opinions.

These arguments lead to the following hypothesis (stated in the alternative form):

H2. *The likelihood of auditors issuing going-concern opinions is higher for U.S. listed foreign firms using IFRS compared with U.S. listed foreign firms using U.S. GAAP.*

3. Research design

3.1. Empirical model –Test of H1

To test H1, which examines whether the use of accounting standards (IFRS vs U.S. GAAP) by U.S.-listed foreign firms is associated with audit fees, we employ the following ordinary least square (OLS) regression model.

$$\begin{aligned} LNAUDITFEE_{ijt} = {} & \alpha_0 + \alpha_1\, IFRS_{ijt} + \alpha_2\, BIG4_{ijt} + \alpha_3\, LNMVE_{ijt} + \alpha_4\, MERGER_{ijt} + \alpha_5\, FINANCE_{ijt} \\ & + \alpha_6\, MB_{ijt} + \alpha_7\, LEV_{ijt} + \alpha_8\, ROA_{ijt} + \alpha_9\, AR\_IN_{ijt} + \alpha_{10} NEG\_ROA_{ijt} \\ & + \alpha_{11} SPEC\_ITEM_{ijt} + \alpha_{12}\, NBS_{ijt} + \alpha_{13}\, NGS_{ijt} + \alpha_{14}\, PMDA_{ijt} \\ & + \alpha_{15} USAUDITOR_{ijt} + \alpha_{16}\, ICW_{ijt} + \alpha_{17}\, INSPECT_{ijt} + \alpha_{18}\, GDP_{jt} + \alpha_{19}\, FDI_{jt} \\ & + \alpha_{20}\, TURNOVER_{jt} + \alpha_{21}\, SMCAP_{jt} + + \alpha_{22} BIG4PCT_{j} + \alpha_{23}\, REGPWR_{j} \\ & + \alpha_{24} ROTATION_{j} + \alpha_{25} AUCHAR_{j} + \text{Year Dummies} + \text{Industry Dummies} \\ & + \varepsilon_{ijt} \end{aligned} \quad (1)$$

[5] On August 27, 2014, the FASB (2014) issued ASU 2014-15, which provides guidance on determining when and how to disclose going-concern uncertainties in the financial statements. It is effective for annual periods ending after December 15, 2016, and interim periods within annual periods beginning after December 15, 2016. Mosco and Crowley (2014) note that the changes in the guidance by the FASB's ASU 2014-15 were intended to improve convergence with IFRS.

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.[6]

In addition to the firm-specific variables, we include country-level variables to control for different monitoring and enforcement demand for auditing across different countries (Francis et al., 2011). GDP, FDI, TURNOVER, and SMCAP vary across countries and years while BIG4PCT, REGPWR, ROTATION, and AUCHAR vary across countries only. Following Choi et al. (2008), we control for GDP (gross domestic product per capita) and FDI (foreign direct investment scaled by GDP) for the level of cost of livings and foreign direct investment and expect both variables to be positively associated with audit fees. We also include TURNOVER (stock turnover) and SMCAP (market capitalization as a percentage of GDP) to control for home country stock market characteristics, and BIG4PCT (the percentage of Big 4 clients) to proxy for audit market characteristics**.** GDP, FDI, TURNOVER, and SMCAP are obtained from statistics published annually by the World Bank. The auditor data used to compute BIG4PCT is from the Datastream. We include REGPWR, ROTATION, and AUCHAR to control for audit regulatory environment in foreign firms' home countries. We expect greater audit efforts for U.S. listed foreign firms whose home countries have a stronger oversight of the audit profession (Bronson et al., 2016). We obtain these three variables from the principal component of the seven audit regulatory environment variables from the survey data of International Federation of Accountants (IFAC)

[6] Similar to Krishnan et al. (2017), we define the inspection based on the end of PCAOB inspection because the auditor is aware of inspection findings before the PCAOB issues the final report. Nevertheless, our results are not sensitive to the use of the start date of PCAOB inspection or the date of inspection report.

(Bronson et al., 2016).[7] 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.

3.2. Empirical model –Test of H2

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).

$$\begin{aligned} OPINION_{ijt} = {} & \alpha_0 + \alpha_1\, IFRS_{ijt} + \alpha_2\, ZSCORE_{ijt} + \alpha_3\, LOGAGE_{ijt} + \alpha_4\, BETA_{ijt} + \alpha_5\, RETURN_{ijt} \\ & + \alpha_6\, VOLATILITY_{ijt} + \alpha_7\, LEV_{ijt} + \alpha_8 CLEV_{ijt} + \alpha_9 LLOSS_{ijt} + \alpha_{10}\, OPCAFLOW_{ijt} \\ & + \alpha_{11}\, LNMVE_{ijt} + \alpha_{12}\, INVESTMENT_{ijt} + \alpha_{13}\, FUFINANCE_{ijt} + \alpha_{14}\, BIG4_{ijt} \\ & + \alpha_{15} USAUDITOR_{ijt} + \alpha_{16}\, ICW_{ijt} + \alpha_{17}\, INSPECT_{ijt} + \alpha_{18}\, GDP_{jt} + \alpha_{19}\, FDI_{jt} \\ & + \alpha_{20}\, TURNOVER_{jt} + \alpha_{21}\, SMCAP_{jt} + \alpha_{22} BIG4PCT_{j} + \alpha_{23}\, REGPWR_{j} \\ & + \alpha_{24} ROTATION_{j} + \alpha_{25} AUCHAR_{j} + \text{Year Dummies} + \text{Industry Dummies} \\ & + \varepsilon_{ijt} \end{aligned} \quad (2)$$

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.

[7] 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 *SAS No. 59* (AICPA, 1988). We include ZSCORE, the Altman's (1968) Z-score, to control for the probability of bankruptcy. LOGAGE is included because younger firms are more likely to experience financial distress (Dopuch et al., 1987). We also include three market-based variables BETA (the systematic risk of firms' stock return over the fiscal year), RETURN (stock return over the fiscal year), and VOLATILITY (return volatility over the fiscal year). We predict positive coefficients on BETA and VOLATILITY and a negative coefficient on RETURN (Dopuch et al., 1987). We include LEV (leverage) and CLEV (change in leverage) to measure the closeness to the violation of debt covenant, which potentially triggers auditors to issue going concern opinions (DeFond et al., 2002). We do not predict a sign on LEV and CLEV because of mixed results in prior studies (e.g., Francis and Yu, 2009). LLOSS is a dummy variable indicating a loss in the previous year. OPCAFLOW is the operating cash flow divided by total assets. Firms with a prior year loss and firms with poor operating cash flows are more prone to failure (Reynolds and Francis, 2000; DeFond et al., 2002). Large firms (as proxied by LNMVE) have more negotiation power facing financial difficulty and thus are more likely to avoid bankruptcy. We expect that firms with more short-term and long-term investments (INVESTMENT) have more ability to quickly raise cash in the event of financial difficulty. Also, a firm's plan to issue debt or equity in the subsequent year (FUFINANCE) can be a mitigating factor in the issuance of a going concern opinion.

In addition, we control for the Big 4 auditors (BIG4) but do not predict a sign for it. On the one hand, prior research (e.g., Reynolds and Francis, 2000; DeFond et al., 2002) suggests that Big 4 auditors are more likely to issue going concern opinions to protect their reputation. On the other hand, Lamoreaux (2016) finds that foreign firms audited by Big 4 auditors are less likely to receive

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.

3.3. Sample selection

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.[8] 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.[9] 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).[10] The accounting standards used by each firm-year are from Audit Analytics.[11] We remove 1,194 observations where foreign firms use home country GAAP. From

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

[9] As discussed in footnote 23, we obtain similar results if we remove firms directly listed on U.S. stock exchanges.

