

PCAOB INTERNATIONAL INSPECTION AND AUDIT QUALITY

A Dissertation
Submitted to
the Temple University Graduate Board

In Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

By
Hakjoon Song
August 2012

Dissertation Committee Members:

Dr. Sudipta Basu, Department of Accounting

Dr. Elizabeth Gordon, Department of Accounting

Dr. Jagan Krishnan (Co-Chair), Department of Accounting

Dr. Jayanthi Krishnan (Co-Chair), Department of Accounting

Dr. William E. Aaronson (External reader), Department of Risk, Insurance, and Healthcare Management

©

Copyright

By

Hakjoon Song

2012

All Rights Reserved

ABSTRACT

Title: PCAOB International Inspection and Audit Quality

Candidate's Name: Hakjoon Song

Degree: Doctor of Philosophy

Temple University, 2012

Doctoral Advisory Committee Co-Chairs: Dr. Jagan Krishnan and Dr. Jayanthi Krishnan

The Public Company Accounting Oversight Board (PCAOB) has recently begun inspecting foreign audit firms. An important policy concern is that several foreign jurisdictions have refused to allow the PCAOB to conduct inspections of their audit firms. In this dissertation, I investigate (1) whether audit quality is higher for client firms (henceforth “complying” clients) whose foreign auditors have been inspected by the PCAOB, compared to client firms (henceforth “blacklisted” clients) of foreign auditors whose governments have refused inspections by the PCAOB, and (2) whether audit quality improves in the post inspection period for clients of inspected foreign auditors. I use abnormal accruals, total accruals, value relevance, and the likelihood of receiving a going concern opinion as proxies for audit quality. I conduct empirical tests on two samples, a cross-sectional sample consisting of blacklisted and complying clients, and a longitudinal sample of clients of inspected foreign auditors before and after PCAOB inspections. For the going-concern models, the samples are confined to financially distressed firms, which are either clients with negative net income or negative operating cash flows or clients in the top quartile in the bankruptcy probability distribution. The cross-sectional models indicate that blacklisted clients have significantly higher abnormal and total accruals, lower value relevance and a lower likelihood of receiving a going concern opinion, than complying clients, suggesting that clients of PCAOB-inspected auditors seem to have higher audit quality. Moreover, longitudinal analyses of clients of inspected foreign auditors show that abnormal

accruals and total accruals are lower after PCAOB inspections than before inspections, and value relevance is greater after inspections than before. The likelihood of receiving a going concern opinion is higher after PCAOB inspections than before inspections for one of the two distressed-firm samples. Overall, the results are generally consistent with the PCAOB's claim that the clients of foreign audit firms that have undergone PCAOB inspections have benefited from the inspections. Further analyses indicate that the benefits are concentrated in jurisdictions where the PCAOB has conducted joint inspections with local authorities, in countries where legal traditions follow common law, and for clients of Big 4 auditors.

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to my Co-Chairs, Dr. Jagan Krishnan and Dr. Jayanthi Krishnan, for their time, support, encouragement, and guidance during my Ph.D. studies. They opened the door of auditing research to me and I have learnt valuable research skills for the last five years through attending research seminar and working with them on research projects. They also have trusted, supported, and encouraged me to finish my doctoral degree for the last five years. Without their strong support and guidance on my research, my dissertation could not have been completed.

I also would like to appreciate my committee members, Dr. Sudipta Basu, Dr. Elizabeth Gordon, and Dr. William E. Aaronson, for their insightful and valuable comments that improved this dissertation tremendously.

In addition, I would like to appreciate other faculty members, staff, Ph.D. students, and Ph. D. alumni for their continuing guidance, support, and help during my Ph.D. studies.

Finally, I am deeply indebted to my family. My wife, Jongmi, has patiently supported me during my Ph.D. studies. Without her unconditional love, my achievement today could not have been possible. My parents have continually waited for my visit to Korea for the last five years. This dissertation is dedicated to Jongmi and my parents.

TABLE OF CONTENTS

	PAGE
ABSTRACT	<i>iii</i>
ACKNOWLEDGEMENTS	<i>v</i>
LIST OF TABLES	<i>ix</i>
CHAPTER 1 INTRODUCTION	1
CHAPTER 2 BACKGROUND	9
2.1 PCAOB international inspection.....	9
2.2 PCAOB blacklist	14
2.3 PCAOB inspection reports	16
CHAPTER 3 LITERATURE REVIEW	21
3.1 SOX and foreign firms.....	21
3.2 The PCAOB inspection.....	25
3.3 Earnings management in international context	30
CHAPTER 4 HYPOTHESES DEVELOPMENT	34
4.1 PCAOB international inspection and earnings quality.....	34
4.2 PCAOB international inspection and the auditor's going concern opinion.....	38
CHAPTER 5 RESEARCH DESIGN	46
5.1 Empirical models for abnormal accruals.....	46
5.1.1 Cross-sectional model	46
5.1.2 Longitudinal model.....	51
5.2 Value relevance model	52
5.2.1 Cross-sectional analysis.....	52
5.2.2 Longitudinal analysis	53
5.3 Going concern opinion model.....	54
5.3.1 Cross-sectional model	54
5.3.2 Longitudinal model.....	56
CHAPTER 6 SAMPLE SELECTION	57
6.1 Sample Selection: Cross-sectional sample.....	57

6.2 Sample Selection: Longitudinal sample	59
CHAPTER 7 INTERNATIONAL INSPECTIONS AND EARNINGS QUALITY	62
7.1 Cross-sectional abnormal accruals model.....	62
7.1.1 Descriptive statistics.....	62
7.1.2 Multivariate results.....	63
7.1.3 Additional analyses.....	65
7.2 Time series abnormal accruals model	67
7.2.1 Descriptive statistics.....	67
7.2.2 Multivariate results.....	69
7.2.3 Additional analyses.....	70
7.3 Conclusion.....	72
CHAPTER 8 INTERNATIONAL INSPECTIONS AND VALUE RELEVANCE.....	73
8.1 Cross-sectional value relevance analysis	73
8.1.1 Descriptive statistics.....	73
8.1.2 Multivariate results.....	73
8.1.3 Additional analyses.....	74
8.2 Time series value relevance analysis	75
8.2.1 Descriptive statistics.....	75
8.2.2 Multivariate results.....	76
8.2.3 Additional analyses.....	76
8.3 Conclusion.....	77
CHAPTER 9 INTERNATIONAL INSPECTIONS AND AUDITOR OPINION	79
9.1 Cross-sectional going concern opinion model.....	79
9.1.1 Descriptive statistics.....	79
9.1.2 Multivariate results.....	81
9.1.3 Additional analyses.....	82
9.2 Time series going concern opinion model	83
9.2.1 Descriptive statistics.....	83
9.2.2 Multivariate results.....	84
9.2.3 Additional analyses.....	85
9.3 Conclusion.....	86
CHAPTER 10 CONCLUSION.....	89
REFERENCES.....	153

APPENDIX A VARIABLE DEFINITIONS	166
APPENDIX B PCAOB REPORT.....	168

LIST OF TABLES

TABLE	PAGE
1. PCAOB Inspections in Foreign Jurisdictions	92
2. Sample Selection: Cross-sectional Sample	95
3. Sample Selection: Longitudinal Sample	97
4. Country Level Institutional Characteristics	98
5. Sample Composition: Cross-sectional Abnormal Accruals Model	100
6. Descriptive Statistics: Cross-sectional Abnormal Accruals Model	102
7. Cross-sectional Abnormal Accruals and Total Accruals Model	103
8. Additional Analyses: Cross-sectional Abnormal Accruals and Total Accruals Model	105
9. Sample Composition: Longitudinal Abnormal Accruals Model	110
10. Descriptive Statistics: Longitudinal Abnormal Accruals Model	112
11. Longitudinal Abnormal Accruals and Total Accruals Model	113
12. Additional Analyses: Longitudinal Abnormal Accruals and Total Accruals Model	116
13. Sample Composition: Cross-sectional Value Relevance Model	121
14. Descriptive Statistics: Cross-sectional Value Relevance Model	123
15. Cross-sectional Value Relevance Model	124
16. Additional Analyses: Cross-sectional Value Relevance Model	125
17. Sample Composition: Longitudinal Value Relevance Model	128

18. Descriptive Statistics: Longitudinal Value Relevance Model	130
19. Longitudinal Value Relevance Model	131
20. Additional Analyses: Longitudinal Value Relevance Model	133
21. Sample Composition: Cross-sectional Going Concern Opinion Model	136
22. Descriptive Statistics: Cross-sectional Going Concern Opinion Model	138
23. Cross-sectional Going Concern Opinion Model	140
24. Additional Analyses: Cross-sectional Going Concern Opinion Model	141
25. Sample Composition: Longitudinal Going Concern Opinion Model	144
26. Descriptive Statistics: Longitudinal Going Concern Opinion Model	146
27. Longitudinal Going Concern Opinion Model	148
28. Additional Analyses: Longitudinal Going Concern Opinion Model	150

CHAPTER 1

INTRODUCTION

Under Section 106(a) of the Sarbanes-Oxley Act (“SOX”) of 2002, any foreign public accounting firm that provides an audit report¹ with respect to any U.S. issuer² is required to register with the Public Company Accounting Oversight Board (PCAOB), and is subject to the PCAOB’s rules to the same extent as U.S. public accounting firms. Further, Section 104 of SOX and PCAOB rule 4003 require the PCAOB to (1) conduct annual inspections of registered public accounting firms that regularly provide audit reports for more than 100 issuers, and (2) conduct inspections at least once every three years of registered public accounting firms that regularly provide audit reports for 100 or fewer issuers (henceforth, “triennially inspected firms”). The scope of the PCAOB inspections includes the evaluation of the quality of audit work performed on audit engagements, and the review of the public accounting firm’s quality control system (Gramling, Krishnan, and Zhang 2011; Abbott, Gunny, and Zhang 2012). The PCAOB began a regular cycle of inspections of U.S. accounting firms in 2004 and has inspected registered accounting firms in non-U.S jurisdictions since 2005 (PCAOB 2009e).

However, authorities in several foreign jurisdictions, including some European countries and China, have refused to allow the PCAOB to inspect the U.S. related audit work and practices

¹ A foreign public accounting firm that “does not issue auditor reports but nonetheless plays a substantial role in the provision of such audit reports” is treated as a public accounting firm for purposes of registration and inspection by the PCAOB (SOX Section 106(a), PCAOB Rule 2100 and 4000).

² Under Section 2(a)(7) of SOX, these include “any issuer with securities registered under Section 12 of the Securities Exchange Act of 1934 or required to file reports under Section 15(d) of that act, as well as any issuer that files or has filed a registration statement that has not yet become effective under the Securities Act of 1933 and that it has not withdrawn”.

of PCAOB-registered firms (PCAOB 2010a).³ Foreign auditors in these jurisdictions do not provide requested information for PCAOB inspections due to legal conflicts with home country laws and sovereignty concerns (PCAOB 2009b). The PCAOB claims that investors in U.S. markets who rely on the audit reports of the non-inspected foreign accounting firms “are deprived of the potential benefits” of inspections (PCAOB 2010a). To inform investors of the status of foreign inspections, the PCAOB first published, on May 18, 2010, a list of client firms that are located in jurisdictions that do not allow inspections (PCAOB 2010a).

In this study, I investigate the following questions. First, is audit quality higher for client firms whose foreign auditors have been inspected (henceforth “complying” clients) than clients (henceforth “blacklisted” clients) of foreign auditors that have not been inspected by the PCAOB? Second, is audit quality higher after PCAOB inspections for clients of inspected foreign auditors? Following prior research, I use abnormal accruals, total accruals, value relevance, and the likelihood of receiving a going concern opinion as proxies for audit quality.

My investigation is important because of the intense regulatory focus on the foreign inspections.⁴ The PCAOB and SEC are working hard to persuade foreign jurisdictions to acquiesce to inspections. Daniel Goelzer (2010a), then Acting Chairman of PCAOB, noted that international inspection was one of the PCAOB’s challenges and highest priorities. Joseph Carcello (2010), member of the Standing Advisory Group also listed inspections of foreign

³ This includes audit firms in Hong Kong to the extent their audit clients have operations in China.

⁴ The PCAOB lists fair value, internal control, international oversight, and small business as featured issues on its website. Relative to the other three areas, there has been little academic research on international oversight.

registered firms as one of the PCAOB's top five priorities.⁵ He noted that "Foreign firms audited by foreign audit firms represent a nontrivial portion of total U.S. stock market capitalization. To the extent to which these foreign audit firms have not been inspected, U.S. investors *are potentially exposed to sub-standard audit quality*. This issue is exacerbated because redress in the U.S. court system by investors in foreign firms in cases of financial reporting and auditing failures is likely to be more difficult (emphasis added)." ⁶

My empirical tests are based on two samples, a cross-sectional sample consisting of blacklisted and complying clients, and a longitudinal sample consisting of pre- and post-inspection firm-year observations for clients of inspected foreign auditors. For the cross-sectional analysis, my test sample consists of 402 of the 437 firms from 21 countries (Table 1, Panel A) that were identified by the PCAOB in 2010. The control sample consists of foreign firms and U.S. firms, available on the Compustat database, with their principal places of business in the foreign countries (Table 1, Panel A), whose auditors are located in the jurisdictions where the PCAOB has conducted inspections as of December 31, 2009. The sample covers the years 2005 (the first year the PCAOB conducted foreign inspections) through 2010.

⁵ At the PCAOB Investor Advisory Group's inaugural meeting held on May 4 2010, Carcello (2010) lists the following items as the PCAOB's top five priorities: (1) prioritizing inspections of foreign registered firms; (2) requiring registered firms to have independent members on firm governing boards and/or implement more rigorous PCAOB examination of the audit firm's culture; (3) creating a national fraud center under the auspices of the PCAOB; (4) developing, measuring, and reporting on a listing of audit quality indicators; and (5) requiring the audit engagement partner to sign the audit report.

⁶ Luis A. Aguilar (SEC 2012a), SEC Commissioner, noted that "Currently, over 900 foreign accounting firms from 85 countries have registered with the PCAOB. In fact, the budget we consider today provides funding for the inspection of 90 firms based outside the U.S. U.S. investors may not be aware that the audit opinions on which they may be based on the work of firms that, while registered with the PCAOB, are outside the PCAOB's inspection regime. I know that PCAOB is proactively working to resolve the inspection issue, and I ask the PCAOB to do so as soon as possible." SEC (SEC 2012b) also announced "an enforcement action against Deloitte & Touche in Shanghai for its refusal to provide audit work papers related to Longtop Financial Technologies Limited, a China-based company, under investigation for potential accounting fraud against U.S. investors."

For the longitudinal sample, I collect all 243 PCAOB inspection reports on the PCAOB webpage from 2006 to 2011 for foreign auditors that have been inspected by the PCAOB for inspection years 2005 to 2011. Then I isolate 174 first-time inspection reports for foreign auditors and identify the clients of these auditors. The sample period covers the years 2000 (the first year for which Audit Analytics data is available) through 2010.

Using the cross-sectional and longitudinal samples, I estimate models to examine the audit quality effects of the PCAOB inspections, using abnormal accruals, total accruals, value relevance, and the likelihood of receiving a going concern opinion as proxies for audit quality. I find that after controlling for other covariates relating to abnormal accruals and total accruals, (1) abnormal accruals and total accruals are higher for blacklisted clients than for complying clients after the PCAOB began inspecting foreign auditors in 2005 and (2) abnormal accruals and total accruals are lower after initial inspection period for complying clients.

The explanatory power of the value relevance models is significantly higher (1) for complying clients than for blacklisted clients after the PCAOB began inspecting foreign auditors in 2005 and (2) for the post-inspection sample than for the pre-inspection sample.

Unlike the accruals and value relevance models, I estimate the going concern models for samples of financially distressed firms only, because the going concern opinion is most relevant for such firms. I use two proxies to identify financially distressed firms: (1) firm-years with negative net income or negative cash flow from operations and (2) firm-years in the top quartile of the distribution of Zmijewski's (1984) bankruptcy probability. For both samples, the cross-sectional results are similar: the likelihood of receiving a going concern opinion is lower for blacklisted financially distressed clients than for complying financially distressed clients after the

PCAOB began conducting inspections on foreign auditors in 2005, indicating potentially lower audit quality for the clients of the non-inspected foreign auditors. The longitudinal analysis indicates that the likelihood of receiving a going concern opinion is higher after PCAOB inspections for the extreme distress quartile sample, but not for the negative net income/operating cash flow sample.

The findings above are generally consistent with the PCAOB's claim that inspections are beneficial to investors. I also examine whether PCAOB joint inspections improve audit quality. The PCAOB has conducted joint inspections with local audit oversight bodies in some jurisdictions (Australia, Canada, Korea, and Singapore). Joint inspections are expected to improve audit quality more than inspections conducted on a stand-alone basis because the PCAOB inspections can be enhanced by the country-specific knowledge of the local inspectors. However, if joint inspections are the result of negotiated deals with the foreign regulators to get around sovereignty concerns, its impact on the audit quality would be limited. I find a significant effect of PCAOB inspections in the jurisdictions where it conducted joint inspections, on abnormal accruals (-), total accruals (-), and value relevance (+) in the cross-sectional and longitudinal samples, and on the likelihood of a financially distressed firm receiving a going concern opinion (+) in the cross-sectional sample.

Next, I investigate whether the degree of investor protection⁷ in the foreign jurisdiction affects the relationship between PCAOB inspection and audit quality. Prior literature has

⁷ The security laws that protect minority shareholders against managers and controlling shareholders, the effectiveness of the judicial system to enforce those laws, and the expected legal penalty for manager failure and auditor failure are factors that determine the degree of investor protection in a specific country. The role of the auditor is to detect and prevent resource expropriations by managers and controlling shareholders (Newman,

documented that the investor protection environment in their home countries significantly affects the earnings quality and audit quality of foreign firms (Ball, Kothari, and Robin 2000; Leuz, Nanda, and Wysocki 2003; Bushman and Piotroski 2006; Kwon, Lim, and Tan 2007; Francis and Wang 2008). If high investor protection leads to better audit quality independent of the inspections, the impact of the PCAOB inspections will likely be lower as the degree of investor protection increases. However, audit firms in high investor protection countries have greater litigation risk, possibly making auditors in these countries more responsive to PCAOB inspections. By contrast, auditors in low investor protection countries may not have the incentives to improve audit quality in response to PCAOB inspections. Thus it is not clear *a priori* how the degree of investor protection will affect the relation between PCAOB inspection and audit quality. Although not consistent across all samples and audit quality measures, I find that a significant positive PCAOB inspection effect is limited to common law countries.⁸ For example, the longitudinal analysis indicates that the post-inspection firm-years have lower abnormal accruals, and total accruals, and greater value relevance than the pre-inspection firm-years in common law countries. The cross-sectional analysis indicates that blacklisted clients have higher abnormal accruals, lower value relevance and a lower likelihood of receiving a going concern opinion than complying clients in common law countries. These results suggest that foreign auditors located in common law countries are more likely to cooperate with PCAOB

Patterson, and Smith 2005). The litigation risk of auditors is the expected legal penalty for audit failure and includes both class-action lawsuits and enforcement sanctions from security regulators.

⁸ Argentina, Australia, Belize, Bermuda, Bolivia, Canada, Cayman Islands, India, Israel, Papua New Guinea, Singapore, and South Africa.

inspections due to high litigation costs in their home countries, or possibly because of political and economic ties (e.g. G4, Commonwealth, etc.) with the U.S government.

Lastly, I examine the effect of the PCAOB inspections for Big 4 clients (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers) and non-Big 4 clients. The effect of the PCAOB inspections on Big 4 and non-Big 4 clients would depend on the incentives of both Big 4 and non-Big 4 auditors. Big 4 auditors (and therefore Big 4-affiliated foreign auditors) are generally expected to have greater incentives to maintain high audit quality due to reputational concerns and litigation exposure, and are more likely to respond to PCAOB inspections. If so, the PCAOB inspections would have a greater effect on Big 4 clients compared to non-Big 4 clients. In contrast, non-Big 4 auditors have lower audit quality than Big 4 auditors and are more likely to respond to PCAOB inspections to mitigate the expected sanctions from PCAOB inspections. In this case, the PCAOB inspections would have a greater effect on non-Big 4 clients than on Big 4 clients. However, my findings of a significant PCAOB inspection effect on abnormal accruals, total accruals, value relevance (in the longitudinal but not cross-sectional analysis), the likelihood of receiving a going concern (in the cross-sectional but not longitudinal analysis) are generally limited only to Big 4 clients. It suggests that Big 4 affiliated foreign auditors are more likely to respond to the PCAOB inspections possibly due to high reputational concerns and litigation exposure.

My study makes several contributions to the literature. First, it extends the growing literature on PCAOB inspections by examining the effect of PCAOB inspections of foreign

public accounting firms. Second, I examine a potential benefit of SOX⁹ (i.e., the PCAOB inspections) on foreign clients (e.g. in contrast to prior research that focuses on the costs of SOX). Third, my study examines the relation between independent regulation¹⁰ (as opposed to self-regulation) and audit quality for foreign firms, whereas prior research has mainly studied U.S. firms.

⁹ Relatively few studies have examined the benefits of SOX (Nezhina and Brudney 2012; Basu, Krishnan, Lee, and Zhang 2012).

¹⁰ “The inspectors are not current employees of audit firms, although the PCAOB stresses that they average 12 years of public practice experience. Moreover, the inspectors are selected by the PCAOB, rather than by the firms themselves, to preserve their independence from the public accounting profession” (Lennox and Pittman 2011).

CHAPTER 2 BACKGROUND

2.1 PCAOB international inspection

Sections 102(a) and 106 of the Sarbanes-Oxley Act of 2002 and PCAOB Rule 2100 require all U.S. and non-U.S. auditors that conduct audits for any U.S. issuer to register with the PCAOB.¹¹ For non-U.S. public accounting firms, this registration requirement took effect on July 19, 2004 (PCAOB 2004a; SEC 2004). In addition, the PCAOB must regularly inspect every registered accounting firm to assess its compliance with U.S. laws and professional standards in connection with its audits (PCAOB Rule 4000). These inspections are to be conducted annually for public accounting firms that regularly provide audit reports for more than 100 issuers, and at least once every three years for registered public accounting firms that regularly provide audit reports for 100 or fewer issuers (Section 104 of SOX and PCAOB Rule 4003). The PCAOB began its inspections of registered accounting firms in non-U.S jurisdictions in 2005 (PCAOB 2009e). The PCAOB's basic approach to international inspection is to develop "efficient and effective cooperative arrangements"¹² with its foreign counterparts to avoid duplicate regulatory efforts (PCAOB 2009e). PCAOB inspections have two types: (1) those conducted jointly with an independent monitoring agency in the foreign country, and (2) those conducted by the PCAOB

¹¹ Under Section 106 of SOX, Congress directed the PCAOB to regulate foreign accounting firms, but it also permitted the PCAOB, subject to approval by SEC, to exempt foreign audit firms from registration. However, the PCAOB decided not to exempt foreign audit firms from registration. It argued that U.S. investors require high quality auditing of the financial statements of firms listed on U.S. exchanges, and it would therefore not be in the best interest of U.S. investors to exempt foreign audit firms from registration requirements (PCAOB 2007a).

¹² Cooperative arrangements are not binding legal obligations for the PCAOB and foreign regulators. They include a framework for conducting joint inspections and provisions governing the exchange of confidential information between the PCAOB and foreign regulators (PCAOB 2012b).

on a stand-alone basis. The PCAOB has made cooperative arrangements with eleven jurisdictions – Australia, Dubai, Germany, Israel, Japan, Norway, Singapore, Switzerland, Taiwan, the Netherlands, and the United Kingdom - to conduct joint inspections.¹³ When there is no local audit oversight authority in foreign jurisdictions, the PCAOB communicates with other foreign regulatory authorities such as securities regulators or other government agencies (PCAOB 2009e).

In conducting the joint inspections, the PCAOB determines the extent to which it relies on the independent foreign audit oversight entities on a *sliding scale approach*¹⁴: “the more independent and rigorous the home country oversight system, the greater the PCAOB’s reliance on that system” (PCAOB Rule 4012; PCAOB 2007a).¹⁵ Further, the PCAOB’s evaluation of the independence and rigor of the foreign audit oversight system is based on five principles: (1) adequacy and integrity of the oversight system; (2) the independence of the oversight system’s operation from the auditing profession; (3) the independence of the oversight system’s source of funding; (4) the transparency of the oversight system; and (5) the oversight system’s historical

¹³ Cooperative agreements have been made with Australia (July 16, 2007), Singapore (April 21, 2008), United Kingdom (January 10, 2011), Switzerland (April 16, 2011), Norway (September 14, 2011), Japan (October 12, 2011), Israel (October 31, 2011), Taiwan (November 18, 2011), the Netherlands (December 5, 2011), Dubai (December 20, 2011), and Germany (April 13, 2012).

¹⁴ With regard to the PCAOB’s sliding scale approach, some commenters (including foreign audit oversight bodies and foreign CPA associations) argue that the PCAOB should adopt a “*mutual recognition model*” whereby the PCAOB would respect foreign regulators completely in the areas of inspections, investigations, and sanctions (PCAOB 2004b). The PCAOB decided not to adopt the mutual recognition approach because a complete reliance on the foreign oversight body, regardless of circumstances, would not be in the best interests of investors in U.S. issuers (PCAOB 2007a).

¹⁵ A foreign audit firm would first provide the PCAOB with a statement asking the PCAOB to rely on a non-U.S. inspection (PCAOB Rule 4011).

performance (PCAOB 2007a).¹⁶ Based on these principles, when the PCAOB relies heavily on the foreign audit oversight system, its involvement in foreign inspections would be limited.¹⁷

Table 1, panel A shows the list of jurisdictions in which the PCAOB has conducted inspections (Column 1) and those in which it has not done so (Column 2). The PCAOB had inspected 140 foreign audit firms located in 33 jurisdictions as of June 2009 (PCAOB 2009e). There were 49 foreign audit firms in 24 jurisdictions where the PCAOB had not conducted any inspections as of June 2009, but were required to inspect for the first time by the end of 2009 (PCAOB 2009e). For most of these foreign firms, the inspections did not take place because of their jurisdiction's resistance to U.S. inspections, but a small number of these foreign firms could not be inspected due to delays in the PCAOB's inspection schedule.

Of the 140 inspections that the PCAOB did conduct, 61 inspections in six jurisdictions (Australia, Canada, Korea, Norway, Singapore, the United Kingdom¹⁸), were conducted jointly with foreign auditor oversight authorities, while inspections in other jurisdictions have been

¹⁶ Some commenters (including some foreign audit oversight bodies and foreign CPA associations) urged the PCAOB to describe precise weights for each listed criteria (PCAOB 2004b). However, the PCAOB stated that "the criteria are meant to be illustrative, not exhaustive and this is intended to permit the PCAOB to avoid a "check-the-box" approach in assessing other systems" (PCAOB 2007a).

¹⁷ In the proposed policy statement regarding guidance for the implementation of PCAOB Rule 4012 (PCAOB Release No. 2007-011), the PCAOB explains that "full reliance" means that the PCAOB will rely on the foreign audit oversight entity to plan the inspection, carry out inspection field work, and make findings based on its fieldwork. If "full reliance" is appropriate, the PCAOB's involvement in foreign inspections will be limited (PCAOB 2007a). The proposed policy statement has not been finalized and has been the subject of considerable debate.

¹⁸ The PCAOB was able to conduct joint inspections in Norway and the United Kingdom in some years before 2009, but joint inspections were discontinued when the blacklist was published for 2009-2010, because the EU expressed the concern that the PCAOB did not share audit information with other jurisdictions at the time (PCAOB 2009g). In the joint inspection analysis, Australia, Canada, Korea, Singapore are designated as jurisdictions where the PCAOB has conducted joint inspections with foreign audit oversight bodies. Because there is no indication otherwise, I assume that all inspections within these jurisdictions were conducted jointly.

conducted solely by the PCAOB (PCAOB 2009e). Table 1, Panel B shows the jurisdictions where the inspections are conducted jointly with local authorities and those conducted by the PCAOB on a stand-alone basis.

The PCAOB was concerned that the required inspections would not be completed in time by the end of 2009 due to the resistance from some foreign jurisdictions. After public comments, the PCAOB adopted an amendment (PCAOB Rule 4003(g)) to the inspection frequency requirements (PCAOB Rule 4003) that gives the PCAOB the ability to postpone, up to three years, the first inspection of any foreign audit firms that the PCAOB was otherwise required to conduct before the end of 2009, and that were located in jurisdictions where the PCAOB had not conducted any inspections before 2009 (PCAOB 2009e). The delays are meant to allow time for the PCAOB to negotiate the principles of cooperative arrangement with the foreign audit oversight bodies, to gain detailed understanding of the other jurisdiction's auditor oversight system in order to determine the degree of reliance it can place on inspection work performed under that system, and to synchronize the joint inspection scheduling with other jurisdictions (PCAOB 2009e). Under PCAOB Rule 4003(g), the PCAOB would set inspection targets, using thresholds based on U.S. market capitalization of client firms of foreign audit firms, and the number of foreign client firms, and review the progress toward target thresholds annually (PCAOB 2009e).¹⁹

¹⁹ The PCAOB expected at least 4 (15, 29) of the 49 inspections to occur in 2009 (2010, 2011). The combined issuer audit clients' U.S. market capitalization of the inspected firms was expected to constitute at least 35 (90, 99) percent of the aggregate U.S. market capitalization of the audit clients of all 49 firms (PCAOB 2009g). The PCAOB disclosed that it had made no progress between January 1, 2010 and June 30, 2011 toward meeting the targets for inspection (PCAOB 2010b; PCAOB 2011b). Between July 1 and December 31, 2011, the PCAOB completed the inspection of one firm toward meeting the targets for inspection (PCAOB 2011c).

In order to provide transparency with regard to the PCAOB's international inspection program, the PCAOB has posted three lists²⁰ on its web site since April 2009: (1) a list of jurisdictions in which there are one or more registered foreign audit firms that the PCAOB has already inspected (PCAOB 2009c; PCAOB 2010c); (2) a list of jurisdictions that the PCAOB plans to inspect in the current calendar year (PCAOB 2009a; PCAOB 2010b); (3) a list of foreign registered audit firms that have not yet had their first PCAOB inspection (Table 1, Panel C), even though more than four years have passed since the end of the calendar year in which they first issued an audit report while registered with the PCAOB (PCAOB 2009d; PCAOB 2010d).²¹ The reasons that inspections have not been conducted during the four years since the foreign audit firm issued an audit report while registered with the PCAOB vary. Some firms are included on the list because their inspections were postponed pursuant to PCAOB Rule 4003(f) or Rule 4003(g).²² Some other firms, foreign auditors that have audited blacklisted clients, are included on this list because access to audit information necessary to conduct inspections has been denied due to legal conflicts with their local laws or sovereignty concerns (PCAOB 2010d).

²⁰ The first list was published on April 7, 2009. The second and third lists were published August 12, 2009. Since the end of 2009, the three lists are published biannually or every year. These lists are available at <http://pcaobus.org/International/Inspections/Pages/default.aspx>.

²¹ Some commenters (including foreign CPA associations and audit firms) expressed concerns about the PCAOB's proposal to list these firms. Concerns include the possibility that the list would unfairly raise questions about the foreign audit firms' quality of work even though they have no deficiencies. Other commenters suggested that the list could cause a loss of investor confidence in the listed foreign audit firms' clients or in other audit firms in jurisdictions on the list. In response to these concerns, the PCAOB includes in the prefatory language to the list a statement that "Inclusion on the list should not be construed to support any positive or negative inferences about the quality of the firm's audit work, its systems, policies, procedures or practices" (PCAOB 2009e).

²² With respect to any foreign registered audit firm that had a 2008 deadline for the first PCAOB inspection, such deadline would be extended to 2009 (PCAOB Rule 4003(f)). With respect to any foreign registered audit firms that have not been inspected prior to 2009 and that had a 2009 deadline for the first PCAOB inspection, such deadline is extended to 2012, provided, the PCAOB will conduct first inspections from 2009 to 2012, scheduled according to progress criteria such as the number of audit firms and market capitalization of client firms (PCAOB 4003(g)).

Twice a year, the PCAOB discloses its progress toward the target thresholds for inspections (in terms of number of audit firms and the aggregate market capitalization of clients firms of foreign auditors), based on PCAOB Rule 4003(g).

2.2 PCAOB blacklist

As discussed previously, the PCAOB is currently prevented from inspecting the U.S. related audit work and practices of PCAOB-registered firms in some jurisdictions (PCAOB 2010a), due to legal conflicts with home country laws and sovereignty concerns (PCAOB 2009b). For example, the French penal code includes a “statute that prohibits any party from obtaining or communicating documents or information for the purpose of constituting evidence in foreign judicial procedures” (Roberts, Russello, and Fang 2009). Similarly, China’s “State Secrecy Laws” require a party with information regarding Chinese firms, including firms incorporated outside of China but with their principal places of business in China, to reject foreign information requests or face possible criminal sanctions (Roberts et al. 2009).

Foreign regulators in some jurisdictions also expressed concerns about the potential conflict of PCAOB inspections with their local laws. For example, the Netherlands Financial Market Authority comments that SOX and Dutch legislation are not compatible because Dutch national legislation strictly regulates foreign regulators’ ability to share or transfer confidential information (PCAOB 2009f).

On May 18, 2010, the PCAOB published a list of more than 400 client firms, which had filed financial statements with the SEC in 2009 or 2010 (through mid-April). These financial statements were audited by PCAOB-registered foreign auditors that are located in jurisdictions

where the PCAOB currently cannot conduct inspections. These audit firms are located in certain European countries, China, and Hong Kong (PCAOB 2010a). The blacklisted clients of auditors in Hong Kong were clients with operations in China (PCAOB 2010a) because China disallowed PCAOB inspections of these audit operations. Note that the blacklist was published unexpectedly and includes *audit firm clients* unlike the three regular lists discussed earlier which contained names of audit firms.^{23 24} Also, the list includes firms in some countries - Greece, Ireland, Norway, and United Kingdom – that had once allowed PCAOB inspection but had withdrawn the permission before the blacklist was published (PCAOB 2010a).^{25 26}

The PCAOB invited public comments on how refusal to cooperate with PCAOB inspections due to legal conflicts or sovereignty concerns should be treated, and whether sanctions should be imposed for a violation of registered auditors' cooperation obligations defined in PCAOB Rule 4006 to cooperate with PCAOB inspections (PCAOB 2009e). Under a new rule promulgated on October 7, 2010, following public comments, foreign audit firms

²³ At the inaugural meeting of the PCAOB's investor advisory group, member Joe Carcello (2010) suggested that the PCAOB should disclose not only the foreign audit firms that have not been inspected, but also foreign client firms whose primary auditor has not been inspected.

²⁴ Carcello, Carver, and Neal (2011) find a significant market reaction in August 2009 when the foreign auditor list was released. However, they did not find a significant market reaction in May 2010 when blacklisted client list was released.

²⁵ The PCAOB's inability to share confidential inspection information with foreign auditor oversight bodies was cited by several European countries as one of obstacles to allow the PCAOB to conduct inspections. As a result, inspections of about 20 EU audit firms scheduled in 2009 did not happen (PCAOB 2009g). This is the reason why clients in these four countries were included in the blacklist. The Dodd-Frank Wall Street Reform and Consumer Protection Act provided the authority to the PCAOB to share confidential inspection information with foreign audit regulators. After enactment of the Dodd-Frank Act, the European Commission, and later the European Parliament, approved the PCAOB as an equal negotiating partner, permitting EU member states to enter into joint inspections arrangements with the PCAOB (Goelzer 2010b). China's objection is based primarily on sovereignty concerns (PCAOB 2009g).