[10] 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. An examination of 20-Fs of U.S. listed foreign IFRS sample firms with fiscal years ending after November 16, 2007 revealed that none of them voluntarily provided reconciliation after the rule. We obtain similar results even if we remove the first year of adopting the no reconciliation rule.

[11] We randomly checked a sample of 500 observations against the annual reports filed with the U.S. SEC and found errors in accounting standards data from Audit Analytics of less than 2 percent.

the remaining 7,821 observations, we remove 827 observations with missing audit fee data from Audit Analytics, 2,153 observations with missing data to compute firm-specific variables from Compustat, and 515 observations with missing data to construct country-specific variables. Our final sample in audit fee model consists of 4,326 observations, including 1,505 foreign IFRS observations (328 unique firms) and 2,821 foreign U.S. GAAP observations (596 unique firms).

For going concern model, our sample period starts from November 16, 2007 but ends at December 31, 2013, because one control variable FUFINANCE is defined as the one-year-ahead variable. The initial sample consists of 7,873 observations during this sample period. We delete 1,185 observations that report financial information based on home country GAAP. We also require firm-years to have no missing data to compute firm- and country-specific variables (3,462 and 286 observations removed, respectively). Following DeFond and Lennox (2016), we retain all observations with and without publicly observable indicators of financial distress to ensure that our sample covers firms with material going concern uncertainties but not publicly observable indicators of financial distress.[12] This process results in 2,940 observations (1,054 foreign IFRS observations with 261 unique firms and 1,886 foreign U.S. GAAP observations with 474 unique firms) in the going concern model.

Insert Table 1 Here

Panel A of Table 2 shows the distribution of country for our final sample in the audit fee and going concern models by country. Our sample comes from 36 different home countries. During our sample period, China has the largest U.S. presence (1,274 observations in the audit fee model and 780 observations in the going concern model), followed by Canada (745 and 497

[12] In addition, as argued in DeFond and Lennox (2016), using only distressed firms increases the likelihood of auditors issuing going concern opinions, which can lead researchers to incorrectly attribute the going concern opinion as capturing higher audit quality.

observations in audit fee and going concern models, respectively) and Israel (520 and 373 observations in audit fee and going concern models, respectively).[13] 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 Table 2 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 previously, we control for industry effects in our models by including dummy variables based on two-digit SIC codes.

4. Empirical results

4.1. Descriptive statistics

We report descriptive statistics for the audit fee model and the going concern model in Panels A and B of Table 3, respectively. We winsorize all continuous variables at the one and 99 percent levels to mitigate the effect of potential outliers. In Panel A, on average, the U.S. listed foreign IFRS sample pays $7.49 million of audit fees, while the U.S. listed foreign U.S. GAAP sample incurs $2.34 million of audit fees. The median audit fees are $1.82 million for the IFRS sample and $0.71 million for the U.S. GAAP sample. The difference is statistically significant. The IFRS sample is larger and more likely to hire Big 4 auditors, and has higher market-to-book ratio, leverage, and more special item. The IFRS sample also has lower ROA, receivable and

[13] To ensure that our result is not merely a reflection of one single country, we conduct a sensitivity test to remove all Chinese firms. The statistical inference is similar to and sometimes even stronger than what we report in Tables 4 and 5.

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 similar to those reported in Panel A.

Insert Table 3 Here

In an untabulated analysis, we calculate correlation coefficients for our variables used in audit fee and going concern models. The absolute value of the correlation among independent variables included in either the audit fee or going concern model is highest (0.61) between two country-specific variables GDP and BIG4PCT, similar to Choi et al. (2008). We also check multicollinearity and Variable Inflation Factors (VIFs) are less than 10 except for some country-specific variables.[14]

4.2. Regression results

4.2.1. Regression results on the use of IFRS on audit fees

[14] To be more specific, the VIFs are more than 10 on GDP, SMCAP, BIG4PCT, REGPWR, ROTATION, and AUCHAR. Removing these variables from the regressions do not change the statistical inference of our results.

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% ($e^{0.055}$-1) higher for IFRS clients than for U.S. clients. This is equivalent to $0.13 million (5.65% × $2.34 mean audit fees for U.S. clients in Table 3) increase of audit fees for IFRS clients compared with U.S. GAAP clients. Consistent with prior literature (e.g., Ashbaugh et al., 2003, Asthana et al., 2015; Choi et al., 2008), we find that auditors charge higher audit fees for clients of Big 4 auditors (BIG4), U.S. based principal auditors (USAUDITOR), and weak internal controls, and clients with larger firm size (LNMVE), higher leverage (LEV), and more merger activities (MERGER), receivable and inventory (AR_IN), negative ROA (NEG_ROA), special items (SPEC_ITEM), number of business segments (NBS), and number of geographic segments (NGS). At the same time, audit fees are negatively associated with financing activities (FINANCE), market-to-book ratio (MB), and firm return on assets (ROA).[15] In addition, audit fees are positively (negatively) associated with clients' home country GDP and joint auditor/licensing requirements (market capitalization). The adjusted R^2 is 84.04%, consistent with prior audit fee literature in an international setting (e.g., Kim et al., 2012; Asthana et al., 2015).

Insert Table 4 Here

[15] To ensure that our result is not driven by observations that employ U.S. based principal auditors, we rerun model (1) excluding observations with U.S. based principal auditors. The coefficient on IFRS is still positive and significant.

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 AUCHAR). 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 domestic firms around the world, the choice of IFRS versus U.S. GAAP for foreign firms listed in the U.S. is more complex. In some home countries, IFRS is not allowed for firms cross-listed in the U.S. before the home countries adopt IFRS. For example, before 2011, Canadian firms cross-listed in the U.S. cannot employ IFRS in preparing their financial statements, while in or after 2011, these firms can choose between IFRS and U.S. GAAP.[16] In other home countries such as Germany, firms listed in the U.S. can select IFRS or U.S. GAAP during our sample period. Hence, the documented association between IFRS and audit fees can be due to the selection bias. We address this self-selection issue using following approaches.

First, although firms do not randomly choose between IFRS and U.S. GAAP, the choice of accounting standards is fairly sticky and does not vary from year to year unless there is a change in regulation. For this reason, Burnett et al. (2015) examining the Canadian cross-listed firms' choice of IFRS and U.S. GAAP only use one year of data. In other words, the selection bias only occurs in the first year of adopting a set of accounting standards (e.g., IFRS or U.S. GAAP). To

[16] Canadian firms can obtain special permission to adopt IFRS early in very rare cases. For example, Burnett et al. (2015) find that three Canadian firms in 2009 and two Canadian firms in 2010 adopt IFRS.

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:

$$\begin{aligned} IFRS_{ijt} = {} & \alpha_0 + \alpha_1 RD_{ijt} + \alpha_2 EXPLORE_{ijt} + \alpha_3 USINST_{ijt} + \alpha_4 USAUDITOR_{ijt} + \alpha_5 ANALYST_{ijt} \\ & + \alpha_6 IFRSDOMI_{ijt} + \alpha_7 LNMVE_{ijt} + \alpha_8 LEV_{ijt} + \alpha_9 ROA_{ijt} + \text{Year Dummies} \\ & + \text{Industry Dummies} + \text{Country Dummies} + \varepsilon_{ijt} \end{aligned} \quad (3)$$

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).[17] 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

[17] 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. [18] 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.

In the second stage, we include all independent variables in model (1) and inverse mills ratio obtained from first stage of the Heckman (1979) approach. We report the second stage result in column (4) of Panel A of Table 4. The coefficient on IFRS remains positive and significant at the 5% level (t-statistic = 2.36). Hence, our main result still holds after taking into consideration of endogeneity issue. The inverse mills ratio (IMR) is positive but not significant. We also check the multicollinearity of the second stage model because multicollinearity can exacerbate the bias regarding to the statistical inference of Heckman (1979) approach. All VIFs are less than 10 except for some country-level variables.

[18] Lennox et al. (2012) argue that the choice of exclusion restrictions is important to a valid selection model. We choose IFRSDOMI as our instrumental variable in the first stage and exclude it in the second stage. If we include this variable in the second stage, the coefficient on IFRSDOMI is not significant (untabulated), supporting the validity of this instrument variable.

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.[19] 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.

4.2.2. 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 (coefficient = 1.261) and significant at the 1% level (Z-statistic = 3.33), suggesting that auditors are more likely to issue going concern opinions to U.S. listed foreign IFRS clients to adjust engagement risk. In terms of economic significance, the untabulated marginal effect shows that moving from U.S. GAAP to IFRS increases the likelihood of receiving a going concern opinion by 0.16%. Turning to the control variables, firms receiving going concern opinions tend to have higher Z-score, lower leverage (LEV) and change of leverage (CLEV), more losses in the previous year (LLOSS), lower operating cash flow (OPCAFLOW), smaller firm size (LNMVE), fewer

[19] Compared to Table 3, the untabulated result shows that the remaining differences between IFRS and U.S. GAAP samples after matching are in the mean and median values of NBS, NGS, USAUDITOR, REGPWR, and AUCHAR, the mean value of TURNOVER, and the median value of MB.

short-term and long-term investments (INVESTMENT), fewer Big 4 auditors (BIG4), and more internal control weakness.[20] The Pseudo R^2 is 47.39%, in line with prior literature (e.g., DeFond et al., 2002; Lamoreaux, 2016).

Insert Table 5 Here

In column (2), we additionally control for country fixed effects. The result is in line with what we report in column (1), that U.S. listed foreign IFRS clients receive going concern opinions more frequently than U.S. listed foreign U.S. GAAP clients. Similar to Table 4, we mitigate selection bias in three ways. First, we remove 216 observations that adopt IFRS or U.S. GAAP for the first time and re-estimate model (2). We still find positive and significant coefficient on IFRS (Z-statistic = 2.66). Second, we employ a formal Heckman (1979) two-stage approach. We use the same first stage model as in Table 4 and include inverse mills ratio into the second stage model in addition to all independent variables in model (2). Consistently, we show that the coefficient on IFRS is positive and significant (Z-statistic = 2.47), suggesting that potential selection bias is unlikely to drive the result in column (1).[21] Moreover, we employ propensity score matching procedure in column (5) and still find consistent result. Lastly, similar to Bhaskar et al. (2017), the baseline sample includes both distressed and non- distressed firms to preserve the number of observations. Because going concern is a more salient problem among distressed firms, we also conduct an analysis to restrict our sample to only distressed firms, defined as firms that report either negative net income or negative operating cash flow during the current year. Column (6)

[20] Only 2.6% of foreign IFRS observations and 2.8% of foreign U.S. GAAP observations receive going concern opinions in the previous year in our sample. We obtain similar results on the coefficient for IFRS when we include a binary variable to account for going concern opinions in the previous year or remove firms that receive going concern opinions in the previous year.

[21] Again, we select IFRSDOMI as the instrumental variable and do not expect IFRSDOMI to be associated with going concern opinions in the second stage. Untabulated result shows that even if we include IFRSDOMI, the coefficient on IFRSDOMI is not significant and the coefficient on IFRS is still positive and significant.

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

5. Partitioning analyses

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).

5.1. 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 negative and significant. The difference of coefficient on IFRS in two groups is statistically significant (chi-square = 9.04). Similarly, in panel B, the use of IFRS is positively associated with going concern opinions for firms with both larger and smaller fair value assets and liabilities, but the effect is statistically stronger for firms with larger fair value assets and liabilities (chi-square = 4.03).

Insert Table 6 Here

5.2. Misstatement risk

We also examine the effect of misstatement risk on the association between IFRS and auditor actions in Panels A and B of Table 6. Lobo and Zhao (2013) find that misstatement risk is an important determinant to both audit effort and subsequent accounting restatements. We propose that auditors from firms facing higher misstatement risk expend more effort and are more sensitive to the added risk under more judgment-based IFRS, and hence are more likely to charge higher audit fees and to issue going concern opinions.

We operationalize the misstatement risk using the predicted probability of misstatement (PSCORE) from Dechow et al. (2011) and Lobo and Zhao (2013). Dechow et al. (2011) and subsequent Lobo and Zhao (2013) predict the misstatement as a function of total accrual, change of receivable, change of inventory, percentage of soft assets, change in cash sales, change in ROA, issuing debt or equity securities, abnormal changes in employees, existence of operating lease obligation, and current and previous-year stock return. We obtain the predicted probability of misstatement (PSCORE) using the coefficient estimates from Table 2 of Lobo and Zhao (2013).

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.

5.3. SEC 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.

Panel A of Table 6 shows that the positive effect of IFRS on audit fees exists only for clients who received SEC comment letters, and the difference on the coefficients of IFRS between clients who received SEC comment letters and clients who did not receive letters in the previous year is statistically significant (chi-square = 5.08). In Panel B of Table 6, where the dependent variable is going concern opinions, the coefficient on IFRS is positive and significant, irrespective of whether clients received SEC comment letters in the previous year. The coefficient on IFRS is more positive after clients received SEC comment letters than before, although the difference is not statistically significant (chi-square = 1.13).

5.4. Developed vs emerging markets

All foreign firms listed in the U.S. are subject to the U.S. SEC regulation. If foreign firms can effectively "bond" to U.S. regulatory environment by subjecting to the SEC's stringent oversight, home country regulations could have a minimal effect on these foreign firms. However, prior literature (e.g., Lang et al., 2006) finds that home country's environment matters to U.S. listed foreign firms. Fang et al. (2015) argue that the development of a country's regulatory infrastructure (as a function of securities laws, investor protection, corporate governance, and others) provides firms incentives to adhere to high-quality financial reporting. In our context, the regulatory infrastructure can affect the association of IFRS standards with audit fees and the issuance of a going concern opinion. An auditor faces greater legal liability in a stronger regulatory regime (Kim et al., 2012). In addition to legal liability, a strong regulatory infrastructure can bring more disciplinary actions upon auditors to protect investors. Hence, the level of judgment involved in the use of IFRS compared to U.S. GAAP is more likely to induce auditors to exert greater effort and audit more conservatively to reduce engagement risk in a strong regulatory infrastructure than in a weak infrastructure. Because of the differences in how auditors respond to broader

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.[22] 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. Additional analysis

In this section, we examine whether the use of IFRS over U.S. GAAP has an effect on audit delay, an audit effort variable used in prior research to capture the time required to complete fieldwork (Ashton et al., 1987; Ettredge et al., 2006; and Abbott et al., 2012).