²⁶ Due to cooperative agreements made in 2011, foreign audit firms in Germany, Switzerland, United Kingdom, Netherlands, and Norway are no longer blacklisted. The list of blacklisted clients firms is updated annually on the PCAOB webpage.

applying to the PCAOB for registration will be required to state their understanding of whether a PCAOB inspection would currently be allowed by local laws or local authorities (PCAOB 2010e).²⁷ If the applicant indicates that PCAOB inspections would not be allowed by local laws or local authorities, the PCAOB will issue a notice of hearing to determine whether approval of the application would run counter to SOX rules intended to “protect the interests of investors and the public interest in the preparation of informative, accurate, and independent audit reports” (PCAOB 2010e). In response to these strict regulations, four audit firms from Austria, Germany, Hong Kong, and Portugal voluntarily withdrew from PCAOB registration from December 31, 2009 to June 30, 2011 (PCAOB 2009d; PCAOB 2010d).

2.3 PCAOB inspection reports

The PCAOB releases inspection reports for each inspection it conducts. Part I of the report is made publicly available when issued. It describes the inspection procedures, including reviews of audit engagements and quality control, and describes audit deficiencies that are found in the inspections. An example of a PCAOB report that identifies audit deficiencies is provided in APPENDIX B, Panel A. The report identifies two types of deficiencies, GAAS-related deficiencies and GAPP-related deficiencies. Examples of GAAS-related deficiencies are (1) audit firm failed to test an accounting assertion, (2) audit firm failed to evaluate an accounting issue, and (3) audit firm failed to perform sufficient audit procedures. Examples of GAAP-

²⁷ Some foreign audit oversight bodies and foreign CPA associations expressed concerns about PCAOB’s sanctions against foreign audit firms that have not been inspected due to legal conflicts or sovereignty concerns, arguing that sanctions in such situations are unfair to foreign audit firms who have no control over legal conflicts, and will harm the relationship of the PCAOB and foreign jurisdictions. On the other hand, other commenters (Council of Institutional Investors and CalPERS) urged the PCAOB to adopt effective sanctions to benefit U.S. investors (PCAOB 2009e).

related deficiencies are (1) clients restated their financial statements, (2) audit firm failed to address a departure from GAAP, and (3) audit firm failed to address an accounting error (Church and Shefchik 2012). Other information, such as the inspection period and details about the audit firm (i.e., number of offices, ownership structure, number of partners, number of professional staffs, and number of issuer audit clients), are also provided in Part I of the inspection report.

Part II of the inspection report describes quality control defects, but is not released publicly and remains nonpublic if the audit firm remediates the defects in its quality control system within one year after the report date. If the audit firm does not correct the quality control defects within one year after the report date, the portion related to quality control defects is made public. An example of quality control criticisms is provided in APPENDIX B, Panel B. I find that 167 reports out of 243 (68.7%) international inspection reports in my sample have quality control defects but, except for 8 cases where the control defects were not remediated and were therefore disclosed in the report, the defects have not been publicly disclosed. Hermanson, Houston, and Rice (2007) report a similar pattern of disclosures of control defects in their sample of inspections of US accounting firms. This means that the vast majority of quality control defects are remediated in a timely manner.

Part IV of the inspection report provides the response of the audit firm to the draft inspection report. Under Section 104(f) of SOX and PCAOB Rule 4007(a), the audit firm is allowed to review and comment on a draft of inspection reports to the PCAOB.

2.4 International financial reporting environment

My samples in the cross-sectional and longitudinal analyses are based on firm-year observations of foreign countries. Therefore it is important to control for changes in the international financial reporting environment. An important factor that can affect accounting quality of foreign firms during my sample period is the adoption of International Financial Reporting Standards (IFRS). In the late 1990s, firms in some European countries were allowed to use International Accounting Standards (IAS) (the precursor of IFRS²⁸) as a substitute for domestic accounting standards. On July 19, 2002, the European Union (EU) Parliament passed a regulation that requires all listed firms in EU to adopt IFRS for the fiscal year starting January 1, 2005.

Academic research documents that the impact of IFRS on accounting quality is generally positive (Barth, Landsman, and Lang 2008). Barth, Landsman, Lang, and Williams (2012) document that the adoption of IFRS increases accounting quality by enhancing comparability of accounting amounts with U.S. GAAP amounts. Prior research also documents capital market benefits associated with IFRS adoption, including reduced cost of capital and increased liquidity (Daske, Hail, Leuz, and Verdi 2008; Li 2010), better information content of annual earnings announcement (Landsman, Maydew, and Thornock 2012), higher foreign mutual fund ownership (Covrig, DeFond, and Hung 2007; DeFond, Hu, Hung, and Li 2012), lower stock price synchronicity (Kim and Shi 2012), greater analyst following, and reduced analyst forecast error (Byard, Li, and Yu 2011).

²⁸ IAS were issued between 1973 and 2001 by the International Accounting Standards Committee (IASC). On April 1, 2001, the new International Accounting Standards Board (IASB) took over the responsibility of setting IAS from the IASC. IASB adopted existing IAS and continued to develop new standards calling IFRS (www.ifrs.org).

However, some studies based on individual country samples (Van Tendeloo and Vanstraelen 2005; Jeanjean and Stolowy 2008) do not show a difference in accounting quality between IFRS and domestic accounting standards. IFRS may not be related to higher accounting quality in all situations, because of the flexible nature of principle-based standards and the variation in the enforcement mechanisms across countries (Barth et al. 2008). Accounting quality after IFRS adoption is determined not only by change in accounting standards but also by the country's institutional environment, including its legal and political systems, and managers' incentives which depend on the nature of firms' ownership structure, capital structure, and other factors such as the nature of the country's tax system and the extent of capital market development (Soderstrom and Sun 2007). I include control variables related to country's institutional environments and firms' incentives (legal origin, anti-director rights index, disclosure requirement index, liability standard index, public enforcement index, the size of the country's security regulator staff, rule of law, the country's total market capitalization) in the empirical models. This may help control for IFRS adoption in my sample period indirectly.

In 1999, the EU initiated the Financial Services Action Plan (FSAP) to improve market confidence, expand capital markets integration, and reduce the cost of capital raised on EU markets. The FSAP introduced the Lamfalussy Directives, relating to securities regulation, one of which is the Transparency Directive (TPD) that aims to improve transparency for investors. The TPD includes provisions for regular disclosures, including the filings of annual and semi-annual reports in accordance with IFRS, and tightened enforcement of compliance with the disclosure requirements (Christensen, Hail, and Leuz 2011). Some European firms included in

my sample may have seen changes in accounting quality due to these changes. Therefore one limitation of my study is that, because of the difficulty in pinpointing the exact timing of these changes across countries, I do not control for the effect of TPD in EU.

CHAPTER 3

LITERATURE REVIEW

3.1 SOX and foreign firms

Litvak (2007) and Li (2011) examine the stock market impact of SOX on cross-listed firms. Litvak (2007) examines the stock market response to a series of disclosures associated with SOX for cross-listed firms that were subject to SOX (i.e., those listed as level 2 or 3 American Depository Receipts (ADR)) compared to cross-listed firms that were not subject to SOX (i.e., level 1 or 4 ADR firms, i.e., OTC, other bulletin board firms or private placement).²⁹ She finds that the stock prices of foreign firms subject to SOX declined significantly, compared to the control groups, during key announcement periods. Li (2011) also examines the short term and long term stock market impact of SOX on cross-listed firms. To examine the short term impact of SOX, she compares the U.S. returns of cross-listed firms relating to disclosures associated with SOX for the period 2002-2003 to home country index returns, and finds significant negative abnormal returns in both the U.S. and home stock markets. To assess the long term impact of SOX, she examines returns associated with “going dark” (“abnormal returns around delisting and deregistration announcements”) based on a “going dark” cross-listed sample for the period 1995-2006. She finds that the returns are negative before SOX, but positive after SOX. She attributes this result to the cross-listed firms “going dark” to avoid costly compliance with the provisions of SOX.

²⁹ Level 2 ADR companies are those that are “traded on national exchanges (NYSE, AMEX, and NASDAQ)”. Level 3 ADR companies are those that conducted “a public offering of securities in the U.S” (Litvak 2007).

Some papers examine the effect of SOX on the listing choices of foreign firms. Piotroski and Srinivasan (2008), using a sample from the 1995-2006 period, examine whether the listing preferences of large foreign firms choosing between U.S. exchanges and the London Stock Exchange (LSE) changed following SOX. Their main findings suggest that SOX did not affect the listing behavior of these firms. However, they find that the likelihood of a U.S. listing among small foreign firms choosing the NASDAQ over LSE's Alternative Investment Market decreased following SOX. They attribute this listing choice change among small firms to the inability of small companies to absorb the incremental costs associated with SOX compliance. Doidge, Karolyi, and Stulz (2009), using a sample from 1990-2005 period, also show that there is no decline in the number of cross-listed firms on the U.S. exchanges compared to that on the LSE following SOX and find that the significant cross-listing premium (the valuation differential between cross-listed firms and non-cross-listed foreign firms) for U.S. exchange listings has not fallen after SOX.

Gao (2011) examines the impact of SOX on foreign firms' debt market choices based on a sample between 1990 and 2006. SOX may benefit U.S. public bond (Yankee bond) holders by offering lower default risk, improved liquidity, and better monitoring of a firm's credit risk through higher financial reporting quality and strengthened internal control. On the other hand, Yankee bond holders may bear SOX compliance costs and indirect costs such as diversion of management attention from productive activities. She finds that foreign firms are less likely to choose the Yankee bond market after SOX compared to alternative bond markets not subject to SOX (Eurodollar and private bond markets). Additionally, firms listing equities on U.S. stock exchanges and adopting International Financial Reporting Standards, and offering large bond

issues are more likely to choose the Yankee bond market after SOX than before SOX. Those firms may obtain net benefits from complying with SOX.

Other papers examine the deregistration behavior of foreign firms surrounding SOX and provide mixed results. Marosi and Massoud (2008) examine the reasons why cross-listed firms deregistered during the period 1990-2006 despite the benefits of cross-listing. They document that increased U.S. securities market regulation and tighter corporate governance controls since SOX have materially increased the probability of deregistration of foreign firms. Foreign firms with high insider ownership also are more likely to deregister, which suggests insiders' may be motivated to avoid the more rigorous U.S. regulatory oversight or a disproportionate share of onerous compliance costs since SOX.³⁰ Doidge, Karolyi, and Stulz (2010) examine the determinants of deregistration of foreign firms using a sample of 141 firms that deregistered between 2002 and 2008. They find that deregistering firms have lower growth opportunities, and hence, lower external funding needs than firms that did not deregister. However, they did not find that firms more adversely affected by SOX (smaller firms) would be more likely to deregister. Hostak, Karaoglu, Lys, and Yang (2012) also examine deregistrations of foreign ADR firms to assess the cost-benefit trade-off of SOX requirements for the period 1997-2006. They find that voluntary deregistrations of foreign firms increase after SOX and deregistrations are motivated to avoid SOX compliance costs and to protect private control benefits³¹ of managers or controlling shareholders from the corporate governance requirements of SOX.

³⁰ Family firms often perform better than firms with dispersed shareholders (Anderson and Reeb 2003).

³¹ Private control benefits indicate some benefits that can be enjoyed by controlling shareholder, but cannot be shared by minority shareholders. Finance literature employs two ways to measure private control benefits: (1) the control premium between the price per share paid for the control block by acquiring company and the market price

Several papers have examined whether agency theory explains foreign firms' behavior after SOX. Chang and Sun (2009) examine the effect of the SOX provisions that intend to improve the independence and expertise of audit committees on earnings quality of cross-listed firms for the period 2001-2003. They find a significant positive association between earnings informativeness proxied by earnings response coefficient and audit committee independence and a significant negative association between earnings management proxied by discretionary accruals and audit committee independence after (but not before) SOX. Gong, Ke, and Yu (2010) examine the effect of home country investor protection and ownership structure on cross-listed firms' compliance with internal control regulations mandated by SOX. They complement Lang, Ready and Wilson (2006)'s finding, which suggests that home country investor protection and ownership structure still matter for the financial reporting behavior of cross-listed firms, and that earnings quality of U.S. firms are higher than that of cross-listed foreign firms, especially those located in weak investor protection countries. One of Gong et al.'s findings indicates that cross-listed firms, domiciled in weak investor protection countries, that hold greater voting rights than cash flow rights and whose management is the controlling shareholder are less likely to disclose internal control deficiencies during the Section 302 reporting regime.³² They also find that these cross-listed firms are more likely to voluntarily deregister from the SEC in the period

of shares, (2) the voting premium, measured by (the market price of high-voting shares minus the market price of low-voting shares) divided by (the market price of low-voting shares), in firms with dual class shares (Doidge 2004).

³² Section 302 of SOX required that management evaluate the effectiveness of disclosure controls and procedures, report results of evaluation, and indicate any significant changes in internal control since the last Form 10-K or Form 10-Q Filings. Section 404 of SOX required that management evaluate its internal control system and disclose results of evaluation in the annual report. Section 404 also required the external auditor to provide an attestation opinion on the management assessment of internal control over financial reporting. "Under the provisions of Section 302, the review of internal control is subject to less scrutiny by both management and the auditor and the disclosure rules are less specific than subsequently exist under Section 404" (Ashbaugh-Skaife, Collins, and Kinney 2007).

between the Section 302 effective date (August 29, 2002) and the Section 404 effective date for large accelerated cross-listed firms (July 15, 2006) in order to avoid compliance with the more costly Section 404 requirements. Duarte, Kong, Siegel, and Young (2011) examine the effect of SOX on insiders (managers and controlling shareholders) and minority shareholders of cross-listed firms using a sample from the period 1990-2006. They show that firms from countries with weak anti-self dealing protections³³ and countries that are likely to cooperate with U.S. authorities in the event of SEC enforcement action are less likely to list on the U.S. exchanges after SOX than on the LSE. They also find that abnormal returns associated with the announcement of foreign firms' cross-listing increased more after SOX than before SOX. They interpret these results as suggesting that insiders of foreign firms believe that SOX makes value extraction from minority shareholders more costly for them and minority shareholders, on the other hand, believe that the value gained from the reduction in managerial extraction exceeds the compliance costs of SOX.

3.2 The PCAOB inspection

Some papers provide descriptive information about the PCAOB inspection reports. Hermanson, Houston, and Rice (2007) examine 316 inspection reports issued by the PCAOB to small CPA firms between August 2004 and July 2006. They find that about 60% of small CPA

³³ Anti-self dealing index is a measure of legal protection of minority shareholders against expropriation by corporate insiders. Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2008) describe a hypothetical self-dealing transaction, in which the controlling shareholders or managers make transactions that could benefit them at the expense of minority shareholders. The hypothetical transaction is between two firms, buyer and seller, both controlled by one controlling shareholder. The controlling shareholder could benefit if the buyer firm overpays for the seller's equipment. Djankov et al. (2008) survey attorneys in 102 countries and ask them to describe in detail how each country's legal system regulates this transaction in 2003 and construct anti-self dealing index for 72 countries.

firms that were inspected suffered from audit deficiencies and about 72% suffered from quality control issues. Based on their observation that small CPA firms with deficiencies are smaller, have more issuer clients, and are growing more rapidly than firms without deficiencies, they conclude that some small CPA firms have over-extended by auditing too many public clients. Hermanson and Houston (2009) focus on triennially inspected firms that were inspected for the second time after the PCAOB started conducting inspections. Their findings based on inspection reports up to October 2008 suggest that the inspection results are much more favorable the second time smaller audit firms are inspected. They interpret this result to be attributable to “smaller audit firms learning from their first inspections and improving their audit processes, rather than to any softening of the PCAOB’s posture.” Hermanson, Houston, and Ye (2010) examine the types of restatements of financial statements made by clients as a result of the deficiencies identified by PCAOB inspection and identified 51 inspection reports that made reference to client restatements for the period 2004-2009. If PCAOB inspections identify material misstatements in the financial statements, they expect that the PCAOB will encourage audit firms to review them with their clients and that clients will restate their financial statements as a result. They conclude that restatements of clients’ financial statements are triggered by accounting relating to complex transactions (e.g., in the areas of mergers and acquisition, consolidation, equity method) possibly due to lack of technical expertise of the client and the CPA firms. Daugherty and Tervo (2010) survey triennially inspected firms receiving their initial PCAOB inspection reports through December 2007. Based on questionnaire responses from 146 firms, they find that medium (11-40 professionals) and larger firms (more than 40 professionals) reported positive impacts on their audit practices whereas smaller firms (0-10 professionals)

reported more negative impacts (e.g., decreasing acceptance and retention of audit clients, increasing billings for audit engagement) from initial PCAOB inspections. They also find that negative perceptions of respondent firms decrease with the passage of time during the period 2005-2007. As opposed to prior papers that studied smaller audit firms, Church and Shefchik (2012) examine the PCAOB's inspection reports on large audit firms for the period 2005-2010 and find a downward trend in audit deficiencies. They also identify the most common primary audit deficiencies (revenues, fair value measurements, and other accounting estimates) and common secondary audit deficiencies (internal controls and others) of large audit firms over the six years. They find that the number of deficiencies associated with revenues and other accounting estimates goes down, while the number of deficiencies that are related to fair value measurements does not.

Several papers have examined the effect of the PCAOB inspection on financial reporting quality and audit quality. Gramling, Krishnan, and Zhang (2011) examine the change in auditors' propensity to issue a going concern opinion before and after the inspection of triennially inspected firms during 2004-2006. They find that audit firms with deficient opinions are more likely to issue a going concern opinion after the inspection than before the inspection.³⁴ However, there is limited evidence of a change in the propensity of issuing a going concern opinion for audit firms without deficient opinions. Carcello, Hollingsworth, and Mastroia (2011a) examine whether PCAOB inspection improves audit quality (proxied by auditee abnormal accruals) of the

³⁴ The auditor's propensity to issue a going concern opinion has been used as a proxy for audit quality in the auditing literature (e.g., Francis and Krishnan 1999; DeFond, Raghunandan, and Subramanyam 2002). Theoretically, independent and competent auditors are more likely to issue going concern opinions for financially distressed client firms (DeAngelo 1981).

Big 4 audit firms that are inspected annually. If the inspection improves audit quality, they expect to see less earnings management after the inspection. They find a significant decrease in income-increasing abnormal accruals following the initial PCAOB inspection in 2004. They also find a significant decrease in both income-increasing and income-decreasing abnormal accruals after the second PCAOB inspection in 2005. Gunny, Krishnan, and Zhang (2007) examine whether audit firm characteristics such as tenure, industry expertise, and auditor fee are associated with the deficiencies identified by the inspection process for the period 2005-2007. Their findings suggest that auditor tenure and more importantly, industry expertise are likely to mitigate audit deficiencies for non-Big 4 auditors. They also document that abnormal audit fees (fees paid over and above what would be expected, given client characteristics) are associated with audit deficiencies possibly because of the “economic bonding” effect. Gunny and Zhang (2009) also examine whether the PCAOB deficient opinions for the period 2004-2007 are associated with earnings and audit quality proxies (abnormal accruals, restatements, going concern opinion, meet or beat analyst forecasts) and find that to be the case. In contrast, they find no association between peer review reports and these earnings and audit quality measures for the period 2000-2003.

Other studies have examined audit market participants’ response to the PCAOB inspection. Lennox and Pittman (2010) examine whether audit firms that are found to be deficient lose market share following PCAOB inspection reports issued for the period up to December 31, 2007. They do not find an association between the PCAOB inspection reports and the market share of the audit firms. The PCAOB inspection reports are defined as having information value if audit clients switch to audit firms that receive clean reports, and away from

audit firms that receive deficient reports. They further claim that the PCAOB's failure to disclose quality control weaknesses and evaluative summary of audit firms' quality³⁵ explains why clients do not find the inspection reports to have information value. Abbott, Gunny, and Zhang (2012) examine whether client firms of triennially inspected audit firms switch to a new audit firm when the PCAOB inspection reveals GAAP-related audit deficiencies for their incumbent audit firm. Consistent with their expectation, they find that clients are more likely to dismiss an auditor that receives a GAAP-deficient PCAOB inspection report³⁶ for the period 2005-2006. They also find that client firms with high agency costs and effective audit committees are much more likely to dismiss auditors subsequent to the GAAP-deficient PCAOB inspection report. Dee, Lulseged, and Zhang (2011) examine client stock market reaction to news of PCAOB sanctions imposed upon Deloitte and Touche, LLP on December 10, 2007 in connection with the audit of Ligand Pharmaceuticals' 2003 financial statements. This was the first time the PCAOB had imposed a sanction against a Big 4 auditor. They find that Deloitte clients experienced a significant negative market reaction to news of PCAOB sanctions even after Deloitte had taken actions to improve its quality control system while clients of other Big 4 firms did not experience a significant negative market reaction. DeFond and Lennox (2011) find that over six hundred small audit firms with fewer than 100 SEC clients exited the audit market following the passage of SOX which resulted in nearly doubling the number of clients of the remaining small audit firms. Their analysis indicates that compared to the small non-exiting audit firms, the exiting audit

³⁵ Peer reviewers provided either an unmodified, modified, or adverse opinion for accounting firm's audit quality (Lennox and Pittman 2010).

³⁶ There are GAAP-related and GAAS-related inspection deficiencies in the PCAOB inspection reports. Abbott et al. (2012) focus on GAAP-related inspection deficiencies.

firms have lower audit quality. Their results suggest that PCAOB inspections improve audit quality not only through the remediation of poor audit practices but through the exit of lower quality auditors in the audit market. Lastly, in a paper related to my study, Carcello, Carver, and Neal (2011b) examine the stock market reaction of client firms audited by non-inspected foreign audit firms to the PCAOB's disclosures relating to its obstacles in conducting foreign inspections. They document a significant negative stock market reaction to the event relating to the PCAOB's initial disclosure in August 2009 of the names of foreign auditors that could not inspected by the PCAOB but not to the publication of blacklisted clients in 2010.

3.3 Earnings management in international context

The international accounting literature has examined earnings management of foreign firms and cross-listed firms in various contexts. Leuz, Nanda, and Wysocki (2003) document, for the period 1990-1999, that earnings management is lower in the countries where the degree of investor protection is strong. In the countries with stronger investor protection, institutions limit insiders' private control benefits and control managers' incentive to mask true firm performance. Leuz, Nanda, and Wysocki (2003)'s aggregate earnings management measure is constructed based on the average country rankings for four individual earnings management measures (smoothing reported operating earnings using accruals, the correlation between changes in accounting accruals and operating cash flows, the magnitude of accruals, and small loss avoidance).

Lang, Raedy, and Yetman (2003) examine earnings management of cross-listed firms, relative to matched foreign firms not cross-listed in the United States, for the period 1990-2001,

and find that cross-listed firms are less aggressive in their earnings management. They use various proxies for earnings management (variability of change in net income, the ratio of the variance of change in operating profit and the variance of change in operating cash flow, correlation between operating accruals and operating cash flow, magnitude of discretionary accruals, small positive earnings). Further, Lang, Raedy, and Wilson (2006), using earnings management measures similar to Lang et al. (2003), provide evidence that earnings management of cross-listed firms, relative to U.S. firms, is more pronounced in firms from countries with weaker investor protection for the period 1991-2002. This suggests that SEC regulations that apply equally to U.S. firms and cross-listed firms may be unable to counter the effects of local investor protection environment.

Bhattacharya, Daouk, and Welker (2003) analyze whether earnings opacity affects equity markets in foreign countries for the period 1984-1998 and find that higher earnings opacity is related to higher cost of equity and lower volume of stock trading. Earnings opacity is constructed based on the average country rankings for magnitude of accruals, small positive earnings, correlation between the change in accruals and the change in operating cash flow. Barth, Landsman, and Lang (2008) examine whether application of International Accounting Standards (IAS) is associated with less earnings management of foreign firms applying IAS from 21 countries between 1993 and 2004 compared to matched foreign firms applying non-U.S. domestic accounting standards, and find evidence of less earnings management by IAS adopters. Similar earnings management measures (variability of change in net income, the ratio of the variance of change in net income and the variance of change in operating cash flow, small positive earnings) are used in this study following Lang et al. (2003, 2006).

Haw, Hu, Hwang, and Wu (2004) examine the role of both legal factors (proxied by legal origin, minority rights protection, judicial system, or disclosure standards) and extra-legal factors (proxied by product market competition, diffusion of the press, or tax compliance) in limiting the earnings management induced by divergence of control rights from cash flow rights in 9 East Asian and 13 Western European countries for the period 1990-1999. They find that a common law tradition, an efficient judicial system, and a higher rate of tax compliance significantly limit the earnings management induced by the wedge between control rights and cash flow rights. They use abnormal accruals as a proxy for earnings management.

In the international auditing literature, earnings management has been widely examined to proxy for earnings quality or audit quality. Francis and Wang (2008) document that earnings quality of Big 4 clients increases relative to that of non-Big 4 auditors, for the period 1994-2004 as the legal regime shifts from a weak to a strong regime. Big 4 auditors have more reputation capital at risk and high litigation cost as the degree of investor protection becomes stronger. They examine abnormal accruals and loss avoidance as earnings quality measures.

Francis, Michas, and Seavey (2011) examine two distinct dimensions of Big 4 market concentrations for 42 countries for the period 1999-2007. They find that, in countries where the Big 4 concentration as a group is high, both Big 4 and non-Big 4 clients have higher earnings quality than clients in countries with smaller Big 4 market shares. However, in countries where there is a greater concentration within the Big 4 group, they find that Big 4 clients have lower earnings quality than clients in countries with evenly distributed market shares among the Big 4. Similar to Francis and Wang (2008), abnormal accruals, total accruals, and the probability of reporting a profit are used as earnings quality measures.

Michas (2011) investigates whether the development of the audit profession affects audit quality and auditor choice in 15 emerging market countries for the period 2001-2005. He finds that audit quality is higher for Big 4 clients located in countries with stronger audit profession development and stronger audit profession development is associated with a higher propensity of a Big 4 auditor choice. Abnormal accruals and total accruals are used as audit quality measures.

Kwon, Lim, and Tan (2007) examine whether the effect of industry specialist auditors on earnings quality is dependent on the legal systems in an international setting for the period 1993-2003. Abnormal accruals and earnings response coefficients are used as proxies for earnings quality. They find that the impact of auditor industry specialization on earnings quality increases as the degree of investor protection weakens. Industry specialist auditors are likely to play more significant substitute roles in countries with weak investor protection.

CHAPTER 4

HYPOTHESES DEVELOPMENT

4.1 PCAOB international inspection and earnings quality

To my knowledge, there has been no research on PCAOB inspections of foreign audit firms except Carcello, Carver, and Neal (2011b) that documents negative stock market reactions (in August 2009) to the PCAOB's disclosure of a list of foreign auditors whose governments had resisted PCAOB inspections.

The PCAOB claims that its inspections are expected to improve audit quality. Goelzer (2005), the previous Acting Chairman of the PCAOB, states (emphasis added):

“The engagement inspections are the key to the PCAOB's impact on auditing. The knowledge that PCAOB inspectors who are themselves experienced auditors but who are not “peers” may review the work-papers and form their own judgment on how well the audit was conducted has had a very significant effect on how auditors do their work. In my view, *a well-thought-out inspection is more likely to improve the day-to-day quality of auditing* than are those other, blunter tools”.

There are several reasons why PCAOB inspections can be expected to be associated with enhanced audit quality of the inspected foreign audit firms and earnings quality of their foreign clients.

First, the PCAOB has implemented several initiatives aimed at enhancing the quality of its inspections of foreign accounting firms. It has negotiated cooperative agreements with the foreign audit oversight authority to conduct joint inspections based on a sliding scale approach. These authorities include Australia, Japan, Norway, Singapore, Switzerland and the United Kingdom. More recently, the PCAOB is exploring the possibility of conducting joint inspections

with China, which has resisted the U.S. approach to international joint inspections (PCAOB 2011a).

The PCAOB evaluated the effectiveness of its non-U.S. inspection program in 2009, and made several changes to its methodologies. Among other changes, it "...increased its focus on the quality control mechanisms of large, global network firms as well as on audit work performed by non-U.S. firms on financial information of subsidiaries or other segments of multi-national audit clients..." In addition, the PCAOB "...created a central office to oversee its non-U.S. inspection program, established a system of greater staff accountability for international inspections work, and significantly revised its non-U.S. inspections methodology to better address the risks associated with audits of large, networked firms for multi-national companies. These steps are intended to put inspections of non-U.S. firms on an equal footing with those of U.S.-based firms" (PCAOB 2009g).

Second, the PCAOB claims that audit quality improvements occur even during the inspection process (Doty 2011). When PCOAB inspectors find material accounting errors or significant auditing deficiencies, they discuss the problems with the audit firms. This discussion process drives the audit firms to correct problems by performing missed auditing procedures or enhancing internal quality requirements even before the problems are reflected in the inspection reports (PCAOB 2005). In some cases, following discussions with their auditors, client firms may restate their financial statements associated with GAAP violations identified by the PCAOB inspectors (PCAOB 2007; Hermanson, Houston, and Ye 2010). In addition to audit deficiencies, the PCAOB inspections also examine the quality control systems of the accounting firms, including firm culture (and tone at the top), management structures, and partner compensation

plans (Carcello 2005). The inspection process provides incentives for audit firms to remediate the defects in their quality control systems. This is because the portions of the inspection report dealing with criticisms of, or potential defects in, the quality control systems of the audit firms under inspection, are not made public if those criticisms or defects are rectified by the firm to the satisfaction of the PCAOB within 12 months from the date of the inspection report (SOX 104 g(2)). Therefore, audit firms have incentives to remediate their defective quality control systems within a year.³⁷ Bill Gradison and Ron Boster, PCAOB board member and special advisor to the PCAOB, respectively, commented “The quality control remediation provision has proven to be a powerful incentive for firms to cooperate with the PCAOB rather than to litigate. We believe that this provision has contributed directly to observable, though hard-to-quantify, improvements in audit quality” (Gradison and Boster 2010). Thus, audit deficiency and quality control remediations are expected to lead to improvements in audit quality of foreign audit firms that have been inspected by the PCAOB, and consequently the earnings quality of their clients.

Third, the audit quality of foreign inspected auditors could be higher than that of the foreign non-inspected auditors, if *anticipation* of inspections by the PCAOB causes foreign inspected auditors to voluntarily improve audit quality in order to avoid disciplinary sanctions or other negative consequences associated with audit deficiencies and/or inadequate quality control systems. According to the PCAOB, sanctions may include “suspension or revocation of a firm's

³⁷ In 2007, 163 cases out of 167 inspection reports of U.S. and foreign auditors that include quality control deficiencies remain nonpublic because the audit firms made good faith progress in remediating those deficiencies. In 2008 and 2009, 117 cases out of 162 inspection reports and 77 cases out of 93 inspection reports remain nonpublic, respectively (PCAOB 2007c; 2008; 2009g). Hermanson and Houston (2009) find that while 20 triennially inspected U.S. and foreign audit firms have been cited for failing to remediate quality control defects as of June 2008, 179 triennially inspected U.S. and foreign audit firms with quality control defects have successfully remediated their problems.

registration, suspension or bar of an individual from associating with a registered public accounting firm, and civil money penalties.”³⁸ Further, the PCAOB may require “improvements in a firm’s quality control, training, independent monitoring of the audit work of a firm or individual, or other remedial measures.”³⁹ Thus, the fear of these negative consequences may provide audit firms with ex-ante incentives to increase audit quality, similar to the incentives provided by the threat of litigation and loss of reputation (DeFond 2010). Hence my first two hypotheses are stated in the alternative form:

Hypothesis 1-1: Earnings quality is higher for complying clients (i.e. clients of inspected foreign audit firms) than for blacklisted clients (i.e. clients of foreign audit firms that were not inspected) following initial PCAOB inspections.

Hypothesis 1-2: Earnings quality is higher after initial inspections than before for clients of PCAOB inspected foreign auditors.

The hypotheses are based on the expectation that the PCAOB inspections in fact delivered what was expected of them. However, some criticisms that have been leveled at the PCAOB’s inspection process suggest that the inspections may have been less effective than expected. Glover, Prawitt, and Taylor (2009) point out that the PCAOB inspection feedback has been slow and ineffective. For instance, “a report released in late 2005 relating to a 2003 audit was too late to affect the firm’s 2004 audits (since the 2004 audits were already completed) or even its 2005 audits, because changes in performance are predicated on changes in firms’ audit

³⁸ The PCAOB announced a settled disciplinary order against five PricewaterhouseCoopers affiliated auditors in India in connection with the audit of Satyam Computer Services (PCAOB 2011d). This order includes a \$1.5 million penalty against two of those firms, the prohibition of acceptance new audit engagements and referred audit work to U.S. issuers for a certain period, and quality control remediation.

³⁹ <http://pcaobus.org/Enforcement/Pages/default.aspx>

policy, methodology, and training” (Glover et al. 2009). Further, some audit firms have been inspected at least once, but their inspections reports have not yet been issued (PCAOB 2010f).⁴⁰ Glover et al. (2009) also comment that PCAOB inspectors have been criticized for their lack of expertise⁴¹ and several auditors inspected by the PCAOB have alleged that the inspectors often fail to identify the riskiest areas of an audit because of the technical complexity of such areas. Consistent with this, Daugherty and Tervo (2010) find that some triennially inspected firms criticize the PCAOB inspectors for lack of industry-specific accounting knowledge.⁴²

Thus, whether the PCAOB inspections are able to achieve higher earnings quality for complying clients compared to blacklisted clients and after initial inspections for clients of inspected foreign auditors are ultimately empirical questions.

4.2 PCAOB international inspection and the auditor’s going concern opinion

Auditors’ propensity to issue a going concern opinion to financially distressed firms has been used in the accounting literature as a proxy for audit quality (Reynolds and Francis 2000; Craswell, Stokes, and Laughton 2002; DeFond, Raghunandan, and Subramanyam 2002; Carey and Simnett 2006; Lim and Tan 2008; Francis and Yu 2009; Boone, Khurana, and Raman 2010;

⁴⁰ “By the close of 2009, the PCAOB had issued inspection reports on 165 of the 171 inspections conducted in 2006, 212 of the 236 inspections conducted in 2007, 186 of the 255 inspections conducted in 2008, and 79 of the 287 inspections conducted in 2009” (PCAOB 2009g).

⁴¹ A trade-off between expertise and independence is a central feature of the shift from peer reviews to the PCAOB inspections. An unanswered question is whether the trade-off impacts audit quality in the US audit market (DeFond 2010).

⁴² Glover et al. (2009) characterize the PCAOB as being “politically sensitive,” responding easily to political pressure: “... of the numerous matter sheets they had collectively received for the 2003 and 2004 audit-year inspections, not a single matter sheet alleged that auditors had done too much work. After being highly critical both privately and through formal reports regarding the sufficiency of auditors’ work in the first year of inspections, as noted earlier, on May 16, 2005, the PCAOB responded to political pressure with an abrupt about-face and immediately began to publicly criticize audit firms for inefficiency and over-auditing”.

DeFond and Lennox 2011). Issuing a going concern opinion means that the auditor must be able to objectively and independently evaluate the financial statements of client firms and withstand any client pressure to not issue a going concern opinion (DeAngelo 1981; DeFond et al. 2002). Instances where a company fails shortly after receiving an unqualified audit report have sometimes been criticized as audit failures. There has been a public perception that financial statement users should have received an early warning signal from the auditor (Humphrey, Moizer, and Turley 1992; Carcello, Hermanson, and Huss 1995; Raghunandan and Rama 1995)⁴³. Foreign auditors expect to be inspected and they may perform stricter audit procedures to identify conditions that indicate that a company may not be able to continue as a going concern, in order to avoid the negative consequences associated with the disclosure of audit deficiencies. Foreign auditors will also rectify audit deficiencies associated with going concern considerations during the inspection period or after receiving inspection reports including audit deficiencies for going concern considerations.⁴⁴ I therefore expect that foreign audit firms that audit complying clients are more likely to issue going concern opinions to financially distressed clients than foreign blacklisted audit firms that audit blacklisted clients. I also expect that foreign audit firms that have been inspected by the PCAOB are more likely to issue going concern opinions to financially distressed clients after their initial inspections. Hence my hypotheses are stated as the alternative form:

⁴³ SAS 59 was issued in 1988 as an expectations gap auditing standard to increase auditor's responsibility for evaluating entity's ability to continue as a going concern and has been effective for two decades. However, under SAS 59, big financial companies bailed out by the government in the 2007-2009 financial crisis had clean opinions from their auditors, but no auditors have been penalized over this (PCAOB Investor Advisory Meeting, March 28, 2012).