We employ the following empirical model. All variables are defined in Appendix A.

$$\begin{aligned} LNAUDELAY_{ijt} = {} & \alpha_0 + \alpha_1 IFRS_{ijt} + \alpha_2 LNMVE_{ijt} + \alpha_3 LEV_{ijt} + \alpha_4 ROA + \alpha_5 EXT_{ijt} + \alpha_6 NBS_{ijt} \\ & + \alpha_7 LOSS_{ijt} + \alpha_8 RESTATE_{ijt} + \alpha_9 AUDCHG_{ijt} + \alpha_{10} BUSYYREND_{ijt} \\ & + \alpha_{11} BIG4_{ijt} + \alpha_{12} USAUDITOR_{ijt} + \alpha_{13} ICW_{jjt} + \alpha_{14} INSPECT_{ijt} + \alpha_{15} GDP_{jt} \\ & + \alpha_{16} FDI_{jt} + \alpha_{17} TURNOVER_{jt} + \alpha_{18} SMCAP_{jt} + \alpha_{19} BIG4PCT_{j} \end{aligned}$$

[22] The detailed classification can be found through https://www.msci.com/market-classification.

$$+ \alpha_{20}\, REGPWR_j + \alpha_{21} ROTATION_j + \alpha_{22} AUCHAR_j + \text{Year Dummies} + \text{Industry Dummies} + \varepsilon_{ijt} \quad (4)$$

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.[23] 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) and firm financial condition (LEV and ROA). Firm operating complexity is also positively related to audit delay. We include the presence of extraordinary item (EXT) and the natural logarithm of business segments (NBS) to proxy for firm complexity. We also include firm net losses (LOSS), restatement (RESTATE), auditor change (AUDCHG), and December year end (BUSYYREND) and expect positive coefficients on these variables. Moreover, we control for the presence of Big 4 auditors, U.S. based principal auditors, existence of internal control weakness, and the PCAOB inspection. The country-specific variables as those in models (1) and (2) are included to control for country-level variations in audit delay. We include year and industry dummy variables.

Panel A of Table 7 shows the regression result for audit delay model. The coefficient on IFRS is positive and statistically significant, indicating that IFRS firms tend to have longer audit delay. The audit delay is also positively associated with the incidence of reporting loss (LOSS), December-year end (BUSYYREND), Big 4 auditors (BIG4), weak internal control, and country-

[23] Similar to Srinivasan et al. (2015) and Asthana et al. (2015), we define a foreign firm based on the country of its headquarter. Most U.S. incorporated firms with foreign headquarters are reverse-merger firms which are better characterized as foreign firms (Srinivasan et al., 2015). Hence, our sample contains observations that are incorporated in the U.S. and file with the SEC using 10-K. In addition, even for a firm incorporated outside of the U.S., whether it needs to file 10-K or not depends upon the relative degree of its U.S. share ownership and the level of its U.S. business contacts (SEC, 2013). The filing deadline for these 10-K firms depends upon whether they are large accelerated filers, accelerated filers, or non-accelerated filers. Our result are qualitatively similar when we remove these 10-K firms.

level joint auditor and licensing requirements (AUCHAR), 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).

7. 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. Moreover, we find the effects of IFRS on audit fees and the likelihood of a going concern opinion are more pronounced for foreign firms from countries with a strong regulatory infrastructure, and for foreign firms with more transactional complexity and higher misstatement risk. Probing further, we find that audit delay is longer for foreign firms using IFRS than for foreign firms using U.S. GAAP. Moreover, this difference in audit delay is more pronounced for clients with high misstatement risk and for clients that received SEC comment letters in the previous year.

In summary, our results complement evidence on the consequences of using two different sets of accounting standards. We differ from prior studies in that we use archival data to shed light on the effects of IFRS vis-à-vis U.S. GAAP on audit outcomes in the U.S. market. Our evidence should also inform the U.S. SEC as it deliberates whether, when, and how to incorporate IFRS information for U.S. domestic firms.

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APPENDIX A. Variable definitions

Variable		Empirical Definition
		The Dependent Variables and Test Variable for Firm i in Country j in Year t
$AUDITFEE_{ijt}$	=	The audit fees in millions of U.S. dollars;
$IFRS_{ijt}$	=	A binary variable equal to one if the sample firm i uses IFRS and zero otherwise;
$LNAUDITFEE_{ijt}$	=	The natural logarithm of audit fees in millions of U.S. dollars;
$LNAUDELAY_{ijt}$	=	The natural logarithm of the number of days from the fiscal year end to the date of the auditor's report;
$OPINION_{ijt}$	=	A binary variable equal to one if the sample firm receives a going concern opinion and zero otherwise;
		Firm-Specific Control Variables for Firm i in Country j in Year t
$ANALYST_{ijt}$	=	The natural logarithm of one plus the number of analysts following the firm;
AR_IN_{ijt}	=	The sum of the firm's receivables and inventory, divided by its total assets at the end of year;
$AUDCHG_{ijt}$	=	A binary variable equal to one if the firm changes its auditor in the current year and zero otherwise;
$BETA_{ijt}$	=	The firm's beta estimated using a market model of regressing daily stock return on daily equally-weighted market return over the fiscal year;
$BIG4_{ijt}$	=	A binary variable equal to one if the sample firm is audited by a Big 4 auditor and zero otherwise;
$BUSYYREND_{ijt}$	=	A binary variable equal to one if the firm has a December year-end in the current year and zero otherwise;
$CLEV_{ijt}$	=	The change in LEV from the previous year;
$EXPLORE_{ijt}$	=	A binary variable equal to one if exploration expense is greater than zero and zero otherwise;
EXT_{ijt}	=	A binary variable equal to one if the firm reports extraordinary items in the current year and zero otherwise;
$FINANCE_{ijt}$	=	A binary variable equal to one if long-term debt or number of shares increased by at least 10 percent in the current year and zero otherwise;
$FUFINANCE_{ijt}$	=	A binary variable equal to one if long-term debt or number of shares increased by at least 10 percent in the following year and zero otherwise;
ICW_{ijt}	=	A binary variable equal to one if the author issues an adverse opinion for internal control under SOX Section 404 for the current year and zero otherwise;
$IFRSDOMI_{ijt}$	=	A binary variable equal to one if IFRS is used most commonly among the top 20 global firms based on market value in a given year and industry (two-digit sic code) and zero otherwise;
IMR_{ijt}	=	The inverse mill ratio from the first-stage model in appendix B;
$INSPECT_{ijt}$	=	A binary variable equal to one if the auditor goes through a PCAOB inspection during the year and zero otherwise;
$INVESTMENT_{ijt}$	=	The sum of short- and long-term investments over total assets at the end of year;

LEV_{ijt}	=	The firm's long-term debt divided by its total assets at the end of year;
$LLOSS_{ijt}$	=	A binary variable equal to one if the firm reports a loss in the previous year and zero otherwise;
$LNMVE_{ijt}$	=	The natural logarithm of the firm's market value of equity;
$LOGAGE_{ijt}$	=	The natural logarithm of the years since the firm is listed on a U.S. stock exchange;
$LOSS_{ijt}$	=	A binary variable equal to one if the firm reports a loss in the current year and zero otherwise;
MB_{ijt}	=	The firm's market value of equity divided by common shareholder equity at the end of year;
$MERGER_{ijt}$	=	A binary variable equal to one if the sample firm is engaged in a merger or an acquisition and zero otherwise;
NBS_{ijt}	=	The natural logarithm of one plus the number of business segments;
NEG_ROA_{ijt}	=	A binary variable equal to one if the firm's ROA is negative during the year and zero otherwise;
NGS_{ijt}	=	The natural logarithm of one plus the number of geographic segments;
$OPCAFLOW_{ijt}$	=	Operating cash flow divided by total assets at the end of year;
$PMDA_{ijt}$	=	The absolute value of performance-matched discretionary accruals in Kothari et al. (2005), defined as the difference between the firm-specific residual from the following model and the median firm-specific residual from the same two-digit SIC/ROA decile in year t-1. First, we estimate the following regression for all Compustat firms in each year and industry (two-digit SIC code), $TA_{ijt} = \beta_0 + \beta_1 (1/ASSETS_{ijt-1}) + \beta_2 (DSales_{ijt} - DAR_{ijt}) + \beta_3 PPE_{ijt} + e_{ijt}$, where TA_{ijt} is total accruals measured as income before extraordinary items minus cash flow from operations, deflated by lagged total assets, $ASSETS_{ijt-1}$ is the lagged total assets, $DSales_{ijt}$ is the change in sales scaled by lagged total assets, DAR_{ijt} is the change in accounts receivable scaled by lagged total assets, and $DPPE_{it}$ is net property, plant, and equipment scaled by lagged total assets. Discretionary accruals (DA_{ijt}) is the estimated residual from the above equation. Second, we partition firms within each year-industry (based on two-digit SIC code) group into deciles based on their prior year's ROA. Performance-matched discretionary accruals ($PMDA_{ijt}$) is the absolute difference between a sample firm's DA_{ijt} and the median DA_{ijt} for its ROA decile;
RD_{ijt}	=	A binary variable equal to one if R&D expense is greater than zero and zero otherwise;
$RESTATE_{ijt}$	=	A binary variable equal to one if the firm restates its financial statements in the current year and zero otherwise;
$RETURN_{ijt}$	=	The firm's compounded annual stock return over the fiscal year;
ROA_{ijt}	=	The firm's net income during the year over beginning of the year total assets;
$SPEC\_ITEM_{ijt}$	=	A binary variable equal to one if the firm reports a special item during the year and zero otherwise;
$USAUDITOR_{ijt}$	=	A binary variable equal to one if the firm is audited by a U.S. based principal auditor and zero otherwise;
$USINST_{ijt}$	=	The percentage of common stock held by U.S. institutional investors;
$VOLATILITY_{ijt}$	=	The variance of the residual from the market model to compute $BETA_{ijt}$ over the fiscal year;

$ZSCORE_{ijt}$	=	A categorical variable to predict bankruptcy based on Altman's (1968) Z-Score. Z-score is calculated as: Z-score = 3.3 × earnings before interest and taxes/total assets + 0.99 × net sales/total assets + 0.6 × market value of equity/total assets + 1.2 ×working capital/total assets + 1.4 × retained earnings/total assets. ZSCORE = 2 if Z-score is less than 1.81, indicating a very high probability of financial distress; ZSCORE = 1 if Z-score is between 1.81 and 2.99, indicating a gray area; ZSCORE = 0 if Z-score is greater than 3.00, indicating safe zone of not likely to go into financial distress;
		Country-Specific Control Variables for Country j in Year t
FDI_{jt}	=	foreign direct investment scaled by GDP for the sample country;
GDP_{jt}	=	gross domestic product (GDP) per capita based on purchasing power parity in thousands of dollars for the sample country;
$SMCAP_{jt}$	=	The total market capitalization as a percentage of GDP for the sample country;
$TURNOVER_{jt}$	=	The percentage of total value of shares traded divided by the average market capitalization for the sample country;
		Country-Specific Control Variables for Country j
$AUCHAR_j$	=	The joint auditor and licensing requirements for the sample country, as calculated from the third principal component of the several audit regulatory environment variables INDSTD, GOVSTD, OVERSIGHT, PROTATE, FPROTATE, JOINT, and LICENSE. These seven variables are INDSTD (a binary variable equal to one if the auditing standard-setting body is not a government agency but is considered "independent" and zero otherwise), GOVSTD (a binary variable equal to one if the auditing standard-setting body is a government agency and zero otherwise), OVERSIGHT (a categorical variable equal to one if the country has an auditing oversight body that does not have sanction authority or conduct inspections, equal to two if the country has an auditing oversight body that has sanction authority but does not conduct inspections, three if the country has an auditing oversight body that conducts inspections and has sanction authority, and zero otherwise), PROTATE (a binary variable equal to one if partner rotation is required for listed entities and zero otherwise), FROTATE (a binary variable equal to one if audit firm rotation is required for audits of listed entities), JOINT (a binary variable equal to one if a joint audit is required for listed entities and zero otherwise), and LICENSE (a binary variable equal to one if there are ongoing requirements (e.g., continuing education) to retain a license and zero otherwise);
$BIG4PCT_j$	=	The percentage of clients who use Big 4 auditors for the sample country;
$REGPWR_j$	=	The regulatory power over the profession for the sample country, as calculated from the first principal component of the seven audit regulatory environment variables INDSTD, GOVSTD, OVERSIGHT, PROTATE, FROTATE, JOINT, and LICENSE as described above; and
$ROTATION_j$	=	The audit firm and partner rotation requirements for the sample country, as calculated from the second principal component of the several audit regulatory environment variables INDSTD, GOVSTD, OVERSIGHT, PROTATE, FROTATE, JOINT, and LICENSE as described above.

APPENDIX B. First stage of Heckman model (dependent variable = IFRS)

Variable	Pred. Sign	Audit Fee Coef. (Z-Stat.)	Going Concern Coef. (Z-Stat.)
Intercept	?	2.389**	0.941
		(2.27)	(1.20)
RD_{ijt}	+	-0.696***	-0.636***
		(-6.10)	(-4.37)
$EXPLORE_{ijt}$	+	0.567***	0.782***
		(3.28)	(3.71)
$USINST_{ijt}$	-	-2.996***	-3.078***
		(-8.03)	(-6.51)
$USAUDITOR_{ijt}$	-	-4.299***	-5.193***
		(-11.58)	(-9.89)
$ANALYST_{ijt}$	-	-0.461***	-0.522***
		(-8.33)	(-7.62)
$IFRSDOMI_{ijt}$	+	0.536***	0.504***
		(4.88)	(3.55)
$LNMVE_{ijt}$	?	0.474***	0.547***
		(16.33)	(14.74)
LEV_{ijt}	?	-0.500	0.020
		(-1.42)	(0.04)
ROA_{ijt}	?	-1.043***	-0.662***
		(-3.73)	(-2.78)
Year Fixed Effect		Yes	Yes
Industry Fixed Effect		Yes	Yes
Country Fixed Effect		Yes	Yes
N		4,326	2,940
Pseudo R^2		51.21%	53.45%
ROC curve		0.93	0.94

Table 1
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

Table 2
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	164	75	239	115	50	165
Total	1,505	2,821	4,326	1,054	1,886	2,940

Table 2 (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)	87	723	810	71	466	537
Total	1,505	2,821	4,326	1,054	1,886	2,940

Table 3
Descriptive statistics
Panel A: Descriptive statistics for audit fee model