⁴⁴ The PCAOB inspection teams observed that some triennially inspected firms failed to identify or evaluate the significance of conditions that indicated an entity may not have been able to continue as a going concern (PCAOB 2007b; Gramling et al. 2011).

Hypothesis 2-1: The likelihood of receiving a going concern opinion is higher for financially distressed complying clients (i.e. clients of inspected foreign audit firms) than for financially distressed blacklisted clients (i.e. clients of foreign audit firms that were not inspected).

Hypothesis 2-2: The likelihood of receiving a going concern opinion is higher after initial PCAOB inspections than before for financially distressed clients of inspected foreign audit firms.

As with hypotheses H1-1 and H1-2, however, the above hypotheses are based on the premise that the PCAOB's inspections deliver what is expected of them, and for the second hypothesis that the foreign audit firms underestimate PCAOB requirements/standards. As discussed, the PCAOB's inspection feedback has been slow and ineffective. The PCAOB inspectors are alleged to lack technical competence on industry specific accounting issues and practices. The PCAOB inspection process is also vulnerable to political pressures. Thus it is ultimately an empirical question whether the PCAOB inspections are associated with a higher propensity to issue a going concern opinion for clients of inspected foreign auditors and after initial inspections for clients of inspected foreign auditors.

4.3 Measures of audit quality and earnings quality

Church and Shefchik (2012) document that the financial statements accounts most frequently identified in audit deficiencies in PCAOB reports (for 2005-2010) on the largest U.S. eight auditors⁴⁵ are revenue, fair value measurements (goodwill, impairment of long-lived assets, derivative instruments, securities, allowance for loan losses, fair value of acquisitions and

⁴⁵ Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers, BDO Seidman, Crowe Horwath, Grant Thornton, and McGladrey & Pullen.

business combinations), and other accounting estimates (income taxes, accrued liabilities, allowance for doubtful accounts). Hermanson et al. (2007) document that the financial statements accounts identified on audit deficiencies of the smaller triennially inspected U.S. auditors for 2004-2006 are revenue (18.2%), loans and notes receivables (15.2%), equity-related and issuer stock (10.6%), liabilities (10.3%), expenses (10.1%), investments and securities (7.1%), inventory (6.2%), business combinations, acquisitions, and goodwill (5.7%), property, plant, and equipment (4.6%), intangible assets (3.9%), and deferred income taxes (3.0%). Further, the deficiency reports place emphasis on balance sheet (63%), income statement (26%), and both the balance sheet and income statement (10%).

I find that, similar to the content of the inspection reports of US accounting firms, the financial statements accounts impacted by audit deficiencies in the international inspection reports for 2006-2011 are revenue (21%), inventory and cost of goods sold (9.7%), notes receivable and allowance (8.7%), fixed assets (8.3%), equity related accounts (7.6%), expenses (6.9%), merger and business combination (6.9%), cash, investment and derivative (5.8%), and others (goodwill/intangible, partnership/joint venture, pension, tax, debt, lease, related party transaction, U.S. GAAP reconciliation, cash flow, segment reporting). Thus from the nature of the financial statements accounts impacted by audit deficiencies for both U.S. and foreign auditors, it seems that the PCAOB has focused on overall financial reporting quality including the income statement and the balance sheet. Abnormal accruals and total accruals are widely used measures for earnings quality that focused on income statement in the international auditing literature (Michas 2011; Francis, Michas, and Seavey 2011; Francis and Wang 2008). Value relevance is a frequently used measure for earnings quality in the international accounting

literature, that focuses on both the income statement and the balance sheet (Lang et al. 2003; Lang et al. 2006; Barth et al. 2008).

Section 104 of SOX states that, in conducting an inspection of a registered public accounting firm, the PCAOB shall “(1) inspect and review selected audit and review engagements of the firm ...; (2) evaluate sufficiency of the quality control system of the firm ...; (3) perform such other testing of the audit, supervisory, and quality control procedures of the firm as are necessary or appropriate” Thus, the inspections are expected to improve audit quality.

Auditors’ propensity to issue a going concern opinion to financially distressed firms has been widely used in the auditing literature as a proxy for audit quality. Issuing a going concern opinion means that the auditor must be able to objectively and independently evaluate the financial statements of client firms and withstand any client pressure to not issue a going concern opinion (DeAngelo 1981; DeFond et al. 2002). The PCAOB inspection team observed that some triennially inspected firms are unable to identify and evaluate conditions that a client may not be able to continue as a going concern (Gramling et al. 2011). Hence it seems reasonable to expect that the PCAOB inspections perform strict audit procedures regarding going concern issues.

Influence of Country Factors

I also examine whether the relation between the PCAOB international inspections and earnings quality (and the issuance of the going concern opinion) varies with the degree of investor protection. Audit and earnings quality have been shown to differ across countries due to differences in the degree of investor protection. Ball, Kothari, and Robin (2000) and Bushman

and Piotroski (2006) show that accounting income in the countries with common law and strong public enforcement systems is more timely and conditionally conservative than accounting income in the countries with civil law and weak public enforcement systems. Lang, Ready, and Yetman (2003) show that accounting income of cross-listed firms is more timely and conditionally conservative than accounting income of matched foreign firms that do not cross-list. Leuz, Nanda, and Wysocki (2003) document that earnings management is lower in the countries where the degree of investor protection is strong.⁴⁶ In countries with weaker investor protection, insiders have incentives to manage earnings to mask true firm performance and conceal their private control benefits. Lang, Raedy, and Wilson (2006) provide evidence that earnings management of cross-listed firms, relative to U.S. firms, is more pronounced in firms from countries with weaker investor protection. This indicates that SEC regulations that apply equally to U.S firms and cross-listed firms are unable to counter the effects of local investor protection environment.

Several studies examine whether the Big 4 and industry specialist auditors play a moderating role in the relationship between investor protection and earnings quality, and provide inconsistent results. Kwon, Lim, and Tan (2007) find that the impact of auditor industry specialization on earnings quality increases as the degree of investor protection weakens. Industry specialist auditors are likely to play more significant roles in countries with weak investor protection. On the other hand, Francis and Wang (2008) find that earnings quality of Big 4 clients increases relative to that of non-Big 4 auditors, as the legal regime shifts from a weak to

⁴⁶ They measure investor protection by the degree of outside investor rights, legal enforcement, importance of equity market, and ownership concentration.

a strong regime. Big 4 auditors have more reputation capital at risk and high litigation cost as the degree of investor protection become stricter. Choi, Kim, Liu, and Simunic (2008), examining audit fees, document that the Big 4 premium decreases as the country's legal regime shifts from a weak to a strong one. Choi et al. (2008) conjecture that because non-Big 4 auditors have a lower audit quality than do Big 4 auditors, they would need to raise the audit fee more than Big 4 auditors to compensate for the larger litigation risk in regimes with greater investor protection.

A priori, it is not clear how the association between the PCAOB inspections of foreign auditors and the earnings quality (and the going concern opinion) of their clients would be affected by the degree of investor protection in the countries in which the auditors operate. Unlike auditors, who play an active role in determining the quality of financial reporting of their clients, PCAOB inspections can only play an indirect role through their impact on auditor behavior. The effect of the inspections in different investor protection regimes depends on both the ex ante (pre-inspection) differences in audit quality, and the impact of the inspections on auditor behavior in these regimes. Holding auditor response to inspections constant, one would expect that, because the ex-ante audit quality is likely to be higher in high investor protection regimes than in low investor protection regimes, the PCAOB inspections may have a smaller effect in the former than in the latter. However, auditors may respond differentially across the regimes. Foreign auditors located in countries with stronger investor protection have strong incentives to maintain higher audit quality due to high litigation costs and are more likely to respond to the PCAOB inspection reports. A priori therefore, the greater litigation risk in the high investor protection regimes may make auditors more responsive to the PCAOB inspections in those regimes compared with low investor protection regimes. If so, the PCAOB inspections

would have a greater effect in the high investor protection regimes compared with the low investor protection regimes.

As with earnings quality, the PCAOB inspections may have less impact on the probability of issuing going concern opinions to distressed companies, in countries with stronger investor protection because of the greater pre-inspection audit quality that can be expected in such regimes. However, the relatively greater litigation risk may also cause auditors in stronger investor protection regimes to be more receptive to PCAOB inspections, increasing their propensity to issue going concern opinions.

CHAPTER 5

RESEARCH DESIGN

To test hypotheses in Chapter 4, I analyze a cross-sectional sample (H1-1 and H2-1) consisting of blacklisted and complying clients, and a longitudinal sample (H1-2 and H2-2) consisting of clients of inspected foreign auditors. In this chapter, I develop empirical models for the two samples.

5.1 Empirical models for abnormal accruals

5.1.1 Cross-sectional model

I use abnormal accruals and total accruals as proxies for earnings quality. I rely on prior research (e.g., Francis, Michas, and Seavey 2011; Michas 2011) to specify the model as follows:

$$\text{ABACCR or TACCR} = \beta_0 + \beta_1 \text{BLACKLIST} + \beta_2 \text{INVPROFAC} + \beta_3 \text{RULEOFLAW} + \beta_4 \text{IASDIFF} + \beta_5 \text{LOGGDP} + \beta_6 \text{GDPGROWTH} + \beta_7 \text{GDPPERCAP} + \beta_8 \text{MKTSIZE} + \beta_9 \text{LOGSALE} + \beta_{10} \text{CFO} + \beta_{11} \text{LEV} + \beta_{12} \text{GROWTH} + \beta_{13} \text{LAGLOSS} + \beta_{14} \text{BIG4} + \beta_{15} \text{INDUSTRY} + \beta_{16} \text{YEAR} + \varepsilon \quad (1)$$

The dependent variables, ABACCR and TACCR, measure abnormal accruals and total accruals, respectively. TACCR is the firm's net income before extraordinary items less operating cash flows, scaled by beginning total assets. Following prior work (Kothari, Leone, and Wasley 2005; Ball and Shivakumar 2006; Francis et al. 2011; Michas 2011) that has shown that abnormal accruals are correlated with firm performance, I employ a performance-adjusted measure. Abnormal accruals are measured as the firm-specific residual in the following expected accruals model:

$$\text{TACCR} = \gamma_0 + \gamma_1 (1/\text{ASSETS}) + \gamma_2 (\Delta\text{Rev}-\Delta\text{AR}) + \gamma_3 \text{PPE} + \gamma_4 \text{ROA} + \varepsilon \quad (2)$$

TACCR is defined as net income before extraordinary items less operating cash flows, all scaled by lagged total assets. ASSETS measures lagged total assets. ΔRev is the change in revenue from the prior year to the current year, scaled by beginning total assets. ΔAR is the change in accounts receivable from the prior year to the current year, scaled by beginning total assets. PPE is net property, plant, and equipment, scaled by beginning total assets and ROA (Return On Assets) is net income divided by beginning total assets. I estimate the above regression separately for each one-digit SIC industry and country grouping with a minimum of ten observations in each group.

BLACKLIST (the test variable) is coded 1 if the firm's auditor is located in a jurisdiction where the PCAOB does not conduct inspections, and 0 otherwise.

The country-level control variables are based on prior work (e.g., Francis et al. 2011; Michas 2011; Shima and Gordon 2011). INVPROFAC, a summary measure of the strength of investor protection in the country, is constructed following Francis et al. (2011) as the factor score of six highly correlated individual investor protection variables. The six variables are briefly described below.

The first variable is a country's legal tradition: Legal scholars distinguish between two broad legal traditions, common law and civil law. Common law is formed by the precedents from judicial decisions of judges, and is followed mainly in England and the former British colonies. In contrast, civil law relies heavily on statutes and comprehensive code that have been formulated by legal scholars, and is followed in countries such as France, Germany and the

Scandinavian nations (La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1998). La Porta et al. (1997, 1998) document that common law countries have stronger investor protection and currently have more developed capital markets than civil law countries (Rajan and Zingales 2003).

The second investor protection variable is an anti-director rights index which measures how strongly the legal system protects minority shareholders against managers or controlling shareholders. The original index⁴⁷, used in La Porta et al. (1997, 1998) is available for 49 countries based on laws in 1993. I use a revised version of La Porta's anti-director rights index, that relies on the same basic dimensions of corporate law for 72 countries based on laws in 2003, but defines them with more precision (Djankov et al. 2008). For instance, the revised measure ignores enabling provisions because enabling provisions are more prevalent in common law countries than in civil law countries, and ignoring them in the index results in bias against the hypothesis that common law better protects investors (Djankov et al. 2008).

The next three investor protection variables are based on the specific provisions in securities laws governing initial public offerings. La Porta et al. (2006) distill provisions in securities laws in 49 countries from answers to questionnaires by attorneys in 2000, and construct three indices: disclosure requirements index, liability standard index, and public

⁴⁷ The index includes the following six areas: (1) shareholders' proxy votes by mail; (2) prohibition of shareholders from selling their shares for several days around the time of the shareholder meeting by requiring them to deposit their shares with the company or a financial intermediary; (3) minority shareholder representation on board of directors through cumulative voting or proportional representation; (4) legal mechanisms to protect minority shareholders against perceived oppression by directors such as the right to challenge the directors' decision in court and shareholders' appraisal rights; (5) shareholders' preemptive rights to buy new issues of stock; (6) minimum percentage of share capital needed to call an extraordinary shareholders' meeting.

enforcement index. The disclosure requirements index measures the extent to which there is disclosure requirement in the prospectus in the areas of insiders' compensation, shareholder ownership structure, inside ownership, irregular contracts, and related-party transactions. The liability standard index measures the procedural easiness of investors in recovering losses from issuers, directors, distributors and accountants in a civil liability case for losses due to misleading statements in the prospectus. This index indicates the effectiveness of private enforcement mechanisms for investor protection. The public enforcement index measures the extent to which regulators have independence from governments, rule-making power, investigative power, and authority for sanctions. Finally, the size of a country's security regulator staff is used as another measure of public enforcement for investor protection (Jackson and Roe 2009). This index indicates the strength of a country's security market oversight.

RULEOFLAW is a yearly measure from the World Bank and captures "perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence". A higher value represents strong legal protection about private contracts and property rights. I expect a negative correlation between INVPROFAC /RULEOFLAW and ABACCR. IASDIFF is included to control for differences in accounting standards and indicates differences in a country's accounting standard and international accounting standards (IAS) (Bae, Tan, and Welker 2008). Because the impact of international accounting standards on earnings quality is mixed, I do not predict a sign for the effect of this

variable on audit quality.⁴⁸ LOGGDP (the natural logarithm of a country's GDP in a year), GDPGROWTH (the change in GDP from the previous year to the current year), GDPPERCAP (the natural logarithm of GDP scaled by population in a year), and MKTSIZE (a country's total market capitalization in a year scaled by a country's GDP in a year) are included to control for a country's wealth, economic growth, income, and financial development following Michas (2011). The rationale is that "economically developed countries have stronger legal systems and other institutions that better facilitate private contracting" (Francis, Khurana, Martin, and Pereira 2011) and this would indirectly affect accounting quality of firms in a country.

Firm-level control variables are also based on prior work (e.g., Francis and Wang 2008; Francis et al. 2011). LOGSALE is the log of client sales and the proxy for client size. Size may surrogate for numerous potential omitted variables (Ball and Foster 1982; Becker, DeFond, Jiambalvo, and Subramanyam 1998) or may be correlated with operating characteristics that cause large companies to have systematically smaller accruals (Reynolds, Deis, and Francis 2004). Cash flows from operations (CFO) varies inversely with accruals (Dechow 1994; Beneish 1997; McNichols 2002; Reynolds et al. 2004) and is expected to have a negative relation with discretionary accruals. Leverage (LEV) is included to proxy for closeness to debt covenant violations and abnormal accruals are positive for firms about to violate covenants (Press and Weintrop 1990; DeFond and Jiambalvo 1994). However, higher leverage is also likely to be associated with financial distress, generating negative abnormal accruals (DeAngelo, DeAngelo,

⁴⁸ The impact of IFRS on earnings quality is generally positive (Barth et al. 2008; Daske, Hail, Leuz, and Verdi 2008). However, some studies based on data from individual countries (Van Tendeloo and Vanstraelen 2005; Jeanjean and Stolowy 2008) do not show differences in earnings quality between IFRS and domestic country standards. IFRS may not be related to higher earnings quality because of the flexible nature of principle-based international accounting standards and the weak enforcement mechanisms of local countries (Barth et al. 2008).

and Skinner 1994; Becker et al. 1998). Hence, I do not predict a sign for the coefficient of LEV. LEV is defined as the ratio of total liabilities to total assets. GROWTH, measured by the growth in annual sales, is included because growth prospects create incentives to meet or beat earnings benchmarks and to use accruals to increase earnings (Matsumoto 2002; Frankel, Johnson, and Nelson 2002). Hence, GROWTH is expected to have a positive relation with abnormal accruals.

LAGLOSS takes the value of 1 if the firm reports a net loss in the previous year, and 0 otherwise. Firms that report a net loss are considered less likely to have managed earnings (Hwang, Jan, and Basu 1986; Brown 2001; Frankel et al. 2002; Reynolds et al. 2004), but may have a preference for reporting higher accounting income at the margin (Choudhary, Rajgopal, and Venkatachalam 2009) and use accruals to increase earnings in the subsequent year (Francis and Wang 2008). Or, asset write downs resulting from conditional conservatism could reduce depreciation and amortization in future years (Basu 1997). Hence, I do not predict a sign for the coefficient for LAGLOSS. I include BIG4, coded 1 if the auditor is a Big 4 firm, and 0 otherwise. Abnormal accruals have been shown to be lower for clients of Big N auditors (Becker et al. 1998; DeFond and Subramanyam 1998); consequently BIG4 is likely to have a negative relation with abnormal accruals. Industry dummies based on two-digit SIC codes and year dummies are included to control for time period effects and industry effects. Standard errors are computed by clustering on firm- and year- level following Petersen (2009) and Thompson (2011).

5.1.2 Longitudinal model

I employ the following model for the longitudinal sample:

$$\text{ABACCR or TACCR} = \beta_0 + \beta_1 \text{POSTINSPEC} + \beta_2 \text{INVPROFAC} + \beta_3 \text{RULEOFLAW} + \beta_4 \text{IASDIFF} + \beta_5 \text{LOGGDP} + \beta_6 \text{GDPGROWTH} + \beta_7 \text{GDPPERCAP} + \beta_8 \text{MKTSIZE} + \beta_9 \text{LOGSALE} + \beta_{10} \text{CFO} + \beta_{11} \text{LEV} + \beta_{12} \text{GROWTH} + \beta_{13} \text{LAGLOSS} + \beta_{14} \text{BIG4} + \beta_{15} \text{INDUSTRY} + \beta_{16} \text{YEAR} + \varepsilon \quad (3)$$

POSTINSPEC, a dummy variable indicating the post-inspection period, is the test variable. The control variables included in the model were described above.

I use three different ways to identify the post-inspection period. POSTINSPEC1 is coded 1 if the audit report date is after PCAOB inspection start date, and 0 otherwise. POSTINSPEC2 is coded 1 if the audit report date is after PCAOB inspection end date, and 0 otherwise. POSTINSPEC3 is coded 1 if the audit report is for the year before the inspection or later, and 0 otherwise. POSTINSPEC3 is used to capture a potential ex-ante effect of the inspections. Audit firms may know in advance of the PCAOB's intended inspection plans, and therefore improve their audit quality in anticipation of the PCAOB inspections. Although I do not know when the PCAOB's future plans are made available to audit firms, it seems reasonable to assume that the firms would know the year before the intended inspections.

5.2 Value relevance model

5.2.1 Cross-sectional analysis

A value relevance model is used as another proxy of earnings quality, following prior international accounting literature (Lang et al. 2003; Lang et al. 2006; Barth et al. 2008)⁴⁹. The

⁴⁹ Despite its use in a number of international accounting studies, the value relevance model has also been criticized in prior research (e.g., Easton 1998; Brown, Lo, and Lys 1999; Holthausen and Watts 2001).

value relevance model is based on the R-square from a regression of stock price on net income and book value. I first regress stock price, P , on country, industry, and year fixed effects following Barth et al. (2008) to control for mean differences across countries and industries and time effects, and compute residuals P^* . The stock price six months after fiscal year-end is used to measure P . Then, I regress P^* on book value of equity per share, $BVPS$, and net income per share, $NIPS$, separately for blacklisted clients and complying clients.

The value relevance metric is the adjusted R-square from the following regression.

$$P^* = \beta_0 + \beta_1 BVPS + \beta_2 NIPS + \varepsilon \quad (4)$$

Cramer Z-test⁵⁰ is used to test the difference in adjusted R-squares for the blacklist and non-blacklist samples, following Ball et al. (2000), Lang et al. (2003), Lang et al. (2006), and Barth et al. (2008).

5.2.2 Longitudinal analysis

As before, I first regress P on country, industry, and year dummies, and compute the residual P^* . Next, I regress the P^* , on the book value of equity per share, $BVPS$, and net income per share, $NIPS$, separately for the pre- and post-inspection periods. Because I have three different specifications for $POSTINSPEC$, I run six regressions for three partitions of the data. As explained in Section 5.2.1, the value relevance metric is the adjusted R-square from the preceding regression model. The Cramer Z-test is used to compare adjusted R-squares.

⁵⁰ Cramer's Z is computed as the difference of adjusted R-squares of two regressions scaled by the square root of the sum of the variances of adjusted R-squares of the two regressions and it approaches the Normal distribution in large samples (Harris, Lang, and Möller 1994).

5.3 Going concern opinion model

5.3.1 Cross-sectional model

Prior literature has argued that an auditor with a lower propensity to issue a going-concern opinion has a lower level of independence and as a result, lower audit quality. I follow DeFond, Raghunandan, and Subramanyam (2002) and estimate a logistic regression for companies experiencing financial distress. I generate two samples, using different approaches to measuring distress: (1) firms with negative net income or operating cash flows (DeFond et al. 2002; Carey and Simnett 2006; Lim and Tan 2008; Boone et al. 2010) and (2) firms in the top quartile of the distribution of Zmijewski (1984)'s probability for bankruptcy Z-score. I estimate the following model:

$$GC = \beta_0 + \beta_1 \text{BLACKLIST} + \beta_2 \text{PRIORGC} + \beta_3 \text{PROBANKZ} + \beta_4 \text{LOGASSET} + \beta_5 \text{BETA} + \beta_6 \text{VOL} + \beta_7 \text{LEV} + \beta_8 \text{CHLEV} + \beta_9 \text{LAGLOSS} + \beta_{10} \text{INVEST} + \beta_{11} \text{FINANCE} + \beta_{12} \text{BIG4} + \beta_{13} \text{YEAR} + \beta_{14} \text{Country level control variables} + \varepsilon \quad (5)$$

The dependent variable, GC, is coded 1 if the firm receives a going concern opinion and, 0 otherwise.⁵¹ The independent variable BLACKLIST is the test variable. The variable takes on the value of 1 if the firm's auditor is located in a jurisdiction where the PCAOB does not conduct inspections and 0 otherwise. The control variables are based on DeFond et al. (2002) and Carcello and Neal (2000).⁵² PRIORGC is coded 1 if the firm received a going concern opinion in

⁵¹ Going concern opinion is obtained from the Audit Analytics database.

⁵² Report lag, which indicates the number of days between the fiscal year and the audit report date, is not included because countries will have different reporting requirements. Stock return and operating cash flows are performance measures and these are overlapped with other performance measures (PROBANKZ, LAGLOSS, PRIORGC). Firm

the previous year and 0 otherwise. Firms that received a going concern opinion in the prior year are more likely to receive a going concern opinion in the current year (Carcello and Neal 2000). PROBANKZ is the probability of bankruptcy Z-score from Zmijewski (1984), with higher values indicating a higher likelihood of bankruptcy. PROBANKZ is predicted to have a positive sign. Size (LOGASSET) is the natural logarithm of the firm's total assets and is included to control for numerous potential omitted variables. Two market-based measures (BETA and VOL) are included to control for firms' systematic risk and stock return volatility. BETA indicates the firm's beta estimated using a market model based on daily returns in the current year and VOL indicates the variance of the residual from the market model based on daily returns in the current year. BETA and VOL are expected to be positively associated with GC. Leverage (LEV), measured by total liability divided by total assets, and change in leverage (CHLEV) capture proximity to debt covenant violations (Press and Weintrop 1990), and are expected to be positively associated with GC. LAGLOSS is coded 1 if the firm's net income is negative in the previous year and 0 otherwise. LAGLOSS is included because firms with multiple-year losses are more prone to fail.⁵³ INVEST is the sum of the firm's cash, cash equivalents, short-term and long-term investments scaled by its total assets, and is expected to be negatively associated with the GC opinion because liquid assets can mitigate the probability of bankruptcy. FINANCE is coded 1 if the firm issues equity or long term debt in the current year, and 0 otherwise. FINANCE is included because new equity or debt financing can mitigate the probability of

age may be problematic in an international setting because Compustat and CRSP listing data are mostly based on cross-listing period for foreign firms.

⁵³ Current year loss is not included because all the sample firms for estimating GC model have a loss or negative operating cash flow during the current year.

bankruptcy.⁵⁴ BIG4 is coded 1 if the auditor is a Big 4 auditor and 0 otherwise. Big 4 auditors are assumed to be of higher quality and are therefore more likely to detect the probability of bankruptcy and issue a going concern opinion. On the other hand, Big 4 clients are likely to be bigger (Lawrence et al. 2011), more profitable (Johnstone and Bedard 2003; Johnstone and Bedard 2004), and therefore less distressed firms are likely to be associated with fewer going concern opinions. Therefore, I do not predict a sign for the coefficient of Big 4. Year dummies are included to control for time period effects.

Finally, I include the same country level control variables (INVPROFAC, RULEOFLAW, IASDIFF, LOGGDP, GDPGROWTH, GDPPERCAP, MKTSIZE) that are included in the abnormal accruals model (discussed above) to control for country level institutional characteristics.

5.3.2 Longitudinal model

$$GC = \beta_0 + \beta_1 \text{POSTINSPEC} + \beta_2 \text{PRIORG} + \beta_3 \text{PROBANKZ} + \beta_4 \text{LOGASSET} + \beta_5 \text{BETA} + \beta_6 \text{VOL} + \beta_7 \text{LEV} + \beta_8 \text{CHLEV} + \beta_9 \text{LAGLOSS} + \beta_{10} \text{INVEST} + \beta_{11} \text{FINANCE} + \beta_{12} \text{BIG4} + \beta_{13} \text{YEAR} + \beta_{14} \text{Country level control variables} + \varepsilon \quad (6)$$

As before, POSTINSPEC is the test variable. Three measures (POSTINSPEC1, POSTINSPEC2, and POSTINSPEC3) are used to capture the pre- and post- inspection periods. Control variables were defined above.

⁵⁴ DeFond et al. (2002) included future year financing (t+1), but I include current financing because 2011 data is not available yet.

CHAPTER 6

SAMPLE SELECTION

6.1 Sample Selection: Cross-sectional sample

The selection procedure for the cross-sectional sample is shown in Panels A-D of Table 2. On May 18, 2010, the PCAOB published a list of 437 issuers (and a version of this list sorted by jurisdiction and auditor) that filed financial statements with the SEC in 2009 or 2010 (through mid-April). These financial statements were audited by PCAOB-registered firms that are located in jurisdictions where the PCAOB is currently not conducting inspections.⁵⁵ I deleted 16 firms that appeared more than once on the list: 6 firms that changed their auditors and 10 firms that were jointly audited by more than one auditor. In addition, I deleted 11 subsidiaries whose financial statements were integrated with their parent companies' filings, 7 firms whose filings were not available, and 1 firm whose auditor was incorrectly listed in the wrong jurisdiction. This resulted in a final sample of 402 blacklisted firms.

I obtained financial data for six years (2005-2010) from the Compustat database for 323 firms and hand-collected the data from 20-F and 10-K filings for the remaining 79 firms.⁵⁶ Of the 402 blacklisted firms, 132 firms (23%) filed 10-Ks and 270 firms (67%) firms filed 20-Fs. Firms that filed Form 10-K are mostly registered in the United States through reverse mergers or as shell companies or blank check companies.⁵⁷ I obtained data pertaining to the firms' auditors

⁵⁵ http://pcaobus.org/International/Inspections/Documents/issuer_audit_clients_of_certain_non-US_firms_by_client.pdf

⁵⁶ The PCAOB began inspecting foreign auditors since 2005 (PCAOB 2009e).

⁵⁷ In a reverse merger, an existing public shell company with few or no operations acquires a private operating company. A reverse merger often is perceived to be a quicker and cheaper method of going public than IPO (SEC 2011). The SEC defines a shell company as one that has "no or nominal operations, and either no or nominal assets

from Audit Analytics, and market-related variables from CRSP. The control sample consists of 503 foreign firms that filed 20-Fs and 79 foreign 10-K filers available on Compustat⁵⁸, with their principal places of business in the foreign countries, whose auditors are located in the jurisdictions where the PCAOB has conducted inspections as of December 31, 2009.⁵⁹ Thus the final sample comprises 402 test firms and 582 control firms (Panel A). I then constructed datasets for the different proxies for audit quality (abnormal accruals, value relevance, and going concern opinion). Details about each of these samples are provided in Table 2, Panels B-D.

Table 2, Panel B shows the construction of the cross-sectional sample used to test the abnormal accruals model. I started with the sample of firms shown in Panel A, and collected 5,619 firm-year observations for the years 2005-2010. I excluded 663 observations pertaining to financial companies. To compute abnormal accruals, I required at least 10 observations in each industry-country group; this resulted in the deletion of 573 observations. Next, I excluded 13 observations for which there was an auditor change between the blacklisted and non-blacklisted jurisdictions, and 1,299 observations due to the unavailability of complete data. Finally, I excluded 86 observations with the absolute value of studentized residuals greater than three to

or assets consisting of cash and cash equivalents” under SEC Rule 12b-2 (SEC 2005 <http://www.sec.gov/rules/final/33-8587.pdf>). A blank check company is “any development stage company that is issuing a penny stock and that has no specific business plan or purpose, or has indicated that its business plan is to merge with an unidentified company” (SEC <http://www.sec.gov/answers/blankcheck.htm>).

⁵⁸ The Compustat database does not have an auditor location marker. I use the foreign country (Compustat marker: LOC) where headquarters of firms are located as a proxy for the auditor location.

⁵⁹ PCAOB have inspected registered international auditors since 2005. However, information about the years when specific jurisdictions were inspected is not available before 2009. I consider jurisdictions in which the PCAOB has conducted inspections as of December 31, 2009 as the control group. Greece, Hong Kong, Ireland, Norway and United Kingdom are excluded from the control group because these jurisdictions are also included in the blacklist. In the case of some firms in Greece, Ireland, Norway and the United Kingdom, an inspection was conducted before the current obstacles arose. In the case of some firms in Hong Kong, the inspections did not involve review of audit work relating to a company’s operations in China (PCAOB 2010a).

alleviate problems relating to influential observations. The final sample consists of 2,985 firm-year observations for the abnormal accruals analysis.

Table 2, Panel C shows the construction of the sample used to estimate the value relevance model for the cross-sectional sample. From the 5,619 observations shown in Panel A, I excluded 663 observations pertaining to financial companies. I then excluded 1,670 observations due to unavailability of complete data (mainly stock price data) and 18 observations for which there was an auditor change between the blacklisted and non-blacklisted jurisdictions. The final sample consists of 3,268 firm-year observations for the value relevance analysis.

Table 2, Panel D shows the construction of the cross-sectional sample used to test the going concern opinion hypothesis. From the 5,619 observations shown in Panel A, I excluded 663 observations pertaining to financial companies and 1,936 observations with positive net income and operating cash flow in order to restrict the analysis to distressed firms. Next, I excluded 10 observations for which there was an auditor change between the blacklisted and non-blacklisted jurisdictions and 2,026 observations due to the unavailability of complete data. Finally, I excluded 1 observation with the absolute value of logit deviance residuals greater than three to alleviate problems relating to influential observations. The final sample consists of 983 firm-year observations for the going concern opinion analysis.

6.2 Sample Selection: Longitudinal sample

Panels A-C in Table 3 provide the sample selection procedure for the longitudinal sample. The PCAOB published 243 inspection reports from 2006 to 2011 for foreign auditors that have been inspected by the PCAOB for inspection years 2005 to 2011. I selected only the first

inspection reports for foreign auditors that have been inspected more than once. Thus, I start with 174 first inspection reports for foreign auditors. Foreign auditor names, inspection start dates, inspection end dates, and auditor countries are collected from PCAOB inspection reports. I merged this auditor list with the Audit Analytics database to identify client firms that have been audited by inspected foreign auditors. I then merged the resulting data with the Compustat annual files to obtain financial data. This resulted in 6,037 client firm-years observations that have been audited by the inspected foreign auditors for the years 2000-2010. The year 2000 is the first year for which the Audit Analytics data is available.

I then constructed datasets for the different proxies for audit quality (abnormal accruals, value relevance, and going concern opinion). Details about each of these samples are provided in Table 3, Panels A-C. Table 3, Panel A shows the construction of the sample used to estimate the abnormal accruals model for the longitudinal sample. From the starting sample consisting of 6,037 firm-year observations, I eliminated 684 financial company observations and, as before, 251 firm-year observations with less than 10 observations in each industry-country group. Next, I dropped 1,249 firm-year observations for which complete data were not available.

I then imposed the restriction that each firm should have at least one observation before and after the initial inspection period; 1,434 firm-year observations were dropped as a result. Finally, I excluded 38 extreme firm-year observations with the absolute value of studentized residuals greater than three to alleviate problems relating to influential observations. The final sample consists of 2,381 firm-year observations for the longitudinal abnormal accruals analysis.

Table 3, Panel B shows the construction of the longitudinal sample used to test the value relevance hypothesis. From the starting sample, I eliminated 684 financial companies and 1,943

observations with missing data (mainly stock price data). Next, my requirement that at least one observation be available before and after the initial inspection period for each firm caused the elimination of 1,111 firm-year observations. The final sample consists of 2,299 firm-year observations for the value relevance analysis.

Table 3, Panel C shows the construction of the longitudinal sample used to test the going concern opinion hypothesis. I eliminated 684 financial companies and 1,894 observations with positive net income and operating cash flow to obtain distressed firms. Next, I dropped 1,847 firm-year observations for which complete data were not available. I then imposed the restriction that at least one observation be available before and after the inspection period for each firm, and 1,036 firm-year observations were dropped as a result. The final sample consists of 576 firm-year observations for the going concern opinion analysis.