	IFRS sample (N = 1,505)		U.S. GAAP sample (N = 2,821)			
Variable	Mean	Median	Mean	Median	T-statistics[a]	Wilcoxon Z[a]
$AUDITFEE_{ijt}$	7.49	1.82	2.34	0.71	15.42***	18.42***
$BIG4_{ijt}$	0.92	1.00	0.74	1.00	16.92***	14.35***
$LNMVE_{ijt}$	8.06	8.44	5.91	5.65	27.47***	25.28***
$MERGER_{ijt}$	0.21	0.00	0.19	0.00	1.35	1.37
$FINANCE_{ijt}$	0.41	0.00	0.38	0.00	1.63	1.63
MB_{ijt}	2.68	1.66	2.51	1.51	1.66*	5.15***
LEV_{ijt}	0.16	0.13	0.11	0.02	10.16***	14.48***
ROA_{ijt}	0.01	0.03	0.03	0.04	-3.75***	-2.88***
AR_IN_{ijt}	0.17	0.12	0.23	0.19	-11.84***	-10.68***
NEG_ROA_{ijt}	0.29	0.00	0.32	0.00	-2.59***	-2.59**
$SPEC\_ITEM_{ijt}$	0.63	1.00	0.55	1.00	4.92***	4.86***
NBS_{ijt}	0.91	0.69	0.95	0.69	-1.72*	-2.00**
NGS_{ijt}	1.14	1.10	1.24	1.10	- 4.21***	-3.91***
$PMDA_{ijt}$	0.09	0.05	0.12	0.07	-7.78***	-7.92***
$USAUDITOR_{ijt}$	0.01	0.00	0.23	0.00	-26.63***	-19.19***
ICW_{ijt}	0.03	0.00	0.05	0.00	-4.65***	-4.20***
$INSPECT_{ijt}$	0.29	0.00	0.34	0.00	-3.51***	-3.46***
GDP_{jt}	34.14	37.74	25.09	28.09	18.25***	19.31***
FDI_{jt}	4.87	3.34	5.13	3.76	-1.24	-8.54***
$TURNOVER_{jt}$	85.74	67.88	117.22	121.30	-18.05***	-15.20***
$SMCAP_{jt}$	97.07	107.19	89.41	66.41	3.51***	10.14***
$BIG4PCT_{j}$	0.58	0.61	0.48	0.46	16.89***	16.55***
$REGPWR_{j}$	0.47	0.67	0.09	-0.30	16.45***	16.90***
$ROTATION_{j}$	0.51	0.77	1.02	1.34	-18.21***	-23.17***
$AUCHAR_{j}$	-0.43	0.24	0.07	0.34	-15.54***	-6.21***

*, **, *** 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.

Table 3 (Continued)
Panel B: Descriptive statistics for going concern model

	IFRS sample (N = 1,054)		U.S. GAAP sample (N = 1,886)			
Variable	Mean	Median	Mean	Median	T-statistics[a]	Wilcoxon Z[a]
$OPINION_{ijt}$	0.05	0.00	0.04	0.00	0.92	0.94
$ZSCORE_{ijt}$	0.98	1.00	0.93	1.00	1.39	1.43
$LOGAGE_{ijt}$	2.26	2.40	1.81	1.95	12.79***	12.60***
$BETA_{ijt}$	1.21	1.18	1.09	1.02	5.96***	6.67***
$RETURN_{ijt}$	0.07	0.01	0.14	-0.04	-2.54**	0.91
$VOLATILITY_{ijt}$	0.001	0.0004	0.002	0.001	-12.17***	-18.17***
LEV_{ijt}	0.16	0.14	0.10	0.02	10.25***	12.90***
$CLEV_{ijt}$	0.22	0.00	0.25	0.00	0.53	2.94***
$LLOSS_{ijt}$	0.23	0.00	0.31	0.00	-4.93***	-4.78***
$OPCAFLOW_{ijt}$	0.07	0.09	0.05	0.07	3.84***	7.22***
$LNMVE_{ijt}$	8.21	8.59	5.92	5.59	24.56***	22.35***
$INVESTMENT_{ijt}$	0.21	0.13	0.28	0.22	-8.10***	-9.94***
$FUFINANCE_{ijt}$	0.35	0.00	0.33	0.00	1.22	1.22
$BIG4_{ijt}$	0.93	1.00	0.78	1.00	11.67***	10.13***
$USAUDITOR_{ijt}$	0.01	0.00	0.19	0.00	-19.60***	-14.43***
ICW_{ijt}	0.02	0.00	0.06	0.00	-4.54***	-4.06***
$INSPECT_{ijt}$	0.34	0.00	0.32	0.00	1.23	1.24
GDP_{jt}	33.96	37.74	26.13	28.56	12.69***	13.73***
FDI_{jt}	5.16	2.60	5.18	3.59	-0.06	-6.10***
$TURNOVER_{jt}$	87.38	73.54	115.33	111.05	-13.21***	-11.61***
$SMCAP_{jt}$	99.50	107.19	91.56	66.41	2.80***	8.31***
$BIG4PCT_{j}$	0.58	0.61	0.49	0.46	11.45***	11.32***
$REGPWR_{j}$	0.49	0.67	0.10	-0.30	14.04***	13.76***
$ROTATION_{j}$	0.49	0.72	1.00	1.21	-15.53***	-18.34***
$AUCHAR_{j}$	-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.

Table 4
Regression result of the use of IFRS on audit fees (dependent variable = LNAUDITFEE)

Variable	Pred. Sign	Baseline Coef. (T-Stat.)	Country Fixed Effect Coef. (T-Stat.)	Removing First-time standard adoption Coef. (T-Stat.)	Heckman Model Coef. (T-Stat.)	PSM Coef. (T-Stat.)
Column		(1)	(2)	(3)	(4)	(5)
Intercept	?	-2.721***	-0.211	-2.914***	-2.767***	-6.814
		(-3.62)	(-0.16)	(-3.94)	(-3.64)	(-1.07)
$IFRS_{ijt}$	?	0.055*	0.063**	0.077**	0.076**	0.143***
		(1.92)	(2.17)	(2.52)	(2.36)	(3.19)
$BIG4_{ijt}$	+	0.602***	0.592***	0.604***	0.597***	0.596***
		(17.05)	(16.66)	(16.61)	(16.66)	(7.63)
$LNMVE_{ijt}$	+	0.451***	0.450***	0.450***	0.456***	0.457***
		(70.40)	(69.91)	(67.69)	(64.17)	(34.38)
$MERGER_{ijt}$	+	0.083***	0.087***	0.071***	0.080***	0.122**
		(3.15)	(3.27)	(2.62)	(3.01)	(2.06)
$FINANCE_{ijt}$	?	-0.113***	-0.115***	-0.110***	-0.112***	-0.057
		(-5.27)	(-5.36)	(-4.99)	(-5.25)	(-1.22)
MB_{ijt}	?	-0.059***	-0.059***	-0.062***	-0.060***	-0.050***
		(-17.90)	(-17.77)	(-17.39)	(-17.98)	(-7.35)
LEV_{ijt}	+	1.110***	1.118***	1.038***	1.103***	1.237***
		(14.82)	(14.87)	(13.47)	(14.71)	(7.74)
ROA_{ijt}	-	-0.383***	-0.381***	-0.420***	-0.394***	-0.160
		(-5.20)	(-5.15)	(-5.49)	(-5.32)	(-1.01)
AR_IN_{ijt}	+	0.832***	0.821***	0.787***	0.832***	1.032***
		(13.40)	(13.20)	(12.34)	(13.41)	(7.34)
NEG_ROA_{ijt}	+	0.082***	0.078***	0.093***	0.089***	0.070
		(2.71)	(2.57)	(2.97)	(2.92)	(1.05)
$SPEC\_ITEM_{ijt}$	+	0.236***	0.236***	0.234***	0.232***	0.244***
		(10.77)	(10.76)	(10.35)	(10.56)	(5.08)
NBS_{ijt}	+	0.035*	0.034*	0.042**	0.035*	-0.116***
		(1.90)	(1.88)	(2.21)	(1.90)	(-2.93)
NGS_{ijt}	+	0.146***	0.150***	0.153***	0.140***	0.196***
		(9.36)	(9.56)	(9.42)	(8.93)	(6.10)
$PMDA_{ijt}$	+	-0.005	-0.002	-0.035	-0.008	0.177
		(-0.06)	(-0.03)	(-0.45)	(-0.10)	(0.98)

$USAUDITOR_{ijt}$	+	0.078*	0.064	0.055	0.046	0.361***
		(1.67)	(1.35)	(1.15)	(0.93)	(2.65)
ICW_{ijt}	+	0.282***	0.275***	0.273***	0.273***	0.135
		(5.70)	(5.52)	(5.36)	(5.50)	(1.13)
$INSPECT_{ijt}$	?	0.034	0.041	0.065*	0.042	0.007
		(1.01)	(1.20)	(1.82)	(1.25)	(0.11)
GDP_{jt}	+	0.014***	0.006	0.012**	0.007	0.010
		(2.61)	(0.64)	(2.18)	(1.41)	(0.39)
FDI_{jt}	+	0.001	-0.001	-0.001	-0.0002	-0.006
		(0.13)	(-0.15)	(-0.11)	(-0.04)	(-0.52)
$TURNOVER_{jt}$	?	0.001*	0.001	0.001*	0.001*	0.002
		(1.77)	(1.49)	(1.69)	(1.92)	(1.64)
$SMCAP_{jt}$	?	-0.002***	-0.003***	-0.002***	-0.002***	-0.003
		(-3.10)	(-3.89)	(-3.24)	(-3.57)	(-1.56)
$BIG4PCT_{j}$	+	0.448		0.722	0.75	0.552
		(0.90)		(1.48)	(1.51)	(0.23)
$REGPOWER_{t}$	?	0.034		0.028	0.143	0.153
		(0.26)		(0.22)	(1.10)	(0.45)
$ROTATION_{j}$	?	0.162*		0.190**	0.151*	0.884
		(1.75)		(2.05)	(1.64)	(0.48)
$AUCHAR_{j}$	?	0.207**		0.160*	0.238***	3.635
		(2.41)		(1.95)	(2.78)	(0.55)
IMR_{ijt}	?				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^2		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.

Table 5

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

Variable	Pred. Sign	Baseline Coef. (Z stat.)	Country Fixed Effect Coef. (Z stat.)	Removing First-time standard adoption Coef. (Z stat.)	Heckman Model Coef. (Z stat.)	PSM Model Coef. (Z stat.)	Financial Distress Firms only Coef. (Z stat.)
Column		(1)	(2)	(3)	(4)	(5)	(6)
Intercept	?	-5.775	-19.055	-8.290	-4.833	-26.454	-29.110
		(-1.27)	(-0.62)	(-0.98)	(-0.96)	(-0.30)	(-0.07)
$IFRS_{ijt}$	?	1.261***	1.248***	1.140***	1.022**	2.167**	1.287***
		(3.33)	(3.27)	(2.66)	(2.47)	(2.25)	(3.10)
$ZSCORE_{ijt}$	+	0.576***	0.574***	0.586***	0.571***	-0.101	0.337*
		(3.02)	(3.01)	(2.74)	(2.96)	(-0.16)	(1.72)
$LOGAGE_{ijt}$	-	-0.146	-0.136	-0.129	-0.120	0.992	-0.096
		(-0.91)	(-0.84)	(-0.75)	(-0.74)	(1.59)	(-0.57)
$BETA_{ijt}$	+	0.267	0.258	0.295	0.205	0.118	0.061
		(1.33)	(1.28)	(1.37)	(1.00)	(0.19)	(0.29)
$RETURN_{ijt}$	-	-0.276	-0.273	-0.554**	-0.177	-0.178	-0.139
		(-1.43)	(-1.42)	(-2.43)	(-0.93)	(-0.28)	(-0.81)
$VOLATILITY_{ijt}$	+	53.017	56.291	90.965*	46.127	781.761**	48.491
		(1.11)	(1.19)	(1.91)	(0.96)	(2.37)	(1.24)
LEV_{ijt}	?	-1.971**	-1.953**	-1.573	-1.858**	-1.108	-1.068
		(-2.13)	(-2.12)	(-1.60)	(-2.00)	(-0.37)	(-1.07)
$CLEV_{ijt}$	?	-0.214*	-0.221*	-0.334*	-0.221*	-0.394	-0.158
		(-1.75)	(-1.77)	(-1.87)	(-1.73)	(-1.37)	(-1.37)
$LLOSS_{ijt}$	+	1.187***	1.181***	1.246***	1.226***	2.247**	0.931
		(4.11)	(4.10)	(4.01)	(4.20)	(2.12)	(2.97)
$OPCAFLOW_{ijt}$	-	-3.852***	-3.799***	-3.904***	-3.658***	3.746	-3.408***
		(-5.23)	(-5.15)	(-5.22)	(-4.88)	(1.57)	(-5.08)
$LNMVE_{ijt}$	-	-0.572***	-0.573***	-0.501***	-0.659***	-1.138***	-0.465***
		(-5.01)	(-4.97)	(-4.14)	(-5.22)	(-2.85)	(-3.86)
$INVESTMENT_{ijt}$	-	-3.450***	-3.507***	-3.372***	-3.440***	-4.117*	-3.726***
		(-4.50)	(-4.51)	(-4.07)	(-4.43)	(-1.68)	(-4.57)
$FUFINANCE_{ijt}$	-	0.278	0.284	0.313	0.273	0.802	0.229
		(1.12)	(1.14)	(1.17)	(1.09)	(0.91)	(0.86)
$BIG4_{ijt}$	?	-0.739**	-0.719**	-0.840**	-0.685*	-0.478	-0.687*
		(-2.12)	(-2.06)	(-2.26)	(-1.95)	(-0.42)	(-1.88)
$USAUDITOR_{ijt}$	?	-0.638	-0.661	-1.078*	-0.395	0.802	-0.570
		(-1.10)	(-1.14)	(-1.70)	(-0.65)	(0.24)	(-0.93)

ICW_{ijt}	?	1.377***	1.415***	1.499***	1.405***	4.122**	1.385***
		(3.29)	(3.38)	(3.27)	(3.28)	(2.39)	(3.06)
$INSPECT_{ijt}$	?	0.031	0.048	0.276	-0.021	-3.026*	0.008
		(0.08)	(0.12)	(0.60)	(-0.05)	(-1.84)	(0.02)
GDP_{jt}	?	-0.112	-0.033	-0.084	-0.113	-2.599	-0.015
		(-1.51)	(-0.36)	(-1.20)	(-1.47)	(-1.35)	(-0.14)
FDI_{jt}	?	0.067	0.079	0.062	0.076	-3.726**	0.117
		(0.79)	(0.91)	(0.76)	(0.90)	(-2.57)	(1.25)
$TURNOVER_{jt}$	?	0.004	0.002	0.006	0.004	0.298**	0.000
		(0.64)	(0.28)	(0.87)	(0.67)	(2.58)	(0.04)
$SMCAP_{jt}$	?	0.003	0.007	0.004	0.004	-0.202*	0.009
		(0.36)	(0.77)	(0.39)	(0.40)	(-1.80)	(1.00)
$BIG4PCT_{j}$	?	-0.402		5.635	1.185	96.606	-73.640
		(-0.07)		(0.60)	(0.19)	(1.09)	(-0.12)
$REGPOWER_{j}$	?	2.125		0.386	1.653	-12.961	8.117
		(1.32)		(0.17)	(0.96)	(-0.49)	(0.23)
$ROTATION_{j}$	?	2.752		3.108	3.163	6.544	22.486
		(1.20)		(0.64)	(1.24)	(0.28)	(0.14)
$AUCHAR_{j}$	?	2.113		-0.163	2.431	27.885	54.150
		(0.85)		(-0.08)	(0.88)	(0.39)	(0.21)
IMR_{ijt}	?				-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^2		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 model. In column (6), we restrict our sample to only firms with financial distress.

*, **, *** 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.