CHAPTER 7

INTERNATIONAL INSPECTIONS AND EARNINGS QUALITY

7.1 Cross-sectional abnormal accruals model

7.1.1 Descriptive statistics

Table 4 presents descriptive statistics for each country for country-level institutional control variables. The factor score (INVPROFAC) of six investor protection variables (LEGALORIGIN, ANTIDI, DISCLOSURE, LIABILITY, PUBLICEN, SECSTAFF) for the cross-sectional abnormal accruals model ranges from -1.5 in Germany to 2.17 in Singapore. Finland has the highest rule of law (RULEOFLAW) at 1.97 and Papua New Guinea the lowest at -0.93. The mean value of the number of differences between international accounting standards and domestic accounting standards (IASDIFF) is 8.8 with the fewest differences in Singapore and South Africa (0) and the most in Colombia (20). GDP growth (GDPGROWTH) has a mean value of 4.08% for 2009-2010 with the highest in Singapore (14.47%) and the lowest in Greece (-3.52%). GDP per person (GDPPERCAP) in 2010 has a mean value of \$29,709 with the highest in Luxembourg (\$105,438) and the lowest in Papua New Guinea (\$1,382).

Table 5, Panels A-C shows the country composition, the industry composition⁶⁰, and the yearwise composition of the sample used in the cross-sectional abnormal accruals model. Canada has highest number of observations (about 30%) followed by Israel, Hong Kong, and United Kingdom (15%, 14%, and 7%, respectively). The durable manufacturing industry has the highest number of observations (18.9%) followed by Transportation, and Computers (18.8% and 17%,

⁶⁰ Industry classification follows Ashbaugh, LaFond, and Mayhew (2003).

respectively). Finally, the sample years range from 2005 to 2010 and the yearly observations are between 14% (2005) and 18.9% (2009) of the sample.

Descriptive statistics for the variables, and univariate tests for differences across the blacklist and non-blacklist groups, are presented in Table 6. To reduce the impact of outliers, all continuous variables are winsorized at the 1% and 99% levels for all models. Abnormal accruals (ABACCR) and total accruals (TACCR) of blacklisted clients are significantly larger than those of complying clients in the univariate test. However, the univariate test does not control for other factors associated with abnormal accruals and total accruals. For clearer inferences about the effect of PCAOB inspections, I rely on the multivariate analyses presented in the next section.

Blacklisted clients are more likely to be located in jurisdictions where the investor protection environment (INVPROFAC) is strong, and where common law (RULEOFLAW) is prevalent. GDP growth rate (GDPGROWTH) is lower and GDP per person (GDPPERCAP) and equity market size (MKTSIZE) are larger for blacklisted countries. These differences arise because less-developed jurisdictions have not blocked PCAOB inspections, whereas the blacklisted firms are mostly located in European countries where the capital markets are well developed and have slower growth compared to less-developed regions. The extent of difference between domestic GAAP and IFRS (IASDIFF) is smaller for blacklisted clients because most European firms have adopted IFRS. Blacklisted firms are larger (LOGSALE), have higher cash flows (CFO) and higher leverage (LEV), are less likely to have losses (LAGLOSS) and are less likely to be audited by Big 4 audit firms (BIG4).

7.1.2 Multivariate results

Table 7 presents the regression results for model (1), with abnormal accruals (ABACCR) and total accruals (TACCR) as dependent variables in columns 1-2 and 3-4, respectively. The models are significant (F-value=33.32, p-value=<.0001, F-value=25.25, p-value=<.0001) with adjusted R-square of 41 percent and 33 percent, respectively, for the abnormal accruals and total accruals models. The test variable, BLACKLIST, has a significant positive coefficient, with p-values of 0.003 and 0.047 (two-tailed tests), respectively for the abnormal accruals and total accruals model. Thus, after controlling for other variables, abnormal accruals and total accruals are higher for blacklisted clients in the period following the start of PCAOB inspections of foreign auditors in 2005. This is consistent with hypothesis (H 1-1), that the clients of foreign audit firms that have undergone PCAOB inspections have higher earnings quality than clients of foreign auditors that have not been inspected by the PCAOB.

Among the control variables, the investor protection factor score (INVPROFAC) is, consistent with Michas (2011) and Leuz et al. (2003), significantly negative in the abnormal accruals model. The Big 4 indicator has an insignificant coefficient, which is consistent with the finding of Francis and Wang (2008). The results for the other control variables are for the most part consistent with previous research. Abnormal accruals and total accruals are lower for small firms (LOGSALE) and high-leveraged (LEV) firms. Operating cash flow (CFO) has a negative contemporaneous relation with abnormal accruals and total accruals as expected (Dechow, 1994; Beneish, 1997). The current sales growth (GROWTH) is positively associated with abnormal accruals. I also examine the correlations among the independent variables. All correlations are below 0.5 with the exception of those between INVPROFAC and RULEOFLAW (0.68) and

between RULEOFLAW and GDPPERCAP (0.86). Results after dropping each of these variables one at a time are qualitatively unchanged.

The results above are based on standard errors clustered at the firm and year level. Client firms that have the same auditor may have similar characteristics. Table 7, Panel B provides the regression results based on standard errors clustered at the *audit firm* (instead of firm) and year level. Results are not qualitatively changed.

7.1.3 Additional analyses

As discussed in Chapter 2, in a few jurisdictions, the PCAOB conducted inspections in cooperation with the local authority. In many others, e.g., Argentina, Brazil, Chile, India, Israel, Japan, Mexico, South Africa, it conducted the inspections by itself. I compare the difference between blacklisted and complying clients in jurisdictions in which the inspections were conducted jointly with the local authorities and on a stand-alone basis by the PCAOB. I construct a dummy variable, ALONEINS, coded 1 if the firm is located in jurisdictions where the PCAOB has conducted inspections on a stand-alone basis, and 0 otherwise. I then estimate the regressions including both BLACKLIST and ALONEINS. The results are shown in Table 8, Panel A. The coefficients for BLACKLIST and ALONEINS indicate the difference in the abnormal accruals (or total accruals) between the blacklist and joint-inspection firms and the stand-alone inspection and joint-inspection firms, respectively. I find both coefficients to be significantly positive in the abnormal accruals model, suggesting that both blacklisted clients (whose auditors were not inspected) and firms whose auditors were inspected on a stand-alone basis by the PCAOB, had higher abnormal accruals than firms whose auditors were jointly

audited by the PCAOB and the local authorities. However, only the coefficient for BLACKLIST is positive in the total accruals model. Overall, these results suggest that the PCAOB joint inspections have positively affected audit quality possibly because the PCAOB inspections are enhanced by the country-specific knowledge of the local inspectors.

I also examine the PCAOB international inspection effect on abnormal accruals and total accruals separately for firms in the common law and civil law countries. The effect of the inspections in different investor protection regimes depends on both the ex-ante (pre-inspection) differences in audit quality, and the impact of the inspections on auditor behavior in these regimes. Holding auditor response to inspections constant, one would expect that, because the ex-ante audit quality is likely to be higher in common law countries than in civil law countries, the PCAOB inspections may have a smaller effect in the former than in the latter. However, auditors may respond differentially across the regimes. Foreign auditors located in common law countries have strong incentives to maintain higher audit quality due to high litigation costs and are more likely to respond to the PCAOB inspections. If so, the PCAOB inspections would have a greater effect in the common law countries compared to the civil law countries. In the abnormal accruals model (Table 8, Panel B), the test variable, BLACKLIST, has a significant positive coefficient only in common law countries. However, the coefficient for BLACKLIST is not significant in the common law country subsample in the total accruals model (Table 8, Panel C). It seems that foreign auditors located in common law countries respond more to the PCAOB inspections due to high litigation costs in their home countries.

Next, I examine the PCAOB international inspection effect on abnormal accruals and total accruals separately for Big 4 clients (Deloitte, Ernst & Young, KPMG,

PricewaterhouseCoopers) and non-Big 4 clients. The effect of the PCAOB inspections on Big 4 client firms and non-Big 4 clients depends on incentives of both Big 4 and non-Big 4 auditors. Big-4-affiliated foreign auditors have strong incentives to maintain high audit quality due to reputational concerns and litigation exposure, and are more likely to respond to PCAOB inspections. If so, the PCAOB inspections would have a greater effect on Big 4 clients compared to non-Big 4 clients. In contrast, non-Big 4 auditors have lower audit quality than Big 4 auditors and are more likely to respond to PCAOB inspections to mitigate the higher expected sanctions from the PCAOB and SEC. In this case, the PCAOB inspections would have a greater effect on non-Big 4 clients than on Big 4 clients. As shown in Table 8, Panels D-E, the test variable, BLACKLIST, has a significant positive coefficient only in the Big 4 subsample in the abnormal accruals and total accruals model. Big 4 affiliated foreign auditors are more likely to respond to the PCAOB inspections possibly due to high reputational concerns and litigation exposure.

Additionally, I check the PCAOB international inspection effect on abnormal accruals and total accruals separately for the clients of the largest six auditors (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers, BDO Seidman, and Grant Thornton), and the clients of the other smaller auditors. Results are qualitatively similar to those for the Big 4 and non-Big 4 subsamples.

7.2 Time series abnormal accruals model

7.2.1 Descriptive statistics

Table 9, Panels A-C show the country composition, the industry composition, and the yearwise composition of the sample used in the time series abnormal accruals model. Canada has the highest number of observations (about 39%) followed by Israel, United Kingdom, and Brazil (22%, 8%, and 6%, respectively). The Computer industry has the highest number of observations (21%) followed by Transportation, and Durable manufacturing (17.2% and 16.6%, respectively). The sample years range from 2000 to 2010 and the yearly observations are between 1.5% (2000) and 12.6% (2005 and 2006) of the sample. Descriptive statistics for the variables are presented in Table 10. Abnormal accruals of clients of inspected foreign auditors are significantly lower in the post-inspection period (POSTINSPEC1) than in the pre-inspection period. Total accruals of clients of inspected foreign auditors are not significantly different between the pre-inspection and the post-inspection periods. However, the univariate test does not control for other factors associated with abnormal accruals and total accruals. For clearer inferences about the effect of PCAOB inspections, I rely on the multivariate analyses presented in the next section.

GDP growth rate (GDPGROWTH), GDP per person (GDPPERCAP) and equity market size (MKTSIZE) are lower and GDP size (LOGGDP) are larger in the post-inspection period. These differences may be driven by bad economic conditions in recent times and the time difference. Not surprisingly, other time-invariant country level variables are not significantly different between the pre-inspection period and the post-inspection period. Clients of inspected foreign auditors are larger (LOGSALE) and are less likely to have losses (LAGLOSS) in the post-inspection period. Clients of inspected foreign auditors are more likely to be audited by Big 4 audit firms (BIG4) and have lower growth rates (GROWTH) in the post-inspection period.

7.2.2 Multivariate results

Panels A-B in Table 11 present the regression results for model (3). The models are significant with adjusted R-square of 71-72 percent and 27-34 percent, respectively, for abnormal accruals and total accruals models. The test variables (POSTINSPEC1, POSTINSPEC2, POSTINSPEC3) have negative coefficients, with p-values of <0.0001-0.01 and 0.005-0.055 (two-tailed test), respectively for abnormal accruals and total accruals model. Thus, after controlling for other variables, abnormal accruals and total accruals are lower following initial PCAOB inspections for clients of inspected foreign auditors. This result is consistent with hypothesis (H 1-2) that clients of foreign auditors that have undergone initial PCAOB inspections improve earnings quality. Among the control variables, investor protection factor score (INVPROFAC) is significantly negative in the abnormal accruals model and this is consistent with the finding of Michas (2011) and Leuz et al. (2003). The Big 4 indicator has an insignificant coefficient, which is consistent with the finding of Francis and Wang (2008). The results for the other control variables are for the most part consistent with previous research. Abnormal accruals and total accruals are lower for small firms and total accruals are lower for highly leveraged (LEV) firms. Operating cash flow (CFO) has a negative relation with abnormal accruals as expected. Annual sales growth (GROWTH) is positively associated with abnormal accruals. I also examine the correlations among the independent variables. All correlations are below 0.5 with the exception of those between INVPROFAC and RULEOFLAW (0.82), between RULEOFLAW and GDPPERCAP (0.83) and between INVPROFAC and

GDPPERCAP (0.63). Results after dropping each of these variables one at a time are qualitatively unchanged.

As a sensitivity test, Table 11, Panels C-D provide the abnormal and total accruals regression results based on standard errors clustered at the *audit firm* and year level. Results are not qualitatively changed.

7.2.3 Additional analyses

I compare the results of the tests reported above for clients of foreign auditors located in jurisdictions in which the inspections were conducted jointly with the local authorities and conducted on a stand-alone basis by the PCAOB. Thus, I construct dummy variables, JOINTINS, coded 1 if the firm is located in jurisdictions where the PCAOB has conducted joint inspections (Australia, Canada, Korea, and Singapore), and 0 otherwise, and ALONEINS, coded 1 if the firm is located in jurisdictions where the PCAOB has conducted inspections alone (Argentina, Brazil, Chile, Greece, Hong Kong, India, Ireland, Israel, Japan, Mexico, Norway, South Africa, United Kingdom) and 0 otherwise. ALONEPOST and JOINTPOST are interaction variables between ALONEINS and POSTINSPEC1 and JOINTINS and POSTINSPEC1, respectively. The results are shown in Table 12, Panel A. The coefficient for JOINTPOST is significantly negative for the abnormal accruals and total accruals models, but the coefficient for ALONEPOST is significantly negative only in the total accruals model. These results suggest that the PCAOB joint inspections have positively affected earnings quality, proxied by abnormal accruals, of clients of inspected foreign auditors.

I then check the PCAOB international inspection effect on abnormal accruals and total accruals separately for firms in the common law and civil law countries. As shown in Table 12, Panels B-C, the test variable, POSTINSPEC1, has a significant negative coefficient only in common law countries for abnormal accruals and total accruals model. Foreign auditors located in common law countries are more likely to respond to the PCAOB inspections due to high litigation costs in their home countries.

Next, I examine the PCAOB international inspection effect on abnormal accruals and total accruals separately for Big 4 (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers) and non-Big 4 clients. As shown in Table 12, Panels D-E, the test variable, POSTINSPEC1, has a significant negative coefficient in Big 4 subsample for the abnormal accruals and total accruals model. Big 4 affiliated foreign auditors are more likely to respond to the PCAOB inspections due to high reputational concerns and litigation exposure in the post-inspection period. Additionally, I check the PCAOB international inspection effect on abnormal accruals and total accruals for clients of the largest six auditors (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers, BDO Seidman, and Grant Thornton) and clients of the other smaller auditors in the post-inspection period. Results are qualitatively similar to that of Big 4 and non-Big 4 subsamples.

Lastly, I check the PCAOB international inspection effect on abnormal accruals and total accruals after dropping observations for years 2000 and 2001. Years 2000-2001 is the pre-SOX period and this may affect inspections effect on abnormal accruals and total accruals. Results after dropping observations for years 2000 and 2001 are qualitatively similar to previous main results.

7.3 Conclusion

In this chapter, I investigate whether first-time PCAOB international inspections result in higher earnings quality, proxied by abnormal accruals and total accruals, both in the cross-sectional sample and in the longitudinal sample. My findings based on multivariate analyses are as follows. First, after controlling for other factors relating abnormal accruals and total accruals, I find that abnormal accruals and total accruals are higher for blacklisted clients since the PCAOB began conducting inspections for foreign auditors in 2005 and abnormal accruals and total accruals are lower after initial PCAOB inspections for clients of inspected foreign auditors. These are consistent with the first two hypotheses (H1-1 and H1-2), that earnings quality is higher for complying clients than blacklisted clients since the PCAOB began conducting inspections in foreign auditors and earnings quality is higher after initial PCAOB inspections for clients of inspected foreign auditors. Second, I find a significant effect of PCAOB inspections on abnormal accruals and total accruals in the jurisdictions where it conducted joint inspections (Australia, Canada, Korea, Singapore) both in the cross-sectional sample and in the longitudinal sample. Third, I find a significant PCAOB inspection effect on abnormal accruals and, less consistently, total accruals only in common law countries. Fourth, I find a significant PCAOB inspection effect on abnormal accruals and total accruals only in Big 4 clients. Results for POSTINSPEC2 and POSTINSPEC3 (untabulated) are similar to those reported above. Overall, I conclude that there was a PCAOB inspection effect on abnormal accruals and total accruals for clients of foreign audit firms, but this was mainly for jointly inspected foreign auditors, foreign auditors in common law countries and Big 4 affiliated foreign auditors.

CHAPTER 8

INTERNATIONAL INSPECTIONS AND VALUE RELEVANCE

8.1 Cross-sectional value relevance analysis

8.1.1 Descriptive statistics

Table 13, Panels A-C show the country composition, the industry composition, and the yearwise composition of the sample used in the cross-sectional value relevance model. Canada has the highest number of observations (about 28%) followed by Israel, Hong Kong, and China (12%, 10%, and 8%, respectively). The Computer industry has the highest number of observations (18%) followed by Transportation, and Durable manufacturing (17% and 16%, respectively). Finally, the sample years range from 2005 to 2010 and the yearly observations are between 14% (2005) and 19% (2009) of the sample.

Descriptive statistics for the variables are presented in Table 14. Price (P), net income per share (NIPS), and book value of equity per share (BVPS) are significantly larger for blacklisted clients than for complying clients. This may be because there is a significant variation in the degree of development of capital markets in the jurisdictions in which the complying clients are located, whereas the blacklisted clients are mostly located in European countries where the capital market is well developed.

8.1.2 Multivariate results

Table 15 presents the regression results for model (4) in the cross-sectional value relevance model. The value relevance model is significant with adjusted R-square of 19 percent and 27 percent, respectively, for blacklisted and complying clients. The explanatory power of the

value relevance model for complying clients is higher (0.27) than that for blacklisted clients (0.19) after initial PCAOB inspections of foreign auditors in 2005, and the difference is statistically significant ($p\text{-value} < 0.0001$). This is consistent with hypothesis (H 1-1) that the clients of foreign audit firms that have undergone PCAOB inspections have higher earnings quality, proxied by value relevance, than clients of foreign auditors that have not been inspected by the PCAOB.

8.1.3 Additional analyses

First, I compare the difference in value relevance between firms in jurisdictions in which the inspections were conducted jointly (“joint-inspection clients”) with the local authorities and firms in jurisdictions in which the inspections were conducted on a stand-alone basis by the PCAOB (“stand-alone-inspection clients”). I construct a joint-inspection subsample (the firm is located in jurisdictions where the PCAOB has conducted joint inspections, i.e., Australia, Canada, Korea, and Singapore) and a stand-alone inspection subsample (the firm is located in jurisdictions where the PCAOB has conducted inspections on a stand-alone basis, i.e., Argentina, Bermuda, Brazil, Chile, Columbia, Hungary, Indonesia, Israel, Japan, Mexico, New Zealand, Panama, Papua New Guinea, Peru, Philippines, Russia, South Africa, Taiwan).

As shown in Table 16, Panel A, the explanatory power of the value relevance model for the joint-inspection clients is significantly higher than that for the stand-alone-inspection clients ($p\text{-value} < 0.0001$) and blacklisted clients. This suggests that PCAOB joint inspections have a greater positive effect on value relevance for clients of the inspected foreign auditors than

PCAOB stand-alone inspections. This is possibly because the PCAOB inspections are enhanced by the country-specific knowledge of the local inspectors.

I then examine the PCAOB international inspection effect on value relevance separately for firms in the common law and civil law countries. Interestingly, as shown in Table 16, Panel B, the explanatory power of the value relevance model for complying clients is significantly higher than that for blacklisted clients only in civil law country subsample. This result is different from results from other models.

Lastly, I examine the PCAOB international inspection effect on value relevance separately for Big 4 clients (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers) and non-Big 4 clients. As shown in Table 16, Panel C, the explanatory power of the value relevance model for complying clients is significantly higher than that for blacklisted clients both in the Big 4 client and non-Big 4 client subsamples.

8.2 Time series value relevance analysis

8.2.1 Descriptive statistics

Table 17, Panels A-C show the country composition, the industry composition, and the yearwise composition of the sample used in the time series value relevance model. Canada has the highest number of observations (about 34%) followed by Israel and United Kingdom (21% and 9%, respectively). The Computers industry has the highest number of observations (21%) followed by Transportation, and Durable manufacturing (19% and 14%, respectively). The sample years range from 2000 to 2010 and the yearly observations are between 1.0% (2000) and 12.6% (2007) of the sample.

Descriptive statistics for the variables are presented in Table 18. Price (P), net income per share (NIPS), and book value of equity per share (BVPS) of clients of inspected foreign auditors before and after initial PCAOB inspection are not significantly different in the univariate tests. This suggests that structural changes that can affect market and accounting performance of firms do not occur between the pre-inspection and post-inspection period.

8.2.2 Multivariate results

Table 19 presents the regression results for model (4) in the time series value relevance model. The value relevance model is significant with adjusted R-square of 6-12 percent and 24-30 percent, respectively, for the pre-inspection and post-inspection subsamples (POSTINSPEC1, POSTINSPEC2, POSTINSPEC3). The explanatory power of the value relevance model for the post-inspection samples (POSTINSPEC1, POSTINSPEC2, POSTINSPEC3) is significantly higher than that for the pre-inspection samples, and the differences are statistically significant (p -value ≤ 0.0001 , ≤ 0.0001 , ≤ 0.0001). This is consistent with hypothesis (H 1-2), that the clients of foreign audit firms that have undergone PCAOB inspections have higher earnings quality, proxies by value relevance, in the post-inspection period than in the pre-inspection period.

8.2.3 Additional analyses

First, I examine the change in value relevance after initial PCAOB inspections for clients of foreign auditors located in jurisdictions in which the inspections were conducted jointly with the local authorities and on a stand-alone basis by the PCAOB. As shown in Table 20, Panel A, the explanatory power of the value relevance model after initial PCAOB inspection is

significantly higher in the joint inspection (p-value= <0.0001) and the stand-alone inspection (p-value= <0.0001) subsamples.

I then examine the PCAOB international inspection effect on value relevance separately for firms in the common law and civil law countries. As shown in Table 20, Panel B, the explanatory power of the value relevance model increases after initial PCAOB inspections in both the common law and civil law subsamples.

Next, I examine the PCAOB international inspection effect on value relevance separately for Big 4 clients (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers) and non-Big 4 clients. As shown in Table 20, Panel C, the explanatory power of the value relevance model increases after initial PCAOB inspections in both Big 4 and non-Big 4 subsamples.

8.3 Conclusion

In this chapter, I investigate whether the PCAOB inspections result in higher earnings quality, proxied by value relevance. My findings are as follows. First, I find that the explanatory power of the value relevance model for complying clients is significantly higher than that for blacklisted clients since the PCAOB began conducting foreign inspections in 2005 and the explanatory power of the value relevance model is significantly higher after initial PCAOB inspections. These findings are consistent with the first two hypotheses (H1-1 and H1-2) that earnings quality is higher for complying firms than blacklisted clients since the PCAOB began conducting foreign inspections and earnings quality is higher in the post-inspection period than in the pre-inspection period for clients of PCAOB-inspected foreign auditors. Second, I find a significant effect of PCAOB inspections on value relevance in the jurisdictions where it

conducted joint inspections (Australia, Canada, Korea, Singapore) both in the cross-sectional and longitudinal samples. Third, I find a significant PCAOB inspection effect on value relevance in common law countries only for the longitudinal sample. Lastly, I find a significant PCAOB inspection effect on value relevance for Big 4 clients and non-Big 4 clients both in the cross-sectional and in the longitudinal samples. Results for the pre-inspection and post-inspection subsamples using POSTINSPEC2 and POSTINSPEC3 are similar to those reported for POSTINSPEC1. Overall, I conclude that there was a PCAOB inspection effect on value relevance for clients of foreign audit firms, but this was mainly for jointly inspected foreign auditors.

CHAPTER 9

INTERNATIONAL INSPECTIONS AND AUDITOR'S GOING CONCERN OPINION

9.1 Cross-sectional going concern opinion model

Following prior work, I conduct the going concern analysis for samples of firms that are financially distressed (DeFond et al. 2002; Carcello and Neal 2000). Because it is not clear what measure of financial stress is best suited for an international setting, I employ two ways to identify stressed samples: (1) firm-years with negative net income or negative cash flow from operations (“NNI/CFO sample”) and (2) firm-years in the top quartile of the distribution of Zmijewski’s probability of bankruptcy⁶¹ (“EDQ sample”).

9.1.1 Descriptive statistics

Table 21, Panels A-C show the country composition, the industry composition, and the yearwise composition for the NNI/CFO and EDQ samples. For the NNI/CFO sample, Canada has the highest number of observations (about 42%) followed by Israel, Hong Kong, and Australia (21%, 9%, and 4%, respectively). The Agriculture, Mining and Construction industry has the highest number of observations (27%) followed by Durable manufacturing, and Computers (17.4% and 16.9%, respectively). The sample years range from 2005 to 2010 and annual observations are between 13% (2005) and 21% (2008) of the sample. For the EDQ sample, Canada has the highest number of observations (about 28%) followed by Israel, Greece,

⁶¹ Zmijewski’s Z score is computed as the following (Zmijewski 1984, Table 3).

$Z = -4.803 - (3.599 \times \text{net income}/\text{total assets}) + (5.406 \times \text{total debt}/\text{total assets}) - (0.1 \times \text{current assets}/\text{current liabilities})$
Probability of bankruptcy computes the probability from the standard normal distribution using Zmijewski’s Z score.

and Hong Kong (14%, 11%, and 8%, respectively). The transportation industry has the highest number of observations (41%) followed by Pharmaceuticals, and Durable manufacturing (12% and 11%, respectively). The sample years range from 2005 to 2010 and yearly observations are between 10% (2005) and 22% (2008) of the sample.

Descriptive statistics for the variables are presented for the NNI/CFO and EDQ samples in Table 22, Panels A-B. As shown in Table 22, Panel B, blacklisted clients (BLACKLIST) are significantly less likely to receive a going concern opinion than complying clients in both samples (NNI/CFO and EDQ) in the univariate test. However, the univariate test does not control for other factors associated with going concern opinion. For clearer inferences about the effect of PCAOB inspections, I rely on the logit analyses presented in the next section. As shown in Table 22, Panel A, going concern firms are more likely to be smaller (LOGASSET), distressed (PROBANKZ), levered (LEV), have more multiple losses (LAGLOSS) and volatile returns (VOL) and are less likely to be audited by Big 4 auditors (BIG4) in both samples. These results are generally consistent with prior literature.

As shown in Table 22, Panel B, GDP growth rate (GDPGROWTH) is lower and GDP per person (GDPPERCAP) and equity market size (MKTSIZE) are larger for blacklisted clients in both samples. These differences may exist because there is significant variation in the degree of development of capital markets in the jurisdictions in which the complying clients are located, whereas the blacklisted clients are mostly located in European countries where the capital market is well developed and has less room for growth compared to other regions. Blacklisted clients are larger (LOGASSET) and are less likely to have multiple losses (LAGLOSS) and short term and long term investments (INVEST) and more likely to be audited by Big 4 auditors in both samples.

9.1.2 Multivariate results

Table 23 presents the logit regression results for model (5) for the two (NNI/CFO and EDQ) samples. The models are significant with pseudo R-square of 21 percent and 24 percent, respectively, for the NNI/CFO and EDQ samples. The test variable, BLACKLIST, has a significant negative coefficient, with p-value of 0.02 and 0.03 (two-tailed test), respectively, for the NNI/CFO and EDQ samples. Thus, after controlling for other variables, the likelihood of receiving a going concern opinion is lower for blacklisted clients after initial PCAOB inspections of foreign auditors in 2005. This is consistent with hypothesis (H 2-1), that likelihood of receiving a going concern opinion is lower for financially distressed blacklisted clients (i.e. clients of foreign audit firms that were not inspected) than for financially distressed complying clients (i.e. clients of inspected foreign audit firms). Among the control variables, going concern opinion in the prior year (PRIORGC) is significantly positively associated with going concern opinion in the current year (GC) in both samples and this is consistent with the finding of Carcello and Neal (2000). High risk firms (VOL) and firms with multiple losses over the years (LAGLOSS) are more likely to receive a going concern opinion in both samples.

All correlations are below 0.5 with the exception of those between INVPROFAC and RULEOFLAW (0.67), between RULEOFLAW and GDPPERCAP (0.82), between IASDIFF and INVPROFAC (-0.7), and between LEV and CHLEV (0.65) in the NNI/CFO sample. Results after dropping each of these variables one at a time are qualitatively unchanged. All correlations are below 0.5 with the exception of those between INVPROFAC and RULEOFLAW (0.67), between RULEOFLAW and GDPPERCAP (0.81), between IASDIFF and INVPROFAC (-0.57),

and between LEV and CHLEV (0.56) in the EDQ sample. Results after dropping each of these variables one at a time are qualitatively unchanged.

9.1.3 Additional analyses

First, I examine the difference in the likelihood of receiving a going concern opinion between blacklisted and complying clients in jurisdictions in which the inspections were conducted jointly with the local authorities and on a stand-alone basis by the PCAOB. Thus I construct a dummy variable, ALONEINS, coded 1 if the firm is located in jurisdictions where the PCAOB has conducted inspections on a stand-alone basis, and 0 otherwise. I then estimate the logit regressions including both BLACKLIST and ALONEINS. The results are shown in Table 24, Panel A, for the NNI/CFO and EDQ samples. The coefficients for BLACKLIST and ALONEINS indicate the difference in the likelihood of receiving a going concern opinion between the blacklist and joint-inspection firms and the stand-alone inspection and joint-inspection firms, respectively. I find only the coefficient for BLACKLIST to be significantly negative in both samples, suggesting that blacklisted firms (whose auditors were not inspected) had lower likelihood of receiving a going concern opinion than firms whose auditors were jointly audited by the PCAOB and the local authorities. However, the coefficient for ALONEINS is not significant in both samples.

As shown in Table 24, Panel B, I do not find a significant PCAOB inspection effect on common law country subsample in both samples (the NNI/CFO and EDQ samples)⁶². However,

⁶² Results for the civil law and non-Big 4 subsamples are not presented because maximum likelihood estimation could not be performed properly due to small sample size. The coefficient for BLACKLIST is not significant in the civil law and non-Big 4 subsamples in both samples.

I find a significant PCAOB inspection effect (the significantly negative coefficient of BLACKLIST) on Big 4 subsample in both samples (Table 24, Panel C). Big 4 affiliated foreign auditors (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers) are more likely to respond to the PCAOB inspections due to high reputational concerns and litigation exposure.

9.2 Time series going concern opinion model

9.2.1 Descriptive statistics

Table 25, Panels A-C show the country composition, the industry composition, and the yearwise composition of the negative net income or negative cash flow from operation (NNI/CFO) and extreme distress quartile (EDQ) samples used in the longitudinal going concern model. For the NNI/CFO sample, Canada has the highest number of observations (about 47%) followed by Israel, Australia, and South Africa (36%, 5%, and 2%, respectively). The computers industry has the highest number of observations (28%) followed by Agriculture, Mining, and Construction, and Pharmaceuticals (22% and 17%, respectively). The sample years range from 2001 to 2010 and yearly observations are between 3% (2001) and 14% (2007 and 2008) of the sample. For the EDQ sample, Canada has the highest number of observations (about 34%) followed by Israel, United Kingdom, and Greece (19%, 13%, and 8%, respectively). The Transportation industry has the highest number of observations (33%) followed by Computers, and Pharmaceuticals (14% and 13%, respectively). The sample years range from 2001 to 2010 and yearly observations are between 4% (2001) and 15% (2008) of the sample.

Descriptive statistics for the variables are presented for the NNI/CFO and EDQ samples in Table 26, Panels A-B. As shown in Table 26, Panel A, going concern firms are more likely to

be smaller (LOGASSET), distressed (PROBANKZ), levered (LEV AND CHLEV), have more multiple losses (LAGLOSS) in both samples. These results are generally consistent with prior literature. As shown in Table 26, Panel B, the univariate test indicates that the likelihood of receiving a going concern opinion for clients of inspected foreign auditors is significantly higher after the first-time PCAOB inspection (POSTINSPEC1) only for the NNI/CFO sample. However, the univariate test does not control for other factors associated with going concern opinion. For clearer inferences about the effect of PCAOB inspections, I rely on the logit analyses presented in the next section. Among other variables (in Table 26, Table B), GDP growth rate (GDPGROWTH) is lower and GDP per person (GDPPERCAP) and GDP size (LOGGDP) are larger in the post-inspection period than in the pre-inspection period. These differences may be driven by the time difference and bad economic conditions in recent times. Not surprisingly, other time-invariant country level variables do not differ between the pre-inspection and post-inspection period. Clients of inspected foreign auditors have more volatile stock returns (VOL) and higher leverage increase (CHLEV) in the post-inspection period compared to the pre-inspection period.

9.2.2 Multivariate results

Table 27, Panels A-B present the logit regression results for model (6) for the negative net income or negative cash flow from operations (NNI/CFO) and extreme distress quartile (EDQ) samples. The models are significant with pseudo R-square of 24 percent and 29-33 percent, respectively, in the NNI/CFO and EDQ samples. The two test variables (POSTINSPEC1, POSTINSPEC2) are positively significant, with p-value of 0.017 and 0.013

(two-tailed test), only in the EDQ sample. However, the test variables (POSTINSPEC1, POSTINSPEC2) are not significant in the NNI/CFO sample. Rather, I find a significant negative coefficient for POSTINSPEC3 in the NNI/CFO sample. These results less consistently support hypothesis (H 2-2), that the likelihood of receiving a going concern opinion is higher after initial PCAOB inspection period for financially distressed clients of inspected foreign audit firms. Among the control variables, going concern opinion in the prior year (PRIORGOC) is significantly positively associated with going concern in the current year (GC) in both samples and this is consistent with the finding of Carcello and Neal (2000). More volatile firms (VOL) and firms with higher leverage change (CHLEV) and less short-term and long-term investments (INVEST) are more likely to receive a going concern opinion in both samples. These results are generally consistent with prior literature.

All correlations are below 0.5 with the exception of those between INVPROFAC and RULEOFLAW (0.77), between RULEOFLAW and GDPPERCAP (0.84), between IASDIFF and INVPROFAC (-0.64), between INVPROFAC and MKTSIZE (0.63), and between LEV and CHLEV (0.58) in the EDQ sample. Results after dropping each of these variables one at a time are qualitatively unchanged.

9.2.3 Additional analyses

First, I examine the difference in the likelihood of receiving a going concern opinion in the pre-inspection and post-inspection periods, for clients of foreign auditors located in jurisdictions in which the inspections were conducted jointly with the local authorities and on a stand-alone basis by the PCAOB. Thus I construct dummy variables, JOINTINS, coded 1 if the

firm is located in jurisdictions where the PCAOB has conducted joint inspections (Australia, Canada, Korea), and 0 otherwise, ALONEINS, coded 1 if the firm is located in jurisdictions where the PCAOB has conducted inspections alone (Argentina, Greece, India, Ireland, Israel, Japan, Mexico, New Zealand, South Africa, United Kingdom in the NNI/CFO sample and Argentina, Brazil, Chile, Greece, India, Indonesia, Ireland, Israel, Japan, Mexico, New Zealand, Philippines, South Africa, United Kingdom in the EDQ sample) and 0 otherwise. ALONEPOST and JOINTPOST are interaction variables between JOINTINS and POSTINSPEC1 and ALONEINS and POSTINSPEC1. The results are shown in Table 28, Panel A. The coefficient for JOINTPOST and ALONEPOST is significantly positive only in the EDQ sample, but the coefficient for JOINTIPOST and ALONEPOST is not significant in the NNI/CFO sample. This result less consistently supports that the PCAOB joint and stand-alone inspections have positively affected audit quality, proxied by the likelihood of receiving a going concern opinion, in the post-inspection period for inspected foreign auditors.

As shown in Table 28, Panels B-C, I do not find a significant PCAOB inspection effect on the common law country and Big 4 subsamples in both samples (the NNI/CFO and EDQ samples)⁶³. Rather, I find a significant negative coefficient for POSTINSPEC1 in the common law country and Big 4 subsamples in the NNI/CFO sample.

9.3 Conclusion

⁶³ Results for the civil law and non-Big 4 subsamples are not presented because maximum likelihood estimation could not be performed properly due to small sample size. The coefficient for POSTINSPEC1 is not significant in the civil law and non-Big 4 subsamples in both samples.

In this chapter, I investigate whether the PCAOB inspections result in higher audit quality, proxied by the likelihood of receiving a going concern opinion. The negative net income or negative cash flow from operations (NNI/CFO) and extreme distress quartile (EDQ) samples are employed to capture distressed firms in the going concern opinion model. My findings based on logit analyses are as follows. First, the likelihood of receiving a going concern opinion is lower for blacklisted clients after initial PCAOB inspections of foreign auditors in 2005. This is consistent with hypothesis (H 2-1), that likelihood of receiving a going concern opinion is lower for financially distressed blacklisted clients (i.e. clients of foreign audit firms that were not inspected) than for financially distressed complying clients (i.e. clients of inspected foreign audit firms). However, the likelihood of receiving a going concern opinion for clients of inspected foreign auditors is higher in the post inspection period than in the pre-inspection period only in the EDQ sample (POSTINSPEC1 and POSTINSPEC2). Second, I find that blacklisted clients (whose auditors were not inspected) had lower likelihood of receiving a going concern opinion than firms whose auditors were jointly audited by the PCAOB and the local authorities for both samples in the cross-sectional going concern opinion model. However, I find that the likelihood of receiving a going concern opinion is higher in the post-inspection period than in the pre-inspection period for the joint inspection and stand-alone inspection firms only in the EDQ sample in the longitudinal going concern opinion model. Third, I find a significant PCAOB inspection effect on Big 4 clients only in the cross-sectional going concern model. Lastly, I do not find a significant PCAOB inspection effect on firms in the common law countries unlike results from abnormal accruals and value relevance model. Overall, I conclude that there was a

less consistent PCAOB inspection effect on the likelihood of receiving a going concern opinion for clients of foreign audit firms.

CHAPTER 10

CONCLUSION

In this dissertation, I investigate (1) whether clients of foreign audit firms that did not undergo PCAOB inspections (blacklisted clients) are associated with lower audit quality than clients whose foreign auditors have been inspected by the PCAOB (complying clients) and (2) whether audit quality improves after initial PCAOB inspection for clients of inspected foreign auditors.

Any foreign auditor that provides audit reports to public issuers is required to register with the PCAOB, and is subject to the same rules as U.S. auditors under SOX Section 106(a). However, foreign auditors in some jurisdictions have not provided requested audit information for PCAOB inspections due to legal conflicts with their home country laws and sovereignty issues. As a result, the PCAOB published (on May 18, 2010) a list of client firms audited by PCAOB-registered foreign auditors that are located in jurisdictions that did not allow PCAOB inspections.

I use cross-sectional and longitudinal samples to test my hypotheses. The test firms in the cross-sectional sample are the blacklisted client firms that were identified by the PCAOB in 2010. The control sample consists of foreign firms and U.S. firms, on the Compustat database, with their principal places of business in the foreign countries whose auditors are located in the jurisdictions where the PCAOB has conducted inspections as of December 31, 2009. The sample period covers the years 2005 (the first year the PCAOB conducted foreign inspections) through 2010. For the longitudinal sample, I start with audit firm list from 174 first inspection reports on

the PCAOB webpage and identify client firms that have been audited by inspected foreign auditors. The sample period covers the years 2000 (the first year for which the Audit Analytics data is available) through 2010.

Abnormal accruals, total accruals, value relevance, and the likelihood of receiving a going concern opinion are employed as proxies for audit quality, following prior literature. Two samples of financially distressed firms, one consisting of clients with negative net income or negative operating cash flows and another consisting of clients in the top quartile in the distribution of probability of bankruptcy, are employed to estimate the going concern opinion model, because it is not clear what measure of financial stress is best suited for an international setting.

My findings based on multivariate analyses are as follows. First, I find a significant PCAOB inspection effect on abnormal accruals, total accruals, value relevance, and the likelihood of receiving a going concern opinion for complying clients (clients of inspected foreign audit firms) since the PCAOB began conducting inspections on foreign auditors in 2005. I also find that abnormal accruals and total accruals are lower and value relevance are greater after initial PCAOB inspections for clients of inspected foreign auditors. However, the evidence that the likelihood of receiving a going concern opinion is higher after initial PCAOB inspections is limited to the extreme distress quartile sample. These results are generally consistent with the PCAOB's claim that the clients of foreign audit firms that have undergone PCAOB inspections have benefited from the inspection. Second, I find a significant effect of PCAOB inspections in jurisdictions where the PCAOB has conducted joint inspections. Third, I find a significant PCAOB inspection effect (although less consistently) only in common law countries. Lastly, I

find a significant PCAOB inspection effect, less consistently, only among Big 4 clients. Overall, I conclude that there was a PCAOB inspection effect on abnormal accruals, total accruals, value relevance for clients of foreign audit firms, but this was mainly for clients of foreign audit firms in common law countries and Big 4 clients. This may be contrary to what the PCAOB wants to achieve in that the PCAOB's intention may be to improve audit quality for clients with lower audit quality.

These findings provide some support for the PCAOB's assertion that its inspections are likely to improve the audit quality of PCAOB-registered foreign auditors and their client firms. The findings in this study also support Carcello, Carver, and Neal's finding (2011b) that investors perceive negatively client firms audited by foreign auditors that could not be inspected by the PCAOB. As a caveat, I note that, because audit quality is unobservable, my conclusions are based on imperfect proxies for audit quality. Also, I focus only on primary foreign auditors that provide audit reports to public issuers in the U.S. and their client firms. Lastly, I confine my analyses to first-time inspections of international accounting firms.

Table 1.
PCAOB Inspections in Foreign Jurisdictions

Panel A: Inspection status of foreign jurisdictions (as of 12/31/2009)

Jurisdictions where inspections were conducted (1)	Jurisdictions where no inspections have been conducted (2)
Argentina	Austria
Australia	Belgium
Belize	China
Bermuda	Cyprus ^b
Bolivia	Czech Republic ^b
Brazil	Denmark
Canada	Finland
Cayman Islands	France
Chile	Germany
Colombia	Greece ^a
Greece ^a	Hong Kong ^a
Hong Kong ^a	Hungary
India	Ireland ^a
Indonesia	Italy
Ireland ^a	Luxembourg
Israel	Netherlands
Japan	Norway ^a
Kazakhstan	Poland
Korea	Portugal
Mexico	Spain
New Zealand	Sweden
Norway ^a	Switzerland
Panama	Turkey ^b
Papua New Guinea	United Kingdom ^a
Peru	Venezuela ^b
Philippines	
Russia	
Singapore	
South Africa	
Taiwan	
Ukraine	
United Arab Emirates	
United Kingdom ^a	

^a Some auditors in Greece, Ireland, Norway and United Kingdom had been inspected once by the PCAOB before the current obstacles arose. Some auditors in Hong Kong have not been inspected by the PCAOB for audit work relating to their audit clients in China.

^b Some audit firms are included in the list because their first inspections were postponed pursuant to Rule 4003(f) or Rule 4003(g) for a limited time. The remaining firms are included in the list because their inspections were not allowed due to legal conflicts with their home countries or sovereignty issues.

Table 1.
(continued)

Panel B: Joint and stand-alone inspections (as of 12/31/2009)

Jurisdictions where inspections were conducted jointly with local authorities	Jurisdictions where inspections were conducted solely by the PCAOB
Australia	Argentina
Canada	Belize
Korea	Bermuda
Singapore	Bolivia
	Brazil
	Cayman Islands
	Chile
	Colombia
	India
	Indonesia
	Israel
	Japan
	Kazakhstan
	Mexico
	New Zealand
	Panama
	Papua New Guinea
	Peru
	Philippines
	Russia
	South Africa
	Taiwan
	Ukraine
	United Arab Emirates

Table 1.
(continued)

Panel C: Audit firms not inspected

Country	Number of Registered Audit firms that were not inspected as of				
	7/31/2009	12/31/2009	6/30/2010	12/31/2010	6/30/2011
Austria		2	1	1	1
Belgium		3	3	3	3
China	2	4	4	5	5
Cyprus ^b		1	1	1	1
Czech Republic ^b		1	1	1	1
Denmark		2	2	2	2
Finland		1	1	1	1
France	5	8	8	7	7
Germany	3	6	5	5	5
Greece		1	1	2	2
Hong Kong		6	6	6	5
Hungary		2	2	2	2
Ireland		1	1	1	1
Israel ^b	1				
Italy		5	5	5	5
Luxembourg		2	2	2	2
Netherlands	1	4	4	4	4
Norway	2	3	3	3	3
Poland	1	1	1	1	1
Portugal		3	2	2	2
Spain		3	3	4	4
Sweden	2	4	4	4	4
Switzerland	1	2	2	3	3
Turkey ^b		1	1	1	1
United Kingdom		2	2	3	3
Venezuela ^b		2	2	2	2
Total	18	70	67 ^c	70	69 ^d

^a These are firms that have not been inspected even though four years have passed since issuance of an audit report while registered.

^b Some audit firms are included in the list because their inspections were postponed pursuant to Rule 4003(f) or Rule 4003(g), for a limited time, the first inspections of certain non-U.S. audit firms. The remaining firms are included in the list because their inspections were not allowed due to legal conflicts with their home countries or sovereignty issues.

^c Three audit firms (Austria, Germany, Portugal) have been removed from the list as of December 31, 2009. These three audit firms voluntarily withdrew from PCAOB registration.

^d One audit firm (Hong Kong) has been removed from the list as of December 31, 2010. This audit firm voluntarily withdrew from PCAOB registration.

Table 2.
Sample Selection: Cross-sectional Sample

Panel A: Test firms and control firms

Initial list of firms whose auditors are located in a jurisdiction where the PCAOB has not conducted inspections (henceforth “blacklisted firms”)	437
Less: Firms that changed auditors	6
Less: Firms with more than one auditor (joint auditors)	10
Less: Subsidiaries whose financial statements were integrated with their parent companies’ filings	11
Less: Firms whose filings were not available (registration termination, foreign government)	7
Less: Firms whose auditor was incorrectly listed in the wrong jurisdiction	1
Total test firms	402
Control firms: 20-F filers on the Compustat database, whose auditors are located in the jurisdictions where the PCAOB has conducted inspections	503
Control firms: 10-K filers on the Compustat database, whose auditors are located in the jurisdictions where the PCAOB has conducted inspections	79
Total control firms	582
Total sample firms	984

Panel B: Abnormal accruals analysis

Firm-year observations for 2005-2010, for the total sample firms in Panel A	5,619
Less: Financial companies (SIC 6000-6999)	663
Less: Observations with less than ten observations in each industry-country grouping	573
Less: Observations for which complete data are not available	1,299
Less: Observations for which there was a change of auditors from a blacklisted jurisdiction to a non-blacklisted jurisdiction or vice versa	13
Less: Observations with absolute values of studentized residuals greater than 3	86
Final observations used in the abnormal accruals analysis	2,985

Panel C: Value relevance analysis

Firm-year observations for 2005-2010, for the total sample firms in Panel A	5,619
Less: Financial companies (SIC 6000-6999)	663
Less: Observations for which stock price data are not available	1,585
Less: Observations for which complete data are not available	85
Less: Observations for which there was a change of auditors from a blacklisted jurisdiction to a non-blacklisted jurisdiction or vice versa	18
Final observations used in the value relevance analysis	3,268

Table 2.
(continued)

Panel D: Going concern opinion analysis

Firm-year observations for 2005-2010, for the total sample firms in Panel A	5,619
Less: Financial companies (SIC 6000-6999)	663
Less: Observations with positive net income and positive operating cash flow	1,936
Less: Observations for which complete data are not available	2,026
Less: Observations for which there was a change of auditors from a Blacklisted jurisdiction to a Non-Blacklisted jurisdiction or vice versa	10
Less: Observations with absolute values of logit deviance residuals greater than 3	1
Final observations used in the going concern analysis	983

Table 3.
Sample Selection: Longitudinal Sample

Panel A: Abnormal accruals analysis

Firm-year observations for client firms that were audited by inspected foreign auditors for 2000-2010	6,037
Less: Financial companies (SIC 6000-6999)	684
Less: Observations with less than ten observations in each industry-country group	251
Less: Observations for which complete data are not available	1,249
Less: Observations of firms for which at least one observation does not exist before and after PCAOB inspections	1,434
Less: Observations with absolute values of studentized residuals greater than 3	38
Final observations used in the abnormal accruals analysis	2,381

Panel B: Value relevance analysis

Firm-year observations for client firms that were audited by inspected foreign auditors for 2000-2010	6,037
Less: Financial companies (SIC 6000-6999)	684
Less: Observations for which stock price data are not available	1,838
Less: Observations for which complete data are not available	105
Less: Observations of firms for which at least one observation does not exist before and after PCAOB inspections	1,111
Final observations used in the value relevance analysis	2,299

Panel C: Going concern analysis

Firm-year observations for client firms that were audited by inspected foreign auditors for 2000-2010	6,037
Less: Financial companies (SIC 6000-6999)	684
Less: Observations of firms with positive net income and positive operating cash flow	1,894
Less: Observations for which complete data are not available	1,847
Less: Observations of firms for which at least one observation does not exist before and after PCAOB inspections	1,036
Less: Observations with absolute values of logit deviance residuals greater than 3	0
Final observations used in the going concern analysis	576

Table 4.
Country Level Institutional Characteristics

COUNTRY	BLACKLIST	LEGALORIGIN	ANTI DIRECTOR	DISCLOSURE	LIABILITY	PUBLICEN	SECSTAFF	INVPROFAC	RULEOFLAW	IASDIFF	GDP (U.S.\$ millions)	GDPGRO WTH(%)	GDPPERCAP (U.S.\$)	MKTSIZE
Argentina	0	1	2	0.50	0.22	0.58	3.46	-0.59	-0.58	14	369,000	9.16	9,124	0.17
Australia	0	1	4	0.75	0.66	0.90	34.44	1.14	1.77	4	925,000	1.29	42,131	1.36
Belgium	1	1	3	0.42	0.44	0.15	13.76		1.40	13	469,000	2.27	43,144	0.58
Bermuda	0	1							1.16					
Brazil	0	0	5	0.25	0.33	0.58	2.68	-0.90	0.00	11	2,090,000	7.49	10,710	0.74
Canada	0	1	4	0.92	1.00	0.80	38.93	1.62	1.79	5	1,580,000	3.21	46,236	1.37
Chile	0	0	4	0.58	0.33	0.60	9.93	-0.50	1.29	13	213,000	5.20	12,431	1.68
China	1	0	1						-0.35	9	5,930,000	10.40	4,428	0.81
Columbia	0	0	3	0.42	0.11	0.58	3.94		-0.33	20	288,000	4.31	6,225	0.72
Denmark	1	0	4	0.58	0.55	0.37	10.85		1.88	11	310,000	1.75	55,891	0.75
Finland	1	0	3.5	0.50	0.66	0.32	11.23		1.97	15	239,000	3.64	44,512	0.49
France	1	0	3.5	0.75	0.22	0.77	5.91	-0.33	1.52	12	2,560,000	1.48	39,460	0.75
Germany	1	0	3.5	0.42	0.00	0.22	4.43	-1.50	1.63	11	3,280,000	3.69	40,152	0.43
Greece	1	0	2	0.33	0.50	0.32	12.16	-1.22	0.62	17	301,000	-3.52	26,600	0.24
Hong Kong	1	1	5	0.92	0.66	0.87	59.59	1.82	1.56	3	224,000	6.97	31,758	12.08
Hungary	1	0	2				10.75		0.78	13	129,000	1.26	12,852	0.21
Indonesia	0	0	4	0.50	0.66	0.62	1.97		-0.63	4	707,000	6.10	2,946	0.51
India	0	1	5	0.92	0.66	0.67	0.43	0.84	-0.06	8	1,730,000	8.81	1,475	0.93
Ireland	1	1	5	0.67	0.44	0.37	23.32	0.34	1.76	1	211,000	-0.40	47,170	0.17
Israel	0	1	4	0.67	0.66	0.63	18.78	0.57	0.88	6	217,000	4.66	28,504	1.00
Italy	1	0	2	0.67	0.22	0.48	7.25	-0.92	0.38	12	2,050,000	1.30	33,917	0.16
Japan	0	0	4.5	0.75	0.66	0.00	4.32	-0.56	1.31	9	5,460,000	4.00	42,831	0.75
Korea	0	0	4.5	0.75	0.66	0.25	11.55	-0.23	0.99	6	1,010,000	6.16	20,757	1.07
Luxembourg	1	0	2				315.12		1.82	18	53,334	2.68	105,438	1.84
Mexico	0	0	3	0.58	0.11	0.35	5.19	-1.13	-0.56	1	1,030,000	5.39	9,123	0.44
Netherlands	1	0	2.5	0.50	0.89	0.47	23.53	-0.29	1.81	4	779,000	1.69	46,915	0.84
New Zealand	0	1	4	0.67	0.44	0.33	8.95		1.86	3	127,000	-0.47	29,352	0.53
Norway	1	0	3.5	0.58	0.39	0.32	20.78	-0.64	1.93	7	413,000	0.35	84,538	0.61
Panama	0	0	2						-0.13		26,689	4.83	7,589	0.41
Papua New Guinea	0	1							-0.93		9,480	8.00	1,382	1.03

Peru	0	0	3.5	0.33	0.66	0.78	5.32		-0.61	1	157,000	8.78	5,401	0.65
Philippines	0	0	4	0.83	1.00	0.83	4.29		-0.54	10	200,000	7.63	2,140	0.79
Poland	1	0	2				4.64		0.69	12	469,000	3.94	12,293	0.41
Portugal	1	0	2.5	0.42	0.66	0.58	14.50		1.04	13	229,000	1.39	21,505	0.36
Russian Federation	0	0	4						-0.78	16	1,480,000	4.03	10,440	0.68
Singapore	0	1	5	1.00	0.66	0.87	77.74	2.17	1.69	0	209,000	14.47	41,122	1.66
South Africa	0	1	5	0.83	0.66	0.25	3.52	0.36	0.10	0	364,000	2.84	7,275	2.78
Spain	1	0	5	0.50	0.66	0.33	8.50	-0.45	1.19	16	1,410,000	-0.14	30,542	0.83
Sweden	1	0	3.5	0.58	0.28	0.50	7.19	-0.75	1.95	10	459,000	5.63	48,936	1.27
Switzerland	1	0	3	0.67	0.44	0.33	8.87	-0.70	1.78	12	528,000	2.71	67,464	2.35
Taiwan	0	0	3	0.75	0.66	0.52	12.53		1.01	6				
United Kingdom	1	1	5	0.83	0.66	0.68	19.04	0.98	1.77	1	2,250,000	1.35	36,144	1.38
United States	0 or 1	1	3	1.00	1.00	0.90	23.75	1.47	1.58	4	14,600,000	3.00	47,199	1.18
Means			3.5	0.64	0.54	0.52	22.45	0.00	0.87	8.8	1,343,549	4.08	29,709	1.15

Variable Definitions:

- BLACKLIST = If the firm's auditor is located in a jurisdiction where the PCAOB is not conducting inspections, and 0 otherwise.
- LEGALORIGIN = 1 if the firm is located in common law countries, and 0 otherwise.
- ANTIDIRECTOR = Anti-director rights index from Djankov et al. (2008) measures how strongly the legal system protects minority shareholders against managers or controlling shareholders.
- DISCLOSURE = Disclosure requirement index from La Porta et al. (2006) measures the extent to which there is disclosure requirement in the prospectus in the areas of insiders' compensation, shareholder ownership structure, inside ownership, irregular contracts, and related-party transactions.
- LIABILITY = Liability standard index from La Porta et al. (2006) measures the ease with which investors can recover damages from issuers, directors, distributors, and accountants in a civil liability case for losses due to misleading statements in the prospectus.
- PUBLICEN = Public enforcement index from La Porta et al. (2006) measures the extent to which regulators have independence from governments, rule-making power, investigative power, and authority for sanctions.
- SECSTAFF = The size of the country's security regulator staff, from Jackson and Roe (2009).
- INVPROFAC = The factor score of six investor protection variables (LEGALORIGIN, ANTIDI, DISCLOSURE, LIABILITY, PUBLICEN, SECSTAFF) for the cross-sectional abnormal accruals model. INVPROFAC for other models are not tabulated.
- RULEOFWAW = Rule of law measure in 2010 from the World Bank's WDI (World Development Indicators) database captures "perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence".
- IASDIFF = The number of differences between a country's domestic accounting standard and International Accounting Standards for 21 items, from Bae et al. (2008).
- GDP = The country's GDP (in U.S.\$ millions) in 2010 (in 2009 for Australia and New Zealand, data in 2010 for two countries are not available) from the World Bank's WDI database.
- GDPGROWTH = The growth (%) in GDP from 2009 to 2010 (from 2008 to 2009 for Australia and New Zealand) from the World Bank's WDI database.
- GDPPERCAP = The country's GDP (in U.S.\$) scaled by population in 2010 (in 2009 for Australia and New Zealand) 0 from the World Bank's WDI database.
- MKTSIZE = The country's total market capitalization scaled by its GDP in 2010 (in 2009 for Australia and New Zealand) from the World Bank's WDI database.

Table 5.
Sample Composition: Cross-sectional Abnormal Accruals Model

Panel A: Country composition

Country	No. of observations	%	BLACKLIST
Argentina	50	1.7	0
Australia	47	1.6	0
Brazil	149	5.0	0
Canada	888	29.8	0
Chile	36	1.2	0
France	50	1.7	1
Germany	38	1.3	1
Greece	98	3.3	1
Hong Kong	422	14.1	1
India	67	2.2	0
Ireland	21	0.7	1
Israel	443	14.8	0
Italy	18	0.6	1
Japan	102	3.4	0
Korea	32	1.1	0
Mexico	108	3.6	0
Netherlands	31	1.0	1
Norway	20	0.7	1
Singapore	6	0.2	0
South Africa	39	1.3	0
Spain	11	0.4	1
Sweden	13	0.4	1
Switzerland	26	0.9	1
United Kingdom	194	6.5	1
United States	76	2.5	0 or 1
Total	2,985	100.0	

Variable Definition:

BLACKLIST =1 if the firm's auditor is located in a jurisdiction where the PCAOB is not conducting inspections, and 0 otherwise

Table 5.
(continued)

Panel B: Industry composition

Industry (Defined by SIC Code)	No. of observations	%
Agriculture, Mining and Construction (0100-1999, excluding 1300-1399)	253	8.5
Food (2000-2111)	103	3.4
Textiles and printing /publishing (2200-2799)	103	3.4
Chemicals (2800-2824,2840-2899)	90	3.0
Pharmaceuticals (2830-2836)	242	8.1
Extractive (1300-1399, 2900-2999)	218	7.3
Durable manufacturers (3000-3999, excluding 3570-3579 and 3670-3679)	563	18.9
Transportation (4000-4899)	560	18.8
Utilities (4900-4999)	113	3.8
Retail (5000-5999)	118	4.0
Services (7000-8999, excluding 7370-7379)	100	3.3
Computers (3570-3579, 3670-3679, 7370-7379)	507	17.0
Others	15	0.5
Total	2,985	100.0

Panel C: Year composition

Year	No. of observations	%
2005	417	14.0
2006	452	15.1
2007	501	16.8
2008	543	18.2
2009	563	18.9
2010	509	17.0
Total	2,985	100.0

Table 6.
Descriptive Statistics: Cross-sectional Abnormal Accruals Model

Variables	Mean			t-statistic	Wilcoxon Z-statistic
	Full sample	Blacklisted clients	Complying clients		
	(1)	(2)	(3)		
ABACCR	-0.030	-0.013	-0.039	3.29***	5.70***
TACCR	-0.077	-0.060	-0.085	3.50***	3.85***
INVPROFAC	0.759	0.779	0.749	0.74	7.85***
RULEOFLAW	1.226	1.502	1.088	15.41***	2.63***
IASDIFF	5.834	5.509	5.995	-3.33***	-16.80***
LOGGDP	27.343	27.162	27.434	-6.18***	-1.52
GDPGROWTH	2.516	2.015	2.764	-5.99***	-5.98***
GDPPERCAP	10.189	10.466	10.051	14.83***	8.19***
MKTSIZE	2.021	3.951	1.062	31.66***	16.51***
LOGSALE	5.816	5.972	5.738	1.99**	1.24
CFO	0.059	0.087	0.045	4.46***	4.35***
LEV	0.543	0.570	0.530	1.89*	2.62***
GROWTH	0.296	0.322	0.283	0.93	0.32
LAGLOSS	0.331	0.258	0.368	-6.01***	-5.97***
BIG4	0.753	0.703	0.778	-4.49***	-4.48***
N	2,985	991	1,994		

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

t-statistics test for differences in means.

Wilcoxon Z-statistics test for differences in medians.

Table 7.
Cross-sectional Abnormal Accruals and Total Accruals Model

Panel A: Clustering on firm and year

Variable	Expected sign	Dependent variable			
		Signed abnormal accruals (ABACCR)		Total accruals (TACCR)	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.578	3.38***	0.405	3.34***
BLACKLIST	+	0.032	2.93***	0.017	1.98**
INVPROFAC	-	-0.019	-2.50**	0.011	1.72*
RULEOFLAW	-	0.015	1.50	-0.001	-0.18
IASDIFF	?	-0.003	-3.46***	-0.002	-2.23**
LOGGDP	?	-0.004	-0.77	-0.011	-2.44**
GDPGROWTH	?	0.002	1.77*	0.000	0.24
GDPPERCAP	?	-0.035	-4.76***	-0.007	-1.71*
MKTSIZE	?	-0.003	-1.40	-0.002	-1.84*
LOGSALE	?	0.005	2.17**	0.011	7.42***
CFO	-	-0.474	-11.58***	-0.187	-4.73***
LEV	?	-0.044	-6.58***	-0.138	-12.61***
GROWTH	+	0.025	5.31***	0.001	0.61
LAGLOSS	?	-0.023	-2.12**	-0.044	-4.69***
BIG4	?	-0.012	-1.06	0.002	0.18
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.41		0.33	
N		2,985		3,021	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.
See APPENDIX A for variable definitions.

Table 7.
(continued)

Panel B: Clustering on audit firm and year

Variable	Expected sign	Dependent variable			
		Signed abnormal accruals (ABACCR)		Total accruals (TACCR)	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.044	1.47	0.101	1.10
BLACKLIST	+	0.006	3.51***	0.018	2.44***
Other variables		included		included	
Adjusted R-square		0.41		0.33	
N		2,985		3,021	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the audit firm and year level.

The model in Panel B includes all the variables in Panel A. Only the test variable is reported for brevity

Table 8.
Additional Analyses: Cross-sectional Abnormal Accruals and Total Accruals Model

Panel A: Effect of joint inspections (Australia, Canada, Korea, Singapore)

Variable	Expected sign	Dependent variable			
		Signed abnormal accruals (ABACCR)		Total accruals (TACCR)	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.424	2.22**	0.334	2.75***
BLACKLIST	+	0.049	3.41***	0.025	2.16**
ALONEINS	+	0.042	2.45***	0.021	1.53*
INVPROFAC	-	-0.012	-1.52	0.015	2.10**
RULEOFLAW	-	0.024	2.34**	0.004	0.51
IASDIFF	?	-0.003	-2.84***	-0.001	-1.78*
LOGGDP	?	0.000	-0.05	-0.009	-2.15**
GDPGROWTH	?	0.001	1.13	0.000	0.01
GDPPERCAP	?	-0.033	-4.37***	-0.007	-1.51
MKTSIZE	?	-0.003	-1.48	-0.002	-1.87*
LOGSALE	?	0.005	2.00**	0.011	7.20***
CFO	-	-0.474	-11.43***	-0.187	-4.73***
LEV	?	-0.044	-6.54***	-0.138	-12.73***
GROWTH	+	0.025	5.21***	0.001	0.58
LAGLOSS	?	-0.022	-2.08**	-0.044	-4.63***
BIG4	?	-0.009	-0.75	0.004	0.33
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.41		0.33	
N		2,985		3,021	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.

BLACKLIST = 1 if the firm's auditor is located in a jurisdiction where the PCAOB is not conducting inspections, and 0 otherwise.

ALONEINS = 1 if the firm is located in jurisdictions (Argentina, Brazil, Chile, India, Israel, Japan, Mexico, South Africa) where the PCAOB has conducted inspections on a stand-alone basis, and 0 otherwise.

Other variables are defined in APPENDIX A.

Table 8.
(continued)

Panel B: Analysis of abnormal accruals for common law and civil law countries

Variable	Expected Sign	Dependent variable: Signed abnormal accruals (ABACCR)			
		Common law country subsample		Civil law country subsample	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.718	1.93*	-0.040	-0.55
BLACKLIST	+	0.035	2.61***	0.004	0.35
RULEOFLAW	-	-0.025	-1.29	0.011	1.04
IASDIFF	?	-0.009	-3.33***	-0.001	-0.93
LOGGDP	?	-0.007	-0.77	0.003	0.51
GDPGROWTH	?	0.000	0.16	0.000	2.18**
GDPPERCAP	?	-0.031	-2.17**	-0.017	-0.94
MKTSIZE	?	-0.007	-2.68***	0.010	1.00
LOGSALE	?	0.003	1.23	0.007	3.74***
CFO	-	-0.482	-11.70***	-0.296	-7.07***
LEV	?	-0.046	-6.84***	-0.026	-1.16
GROWTH	+	0.026	5.44***	0.013	1.86*
LAGLOSS	?	-0.026	-2.38**	0.003	0.31
BIG4	?	-0.011	-0.74	0.014	1.77*
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.42		0.29	
N		2,253		732	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.
See APPENDIX A for variable definitions.

Table 8.
(continued)

Panel C: Analysis of total accruals for common law and civil law countries

Variable	Expected Sign	Dependent variable: Total accruals (TACCR)			
		Common law country subsample		Civil law country subsample	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.541	2.12**	0.142	0.82
BLACKLIST	+	0.002	0.18	0.013	1.07
RULEOFLAW	-	0.015	1.11	-0.001	-0.09
IASDIFF	?	-0.004	-1.71*	-0.001	-0.61
LOGGDP	?	-0.013	-1.82*	-0.006	-0.85
GDPGROWTH	?	0.001	0.21	0.001	0.86
GDPPERCAP	?	-0.013	-1.45	-0.014	-0.76
MKTSIZE	?	-0.002	-1.25	0.016	0.99
LOGSALE	?	0.012	6.60***	0.006	2.54**
CFO	-	-0.185	-4.35***	-0.324	-4.73***
LEV	?	-0.140	-12.35***	-0.062	-2.20**
GROWTH	+	0.002	1.60	0.006	0.88
LAGLOSS	?	-0.050	-4.56***	-0.030	-1.96*
BIG4	?	0.002	0.19	-0.012	-5.10***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.29		0.33	
N		2,291		730	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.
See APPENDIX A for variable definitions.

Table 8.
(continued)

Panel D: Analysis of abnormal accruals on Big 4 and non-Big 4 subsamples

Variable	Expected Sign	Dependent variable: Signed abnormal accruals (ABACCR)			
		Big 4 subsample		Non-Big 4 subsample	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.523	3.80***	0.458	0.82
BLACKLIST	+	0.038	3.06***	-0.026	-1.00
INVPROFAC	-	-0.023	-2.46**	0.034	2.79***
RULEOFLAW	-	0.013	1.32	-0.025	-0.55
IASDIFF	?	-0.005	-4.37***	0.002	1.28
LOGGDP	?	-0.007	-1.74*	-0.009	-0.67
GDPGROWTH	?	0.003	2.04**	-0.003	-1.52
GDPPERCAP	?	-0.038	-5.87***	-0.001	-0.05
MKTSIZE	?	-0.004	-1.01	0.000	-0.06
LOGSALE	?	0.009	3.97***	0.009	1.46
CFO	-	-0.499	-9.88***	-0.488	-10.24***
LEV	?	-0.041	-2.89***	-0.045	-4.63***
GROWTH	+	0.040	5.73***	0.017	5.38***
LAGLOSS	?	-0.006	-0.41	-0.057	-4.46***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.47		0.36	
N		2,249		736	

***,**, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.
See APPENDIX A for variable definitions.

Table 8.
(continued)

Panel E: Analysis of total accruals on Big 4 and non-Big 4 subsamples

Variable	Expected Sign	Dependent variable: Total accruals (TACCR)			
		Big 4 subsample		Non-Big 4 subsample	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.508	5.96***	0.107	0.25
BLACKLIST	+	0.023	3.42***	0.016	0.63
INVPROFAC	-	0.012	1.84*	0.017	0.71
RULEOFLAW	-	0.001	0.22	-0.011	-0.38
IASDIFF	?	-0.002	-2.07**	-0.002	-0.53
LOGGDP	?	-0.008	-3.50***	-0.011	-1.03
GDPGROWTH	?	0.000	0.09	0.002	0.49
GDPPERCAP	?	-0.013	-3.44***	0.019	1.04
MKTSIZE	?	-0.007	-5.40***	0.002	0.49
LOGSALE	?	0.008	6.36***	0.022	3.84***
CFO	-	-0.136	-2.76***	-0.266	-3.74***
LEV	?	-0.089	-7.37***	-0.163	-17.18***
GROWTH	+	0.001	0.09	0.003	0.55
LAGLOSS	?	-0.040	-3.26***	-0.060	-3.15***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.21		0.46	
N		2,265		756	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.
See APPENDIX A for variable definitions.

Table 9.
Sample Composition: Longitudinal Abnormal Accruals Model

Panel A: Country composition

Country	No. of observations	%
Argentina	75	3.1
Australia	45	1.9
Brazil	144	6.0
Canada	916	38.5
Chile	57	2.4
Greece	65	2.7
Hong Kong	17	0.7
India	41	1.7
Ireland	9	0.4
Israel	528	22.2
Japan	90	3.8
Korea	32	1.3
Mexico	103	4.3
Norway	11	0.5
Singapore	6	0.3
South Africa	42	1.8
United Kingdom	200	8.4
Total	2,381	100.0

Table 9.
(continued)

Panel B: Industry composition

Industry (Defined by SIC Code)	No. of observations	%
Agriculture, Mining and Construction (0100-1999, excluding 1300-1399)	188	7.9
Food (2000-2111)	88	3.7
Textiles and printing /publishing (2200-2799)	93	3.9
Chemicals (2800-2824,2840-2899)	90	3.8
Pharmaceuticals (2830-2836)	158	6.6
Extractive (1300-1399, 2900-2999)	166	7.0
Durable manufacturers (3000-3999, excluding 3570-3579 and 3670-3679)	396	16.6
Transportation (4000-4899)	410	17.2
Utilities (4900-4999)	104	4.4
Retail (5000-5999)	78	3.3
Services (7000-8999, excluding 7370-7379)	87	3.7
Computers (3570-3579, 3670-3679, 7370-7379)	501	21.0
Others	22	0.9
Total	2,381	100.0

Panel C: Year composition

Year	No. of observations	%
2000	36	1.5
2001	55	2.3
2002	201	8.4
2003	246	10.3
2004	268	11.3
2005	300	12.6
2006	299	12.6
2007	285	12.0
2008	262	11.0
2009	227	9.5
2010	202	8.5
Total	2,381	100.0

Table 10.
Descriptive Statistics: Longitudinal Abnormal Accruals Model

Variable	Mean			t-statistic	Wilcoxon Z-statistic
	Full sample	Post-inspection observations (POSTINSPEC1)	Pre-inspection observations (POSTINSPEC1)		
	(1)	(2)	(3)		
ABACCR	-0.074	-0.084	-0.065	-2.17**	-2.28**
TACCR	-0.102	-0.103	-0.101	-0.24	-0.38
INVPROFAC	0.514	0.513	0.514	-0.03	0.45
RULEOFLAW	1.116	1.125	1.109	0.50	6.77***
IASDIFF	5.955	6.053	5.866	1.27	0.63
LOGGDP	27.186	27.380	27.013	8.60***	13.74***
GDPGROWTH	2.862	2.344	3.325	-9.11***	-5.94***
GDPPERCAP	9.975	9.813	10.156	-10.75***	-16.52***
MKTSIZE	1.022	0.974	1.075	-3.67***	-5.78***
LOGSALE	5.892	6.125	5.684	3.84***	3.93***
CFO	0.051	0.060	0.043	1.50	1.24
LEV	0.527	0.541	0.514	1.58	1.59
GROWTH	0.227	0.181	0.269	-2.88***	-4.12***
LAGLOSS	0.342	0.311	0.370	-3.03***	-3.02***
BIG4	0.780	0.820	0.743	4.53***	4.52***
N	2,381	1,123	1,258		

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

t-statistics test for differences in means.