Table 6
Partitioning result
Panel A: Audit fee model (Dependent variable= LNAUDITFEE)

	Fair value		Misstatement risk		SEC comment letter		Country development	
Variable	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.)
$IFRS_{ijt}$	0.154***	-0.098*	0.206***	-0.042	0.149***	0.007	0.147***	-0.004
	(2.69)	(-1.80)	(4.55)	(-0.93)	(2.99)	(0.18)	(4.06)	(-0.08)
Control Variables	Included	Included	Included	Included	Included	Included	Included	Included
N	1,138	1,138	1,745	1,745	1,532	2,794	2,428	1,847
Adjusted R^2	85.87%	82.26%	87.10%	84.28%	85.07%	81.62%	87.25%	76.98%
Chi-square to test the difference for IFRS in two subsamples	9.04***		13.93***		5.08**		5.88**	

Panel B: Going concern model ((Dependent variable= OPINION)

	Fair value		Misstatement risk		SEC comment letter		Country development	
Variable	High Coef. (Z -stat.)	Low Coef. (Z -stat.)	High Coef. (Z -stat.)	Low Coef. (Z -stat.)	Yes Coef. (Z -stat.)	No Coef. (Z -stat.)	Developed Coef. (Z -stat.)	Emerging Coef. (Z -stat.)
$IFRS_{ijt}$	3.892***	0.315	3.639***	0.004	2.233**	1.110***	1.906***	-0.086
	(3.23)	(0.20)	(4.13)	(0.01)	(2.11)	(2.56)	(3.84)	(-0.09)
Control Variables	Included	Included	Included	Included	Included	Included	Included	Included
N	785	786	1,363	1,373	1,110	1,830	1,706	1,196
Pseudo R^2	56.39%	76.79%	59.52%	54.61%	71.20%	43.84%	51.51%	51.31%
Chi-square to test the difference for IFRS in two subsamples	4.03**		12.11***		1.13		4.68**	

*, **, *** Denote significance at the 10 percent, 5 percent, and 1 percent levels (two-tailed), respectively.

All variables are defined in Appendix A. In both panels, the first partitioning variable fair value measurement (FVM) is equal to (total fair value assets + total fair value liabilities) / (total assets + 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.

Table 7

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)

		Baseline	Country fixed effect	Removing first-time standard adopters	Heckman model	PSM model
Variable	Pred. Sign	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)	Coef. (T-stat.)
Column		(1)	(2)	(3)	(4)	(5)
Intercept	?	4.423***	4.916***	4.444***	4.548***	2.075
		(12.89)	(9.66)	(13.04)	(13.15)	(1.27)
$IFRS_{ijt}$	?	0.108***	0.105***	0.102***	0.087***	0.098***
		(9.16)	(8.90)	(8.02)	(6.43)	(5.58)
$LNMVE_{ijt}$	-	-0.049***	-0.050***	-0.048***	-0.053***	-0.053***
		(-19.18)	(-19.56)	(-17.99)	(-18.98)	(-10.84)
LEV_{ijt}	+	-0.055*	-0.054*	-0.077**	-0.056*	0.126**
		(-1.72)	(-1.67)	(-2.31)	(-1.73)	(2.04)
ROA_{ijt}	-	-0.058***	-0.061***	-0.057***	-0.059***	-0.046*
		(-4.07)	(-4.28)	(-3.72)	(-4.13)	(-1.89)
EXT_{ijt}	+	0.018	0.019	0.025	0.023	0.065
		(0.60)	(0.62)	(0.80)	(0.75)	(1.01)
NBS_{ijt}	+	0.006	0.004	0.007	0.008	-0.008
		(0.78)	(0.53)	(0.87)	(1.03)	(-0.55)
$LOSS_{ijt}$	+	0.042***	0.039***	0.040***	0.040***	0.010
		(3.63)	(3.34)	(3.36)	(3.49)	(0.44)
$RESTATE_{ijt}$	+	0.038	0.038	0.036	0.038	0.043
		(1.26)	(1.27)	(1.14)	(1.27)	(0.74)
$AUDCHG_{ijt}$	+	-0.004	-0.005	-0.005	-0.008	0.022
		(-0.22)	(-0.37)	(-0.32)	(-0.51)	(0.59)
$BUSYYREND_{ijt}$	+	0.051***	0.052***	0.055***	0.051***	0.067***
		(3.95)	(4.08)	(4.10)	(4.03)	(2.62)
$BIG4_{ijt}$	+	0.032**	0.034**	0.041***	0.041***	-0.075***
		(2.18)	(2.35)	(2.72)	(2.79)	(-2.61)
$USAUDITOR_{ijt}$	?	-0.140***	-0.141***	-0.139***	-0.111***	-0.133***
		(-7.28)	(-7.36)	(-7.04)	(-5.28)	(-2.55)
ICW_{ijt}	+	0.168***	0.167***	0.170***	0.170***	0.223***
		(7.50)	(7.47)	(7.40)	(7.61)	(4.47)
$INSPECT_{ijt}$	?	-0.050***	-0.048***	-0.047***	-0.054***	-0.023
		(-3.59)	(-3.42)	(-3.13)	(-3.81)	(-0.92)

GDP_{jt}	?	0.003	0.008*	0.001	-0.001	0.006
		(1.06)	(1.91)	(0.49)	(-0.24)	(0.58)
FDI_{jt}	?	-0.002	-0.001	-0.002	-0.002	0.000
		(-1.32)	(-0.71)	(-1.16)	(-1.07)	(0.03)
$TURNOVER_{jt}$	?	-0.000*	-0.001**	-0.000	-0.000	-0.001**
		(-1.65)	(-2.09)	(-1.27)	(-1.40)	(-2.50)
$SMCAP_{jt}$	?	-0.000	-0.000	-0.000	-0.000	0.000
		(-0.76)	(-0.12)	(-0.36)	(-1.04)	(0.12)
$BIG4PCT_{j}$	?	-0.010		-0.210	-0.043	2.907
		(-0.48)		(-0.93)	(-0.19)	(1.16)
$REGPOWER_{j}$	?	-0.056		-0.026	0.019	1.043***
		(-1.08)		(-0.49)	(0.37)	(3.31)
$ROTATION_{j}$	?	-0.019		-0.036	0.007	-0.361
		(-0.44)		(-0.84)	(0.17)	(-1.03)
$AUCHAR_{j}$	?	0.107***		0.149***	0.130***	-0.629**
		(2.61)		(3.61)	(3.17)	(-2.11)
IMR_{ijt}					-0.203***	
					(-3.46)	
Year Fixed Effect		Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect		Yes	Yes	Yes	Yes	Yes
Country Fixed Effect			Yes			
N		5,271	5,271	4,845	5,271	1,328
Adjusted R^2		36.27%	37.03%	36.19%	36.47%	41.50%

Panel B: The partitioning result

	Fair value		Misstatement risk		SEC comment letter		Country development	
Variable	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.)
$IFRS_{ijt}$	0.099*** (4.26)	0.115*** (5.07)	0.198*** (9.95)	0.097*** (4.62)	0.160*** (7.91)	0.089*** (6.06)	0.131*** (9.69)	0.092*** (3.74)
Control Variables	Included	Included	Included	Included	Included	Included	Included	Included
N	1,324	1,324	1,806	1,806	1,760	3,511	3,050	2,156
Adjusted R^2	44.73%	42.93%	51.75%	38.26%	42.89%	33.04%	43.46%	17.95%
Chi-square to test the difference for IFRS in two subsamples	0.24		12.45***		7.58***		1.49	

*, **, *** Denote significance at the 10 percent, 5 percent, and 1 percent levels (two-tailed), respectively. All variables are defined in Appendix A.

In Panel A, column (1) reports the baseline result based on model (4). 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.

In Panel B, the first partitioning variable fair value measurement (FVM) is equal to (total fair value assets + total fair value liabilities) / (total assets + 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 first partitioning variable is based on whether the firms are from the developed countries or emerging countries.