Wilcoxon Z-statistics test for differences in medians.

Table 11.
Longitudinal Abnormal Accruals and Total Accruals Model

Panel A: Longitudinal abnormal accruals model

Variable	Expected Sign	Dependent variable: Signed abnormal accruals (ABACCR)					
		POSTINSPEC1		POSTINSPEC2		POSTINSPEC3	
		Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	?	0.576	2.69***	0.748	3.71***	0.173	0.81
POSTINSPEC	-	-0.033	-3.47***	-0.032	-2.56***	-0.028	-6.37***
INVPROFAC	-	-0.095	-7.22***	-0.086	-6.75***	-0.097	-7.08***
RULEOFLAW	-	0.046	2.54**	0.039	2.22**	0.045	2.23**
IASDIFF	?	-0.009	-5.04***	-0.008	-4.86***	-0.009	-4.67***
LOGGDP	?	-0.016	-2.64***	-0.018	-3.04***	-0.015	-2.38**
GDPGROWTH	?	0.006	2.59***	0.006	2.44**	0.007	2.36**
GDPPERCAP	?	-0.024	-1.88*	-0.024	-1.93*	-0.022	-1.52
MKTSIZE	?	0.026	4.63***	0.024	4.36***	0.027	3.79***
LOGSALE	?	0.008	2.23**	0.009	2.68***	0.010	3.49***
CFO	-	-0.532	-11.76***	-0.531	-12.83***	-0.605	-23.47***
LEV	?	-0.011	-1.11	0.012	2.27**	-0.009	-1.13
GROWTH	+	0.024	4.39***	0.024	5.00***	0.016	2.49**
LAGLOSS	?	-0.002	-0.27	-0.001	-0.11	-0.016	-1.63
BIG4	?	0.002	0.18	0.002	0.15	-0.014	-1.18
Year Fixed Effects		Included		Included		Included	
Industry Fixed Effects		Included		Included		Included	
Adjusted R-square		0.71		0.72		0.72	
N		2,381		2,376		2,487	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.

POSTINSPEC1 = 1 if audit report date is after PCAOB inspection start date, and 0 otherwise.

POSTINSPEC2 = 1 if audit report date is after PCAOB inspection end date, and 0 otherwise.

POSTINSPEC3 = 1 if the audit report is for the year before the inspection or later, and 0 otherwise.

Other variables are defined in APPENDIX A.

Table 11.
(continued)

Panel B: Longitudinal total accruals model

Variable	Expected Sign	Dependent variable: Total accruals (TACCR)					
		POSTINSPEC1		POSTINSPEC2		POSTINSPEC3	
		Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	?	0.400	2.90***	0.091	0.75	0.147	0.81
POSTINSPEC	-	-0.027	-2.79***	-0.014	-2.72***	-0.011	-1.92**
INVPROFAC	-	0.004	0.53	0.005	0.66	-0.001	-0.08
RULEOFLAW	-	-0.006	-0.60	-0.006	-0.54	-0.003	-0.27
IASDIFF	?	-0.003	-2.43**	-0.003	-2.45**	-0.002	-1.59
LOGGDP	?	-0.013	-2.88***	-0.013	-3.24***	-0.011	-1.80*
GDPGROWTH	?	-0.001	-1.28	-0.002	-1.30	-0.003	-1.83*
GDPPERCAP	?	0.001	0.28	-0.001	-0.27	-0.004	-0.66
MKTSIZE	?	-0.003	-0.31	-0.002	-0.26	-0.002	-0.19
LOGSALE	?	0.008	2.53**	0.008	2.34**	0.007	1.76*
CFO	-	0.076	1.58	0.077	1.62	0.115	1.72*
LEV	?	-0.134	-5.94***	-0.107	-3.29***	-0.163	-6.60***
GROWTH	+	-0.028	-3.33***	-0.029	-3.90***	-0.040	-3.54***
LAGLOSS	?	-0.014	-1.43	-0.014	-1.22	-0.007	-0.86
BIG4	?	0.004	0.32	0.009	0.84	0.000	-0.01
Year Fixed Effects		Included		Included		Included	
Industry Fixed Effects		Included		Included		Included	
Adjusted R-square		0.28		0.27		0.34	
N		2,394		2,384		2,494	

***,**, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.

POSTINSPEC1 = 1 if audit report date is after PCAOB inspection start date, and 0 otherwise.

POSTINSPEC2 = 1 if audit report date is after PCAOB inspection end date, and 0 otherwise.

POSTINSPEC3 = 1 if the audit report is for the year before the inspection or later, and 0 otherwise.

Other variables are defined in APPENDIX A.

Table 11.
(continued)

Panel C: Clustering on audit firm and year (Abnormal accruals model)

Variable	Expected Sign	Dependent variable: Signed abnormal accruals (ABACCR)					
		POSTINSPEC1		POSTINSPEC2		POSTINSPEC3	
		Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	?	0.214	0.74	0.750	2.56**	0.178	0.65
POSTINSPEC	-	-0.033	-2.21**	-0.032	-2.35***	-0.028	-3.88***
Other Variables		Included		Included		Included	
Adjusted R-square		0.71		0.72		0.72	
N		2,381		2,376		2,487	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the audit firm and year level.

The model in Panel C includes all the variables in Panel A. Only the test variable is reported for brevity.

Panel D: Clustering on audit firm and year (Total accruals model)

Variable	Expected Sign	Dependent variable: Signed abnormal accruals (ABACCR)					
		POSTINSPEC1		POSTINSPEC2		POSTINSPEC3	
		Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	?	0.641	19.56***	0.086	0.85	0.630	5.63***
POSTINSPEC	-	-0.027	-3.40***	-0.015	-2.71***	-0.011	-3.43***
Other Variables		Included		Included		Included	
Adjusted R-square		0.28		0.27		0.34	
N		2,394		2,384		2,494	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the audit firm and year level.

The model in Panel D includes all the variables in Panel A. Only the test variable is reported for brevity.

Table 12.
Additional Analyses: Longitudinal Abnormal Accruals and Total Accruals Model

Panel A: Effect of joint inspections (Australia, Canada, Korea, Singapore)

Variable	Expected Sign	Joint inspection effects			
		Dependent variable: Abnormal accruals (ABACCR)		Dependent variable Total accruals (TACCR)	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.535	2.72***	0.391	2.82***
ALONEPOST	-	-0.008	-0.73	-0.024	-1.86**
JOINTPOST	-	-0.061	-4.45***	-0.032	-3.16***
INVPROFAC	-	-0.083	-6.10***	0.006	0.69
RULEOFLAW	-	0.046	2.65***	-0.006	-0.60
IASDIFF	?	-0.008	-4.81***	-0.003	-2.29**
LOGGDP	?	-0.014	-2.36**	-0.013	-2.72***
GDPGROWTH	?	0.005	1.88*	-0.002	-1.54
GDPPERCAP	?	-0.025	-2.05**	0.001	0.26
MKTSIZE	?	0.023	3.92***	-0.003	-0.35
LOGSALE	?	0.007	2.20**	0.008	2.51**
CFO	-	-0.533	-11.53***	0.076	1.58
LEV	?	-0.011	-1.12	-0.134	-5.92***
GROWTH	+	0.024	4.54***	-0.028	-3.35***
LAGLOSS	?	-0.002	-0.25	-0.014	-1.43
BIG4	?	0.002	0.19	0.004	0.32
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.71		0.28	
N		2,381		2,394	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.

ALONEPOST = ALONEINS*POSTINSPEC1

JOINTPOST = JOINTINS*POSTINSPEC1

Other variables are defined in APPENDIX A.

Table 12.
(continued)

Panel B: Analysis of abnormal accruals for common law and civil law countries

Variable	Expected Sign	Dependent variable: Signed abnormal accruals (ABACCR)			
		Common law country subsample		Civil law country subsample	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.698	1.81*	-0.108	-0.81
POSTINSPEC1	-	-0.026	-3.08***	0.000	0.02
RULEOFLAW	-	-0.123	-3.85***	0.006	0.68
IASDIFF	?	-0.028	-6.96***	0.000	0.56
LOGGDP	?	-0.024	-2.01**	0.011	2.29**
GDPGROWTH	?	0.004	1.50	-0.001	-0.58
GDPPERCAP	?	0.013	0.77	-0.016	-1.31
MKTSIZE	?	0.000	0.05	0.014	1.06
LOGSALE	?	0.003	0.79	0.009	4.26***
CFO	-	-0.538	-12.29***	-0.414	-5.54***
LEV	?	-0.017	-1.49	-0.054	-3.20***
GROWTH	+	0.024	4.26***	0.038	2.57**
LAGLOSS	?	-0.006	-0.68	0.006	0.59
BIG4	?	-0.003	-0.28	0.018	2.11**
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.73		0.44	
N		1,879		502	

***,**, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.
See APPENDIX A for variable definitions.

Table 12.
(continued)

Panel C: Analysis of total accruals for common law and civil law countries

Variable	Expected Sign	Dependent variable: Total accruals (TACCR)			
		Common law country subsample		Civil law country subsample	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	1.094	4.69***	-0.004	-0.01
POSTINSPEC1	-	-0.030	-2.48***	-0.004	-0.45
RULEOFLAW	-	0.030	1.70*	-0.018	-1.12
IASDIFF	?	-0.004	-2.59***	0.002	1.45
LOGGDP	?	-0.026	-2.81***	0.001	0.07
GDPGROWTH	?	0.000	0.24	-0.004	-2.18**
GDPPERCAP	?	-0.011	-1.59	-0.004	-0.12
MKTSIZE	?	-0.007	-0.77	0.030	1.43
LOGSALE	?	0.008	2.04**	0.004	0.75
CFO	-	0.084	1.80*	-0.348	-3.69***
LEV	?	-0.135	-5.71***	-0.126	-3.06***
GROWTH	+	-0.028	-2.97***	0.018	0.71
LAGLOSS	?	-0.018	-1.66*	-0.015	-0.88
BIG4	?	0.006	0.43	0.010	1.25
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.29		0.31	
N		1,891		503	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.

See APPENDIX A for variable definitions.

Table 12.
(continued)

Panel D: Analysis of abnormal accruals on Big 4 and non-Big 4 subsamples

Variable	Expected Sign	Dependent variable: Signed abnormal accruals(ABACCR)			
		Big 4 subsample		Non-Big 4 subsample	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	0.398	1.65*	1.936	4.07***
POSTINSPEC1	-	-0.030	-2.75***	-0.013	-0.56
INVPROFAC	-	-0.105	-7.60***	-0.012	-0.53
RULEOFLAW	-	0.037	1.82*	0.027	1.23
IASDIFF	?	-0.011	-4.48***	-0.005	-2.28**
LOGGDP	?	-0.009	-1.33	-0.067	-4.94***
GDPGROWTH	?	0.007	2.72***	0.004	1.77*
GDPPERCAP	?	-0.019	-1.09	-0.044	-2.61***
MKTSIZE	?	0.040	2.03**	0.008	1.64
LOGSALE	?	0.006	1.41	0.004	0.48
CFO	-	-0.525	-12.25***	-0.547	-7.52***
LEV	?	0.020	1.01	-0.033	-2.44**
GROWTH	+	0.024	3.33***	0.022	2.48**
LAGLOSS	?	-0.005	-0.51	0.003	0.17
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.73		0.70	
N		1,856		525	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.
See APPENDIX A for variable definitions.

Table 12.
(continued)

Panel E: Analysis of total accruals on Big 4 and non-Big 4 subsamples

Variable	Expected Sign	Dependent variable: Total accruals (TACCR)			
		Big 4 subsample		Non-Big 4 subsample	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-0.082	-0.38	-0.118	-0.29
POSTINSPEC1	-	-0.029	-1.98**	-0.031	-1.88**
INVPROFAC	-	0.003	0.41	-0.018	-0.40
RULEOFLAW	-	-0.009	-0.69	0.003	0.04
IASDIFF	?	-0.002	-1.74*	-0.004	-0.93
LOGGDP	?	-0.011	-1.76*	-0.007	-0.60
GDPGROWTH	?	-0.001	-0.95	-0.002	-0.57
GDPPERCAP	?	0.009	1.13	-0.016	-0.59
MKTSIZE	?	0.008	0.49	-0.002	-0.18
LOGSALE	?	0.007	1.80*	0.007	1.14
CFO	-	0.098	1.99**	0.002	0.01
LEV	?	-0.091	-3.85***	-0.172	-6.53***
GROWTH	+	-0.035	-2.62***	-0.016	-1.53
LAGLOSS	?	-0.011	-1.05	-0.021	-1.07
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Adjusted R-square		0.21		0.46	
N		1,863		531	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). t-statistics are calculated based on standard errors clustered at the firm and year level.
See APPENDIX A for variable definitions.

Table 13.
Sample Composition: Cross-sectional Value Relevance Model

Panel A: Country composition

Country	No. of observations	%	BLACKLIST
Argentina	58	1.8	0
Australia	54	1.7	0
Belgium	12	0.4	1
Brazil	61	1.9	0
Canada	900	27.5	0
Chile	42	1.3	0
China	248	7.6	1
Columbia	3	0.1	0
Denmark	12	0.4	1
Finland	6	0.2	1
France	57	1.7	1
Germany	52	1.6	1
Greece	113	3.5	1
Hong Kong	317	9.7	1
Hungary	6	0.2	1
Indonesia	12	0.4	0
India	77	2.4	0
Ireland	44	1.4	1
Israel	395	12.1	0
Italy	30	0.9	1
Japan	101	3.1	0
Korea	37	1.1	0
Luxembourg	10	0.3	1
Mexico	106	3.2	0
Netherlands	38	1.2	1
New Zealand	6	0.2	0
Norway	22	0.7	1
Panama	6	0.2	0
Papua New Guinea	5	0.2	0
Peru	6	0.2	0
Philippines	6	0.2	0
Poland	6	0.2	1
Portugal	6	0.2	1
Russia	24	0.7	0
Singapore	13	0.4	0
South Africa	38	1.2	0
Spain	22	0.7	1
Sweden	12	0.4	1
Switzerland	23	0.7	1
Taiwan	51	1.6	0
United Kingdom	169	5.2	1
United States	62	1.9	0 or 1
Total	3,268	100.0	

Variable definition:

BLACKLIST =1 if the firm's auditor is located in a jurisdiction where the PCAOB is not conducting inspections, and 0 otherwise.

Table 13.
(continued)

Panel B: Industry composition

Industry (Defined by SIC Code)	No. of observations	%
Agriculture, Mining and Construction (0100-1999, excluding 1300-1399)	453	13.9
Food (2000-2111)	120	3.7
Textiles and printing /publishing (2200-2799)	63	1.9
Chemicals (2800-2824,2840-2899)	73	2.2
Pharmaceuticals (2830-2836)	260	8.0
Extractive (1300-1399, 2900-2999)	233	7.1
Durable manufacturers (3000-3999, excluding 3570-3579 and 3670-3679)	526	16.1
Transportation (4000-4899)	551	16.9
Utilities (4900-4999)	105	3.2
Retail (5000-5999)	108	3.3
Services (7000-8999, excluding 7370-7379)	161	4.9
Computers (3570-3579, 3670-3679, 7370-7379)	601	18.4
Others	495	0.4
Total	3,268	100.0

Panel C: Year composition

Year	No. of observations	%
2005	442	13.5
2006	503	15.4
2007	560	17.1
2008	575	17.6
2009	604	18.5
2010	584	17.9
Total	3,268	100.0

Table 14.
Descriptive Statistics: Cross-sectional Value Relevance Model

Variables	Mean			t-statistic	Wilcoxon Z-statistic
	Full Sample	Blacklisted Clients	Complying Clients		
	(1)	(2)	(3)		
P	19.150	22.875	16.836	8.22***	7.70***
BVPS	9.567	10.569	8.945	3.91***	8.06***
NIPS	0.991	1.255	0.826	5.50***	6.93***
N	3,268	1,252	2,016		

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

t-statistics test for differences in means.

Wilcoxon Z-statistics test for differences in medians.

Variable Definitions:

- BLACKLIST** = 1 if the firm's auditor is located in a jurisdiction where the PCAOB is not conducting inspection, and 0 otherwise (data from PCAOB).
- P** = The firm's stock price six months after fiscal year-end (CRSP data item PRC).
- BVPS** = The firm's book value of equity per share (Compustat data item CEQ and CSHO).
- NIPS** = The firm's net income per share (Compustat data item NI and CSHO).

Table 15.
Cross-sectional Value Relevance Model

Variable	Expected Sign	Dependent variable: P*			
		Blacklisted clients		Complying clients	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-6.264	-9.27***	-5.647	-15.31***
BVPS	+	0.333	5.77***	0.481	15.24***
NIPS	+	2.233	8.30***	1.579	8.46***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.19		0.27	
Cramer Z-statistic		-36.13***			
N		1,252		2,016	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

See APPENDIX A for variable definitions.

The R-squares are derived from a regression that is part of a two-stage process. In the first stage, P is regressed on industry, country, and year dummy variables, where P is price as of six months after the fiscal year-end. The second stage regression is $P^* = \beta_0 + \beta_1 \text{BVPS} + \beta_2 \text{NIPS} + \varepsilon$, where P* is the residual from the first-stage regression, BVPS is book value of equity per share, and NIPS is net income per share. The Cramer Z-test (Cramer 1987) is used to test for differences in adjusted R².

Table 16.
Additional Analyses: Cross-sectional Value Relevance Model

Panel A: Effect of joint inspections (Australia, Canada, Korea, Singapore) in the non-blacklisted sample

Variable	Expected Sign	Dependent variable: P*			
		Blacklisted clients		Joint inspection clients	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-6.264	-9.27***	-5.729	-11.22***
BVPS	+	0.333	5.77***	0.612	11.31***
NIPS	+	2.233	8.30***	1.933	6.79***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.19		0.33	
Cramer Z-statistic		-47.14***			
N		1,252		1,001	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Variable	Expected Sign	Dependent variable: P*			
		Stand-alone inspection clients		Joint inspection clients	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-5.781	-10.86***	-5.729	-11.22***
BVPS	+	0.435	11.23***	0.612	11.31***
NIPS	+	1.125	4.55***	1.933	6.79***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.23		0.33	
Cramer Z-statistic		-31.89***			
N		1,015		1,001	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Table 16.
(continued)

Panel B: Analyses of common law and civil law countries

Common law country subsample

Variable	Expected Sign	Dependent variable: P*			
		Blacklisted clients		Complying clients	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-7.463	-8.30***	-5.418	-13.44***
BVPS	+	0.431	5.98***	0.738	15.10***
NIPS	+	2.392	6.49***	1.291	5.53***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.29		0.27	
Cramer Z-statistic		4.87***			
N		589		1,561	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Civil law country subsample

Variable	Expected Sign	Dependent Variable: P*			
		Blacklisted clients		Complying clients	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-4.252	-4.12***	-13.185	-13.64***
BVPS	+	0.138	1.46***	0.497	11.06***
NIPS	+	2.211	5.67***	2.248	7.24***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.10		0.43	
Cramer Z-statistic		-49.81***			
N		663		455	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Table 16.
(continued)

Panel C: Analyses of Big 4 and non-Big 4 subsamples

Big 4 subsample

Variable	Expected Sign	Dependent Variable: P*			
		Blacklisted clients		Complying clients	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-6.394	-8.40***	-5.166	-11.60***
BVPS	+	0.339	5.56***	0.449	12.64***
NIPS	+	2.324	8.25***	1.671	8.06***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.20		0.25	
Cramer Z-statistic		-17.48***			
N		1,062		1,614	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

See APPENDIX A for variable definitions.

Non-Big 4 subsample

Variable	Expected Sign	Dependent Variable: P*			
		Blacklisted clients		Complying clients	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-5.809	-3.91***	-7.500	-13.20***
BVPS	+	0.259	1.29	0.697	10.02***
NIPS	+	1.210	1.30	0.520	1.18
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.05		0.33	
Cramer Z-statistic		-22.81***			
N		190		402	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

See APPENDIX A for variable definitions.

Table 17.
Sample Composition: Longitudinal Value Relevance Model

Panel A: Country composition

Country	No. of observations	%
Argentina	71	3.1
Australia	44	1.9
Brazil	59	2.6
Canada	771	33.5
Chile	74	3.2
Colombia	3	0.1
Greece	79	3.4
Hong Kong	13	0.6
India	47	2.0
Indonesia	15	0.7
Ireland	31	1.4
Israel	476	20.7
Japan	79	3.4
Korea	35	1.5
Mexico	97	4.2
New Zealand	11	0.5
Norway	11	0.5
Panama	6	0.3
Papua New Guinea	8	0.4
Peru	9	0.4
Philippines	9	0.4
Russia	30	1.3
South Africa	42	1.8
Taiwan	72	3.1
United Kingdom	207	9.0
Total	2,299	100.0

Table 17.
(continued)

Panel B: Industry composition

Industry (Defined by SIC Code)	No. of observations	%
Agriculture, Mining and Construction (0100-1999, excluding 1300-1399)	305	13.3
Food (2000-2111)	85	3.7
Textiles and printing /publishing (2200-2799)	50	2.2
Chemicals (2800-2824,2840-2899)	76	3.3
Pharmaceuticals (2830-2836)	165	7.2
Extractive (1300-1399, 2900-2999)	127	5.5
Durable manufacturers (3000-3999, excluding 3570-3579 and 3670-3679)	315	13.7
Transportation (4000-4899)	439	19.1
Utilities (4900-4999)	92	4.0
Retail (5000-5999)	73	3.2
Services (7000-8999, excluding 7370-7379)	72	3.1
Computers (3570-3579, 3670-3679, 7370-7379)	486	21.1
Others	14	0.6
Total	2,299	100.0

Panel C: Year composition

Year	No. of observations	%
2000	24	1.0
2001	45	2.0
2002	173	7.5
2003	221	9.6
2004	244	10.6
2005	278	12.1
2006	286	12.4
2007	289	12.6
2008	273	11.9
2009	246	10.7
2010	220	9.6
Total	2,299	100.0

Table 18.
Descriptive Statistics: Longitudinal Value Relevance Model

Variables	Mean			t-statistic	Wilcoxon Z-statistic
	Full Sample	Pre-inspection Observations (POSTINSPEC1)	Post-inspection Observations (POSTINSPEC1)		
	(1)	(2)	(3)		
P	18.377	18.188	18.581	-0.50	-0.75
BVPS	9.452	9.498	9.401	0.19	1.15
NIPS	0.956	1.013	0.895	1.25	0.42
N	2,299	1,193	1,106		

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

t-statistics test for differences in means.

Wilcoxon Z-statistics test for differences in medians.

Variable definitions:

POSTINSPEC1 = 1 if auditor report date is after PCAOB inspection start date, and 0 otherwise (data from PCAOB).

P = The firm's stock price six months after fiscal year-end (CRSP data item PRC).

BVPS = The firm's book value of equity per share (Compustat data item CEQ and CSHO).

NIPS = The firm's net income per share (Compustat data item NI and CSHO).

Table 19.
Longitudinal Value Relevance Model

Variable	Expected Sign	POSTINSPEC1			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-2.813	-5.70***	-7.103	-12.96***
BVPS	+	0.242	5.77***	0.484	10.18***
NIPS	+	0.892	3.97***	2.379	9.83***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.11		0.30	
Cramer Z-statistic		-66.99***			
N		1,193		1,106	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

The model is estimated in two-stages. In the first stage, P is regressed on industry, country, and year dummy variables, where P is price as of six months after the fiscal year-end. The second stage regression is $P^* = \beta_0 + \beta_1 BVPS + \beta_2 NIPS + \varepsilon$, where P^* is the residual from the first-stage regression, BVPS is book value of equity per share, and NIPS is net income per share. Cramer Z-test (Cramer 1987) is used to obtain significance tests of adjusted R^2 differences.

Variable definitions:

POSTINSPEC1 = 1 if audit report date is after PCAOB inspection start date, and 0 otherwise.

POSTINSPEC2 = 1 if audit report date is after PCAOB inspection end date, and 0 otherwise.

POSTINSPEC3 = 1 if the audit report is for the year before inspection or later, 0 otherwise.

See APPENDIX A for definitions of other variables

Table 19.
(continued)

Variable	Expected Sign	POSTINSPEC2			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-2.831	-5.80***	-7.110	-13.07***
BVPS	+	0.244	5.87***	0.494	10.42***
NIPS	+	0.915	4.11***	2.341	9.66***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.12		0.30	
Cramer Z-statistic		-64.41***			
N		1,178		1,116	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Variable	Expected Sign	POSTINSPEC3			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-3.377	-4.58***	-6.883	-10.31***
BVPS	+	0.290	4.81***	0.413	7.49***
NIPS	+	1.038	3.18***	2.448	8.65***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.06		0.24	
Cramer Z-statistic		-62.24***			
N		1,350		962	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Table 20.
Additional Analyses: Longitudinal Value Relevance Model

Panel A: Effect of joint inspections (Australia, Canada, South Korea, Singapore)

Stand-alone inspection subsample

Variable	Expected Sign	POSTINSPEC1			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-2.676	-4.64***	-6.499	-9.79***
BVPS	+	0.200	4.39***	0.329	5.81***
NIPS	+	0.985	4.01***	2.396	8.51***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.12		0.28	
Cramer Z-statistic		-36.68***			
N		789		660	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

See APPENDIX A for variable definitions.

Joint inspection subsample

Variable	Expected Sign	POSTINSPEC1			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-3.547	-3.64***	-7.966	-8.80***
BVPS	+	0.388	3.98***	0.723	9.00***
NIPS	+	0.549	1.06	2.763	6.42***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.10		0.36	
Cramer Z-statistic		-33.17***			
N		404		446	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

See APPENDIX A for variable definitions.

Table 20.
(continued)

Panel B: Analyses of common law and civil law countries

Common law country subsample

Variable	Expected Sign	POSTINSPEC1			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-1.488	-2.66***	-6.988	-11.23***
BVPS	+	0.183	3.29***	0.611	10.04***
NIPS	+	1.040	3.92***	2.261	7.93***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.07		0.30	
Cramer Z-statistic		-64.25***			
N		873		848	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Civil law country subsample

Variable	Expected Sign	POSTINSPEC1			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-7.003	-6.28***	-9.596	-8.25***
BVPS	+	0.314	4.49***	0.372	5.00***
NIPS	+	1.108	2.56***	2.768	6.34***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.23		0.36	
Cramer Z-statistic		-11.01***			
N		320		258	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Table 20.
(continued)

Panel C: Analyses of Big 4 and non-Big 4 subsamples

Big 4 subsample

Variable	Expected Sign	POSTINSPEC1			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-3.047	-5.00***	-6.767	-10.69***
BVPS	+	0.274	5.71***	0.460	8.91***
NIPS	+	0.859	3.39***	2.459	9.25***
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.12		0.29	
Cramer Z-statistic		-50.74***			
N		922		936	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Non-Big 4 subsample

Variable	Expected Sign	POSTINSPEC1			
		Dependent Variable: P*			
		Pre-inspection observations		Post-inspection observations	
		Coefficient	t-statistic	Coefficient	t-statistic
		(1)	(2)	(3)	(4)
Intercept	?	-2.112	-2.78***	-9.398	-9.49***
BVPS	+	0.057	0.63	0.755	5.39***
NIPS	+	1.219	2.47**	1.258	2.18**
Year Fixed Effects		Included		Included	
Industry Fixed Effects		Included		Included	
Country Fixed Effects		Included		Included	
Adjusted R-square		0.06		0.22	
Cramer Z-statistic		-10.11***			
N		271		170	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for variable definitions.

Table 21.
Sample Composition: Cross-sectional Going Concern Opinion Model

Panel A: Country composition

Country	Negative net income/operating cash flow sample (NNI/CFO)			Extreme distress quartile sample (EDQ)		
	No. of observations	%	BLACKLIST	No. of observations	%	BLACKLIST
Argentina	11	1.1	0	11	2.4	0
Australia	36	3.7	0	12	2.6	0
Belgium	2	0.2	1	1	0.2	1
Brazil	5	0.5	0	4	0.9	0
Canada	413	42.0	0	131	28.1	0
Chile				4	0.9	0
Denmark	2	0.2	1	3	0.6	1
France	25	2.5	1	17	3.6	1
Germany	13	1.4	1	4	0.9	1
Greece	19	1.9	1	49	10.5	1
Hong Kong	89	9.1	1	38	8.1	1
India	12	1.2	0	3	0.6	0
Indonesia				3	0.6	0
Ireland	17	1.7	1	9	1.9	1
Israel	203	20.7	0	65	13.9	0
Italy	9	0.9	1	10	2.1	1
Japan	13	1.4	0	5	1.2	0
Korea	7	0.7	0	1	0.2	0
Mexico	20	2.0	0	16	3.4	0
Netherlands	10	1.0	1	2	0.4	1
New Zealand	1	0.1	0	2	0.4	0
Norway	1	0.1	1	8	1.7	1
Portugal				4	0.9	1
Singapore	5	0.5	0	1	0.2	0
South Africa	17	1.7	0	10	2.1	0
Spain	3	0.3	1			
Switzerland	3	0.3	1	6	1.3	1
United Kingdom	29	3.0	1	36	7.7	1
United States	18	1.8	0 or 1	12	2.6	0 or 1
Total	983	100.0		467	100.0	

Table 21.
(continued)

Panel B: Industry composition

Industry (Defined by SIC Code)	Negative net income/operating cash flow sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
	No. of observations	%	No. of observations	%
Agriculture, Mining and Construction (0100-1999, excluding 1300-1399)	264	26.9	36	7.7
Food (2000-2111)	18	1.8	8	1.7
Textiles and printing /publishing (2200-2799)	17	1.7	15	3.2
Chemicals (2800-2824,2840-2899)	17	1.7	1	0.2
Pharmaceuticals (2830-2836)	149	15.2	58	12.4
Extractive (1300-1399, 2900-2999)	44	4.5	9	1.9
Durable manufacturers (3000-3999, excluding 3570-3579 and 3670-3679)	171	17.4	50	10.7
Transportation (4000-4899)	79	8.0	190	40.7
Utilities (4900-4999)	11	1.1	41	8.8
Retail (5000-5999)	17	1.7	13	2.8
Services (7000-8999, excluding 7370-7379)	23	2.4	12	2.6
Computers (3570-3579, 3670-3679, 7370-7379)	166	16.9	34	7.3
Others	7	0.7	0	0.0
Total	983	100.0	467	100.0

Panel C: Year composition

Year	Negative net income/operating cash flow sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
	No. of observations	%	No. of observations	%
2005	125	12.7	47	10.1
2006	129	13.1	62	13.3
2007	161	16.4	70	15.0
2008	210	21.4	105	22.4
2009	207	21.0	100	21.4
2010	151	15.4	83	17.8
Total	983	100.0	467	100.0

Table 22.**Descriptive Statistics: Cross-sectional Going Concern Opinion Model***Panel A: Comparison between GC firms and non-GC firms*

Variable	Negative net income/operating cash flow sample (NNI/CFO)					Extreme distress quartile sample (EDQ)				
	Full Sample	GC Firms	Non-GC Firms	t-statistic	Wilcoxon Z-statistic	Full Sample	GC Firms	Non-GC Firms	t-statistic	Wilcoxon Z-statistic
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BLACKLIST	0.237	0.110	0.251	-3.16***	-3.15***	0.422	0.250	0.443	-2.68***	-2.66***
PRIORGC	0.085	0.500	0.039	18.04***	15.64***	0.096	0.462	0.051	10.51***	9.46***
INVPROFAC	1.156	1.196	1.151	0.44	0.76	0.717	0.668	0.723	-0.32	-0.17
RULEOFLAW	1.364	1.360	1.364	-0.07	2.22**	1.226	1.075	1.245	-1.68*	-1.06
IASDIFF	5.445	5.780	5.407	1.17	0.39	6.677	6.904	6.648	0.35	0.77
LOGGDP	27.303	27.539	27.276	2.32**	2.57**	27.298	27.247	27.304	-0.35	-0.59
GDPGROWTH	2.151	1.468	2.229	-2.33**	-2.59***	1.803	1.599	1.829	-0.47	-0.26
GDPPERCAP	10.345	10.425	10.336	1.47	2.52**	10.289	10.271	10.291	-0.71	-0.19
MKTSIZE	1.688	1.248	1.738	-2.12**	-2.59***	1.549	1.372	1.571	-0.60	-1.30
PROBANKZ	0.057	0.175	0.044	6.60***	4.40***	0.133	0.341	0.107	6.37***	5.33***
LOGASSET	5.159	4.323	5.253	-4.24***	-4.00***	6.865	4.741	7.131	-6.26***	-5.86***
BETA	0.711	0.695	0.713	-0.51	-0.83	0.754	0.714	0.759	-1.00	-1.27
VOL	0.048	0.065	0.047	6.91***	5.68***	0.043	0.072	0.039	8.66***	6.88***
LEV	0.436	0.552	0.423	3.17***	0.87	0.749	0.905	0.730	2.87***	1.09
CHLEV	0.032	0.099	0.024	2.07**	3.09***	0.068	0.166	0.056	1.65	3.74***
LAGLOSS	0.707	0.930	0.682	5.24***	5.17***	0.465	0.827	0.419	5.74***	5.55***
INVEST	0.332	0.324	0.332	-0.28	-0.42	0.206	0.292	0.195	2.74***	3.76***
FINANCE	0.882	0.860	0.884	-0.72	-0.72	0.940	0.885	0.947	-1.79*	-1.78*
BIG4	0.714	0.620	0.725	-2.20**	-2.20**	0.805	0.615	0.829	-3.71***	-3.66***
N	983	100	883			467	52	415		

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

t-statistics test for differences in means.

Wilcoxon Z-statistics test for differences in medians.

Table 22.
(continued)

Panel B: Comparison between blacklisted clients and complying clients

Variable	Negative net income/operating cash flow sample (NNI/CFO)					Extreme distress quartile sample (EDQ)				
	Full Sample	Blacklisted clients	Complying clients	t-statistic	Wilcoxon Z-statistic	Full Sample	Blacklisted clients	Complying clients	t-statistic	Wilcoxon Z-statistic
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
GC	0.102	0.047	0.119	-3.16***	-3.15***	0.111	0.066	0.144	-2.68***	-2.66***
PRIORGC	0.085	0.039	0.100	-2.94***	-2.93***	0.096	0.056	0.126	-2.55**	-2.53***
INVPROFAC	1.156	0.791	1.269	-6.86***	-1.52	0.717	0.266	1.047	-7.47***	-5.83***
RULEOFLAW	1.364	1.473	1.330	3.27***	-4.85***	1.226	1.315	1.162	2.39**	-3.14***
IASDIFF	5.445	6.052	5.256	3.52***	-6.54***	6.677	8.416	5.407	6.83***	1.77**
LOGGDP	27.303	27.219	27.329	-1.36	1.31	27.298	27.324	27.279	0.43	2.44**
GDPGROWTH	2.151	1.507	2.351	-3.65***	-3.35***	1.803	0.788	2.544	-5.89***	-6.18***
GDPPERCAP	10.345	10.489	10.300	4.44***	1.88*	10.289	10.473	10.154	5.59***	2.40**
MKTSIZE	1.688	3.478	1.132	16.01***	2.66***	1.549	2.195	1.078	5.40***	-2.19**
PROBANKZ	0.057	0.053	0.059	-0.37	4.69***	0.133	0.083	0.169	-3.53***	-1.41
LOGASSET	5.159	6.238	4.824	9.39***	8.74***	6.865	8.001	6.036	8.31***	7.47***
BETA	0.711	0.740	0.702	1.55	2.55***	0.754	0.835	0.695	5.04***	4.78***
VOL	0.048	0.047	0.049	-0.65	-0.69	0.043	0.039	0.045	-2.23**	-2.43**
LEV	0.436	0.529	0.407	4.20***	6.12***	0.749	0.768	0.736	0.82	1.40
CHLEV	0.032	0.043	0.028	0.58	0.51	0.068	0.061	0.073	-0.28	-2.41**
LAGLOSS	0.707	0.545	0.757	-6.34***	-6.22***	0.465	0.289	0.593	-6.79***	-6.48***
INVEST	0.332	0.240	0.360	-6.01***	-5.31***	0.206	0.141	0.253	-5.08***	-3.44***
FINANCE	0.882	0.837	0.896	-2.45**	-2.44**	0.940	0.949	0.933	0.71	0.71
BIG4	0.714	0.764	0.699	1.93*	1.93*	0.805	0.878	0.752	3.44***	3.40***
N	983	233	750			467	197	270		

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

See APPENDIX A for variable definitions.

Table 23.
Cross-sectional Going Concern Opinion Model

Variable	Expected Sign	Negative net income/operating cash flow sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
		Coefficient	Wald Chi-square Statistic	Coefficient	Wald Chi-square Statistic
		(1)	(2)	(3)	(4)
Intercept	?	-24.396	6.46**	-32.447	4.68**
BLACKLIST	-	-2.093	6.35***	-2.165	4.59**
PRIORGC	+	3.078	88.40***	2.442	21.15***
INVPROFAC	+	0.146	0.09	-0.632	1.09
RULEOFLAW	+	-1.621	3.43*	-1.095	0.81
IASDIFF	?	0.177	5.52**	0.130	2.92*
LOGGDP	?	0.362	3.40*	0.420	2.79*
GDPGROWTH	?	-0.180	2.77*	0.007	0.00
GDPPERCAP	?	1.119	2.13	1.728	1.60
MKTSIZE	?	0.319	4.58**	0.400	4.64**
PROBANKZ	+	0.758	1.39	0.678	0.78
LOGASSET	-	-0.155	2.13	-0.167	1.67
BETA	+	0.900	3.69*	0.976	1.82
VOL	+	12.615	5.05**	20.109	5.74**
LEV	+	0.139	0.11	0.534	0.75
CHLEV	+	0.311	0.69	-0.079	0.02
LAGLOSS	+	1.274	7.05***	1.086	3.68*
INVEST	-	-0.710	1.70	-1.221	1.92
FINANCE	-	0.258	0.34	0.059	0.01
BIG4	?	-0.368	1.54	-0.714	2.44
Year Fixed Effects		Included		Included	
Likelihood Ratio		226.82***		129.78***	
Pseudo R-square		0.21		0.24	
N		983		467	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
See APPENDIX A for definitions.

Table 24.
Additional Analyses: Cross-sectional Going Concern Opinion Model

Panel A: Effect of joint inspections (Australia, Canada, Korea, Singapore)

Variable	Expected Sign	Negative net income/operating cash flow sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
		Coefficient	Wald Chi-square Statistic	Coefficient	Wald Chi-square Statistic
		(1)	(2)	(3)	(4)
Intercept	?	-19.571	3.08*	-30.966	3.93**
BLACKLIST	-	-2.545	6.52***	-2.348	4.43**
ALONEINS	-	-0.916	1.49	-0.633	0.43
PRIORGC	+	3.028	84.47***	2.440	20.96***
INVPROFAC	+	-0.101	0.04	-0.685	1.18
RULEOFLAW	+	-1.702	3.39*	-1.370	1.11
IASDIFF	?	0.150	3.62*	0.106	1.59
LOGGDP	?	0.196	0.62	0.307	0.96
GDPGROWTH	?	-0.150	1.88	0.031	0.06
GDPPERCAP	?	1.171	1.75	1.954	1.85
MKTSIZE	?	0.324	4.07**	0.383	3.75*
PROBANKZ	+	0.676	1.10	0.591	0.58
LOGASSET	-	-0.158	2.18	-0.159	1.49
BETA	+	0.838	3.17*	0.908	1.55
VOL	+	12.272	4.75**	20.262	5.78**
LEV	+	0.235	0.30	0.568	0.87
CHLEV	+	0.299	0.65	-0.075	0.02
LAGLOSS	+	1.337	7.30***	1.115	3.80*
INVEST	-	-0.701	1.67	-1.176	1.78
FINANCE	-	0.265	0.36	0.056	0.01
BIG4	?	-0.415	1.94	-0.758	2.70
Year Fixed Effects		Included		Included	
Likelihood Ratio		228.38***		130.23***	
Pseudo R-square		0.21		0.24	
N		983		467	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

BLACKLIST = 1 if the firm's auditor is located in a jurisdiction where the PCAOB is not conducting inspections, and 0 otherwise (data from PCAOB).

ALONEINS = 1 if the firm is located in jurisdictions (Argentina, Brazil, , India, Israel, Japan, Mexico, New Zealand, South Africa) where the PCAOB has conducted inspections on a stand-alone basis, and 0 otherwise.

Other variables are defined in APPENDIX A.

Table 24.
(continued)

Panel B: Analysis of common law country subsample

Variable	Expected Sign	Negative net income/operating cash flow Sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
		Coefficient	Wald Chi-square Statistic	Coefficient	Wald Chi-square Statistic
		(1)	(2)	(3)	(4)
Intercept	?	-29.965	3.38*	-11.832	0.22
BLACKLIST	-	-3.519	2.53	-2.920	1.59
PRIORGC	+	3.083	72.74***	2.440	13.21***
RULEOFLAW	+	-1.237	0.83	0.437	0.05
IASDIFF	?	0.359	2.59	0.304	1.32
LOGGDP	?	0.353	1.30	0.004	0.00
GDPGROWTH	?	-0.194	0.89	0.036	0.02
GDPPERCAP	?	1.454	1.16	0.402	0.05
MKTSIZE	?	0.529	4.29**	0.365	1.64
PROBANKZ	+	0.585	0.75	0.239	0.08
LOGASSET	-	-0.136	1.27	-0.095	0.35
BETA	+	0.864	3.08*	0.980	1.37
VOL	+	13.514	5.35**	27.247	7.66***
LEV	+	0.242	0.28	0.619	0.89
CHLEV	+	0.284	0.50	0.015	0.00
LAGLOSS	+	1.961	6.33**	1.344	2.49
INVEST	-	-0.320	0.33	-0.448	0.22
FINANCE	-	0.055	0.01	-0.005	0.00
BIG4	?	-0.182	0.31	-0.652	1.36
Year Fixed Effects		Included		Included	
Likelihood Ratio		204.31***		101.33***	
Pseudo R-square		0.21		0.26	
N		853		331	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

Other variables are defined in APPENDIX A.

Table 24.
(continued)

Panel C: Analysis of Big 4 subsample

Variable	Expected Sign	Negative net income/operating cash flow Sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
		Coefficient	Wald Chi-square Statistic	Coefficient	Wald Chi-square Statistic
		(1)	(2)	(3)	(4)
Intercept	?	-20.160	2.03	-41.991	4.15**
BLACKLIST	-	-2.119	3.12*	-2.810	3.16*
PRIORG	+	2.656	43.46***	1.998	9.32***
INVPROFAC	+	0.363	0.37	-0.299	0.15
RULEOFLAW	+	-1.267	1.26	-1.690	1.36
IASDIFF	?	0.227	3.63*	0.246	4.62**
LOGGDP	?	0.120	0.19	0.403	1.27
GDPGROWTH	?	-0.103	0.51	-0.003	0.00
GDPPERCAP	?	1.265	1.17	2.728	2.18
MKTSIZE	?	-0.040	0.01	0.095	0.03
PROBANKZ	+	1.137	1.67	0.838	0.61
LOGASSET	-	-0.111	0.82	-0.215	2.23
BETA	+	0.922	2.31	1.835	3.64*
VOL	+	6.556	0.69	-3.987	0.09
LEV	+	-0.428	0.45	0.321	0.14
CHLEV	+	1.010	2.33	0.453	0.30
LAGLOSS	+	1.566	6.67***	2.185	8.36***
INVEST	-	-0.956	1.78	-1.799	1.94
FINANCE	-	-0.051	0.01	-1.141	1.61
Year Fixed Effects		Included		Included	
Likelihood Ratio		135.18***		90.48***	
Pseudo R-square		0.18		0.21	
N		702		376	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).
Other variables are defined in APPENDIX A.

Table 25.
Sample Composition: Longitudinal Going Concern Opinion Model

Panel A: Country composition

Country	Negative net income/operating cash flow sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
	No. of observations	%	No. of observations	%
Argentina	10	1.7	17	4.9
Australia	28	4.9	6	1.7
Brazil			9	2.6
Canada	271	47.1	119	34.3
Chile			7	2.0
Greece	5	0.9	29	8.4
India	7	1.2	2	0.6
Indonesia			3	0.9
Ireland	11	1.9	10	2.9
Israel	208	36.1	65	18.7
Japan	4	0.7	8	2.3
Korea	3	0.5	1	0.2
Mexico	6	1.0	13	3.8
New Zealand	3	0.5	6	1.7
Philippines			2	0.6
South Africa	13	2.3	5	1.4
United Kingdom	7	1.2	45	13.0
Total	576	100.0	347	100.0

Table 25.
(continued)

Panel B: Industry composition

Industry (Defined by SIC Code)	Negative net income/operating cash flow sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
	No. of observations	%	No. of observations	%
Agriculture, Mining and Construction (0100-1999, excluding 1300-1399)	126	21.9	21	6.1
Food (2000-2111)	5	0.9	15	4.3
Textiles and printing /publishing (2200-2799)	11	1.9	13	3.8
Chemicals (2800-2824,2840-2899)	17	2.9	4	1.2
Pharmaceuticals (2830-2836)	95	16.5	44	12.7
Extractive (1300-1399, 2900-2999)	26	4.5	8	2.3
Durable manufacturers (3000-3999, excluding 3570-3579 and 3670-3679)	91	15.8	24	6.9
Transportation (4000-4899)	13	2.3	113	32.6
Utilities (4900-4999)	7	1.2	35	10.1
Retail (5000-5999)	5	0.9	13	3.8
Services (7000-8999, excluding 7370-7379)	8	1.4	9	2.6
Computers (3570-3579, 3670-3679, 7370-7379)	164	28.4	48	13.6
Others	8	1.4	0	0.0
Total	576	100.0	347	100.0

Panel C: Year composition

Year	Negative net income/operating cash flow sample (NNI/CFO)		Extreme distress quartile sample (EDQ)	
	No. of observations	%	No. of observations	%
2001	19	3.3	13	3.7
2002	22	3.8	14	4.0
2003	53	9.2	31	8.9
2004	66	11.5	34	9.8
2005	72	12.5	35	10.1
2006	74	12.8	37	10.7
2007	80	13.9	42	12.1
2008	80	13.9	53	15.3
2009	65	11.3	46	13.3
2010	45	7.8	42	12.1
Total	576	100.0	347	100.0

Table 26.
Descriptive Statistics: Longitudinal Going Concern Opinion Model

Panel A: Comparison between GC firms and non-GC firms

Variable	Negative net income/operating cash flow sample (NNI/CFO)					Extreme distress quartile sample (EDQ)				
	Full Sample	GC Firms	Non-GC Firms	t-statistic	Wilcoxon Z-statistic	Full Sample	GC Firms	Non-GC Firms	t-statistic	Wilcoxon Z-statistic
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
POSTINSPEC1	0.531	0.689	0.513	2.61***	2.60***	0.565	0.667	0.552	1.36	1.36
PRIORGC	0.087	0.508	0.037	14.40***	12.35***	0.104	0.513	0.052	10.09***	8.88***
INVPROFAC	0.889	0.870	0.891	-0.23	1.55	0.473	0.282	0.497	-1.24	-0.35
RULEOFLAW	1.284	1.275	1.285	-0.13	2.49**	1.136	0.832	1.174	-2.59***	-0.58
IASDIFF	5.352	5.295	5.359	-0.22	-2.95***	6.173	7.026	6.065	1.23	0.53
LOGGDP	26.937	27.383	26.884	3.71***	3.96***	27.141	27.059	27.152	-0.52	0.84
GDPGROWTH	2.837	2.453	2.883	-1.32	-1.54	2.494	2.734	2.463	0.53	0.21
GDPPERCAP	10.182	10.256	10.173	1.00	2.92***	10.069	9.882	10.092	-1.64	-0.61
MKTSIZE	1.052	1.019	1.056	-0.67	0.42	0.935	0.806	0.951	-1.85*	-1.50
PROBANKZ	0.066	0.173	0.053	4.34***	3.47***	0.123	0.282	0.103	4.24***	4.49***
LOGASSET	4.396	4.004	4.442	-1.76*	-1.38	6.425	4.921	6.616	-3.67***	-3.73***
BETA	0.669	0.611	0.675	-1.35	-1.44	0.692	0.595	0.704	-1.80*	-1.49
VOL	0.087	0.166	0.077	2.27**	4.30***	0.132	0.089	0.137	-0.79	3.66***
LEV	0.425	0.607	0.404	4.11***	1.39	0.741	0.955	0.714	4.53***	2.13**
CHLEV	0.039	0.213	0.019	5.11***	3.59***	0.075	0.306	0.046	5.20***	3.70***
LAGLOSS	0.795	0.918	0.781	2.52**	2.51**	0.496	0.769	0.461	3.69***	3.62***
INVEST	0.388	0.341	0.393	-1.40	-1.41	0.218	0.233	0.217	0.4	1.22
FINANCE	0.896	0.852	0.901	-1.17	-1.17	0.908	0.718	0.932	-4.46***	-4.34***
BIG4	0.658	0.656	0.658	-0.04	-0.04	0.775	0.667	0.789	-1.73*	-1.72*
N	576	515	61			347	39	308		

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

t-statistics test for differences in means.

Wilcoxon Z-statistics test for differences in medians.

Table 26.
(continued)

Panel B: Comparison between post-inspection observations and pre-inspection observations

Variable	Negative net income/operating cash flow sample (NNI/CFO)					Extreme distress quartile sample (EDQ)				
	Full Sample	Post-inspection Observations (POSTINSPEC1)	Pre-inspection Observations (POSTINSPEC1)	t-statistic	Wilcoxon Z-statistic	Full Sample	Post-inspection Observations (POSTINSPEC1)	Pre-inspection Observations (POSTINSPEC1)	t-statistic	Wilcoxon Z-statistic
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
GC	0.106	0.137	0.070	2.61***	2.60***	0.112	0.133	0.086	1.36	1.36
PRIORGC	0.087	0.114	0.056	2.51**	2.50***	0.104	0.082	0.132	-1.54	-1.54
INVPROFAC	0.889	0.902	0.873	0.52	0.97	0.473	0.471	0.476	-0.04	0.30
RULEOFLAW	1.284	1.313	1.252	1.26	5.49***	1.136	1.120	1.156	-0.42	1.76*
IASDIFF	5.352	5.369	5.333	0.20	-0.65	6.173	6.209	6.126	0.17	0.43
LOGGDP	26.937	27.133	26.714	5.10***	8.70***	27.141	27.283	26.958	2.87***	3.77***
GDPGROWTH	2.837	2.348	3.392	-5.31***	-3.94***	2.494	1.646	3.594	-6.27***	-4.92***
GDPPERCAP	10.182	10.332	10.012	6.56***	10.31***	10.069	10.185	9.918	3.31***	5.33***
MKTSIZE	1.052	1.082	1.018	1.87*	3.49***	0.935	0.925	0.947	-0.42	0.10
PROBANKZ	0.066	0.061	0.072	-0.62	-0.41	0.123	0.111	0.139	-1.01	-0.40
LOGASSET	4.396	4.434	4.353	0.53	0.89	6.425	6.602	6.197	1.35	1.49
BETA	0.669	0.670	0.667	0.11	-0.50	0.692	0.747	0.620	3.31***	3.27***
VOL	0.087	0.161	0.003	6.75***	5.43***	0.132	0.232	0.002	6.31***	5.01***
LEV	0.425	0.443	0.406	1.21	0.71	0.741	0.771	0.703	1.95*	1.64
CHLEV	0.039	0.061	0.015	1.94*	0.08	0.075	0.106	0.035	2.15**	2.08**
LAGLOSS	0.795	0.804	0.785	0.56	0.56	0.496	0.469	0.530	-1.11	-1.11
INVEST	0.388	0.370	0.408	-1.60	-1.78*	0.218	0.207	0.233	-0.99	-0.85
FINANCE	0.896	0.876	0.919	-1.68*	-1.67*	0.908	0.934	0.874	1.90*	1.90*
BIG4	0.658	0.683	0.630	1.35	1.35	0.775	0.791	0.755	0.79	0.79
N	576	306	270			347	196	151		

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed). See APPENDIX A for variable definitions.

Table 27.
Longitudinal Going Concern Opinion Model

Panel A: Negative net income/operating cash flow sample

Variable	Expected Sign	Negative net income/operating cash flow sample (NNI/CFO)					
		POSTINSPEC1		POSTINSPEC2		POSTINSPEC3	
		Coefficient	Wald Chi-square	Coefficient	Wald Chi-square	Coefficient	Wald Chi-square
		(1)	(2)	(3)	(4)	(5)	(6)
Intercept	?	-135.500	8.92***	-119.200	7.47***	-88.761	2.55
POSTINSPEC	+	-0.811	1.80	-0.514	0.80	-2.823	7.37***
PRIORGC	+	3.453	54.10***	3.397	55.98***	3.895	37.40***
INVPROFAC	+	-0.058	0.00	0.079	0.01	0.414	0.16
RULEOFLAW	+	-2.009	2.41	-1.957	2.28	-1.495	1.35
IASDIFF	?	-0.046	0.20	-0.027	0.07	0.005	0.00
LOGGDP	?	0.866	5.44**	0.805	5.18**	0.492	1.45
GDPGROWTH	?	0.021	0.02	0.001	0.00	-0.018	0.01
GDPPERCAP	?	1.206	1.92	1.240	1.90	0.714	0.69
MKTSIZE	?	-0.769	0.72	-0.710	0.59	-2.017	2.74*
PROBANKZ	+	1.086	1.35	1.166	1.63	1.239	0.99
LOGASSET	-	-0.154	1.00	-0.115	0.61	-0.197	1.17
BETA	+	-0.212	0.13	-0.380	0.44	-0.628	0.71
VOL	+	92.644	5.24**	78.429	4.05**	67.744	1.71
LEV	+	-1.731	4.63**	-1.367	3.08*	-2.478	5.88**
CHLEV	+	4.655	15.09***	4.085	12.38***	5.389	13.71***
LAGLOSS	+	1.379	3.53*	1.360	3.60*	1.217	2.64
INVEST	-	-2.268	7.26***	-1.856	5.67**	-4.296	14.49***
FINANCE	-	0.360	0.28	-0.170	0.09	-0.195	0.09
BIG4	?	0.676	2.46	0.681	2.69	1.201	4.69**
Year Fixed Effects		Included		Included		Included	
Likelihood Ratio		160.80***		159.28***		137.71***	
Pseudo R-square		0.24		0.24		0.24	
N		576		588		513	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

POSTINSPEC1 = 1 if audit report date is after PCAOB inspection start date, and 0 otherwise.

POSTINSPEC2 = 1 if audit report date is after PCAOB inspection end date, and 0 otherwise.

POSTINSPEC3 = 1 if the audit report is for the year before inspection or later, and 0 otherwise.

Other variables are defined in APPENDIX A.

Table 27.
(continued)

Panel B: Extreme distress quartile sample

Variable	Expected Sign	Extreme distress quartile sample (EDQ)					
		POSTINSPEC1		POSTINSPEC2		POSTINSPEC3	
		Coefficient	Wald Chi-square	Coefficient	Wald Chi-square	Coefficient	Wald Chi-square
		(1)	(2)	(3)	(4)	(5)	(6)
Intercept	?	-426.400	8.49***	-420.100	8.48***	-26.867	0.83
POSTINSPEC	+	2.990	5.63***	3.241	6.14***	1.517	0.61
PRIORG	+	5.482	24.99***	5.540	25.22***	4.731	17.55***
INVPROFAC	+	-1.094	1.54	-1.159	1.76	0.229	0.05
RULEOFLAW	+	0.333	0.05	0.410	0.07	-1.703	0.70
IASDIFF	?	0.065	0.52	0.054	0.36	0.037	0.16
LOGGDP	?	0.115	0.06	0.148	0.11	0.003	0.00
GDPGROWTH	?	0.203	1.25	0.216	1.39	0.120	0.35
GDPPERCAP	?	0.800	0.23	0.852	0.26	2.466	1.23
MKTSIZE	?	0.706	0.26	0.751	0.29	-0.677	0.20
PROBANKZ	+	2.499	3.46*	2.420	3.12*	4.053	6.43**
LOGASSET	-	0.131	0.42	0.119	0.35	0.188	0.88
BETA	+	-0.397	0.17	-0.293	0.09	-1.727	2.33
VOL	+	374.100	7.95***	366.800	7.82***	2.015	0.03
LEV	+	-3.610	6.91***	-3.488	6.25**	-4.132	5.99**
CHLEV	+	6.925	13.98***	6.706	12.45***	7.074	12.22***
LAGLOSS	+	0.738	0.86	0.662	0.68	1.836	4.72**
INVEST	-	-4.356	6.16**	-4.303	6.05**	-10.192	13.45***
FINANCE	-	-2.556	8.78***	-2.525	8.55***	-2.408	7.27***
BIG4	?	-0.352	0.26	-0.338	0.24	0.228	0.10
Year Fixed Effects		Included		Included		Included	
Likelihood Ratio		139.17***		139.84***		106.68***	
Pseudo R-square		0.33		0.33		0.29	
N		347		345		317	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

POSTINSPEC1 = 1 if audit report date is after PCAOB inspection start date, and 0 otherwise.

POSTINSPEC2 = 1 if audit report date is after PCAOB inspection end date, and 0 otherwise.

POSTINSPEC3 = 1 if the audit report is for the year before inspection or later, and 0 otherwise.

Other variables are defined in APPENDIX A.

Table 28.
Additional Analyses: Longitudinal Going Concern Opinion Model

Panel A: Effect of joint inspections (Australia, Canada, Korea, Singapore)

Variable	Expected Sign	Negative Net Income/Operating Cash Flow Sample (NNI/CFO) (Joint inspection effect)		Extreme Distress Quartile Sample (EDQ) (Joint inspection effect)	
		Coefficient	Wald Chi-square Statistic	Coefficient	Wald Chi-square Statistic
		(1)	(2)	(3)	(4)
Intercept	?	-133.300	8.46***	-441.600	8.76***
ALONEPOST	+	-1.161	1.97	2.674	4.01**
JOINTPOST	+	-0.687	1.16	3.749	5.82***
PRIORGC	+	3.414	52.31***	5.366	23.53***
INVPROFAC	+	-0.129	0.02	-1.306	2.22
RULEOFLAW	+	-2.107	2.51	0.357	0.05
IASDIFF	?	-0.054	0.28	0.036	0.14
LOGGDP	?	0.801	4.33**	-0.049	0.01
GDPGROWTH	?	0.014	0.01	0.215	1.37
GDPPERCAP	?	1.244	1.84	0.689	0.15
MKTSIZE	?	-0.732	0.66	0.638	0.20
PROBANKZ	+	1.078	1.31	2.362	2.89*
LOGASSET	-	-0.159	1.08	0.097	0.23
BETA	+	-0.232	0.15	-0.310	0.10
VOL	+	92.210	5.13**	393.400	8.28***
LEV	+	-1.700	4.49**	-3.483	6.34**
CHLEV	+	4.611	14.77***	6.575	12.56***
LAGLOSS	+	1.369	3.45*	0.502	0.37
INVEST	-	-2.305	7.46***	-4.333	6.07**
FINANCE	-	0.416	0.36	-2.498	8.33***
BIG4	?	0.679	2.49	-0.364	0.28
Year Fixed Effects		Included		Included	
Likelihood Ratio		161.19***		140.38***	
Pseudo R-square		0.24		0.33	
N		576		347	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

ALONEPOST = ALONEINS*POSTINSPEC1.

JOINTPOST = JOINTINS*POSTINSPEC1.

Other variables are defined in APPENDIX A.

Table 28.
(continued)

Panel B: Analysis of common law country subsample

Variable	Expected Sign	Negative Net Income/Operating Cash Flow Sample (NNI/CFO)		Extreme Distress Quartile Sample (EDQ)	
		Coefficient	Wald Chi-square Statistic	Coefficient	Wald Chi-square Statistic
		(1)	(2)	(3)	(4)
Intercept	?	-107.100	4.64**	-458.300	6.28**
POSTINSPEC1	+	-1.110	3.40*	1.987	2.19
PRIORGC	+	3.443	50.48***	5.294	16.82***
RULEOFLAW	+	3.381	1.40	2.351	0.57
IASDIFF	?	1.014	2.90*	0.490	0.60
LOGGDP	?	-0.598	0.44	-0.902	0.75
GDPGROWTH	?	0.113	0.32	0.061	0.02
GDPPERCAP	?	0.390	0.08	-0.214	0.01
MKTSIZE	?	-0.304	0.08	0.665	0.17
PROBANKZ	+	0.905	0.82	1.966	1.84
LOGASSET	-	-0.048	0.08	0.253	1.13
BETA	+	-0.319	0.26	-0.017	0.00
VOL	+	96.772	5.85**	432.400	6.79***
LEV	+	-0.949	1.41	-2.565	3.19*
CHLEV	+	3.924	10.44***	6.018	9.02***
LAGLOSS	+	2.072	4.41**	1.258	1.54
INVEST	-	-1.725	4.23**	-3.790	4.12**
FINANCE	-	0.525	0.47	-2.458	5.29**
BIG4	?	0.653	2.19	-0.251	0.09
Year Fixed Effects		Included		Included	
Likelihood Ratio		154.09***		116.51***	
Pseudo R-square		0.24		0.35	
N		558		275	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

Other variables are defined in APPENDIX A.

Table 28.
(continued)

Panel C: Analysis of Big 4 subsample

Variable	Expected Sign	Negative Net Income/Operating Cash Flow Sample (NNI/CFO)		Extreme Distress Quartile Sample (EDQ)	
		Coefficient	Wald Chi-square Statistic	Coefficient	Wald Chi-square Statistic
		(1)	(2)	(3)	(4)
Intercept	?	-68.873	1.45	-248.700	2.26
POSTINSPEC1	+	-1.322	3.48*	1.665	1.27
PRIORGC	+	2.664	22.09***	4.900	15.09***
INVPROFAC	+	-0.150	0.03	-1.032	0.87
RULEOFLAW	+	-1.858	1.32	0.458	0.07
IASDIFF	?	-0.105	0.57	0.026	0.06
LOGGDP	?	1.138	5.69**	0.243	0.14
GDPGROWTH	?	0.110	0.36	0.336	1.61
GDPPERCAP	?	0.957	0.77	0.956	0.25
MKTSIZE	?	-1.181	1.36	0.400	0.07
PROBANKZ	+	1.645	1.73	3.051	2.61
LOGASSET	-	-0.165	0.96	-0.012	0.00
BETA	+	-0.093	0.02	0.478	0.16
VOL	+	29.758	0.33	208.700	1.95
LEV	+	-1.702	3.44*	-3.527	4.54**
CHLEV	+	4.195	10.73***	6.676	9.78***
LAGLOSS	+	1.839	4.67**	1.698	3.12*
INVEST	-	-3.351	9.52***	-7.629	8.31***
FINANCE	-	-0.596	0.72	-2.780	6.63**
Year Fixed Effects		Included		Included	
Likelihood Ratio		90.11***		98.62***	
Pseudo R-square		0.21		0.31	
N		379		269	

***, **, * Significant at the 1%, 5%, and 10% levels, respectively (two-tailed).

Other variables are defined in APPENDIX A.

REFERENCES

- Abbott, L.J., K. Gunny and T. Zhang. 2012. When the PCAOB talks, who listens? Evidence from client firm reaction to adverse, GAAP-deficient PCAOB inspection reports. *Auditing: A Journal of Practice and Theory*, forthcoming.
- Anderson, R.C., and D.M. Reeb. 2003. Founding-family ownership and firm performance: Evidence from S&P 500. *Journal of Finance* 58(3): 1301-1327.
- Ashbaugh, H., R. LaFond, and B.W. Mayhew. 2003. Do nonaudit services compromise auditor independence? Further evidence. *The Accounting Review* 78 (3): 611-639.
- Ashbaugh-Skaife, H., D.W. Collins, and W.R. Kinney, Jr. 2007. The discovery and reporting of internal control deficiencies prior to SOX-mandated audits. *Journal of Accounting and Economics* 44 (1-2): 166-192.
- Bae, K. H., H. Tan, and M. Welker. 2008. International GAAP differences: The impact on foreign analysts. *The Accounting Review* 83 (3): 593-628.
- Ball, R., and G. Foster. 1982. Corporate financial reporting: A methodological review of empirical research. *Journal of Accounting Research* 20 (Supplement): 161-234.
- Ball, R., S.P. Kothari, and A. Robin. 2000. The effect of international institutional factors on properties of accounting earnings. *Journal of Accounting and Economics* 29 (1): 1-51.
- Ball, R., and L. Shivakumar. 2006. The role of accruals in asymmetrically timely gain and loss recognition. *Journal of Accounting Research* 44(2): 207-242.
- Barth, M.E., W.R. Landsman, and M.H. Lang. 2008. International accounting standards and accounting quality. *Journal of Accounting Research* 46 (3): 467-498.
- Barth, M.E., W.R. Landsman, M.H. Lang, C. Williams. 2012. Are International Accounting Standards-based and U.S. GAAP-based accounting amounts comparable? *Journal of Accounting and Economics* 54 (1): 68-93.
- Basu, S. 1997. The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics* 24(1): 3-37.
- Basu, S., J. Krishnan, J. Lee, and Y. Zhang. 2012. Economic determinants and consequences of voluntary disclosure of internal control: Evidence from initial public offerings. Working paper.

- Bhattacharya, U., H. Daouk, and M. Welker. 2003. The world price of earnings opacity. *The Accounting Review* 78 (3): 641-678.
- Becker, C.L., M.L. DeFond, J. Jiambalvo, and K.R. Subramanyam. 1998. The effect of audit quality on earnings management. *Contemporary Accounting Research* 15 (1): 1-24.
- Beneish, M.D. 1997. Detecting GAAP violation: Implications for assessing earnings management among firms with extreme financial performance. *Journal of Accounting and Public Policy* 16 (3): 245-335.
- Boone, J.P., I.K. Khurana, and K.K. Raman. 2010. Do Big 4 and the second-tier firms provide audits of similar quality? *Journal of Accounting and Public Policy* 29 (4): 330-352.
- Brown, S., K. Lo, and T. Lys. 1999. Use of R^2 in accounting research: Measuring changes in value relevance over the last four decades. *Journal of Accounting and Economics* 28(2): 83-115.
- Brown, L.D. 2001. A temporal analysis of earnings surprises: Profits versus losses. *Journal of Accounting Research* 39 (2): 221-241.
- Bushman, R., and J. Piotroski. 2006. Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of Accounting and Economics* 42 (1-2): 107-148.
- Byard, D., Y. Li, and Y. Yu. 2011. The effect of mandatory IFRS adoption on financial analysts' information environment. *Journal of Accounting Research* 49 (1): 69-96.
- Carcello, J.V., D.R. Hermanson, and H.F. Huss. 1995. Temporal changes in bankruptcy-related reporting. *Auditing: A Journal of Practice and Theory* 14 (2): 133-143.
- Carcello, J.V. and T.L. Neal. 2000. Audit committee composition and auditor reporting. *The Accounting Review* 75 (4): 453-467.
- Carcello, J.V. 2005. Discussion of audit research after Sarbanes-Oxley. *Auditing: A Journal of Practice and Theory* 24 (Supplement): 31-40.
- Carcello, J.V. 2010. Suggested priorities for the PCAOB: A statement at the inaugural meeting of the PCAOB's Investor Advisory Group. *Current Issues in Auditing* 4 (2): A1-A6.
- Carcello, J.V., C.W. Hollingsworth, and S. Mastroliia. 2011a. The effect of PCAOB inspections on Big 4 audit quality. *Research in Accounting Regulation* 23 (2): 85-96.

- Carcello, J.V., B.T. Carver, and T.L. Neal. 2011b. Market reaction to the PCAOB's inability to conduct foreign inspections. Working paper.
- Carey, P., and R. Simnett. 2006. Audit partner tenure and audit quality. *The Accounting Review* 81 (3): 653-676.
- Chang, J. C., and H.L. Sun. 2009. Cross-listed foreign firms' earnings informativeness, earnings management, and disclosures of corporate governance information under SOX. *The International Journal of Accounting* 44 (1): 1-32.
- Choi, J., J. Kim, X. Liu, and D.A. Simunic. 2008. Audit pricing, legal liability regimes, and Big 4 premiums: Theory and cross-country evidence. *Contemporary Accounting Research* 25 (1): 55-99.
- Choudhary, P., S. Rajgopal, and M. Venkatachalam. 2009. Accelerated vesting of employee stock options in anticipation of FAS 123-R. *Journal of Accounting Research* 47 (1): 105-146.
- Christensen, H.B., L. Hail, and C. Leuz. 2011. Capital-market effects of securities regulation: Hysteresis, implementation, and enforcement. Working paper.
- Church, B.K., and L.B. Shefchik. 2012. PCAOB inspections and large accounting firms. *Accounting Horizons* 26 (1): 43-63.
- Covrig, V., M. DeFond, and M. Hung. 2007. Home bias, foreign mutual fund holdings, and the voluntary adoption of International Accounting Standards. *Journal of Accounting Research* 45 (1): 41-70.
- Cramer, J., 1987. Mean and variance of R^2 in small and moderate samples. *Journal of Econometrics* 35 (2-3): 253-266.
- Craswell, A., D.J. Stokes, and J. Laughton. 2002. Auditor independence and fee independence. *Journal of Accounting and Economics* 33 (2): 253-275.
- Daske, H., L. Hail, C. Leuz, and R. Verdi. 2008. Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research* 46 (5): 1085-1142.
- Daugherty, B., and W. Tervo. 2010. PCAOB inspections of smaller CPA firms: The perspective of inspected firms. *Accounting Horizons* 24 (2): 189-219.
- DeAngelo, L.E. 1981. Auditor independence, 'low balling', and disclosure regulation. *Journal of Accounting and Economics* 3 (2): 113-127.

- DeAngelo, H., L. DeAngelo, and D.J. Skinner. 1994. Accounting choice in troubled companies. *Journal of Accounting and Economics* 17 (1-2): 113-143.
- Dechow, P.M. 1994. Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals. *Journal of Accounting and Economics* 18(1): 3-42.
- Dee, C.C., A. Lulseged and T. Zhang. 2011. Client stock market reaction to PCAOB sanctions against a Big Four auditor. *Contemporary Accounting Research* 28 (1): 263-291.
- DeFond, M.L., and J. Jiambalvo. 1994. Debt covenant violation and manipulation of accruals. *Journal of Accounting and Economics* 17 (1-2): 145-176.
- DeFond, M.L., and K.R. Subramanyam. 1998. Auditor changes and discretionary accruals. *Journal of Accounting and Economics* 25(1): 35-67.
- DeFond, M.L. 2010. How should the auditors be audited? Comparing the PCAOB inspections with the AICPA peer reviews. *Journal of Accounting and Economics* 49 (1-2): 104-108.
- DeFond, M.L., and C.S. Lennox. 2011. The effect of SOX on small auditor exits and audit quality. *Journal of Accounting and Economics* 52 (1): 21-40.
- DeFond, M.L., X. Hu, M. Hung, and S. Li. 2012. The impact of mandatory IFRS adoption on foreign mutual fund ownership: The role of comparability. *Journal of Accounting and Economics*, forthcoming.
- DeFond, M.L., K. Raghunandan, and K.R. Subramanyam. 2002. Do non-audit service fees impair auditor independence? Evidence from going concern opinions. *Journal of Accounting Research* 40 (4): 1247-1274.
- Djankov, S., R. La Porta, F. Lopez-de-Silanes, and A. Shleifer. 2008. The law and economics of self-dealing. *Journal of Financial Economics* 88 (3): 430-465.
- Doidge, C. 2004. U.S. cross listings and the private benefits of control: Evidence from dual-class firms. *Journal of Financial Economics* 72 (3): 519-553.
- Doidge, C., G.A. Karolyi, and R.M. Stulz. 2009. Has New York become less competitive in global markets? Evaluating foreign listing choices over time. *Journal of Financial Economics* 91 (3): 253-277.
- Doidge, C., G.A. Karolyi, and R.M. Stulz. 2010. Why do foreign firms leave US markets? *Journal of Finance* 65 (4): 1507-1553.

- Doty, J.R. 2011. The global dimension conference on audit policy. Keynote address at FEE Conference on Audit Policy (June 30).
- Duarte, J., K. Kong, S. Siegel, and L. Young. 2011. The impact of the Sarbanes-Oxley Act on shareholders and managers of foreign firms. Working Paper.
- Easton, P.D. 1998. Discussion of revalued financial, tangible, and intangible assets: Association with share prices and non-market-based value estimations. *Journal of Accounting Research* 36 (Supplement): 235-247.
- Krishnan. 1999. Accounting accruals and auditor reporting conservatism. *Contemporary Accounting Research* 16 (1): 135-165.
- Francis, J.R., and D. Wang. 2008. The joint effect of investor protection and Big 4 audits on earnings quality around the world. *Contemporary Accounting Research* 25 (1): 157-191.
- Francis, J.R., and M. D. Yu. 2009. Big 4 office size and audit quality. *The Accounting Review* 84 (5): 1521-1552.
- Francis, J.R., I.K. Khurana, X. Martin, and R. Pereira. 2011. The relative importance of firm incentives versus country factors in the demand for assurance services by private entities. *Contemporary Accounting Research* 28 (2): 487-516.
- Francis, J.R., P.N. Michas, and S.E. Seavey. 2011. Does audit market concentration harm the quality of audited earnings? Evidence from audit markets in 42 countries. Working Paper.
- Frankel, R.M., M.F. Johnson, and K.K. Nelson. 2002. The relation between auditors' fees for nonaudit services and earnings management. *The Accounting Review* 77 (Supplement): 71-105.
- Gao, Y. 2011. The Sarbanes-Oxley Act and the choice of bond market by foreign firms. *Journal of Accounting Research* 49(4): 933-968.
- Glover, S.M., D.F. Prawitt, and M.H. Taylor, 2009. Audit standard setting and inspection for U.S. public companies: A critical assessment and recommendations for fundamental change. *Accounting Horizons* 23 (2): 221-237.
- Goelzer, D.L. 2005. PCAOB update: A year-three progress report and 2006 challenges. *Speech at Colorado Society of CPAs 2005 SEC Conference* (December 15).
- Goelzer, D.L. 2010a. *Speech at United States House of Representatives Financial Services Committee, Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises* (May 21).

- Goelzer, D.L. 2010b. Update on PCAOB developments. *Speech at PCAOB SAG meeting* (October 13).
- Gong, G., B. Ke and Y. Yu. 2010. Home country investor protection, ownership structure, and cross-listed firms' compliance with SOX-mandated internal control deficiency disclosures. Working paper.
- Gradison, B., and R. Boster. 2010. The PCAOB's first seven years: A retrospection. *Current Issues in Auditing* 4 (1): A9-A20.
- Gramling, A.A., J. Krishnan and Y. Zhang. 2011. Are PCAOB-identified audit deficiencies associated with a change in reporting decisions of triennially inspected audit firms? *Auditing: A Journal of Practice and Theory* 30 (3): 59-79.
- Gunny, K., G. Krishnan, and T. Zhang. 2007. Is audit quality associated with auditor tenure, industry expertise, and fees? Evidence from PCAOB opinions. Working paper.
- Gunny, K., and T. Zhang. 2009. PCAOB inspections and audit quality. Working paper.
- Harris, T.S., M. Lang, and H.P. Möller. 1994. The value relevance of German accounting measures: An empirical analysis. *Journal of Accounting Research* 32 (2): 187-209.
- Haw, I.M., B. Hu, L.S. Hwang, and W. Wu. 2004. Ultimate ownership, income management, and legal and extra-legal institutions. *Journal of Accounting Research* 42 (2): 423-462.
- Hermanson, D.R., R.W. Houston, and J.C. Rice. 2007. PCAOB inspections of smaller CPA firms: Initial evidence from inspection reports. *Accounting Horizons* 21 (2): 137-151.
- Hermanson, D.R., and R.W. Houston. 2009. Evidence from the PCAOB's second inspections of small firms. *The CPA Journal* 79 (2): 58-60.
- Hermanson, D.R., R.W. Houston, and Z. Ye. 2010. Accounting restatements arising from PCAOB inspections of small audit firms. *The CPA Journal* 80 (9): 68-70.
- Holthausen, R.W., and R.L. Watts. 2001. The relevance of the value relevance literature for financial accounting setting. *Journal of Accounting and Economics* 31(1-3): 3-75.
- Hostak, P., E. Karaoglu, T. Lys, and Y. Yang. 2012. An examination of the impact of Sarbanes-Oxley Act on the attractiveness of US capital markets for foreign firms. *Review of Accounting Studies*, forthcoming.

- Humphrey, C., P. Moizer, and S. Turley. The audit expectations gap-Plus ça change, plus c'est la même chose? 1992. *Critical Perspectives on Accounting* 3(2): 137-161.
- Hwang, L-S., C-L. Jan, and S. Basu. 1986. Loss firms and analysts' earnings forecast errors. *Journal of Financial Statement Analysis* 1 (2): 18-30.
- Jackson, H., and M.J. Roe. 2009. Public and private enforcement of securities laws: Resource-based evidence. *Journal of Financial Economics* 93(2): 207-238.
- Jeanjean, T., and H. Stolowy. 2008. Do accounting standard matter? An exploratory analysis of earnings management before and after IFRS adoption. *Journal of Accounting and Public Policy* 27 (6): 480-494.
- Johnstone, K.M., and J.C. Bedard. 2003. Risk management in client acceptance decisions. *The Accounting Review* 78(4): 1003-1025.
- Johnstone, K.M., and J.C. Bedard. 2004. Audit firm portfolio management decisions. *Journal of Accounting Research* 42(4): 659-690.
- Kim, J.B., and H. Shi. 2012. IFRS reporting, firm-specific information flows, and institutional environments: International evidence. *Review of Accounting Studies*, forthcoming.
- Kothari, S.P., A.J. Leone, and C.E. Wasley. 2005. Performance-matched discretionary accrual measures. *Journal of Accounting and Economics* 39 (1): 163-197.
- Kwon, S.Y., C.Y. Lim, and P.M. Tan. 2007. Legal systems and earnings quality: The role of auditor industry specialization. *Auditing: A Journal of Practice and Theory* 26 (2): 25-55.
- Landsman, W.R., E.L. Mayhew, and J.R. Thornock. 2012. The information content of annual earnings announcements and mandatory adoption of IFRS. *Journal of Accounting and Economics* 53 (1-2): 34-54.
- Lang, M., J.S. Raedy, and M. Yetman. 2003. How representative are firms that are cross listed in the United States? An analysis of accounting quality. *Journal of Accounting Research* 41 (2): 363-386.
- Lang, M., J. S. Raedy, and W. Wilson. 2006. Earnings management and cross listing: Are reconciled earnings comparable to US earnings? *Journal of Accounting and Economics* 42 (1-2): 255-283.
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R.W. Vishny. 1997. Legal determinants of external finance. *Journal of Finance* 52 (3): 1131-1150.

- La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R.W. Vishny. 1998. Law and finance. *Journal of Political Economy* 106 (6): 1113-1155.
- La Porta, R., F. Lopez-de-Silanes, and A. Shleifer. 2006. What works in securities laws? *Journal of Finance* 61 (1): 1-32.
- Lawrence, A., M. Minutti-Meza, and P. Zhang. 2011. Can Big 4 versus non-Big 4 differences in audit quality proxies be attributed to client characteristics? *The Accounting Review* 86 (1): 259-286.
- Lennox, C., and J. Pittman. 2010. Auditing the auditors: Evidence on the recent reforms to the external monitoring of audit firms. *Journal of Accounting and Economics* 49 (1-2): 84-103.
- Leuz, C., D. Nanda, and P.D. Wysocki. 2003. Earnings management and investor protection: an international comparison. *Journal of Financial Economics* 69 (3): 505-527.
- Li, S. 2010. Does mandatory adoption of International Financial Reporting Standards in the European Union reduce the cost of equity capital? *The Accounting Review* 85 (2): 607-636.
- Li, X. 2011. An examination of the impact of the Sarbanes-Oxley Act on cross-listed foreign private issuers and the legal bonding hypothesis. Working paper.
- Lim, C., and H. Tan. 2008. Non-audit service fees and audit quality: The impact of auditor specialization. *Journal of Accounting Research* 46 (1): 199-246.
- Litvak, K. V. 2007. The effect of the Sarbanes-Oxley Act on non-US companies cross-listed in the US. *Journal of Corporate Finance* 13 (2-3): 195-228.
- Marosi, A., and N. Massoud. 2008. "You can enter but you cannot leave...": U.S. securities markets and foreign firms. *Journal of Finance* 63 (1): 2477-2506.
- Matsumoto, D. A. 2002. Management's incentives to avoid negative earnings surprises. *The Accounting Review* 77 (3): 483-514.
- McNichols, M. F. 2002. Discussion of the quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review* 77 (Supplement): 61-69.
- Michas, P.N. 2011. The importance of audit profession development in emerging market countries. *The Accounting Review* 86 (5): 1731-1764.

- Nezhina, T.G., and J.L. Brudney. Unintended? The effects of adoption of the Sarbanes-Oxley Act on nonprofit organizations. *Nonprofit Management and Leadership* 22(3): 321-346.
- Newman, D. P., E.R. Patterson, and J.R. Smith. 2005. The role of auditing in investor protection. *The Accounting Review* 80(1): 289-313.
- Peterson, M.A. 2009. Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies* 22 (1): 435-480.
- Piotroski, J. D., and S. Srinivasan. 2008. Regulation and bonding: The Sarbanes-Oxley Act and the flow of international listings. *Journal of Accounting Research* 46 (2): 383-425.
- Press, E.G., and J.B. Weintrop. 1990. Accounting-based constraints in public and private debt agreements: Their association with leverage and impact on accounting choice. *Journal of Accounting and Economics* 12 (1-3): 65-95.
- Public Company Accounting Oversight Board (PCAOB). 2004a. *Registration deadline for non-U.S. accounting firms*. Washington, DC: PCAOB.
http://pcaobus.org/Rules/Rulemaking/Docket013/2004-03-11_Release_2004-003.pdf
- Public Company Accounting Oversight Board (PCAOB). 2004b. *Final rules relating to the oversight of non-U.S. public accounting firms*. PCAOB Release No. 2004-005. Washington, DC: PCAOB.
http://pcaobus.org/Rules/Rulemaking/Docket013/2004-06-09_Release_2004-005.pdf
- Public Company Accounting Oversight Board (PCAOB). 2005. *Annual Report*, Washington, DC: PCAOB.
<http://pcaobus.org/About/Ops/Documents/Annual%20Reports/2005.pdf>
- Public Company Accounting Oversight Board (PCAOB). 2006. *Annual Report*, Washington, DC: PCAOB.
<http://pcaobus.org/About/Ops/Documents/Annual%20Reports/2006.pdf>
- Public Company Accounting Oversight Board (PCAOB). 2007a. *Proposed policy statement: Guidance regarding implementation of PCAOB rule 4012*. PCAOB Release No. 2007-011. Washington, DC: PCAOB.
http://pcaobus.org/Inspections/Documents/2007_12-05_release_2007-011.pdf
- Public Company Accounting Oversight Board (PCAOB). 2007b. *Report on the PCAOB'S 2004, 2005, 2006 Inspections of Domestic Triennially Inspected Firms*. Washington, DC: PCAOB.

http://pcaobus.org/Inspections/Documents/2007_10-22_4010_Report.pdf

Public Company Accounting Oversight Board (PCAOB). 2007c. *Annual Report*, Washington, DC: PCAOB.

<http://pcaobus.org/About/Ops/Documents/Annual%20Reports/2007.pdf>

Public Company Accounting Oversight Board (PCAOB). 2008. *Annual Report*, Washington, DC: PCAOB.

<http://pcaobus.org/About/Ops/Documents/Annual%20Reports/2008.pdf>

Public Company Accounting Oversight Board (PCAOB). 2009a. *International Jurisdictions Intended for PCAOB Inspections in 2010*. Washington, DC: PCAOB.

http://pcaobus.org/Inspections/Documents/List_of_Jurisdictions_2010.pdf

Public Company Accounting Oversight Board (PCAOB). 2009b. *New and Updated Information on PCAOB International Inspections*. Washington, DC: PCAOB.

http://pcaobus.org/Inspections/Documents/New_and_Updated_Information_International_Inspections_12-31-2009.pdf

Public Company Accounting Oversight Board (PCAOB). 2009c. *Jurisdictions in Which PCAOB Has Conducted Inspections of Registered Non-U.S. Firms*. Washington, DC: PCAOB.

http://pcaobus.org/Inspections/Documents/12-31_Jurisdictions.pdf

Public Company Accounting Oversight Board (PCAOB). 2009d. *Registered Firms Not Yet Inspected Even Though Four Years Have Passed Since Issuance of An Audit Report While Registered*. Washington, DC: PCAOB.

http://pcaobus.org/Inspections/Documents/12-31_Registered_NotInspected.pdf

Public Company Accounting Oversight Board (PCAOB). 2009e. *Final Rule Concerning the Timing of Certain Inspections of Non-U.S. Firms, and Other Issues Relating To Inspections of Non-U.S. Firms*. PCAOB Release No. 2009-003. Washington, DC: PCAOB.

http://pcaobus.org/Rules/Rulemaking/Docket%20027/2009-06-25_Release_No_2009-003.pdf

Public Company Accounting Oversight Board (PCAOB). 2009f. *Comment Letters for Docket 027*. Washington, DC: PCAOB.

<http://pcaobus.org/Rules/Rulemaking/Pages/Docket027Comments.aspx>

Public Company Accounting Oversight Board (PCAOB). 2009g. *Annual Report*, Washington, DC: PCAOB.

<http://pcaobus.org/About/Ops/Documents/Annual%20Reports/2009.pdf>

- Public Company Accounting Oversight Board (PCAOB). 2010a. *Issuer Audit Clients of Non-U.S. Registered Firms in Jurisdictions where the PCAOB is Denied Access to Conduct Inspections*. Washington, DC: PCAOB.
<http://pcaobus.org/International/Inspections/Pages/IssuerClientsWithoutAccess.aspx>
- Public Company Accounting Oversight Board (PCAOB). 2010b. *Updated Information on PCAOB International Inspections*. Washington, DC: PCAOB.
http://pcaobus.org/International/Inspections/Documents/12312010_international_inspections_information.pdf
- Public Company Accounting Oversight Board (PCAOB). 2010c. *Jurisdictions in Which PCAOB Has Conducted Inspections of Registered Non-U.S. Firms*. Washington, DC: PCAOB.
http://pcaobus.org/International/Inspections/Documents/06302010_jurisdictions.pdf
- Public Company Accounting Oversight Board (PCAOB). 2010d. *Registered Firms Not Yet Inspected Even Though Four Years Have Passed Since Issuance of An Audit Report While Registered*. Washington, DC: PCAOB.
http://pcaobus.org/International/Inspections/Documents/06302010_registered_not_yet_inspected.pdf
- Public Company Accounting Oversight Board (PCAOB). 2010e. *Consideration of Registration Applications from Public Accounting Firms in Non-U.S. Jurisdictions Where There Are Unresolved Obstacles To PCAOB Inspections*. PCAOB Release No. 2010-007. Washington, DC: PCAOB.
http://pcaobus.org/International/Inspections/Documents/Registration_of_Non-US_Firms.pdf
- Public Company Accounting Oversight Board (PCAOB). 2010f. *Registered Firms That Regularly Issue, or Have Issued, Audit Reports For Issuers*. Washington, DC: PCAOB.
http://pcaobus.org/Inspections/Documents/firms_issued_audit_reports.pdf
- Public Company Accounting Oversight Board (PCAOB). 2010g. *Annual Report*, Washington, DC: PCAOB.
<http://pcaobus.org/About/Ops/Documents/Annual%20Reports/2010.pdf>
- Public Company Accounting Oversight Board (PCAOB). 2011a. *Chinese and U.S. regulators held meeting in Beijing on audit oversight cooperation*. PCAOB News Releases (August 8). Washington, DC: PCAOB.
http://pcaobus.org/News/Releases/Pages/08082011_ChineseAuditOversightCooperation_EN.aspx

- Public Company Accounting Oversight Board (PCAOB). 2011b. *Updated Information on PCAOB International Inspections*. Washington, DC: PCAOB.
http://pcaobus.org/International/Inspections/Documents/06302011_international_inspections_information.pdf
- Public Company Accounting Oversight Board (PCAOB). 2011c. *Updated Information on PCAOB International Inspections*. Washington, DC: PCAOB.
http://pcaobus.org/International/Inspections/Documents/12312011_international_inspections_information.pdf
- Public Company Accounting Oversight Board (PCAOB). 2011d. *PCAOB announces settled disciplinary order against PricewaterhouseCoopers international firms in India for audit violations related to Satyam*. PCAOB News Releases (April 5). Washington, DC: PCAOB.
http://pcaobus.org/News/Releases/Pages/04052011_DisciplinaryOrders.aspx
- Public Company Accounting Oversight Board (PCAOB). 2012a. PCAOB Investor Advisory Meeting (March 28).
http://pcaobus.org/News/Events/Pages/03282012_IAGMeeting.aspx
- Public Company Accounting Oversight Board (PCAOB). 2012b. PCAOB Enters into Cooperative Agreement with German Audit Regulator. PCAOB News Releases (April 13). Washington, DC: PCAOB.
http://pcaobus.org/News/Releases/Pages/04132012_GermanyAgreement.aspx
- Raghunandan, K., and D.V. Rama. 1995. Audit reports for companies in financial distress: Before and after SAS No. 59. *Auditing: A Journal of Practice and Theory* 14 (1): 50-63.
- Rajan, R.G., and L. Zingales. 2003. The great reversals: the politics of financial development in the twentieth century. *Journal of Financial Economics* 69(1): 5-50.
- Reynolds, J.K., and J.R. Francis. 2000. Does size matter? The influence of large clients on office-level auditor reporting decisions. *Journal of Accounting and Economics* 30 (3): 375-400.
- Reynolds, J.K., D.R. Deis, Jr., and J.R. Francis. 2004. Professional service fees and auditor objectivity. *Auditing: A Journal of Practice & Theory* 23 (1): 29-52.
- Roberts, J.A., G.J. Russello, and P.S. Fang. 2009. Balancing “special issues” in PCAOB inspections of foreign accounting firms. *Bloomberg Law Reports*.
- Securities and Exchange Commission (SEC). 2004. *PCAOB Rulemaking: Public Company Accounting Oversight Board; Notice of Filing and Order Granting*

Accelerated Approval of Proposed Amendment to Registration Deadline for Non-U.S. Public Accounting Firms. SEC Release No. 34-49473. Washington, DC: SEC.

<http://www.sec.gov/rules/pcaob/34-49473.htm>

Securities and Exchange Commission (SEC). 2005. *Use of Form S-8, Form 8-K, and Form 20-F by shell companies.* SEC Release No. 33-8587. Washington, DC: SEC.

<http://www.sec.gov/rules/final/33-8587.pdf>

Securities and Exchange Commission (SEC). 2011. *Investor Bulletin: Reverse Mergers.* Washington, DC: SEC.

<http://www.sec.gov/investor/alerts/reversemergers.pdf>

Securities and Exchange Commission (SEC). 2012a. *Statement at Open Meeting to Approve PCAOB Budget* (January 11). Washington, DC: SEC.

<http://www.sec.gov/news/speech/2012/spch011112laa.htm>

Securities and Exchange Commission (SEC). 2012b. *SEC Charges Deloitte & Touche in Shanghai with Violating U.S. Securities Laws in Refusal to Produce Documents.* SEC News Releases (May 9). Washington, DC: SEC.

<http://www.sec.gov/news/press/2012/2012-87.htm>

Shima, K.M., and E.A. Gordon. 2011. IFRS and the regulatory environment: The case of U.S. investor allocation base. *Journal of Accounting and Public Policy* 30 (5): 481-500.

Soderstrom, N.S., and K. J. Sun. 2007. IFRS adoption and accounting quality: A review. *European Accounting Review* 16 (4): 675-702.

Thompson, S.B. 2011. Simple formulas for standard errors that cluster by both firm and time. *Journal of Financial Economics* 99(1): 1-10.

Van Tendeloo, B., and A. Vanstraelen. 2005. Earnings management under German GAAP versus IFRS. *European Accounting Review* 14 (1): 155-180.

Zmijewski, M.E. 1984. Methodological issues related to the estimation of financial distress prediction models. *Journal of Accounting Research* 22 (Supplement): 59-82.

APPENDIX A

VARIABLE DEFINITIONS

Test Variables:

BLACKLIST	= 1 if the firm's auditor is located in a jurisdiction where the PCAOB is not conducting inspections, and 0 otherwise.
POSTINSPEC1	= 1 if audit report date is after PCAOB inspection start date, and 0 otherwise.
POSTINSPEC2	= 1 if audit report date is after PCAOB inspection end date, and 0 otherwise.
POSTINSPEC3	= 1 if the audit report is for the year before the inspection or later, and 0 otherwise.
ALONEINS	= 1 if the firm is located in jurisdictions where the PCAOB has conducted inspections alone (Argentina, Brazil, Chile, Greece, Hong Kong, India, Ireland, Israel, Japan, Mexico, Norway, South Africa, United Kingdom), and 0 otherwise.
JOINTINS	= 1 if the firm is located in jurisdictions where the PCAOB has conducted joint inspections (Australia, Canada, Korea, and Singapore), and 0 otherwise.

Dependent Variables:

ABACCR	= Signed abnormal accruals. Abnormal accruals are computed using the model in Kothari et al. (2005) within industry-country groups with a minimum of ten observations in each group.
TACCR	= Total accruals. The firm's net income before extraordinary items (Compustat data item IBC) less operating cash flows (Compustat data item OANCF), all scaled by beginning total assets (Compustat data item AT).
P	= The firm's stock price six months after fiscal year-end (CRSP data item PRC).
GC	= 1 if the firm receives a going concern opinion, and 0 otherwise, from Audit Analytics.

Country-Level Control Variables:

INVPROFAC	= The factor score of six investor protection variables (legal origin, anti-director rights index, disclosure requirements index, liability standard index, public enforcement index, the size of a country's security regulator staff), where legal origin is a dichotomous variable coded 1 for common law country and 0 for civil law country; country anti-director rights index from Djankov et al. (2008) measures how strongly the legal system protects minority shareholders against managers or controlling shareholders; disclosure requirement index from La Porta et al. (2006) measures the extent to which there is disclosure requirement in the prospectus in the areas of insiders' compensation, shareholder ownership structure, insider ownership, irregular contracts, and related-party transactions; liability standard index from La Porta et al. (2006) measures the ease with which investors can recover damages from issuers, directors, distributors, and accountants in a civil liability case for losses due to misleading statements in the prospectus; public enforcement index from La Porta et al. (2006) measures the extent to which regulators have independence from governments, rule-making power, investigative power, and authority for sanctions; the size of the country's security regulator staff is from Jackson and Roe (2009). All variables load on one factor.
RULEOFLAW	= A yearly measure of rule of law from the World Bank's WDI (World Development Indicators) database captures "perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence".
IASDIFF	= The number of differences between a country's domestic accounting standard and International Accounting Standards for 21 items, from Bae et al. (2008).

LOGGDP	= The natural logarithm of the country's annual GDP (in U.S.\$) from the World Bank's WDI database.
GDPGROWTH	= The annual growth (%) in GDP from the World Bank's WDI database.
GDPPERCAP	= The natural logarithm of GDP (in U.S.\$) scaled by population in a year from the World Bank's WDI database.
MKTSIZE	= The country's total market capitalization scaled by its GDP in a year from the World Bank's WDI database.

Firm-Level Control Variables:

LOGSALE	= The natural logarithm of the firm's sales (in millions of U.S.\$) (Compustat data item SALE).
CFO	= The firm's operating cash flows (Compustat data item OANCF) in a year scaled by beginning total assets (Compustat data item AT).
LEV	= The firm's total liabilities (Compustat data item LT) divided by its total assets (Compustat data item AT).
GROWTH	= The annual growth (%) in sales (Compustat data item SALE).
LAGLOSS	= 1 if the firm's net income (Compustat data item NI) is below zero in the previous year and 0 otherwise.
BIG4	= 1 if the firm is audited by Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers (or their foreign affiliates?) and 0 otherwise.
BVPS	= The firm's book value of equity per share (Compustat data item CEQ and CSHO).
NIPS	= The firm's net income per share (Compustat data item NI and CSHO).
PROBANKZ	= The probability of bankruptcy Z-score from Zmijewski (1984).
LOGASSET	= The natural logarithm of the firm's total assets (Compustat data item AT).
BETA	= The firm's beta estimated using the market model based on daily returns in a year (CRSP data item RET).
VOL	= The variance of the residual from the market model based on daily returns in a year (CRSP data item RET).
CHLEV	= The change (%) in the firm's leverage (LEV) from the previous year to the current year.
INVEST	= The sum of the firm's cash, cash equivalents, short-term and long-term investments scaled by its total assets (Compustat data item CHE and IVAO).
FINANCE	= 1 if the firm issues equity or long-term debt in a year and 0 otherwise (Compustat data item SSTK and DLTIS).

APPENDIX B PCAOB REPORT

Panel A: Example of PCAOB report and audit deficiencies

INSPECTION OF ERNST & YOUNG LLP (Headquartered in Toronto, Canada) (REPORT DATE: May 27, 2010)

The Public Company Accounting Oversight Board ("PCAOB" or "the Board") has conducted an inspection of the registered public accounting firm Ernst & Young LLP ("the Firm"). The Board is issuing this report of that inspection in accordance with the requirements of the Sarbanes-Oxley Act of 2002 ("the Act").

The Board is making portions of the report publicly available. Specifically, the Board is releasing to the public Part I of the report and portions of Part IV of the report. Part IV of the report consists of the Firm's comments, if any, on a draft of the report.

The Board has elsewhere described in detail its approach to making inspection related information publicly available consistent with legal restrictions. A substantial portion of the Board's criticisms of a firm (specifically criticisms of the firm's quality control system), and the Board's dialogue with the firm about those criticisms, occurs out of public view, unless the firm fails to make progress to the Board's satisfaction in addressing those criticisms. In addition, the Board generally does not disclose otherwise nonpublic information, learned through inspections, about the firm or its clients. Accordingly, information in those categories generally does not appear in the publicly available portion of an inspection report.

PART I INSPECTION PROCEDURES AND CERTAIN OBSERVATIONS

*Members of the Board's inspection staff ("the inspection team") conducted primary procedures for the inspection at various times **from April 3, 2006 to September 29, 2006**. These procedures were tailored to the nature of the Firm, certain aspects of which the inspection team understood at the outset of the inspection to be as follows:*

<i>Number of offices</i>	<i>13 (Calgary, Edmonton, Halifax, Kitchener, London, Montreal, Ottawa, Quebec City, Saint John, St. John's, Toronto, Vancouver, and Winnipeg, Canada)</i>
<i>Ownership structure</i>	<i>Limited liability partnership</i>
<i>Number of partners</i>	<i>247</i>
<i>Number of professional staff</i>	<i>2,297</i>
<i>Number of issuer audit clients</i>	<i>77</i>

Board inspections are designed to identify and address weaknesses and deficiencies related to how a firm conducts audit work. To achieve that goal, Board inspections include reviews of certain aspects of selected audit work performed by the firm and reviews of other matters related to the firm's quality control system.

In the course of reviewing aspects of selected audits, an inspection may identify ways in which a particular audit is deficient, including failures by the firm to identify, or to address appropriately, respects in which an issuer's financial statements do not present fairly the financial position, results of operations, or cash flows of the issuer in conformity with GAAP. It is not the purpose of an inspection, however, to review all of a firm's audits or to identify every respect in which a reviewed audit is deficient. Accordingly, a Board inspection report should not be understood to provide any assurance that the firm's audits, or its issuer clients' financial statements, are free of any deficiencies not specifically described in an inspection report.

A. Review of Audit Engagements

The inspection procedures included a review of aspects of the Firm's auditing of financial statements of twelve issuers. The scope of this review was determined according to the Board's criteria, and the Firm was not allowed an opportunity to limit or influence the scope.

The inspection team identified what it considered to be audit deficiencies. The deficiencies identified in five of the audits reviewed included deficiencies of such significance that it appeared to the inspection team that the Firm did not obtain sufficient competent evidential matter to support its opinion on the issuer's financial statements. Those deficiencies were –

(1) the failure to perform sufficient audit procedures in using the work of a specialist to test certain assets;

(2) the failure by the Firm to identify and appropriately address an inconsistency between the audited financial statements and disclosures in the annual report containing those financial statements with respect to certain assets;

(3) the failure to perform sufficient audit procedures to evaluate the accounting treatment of a modification to a convertible debt instrument;

(4) the failure to perform sufficient audit procedures to test share-based payments;

(5) the failure to perform sufficient audit procedures to test the valuation of and accounting for common stock and common stock warrant issuances;

(6) the failure to perform sufficient audit procedures to test the valuation of inventory;

(7) the failure to perform sufficient audit procedures to test the valuation of assets acquired and liabilities assumed in a business combination; and

(8) the inappropriate determination to serve as principal auditor when a substantial portion of the financial statements were audited by another auditor.

Five of the deficiencies described above (identified in three of the audits reviewed) related to auditing an aspect of an issuer's financial statements that the issuer revised in a restatement subsequent to the primary inspection procedures.

B. Review of Quality Control System

In addition to evaluating the quality of the audit work performed on specific audits, the inspection included review of certain of the Firm's practices, policies, and procedures related to audit quality. This review addressed practices, policies, and procedures concerning audit performance and the following eight functional areas (1) tone at the top; (2) practices for partner evaluation, compensation, admission, assignment of responsibilities, and disciplinary actions; (3) independence implications of non-audit services; business ventures, alliances, and arrangements; personal financial interests; and commissions and contingent fees; (4) practices for client acceptance and retention; (5) practices for consultations on accounting, auditing, and SEC matters; (6) the Firm's internal inspection program; (7) practices for establishment and communication of audit policies, procedures, and methodologies, including training; and (8) the supervision by the Firm's audit engagement teams of the work performed by foreign affiliates on foreign operations of the Firm's issuer audit clients. Any defects in, or criticisms of, the Firm's quality control system are discussed in the nonpublic portion of this report and will remain nonpublic unless the Firm fails to address them to the Board's satisfaction within 12 months of the date of this report.

END OF PART I

PART IV RESPONSE OF THE FIRM TO DRAFT INSPECTION REPORT

Pursuant to section 104(f) of the Act, 15 U.S.C. § 7214(f), and PCAOB Rule 4007(a), the Firm provided a written response to a draft of this report. Pursuant to section 104(f) of the Act and PCAOB Rule 4007(b), the Firm's response, minus any portion granted confidential treatment, is attached hereto and made part of this final inspection report.



Ernst & Young LLP
Chartered Accountants
Ernst & Young Tower
222 Bay Street, P.O. Box 251
Toronto, Ontario M5K 1J7
Tel: 416 864 1234
Fax: 416 864 1174
ey.com/ca

23 April 2010

Mr. George Diacont
Director
Division of Registration and Inspections
Public Company Accounting Oversight Board
1666 K Street NW
Washington, DC 20006-2803

Response to Report on 2006 Inspection of Ernst & Young LLP

Dear Mr. Diacont:

We are pleased to provide our response to the Public Company Accounting Oversight Board (the "Board" or the "PCAOB") regarding the Report on the 2006 Inspection of Ernst & Young LLP (the "Report").

We respect that the inspection process is a fundamental component of the PCAOB's mission. As a firm, our overriding objective is to make certain that all aspects of our auditing and quality control processes are of high quality for the continued benefit of the capital markets in which the public participates and on which they rely. The PCAOB's inspections assist us in identifying areas where we can continue to improve our performance.

We respect the PCAOB's inspection process and understand that judgments are involved both in performing an audit and in subsequently inspecting it. Recognizing the constructive intent of the inspection process, we made every effort to cooperate with the inspection staff. Therefore, we thoroughly evaluated and have taken actions as appropriate with respect to the matters described in Part I - *Inspection Procedures and Certain Observations* of the Report in a manner consistent with EY's policies and PCAOB standards.

Although we do not always agree with the characterization in the Report of the work we performed or the related audit documentation, in some instances we performed certain additional procedures or improved aspects of our audit documentation in response to the inspection findings.

We appreciate the opportunity to provide our response to the Report and look forward to continuing to work with the PCAOB on matters of interest to our public company auditing practice.

Respectfully submitted,

Ernst & Young LLP
Chartered Accountants
Licensed Public Accountants

Copy to: Mr. Daniel L. Goelzer
Mr. Bill Gradison
Mr. Steven B. Harris
Mr. Charles D. Niemeier

A member firm of Ernst & Young Global Limited

Panel B: Example of quality control criticism

INSPECTION OF BDO Hernández, Marrón y Cía. SC (Headquartered in Mexico City, Mexico) (REPORT DATE: July 30, 2009)

PART II

* * * *

B. Issues Related to Quality Controls

The inspection of the Firm included consideration of aspects of the Firm's system of quality control. Assessment of a firm's quality control system rests both on review of a firm's stated quality control policies and procedures and on inferences that can be drawn from respects in which a firm's system has failed to assure quality in the actual performance of engagements. On the basis of the information reported by the inspection team, the Board has the following concerns about aspects of the Firm's system of quality control.

* * * *

2. Audit Performance

A firm's system of quality control should provide reasonable assurance that the work performed on an audit engagement will meet applicable professional standards and regulatory requirements. On the basis of the information reported by the inspection team, including the audit performance deficiencies described in Part II.A and any other deficiencies identified below, the Board has concerns that the Firm's system of quality control fails to provide such reasonable assurance in at least the following respects –

a. Testing Appropriate to the Audit

The Firm's system of quality control appears not to provide sufficient assurance that the Firm will conduct all testing appropriate to a particular audit, specifically with respect to the following issues:

(i) Arbitration Liability

As discussed above, in the audit reviewed, the inspection team identified a significant deficiency related to the Firm's auditing of the arbitration liability. This information provides cause for concern regarding the Firm's quality control policies and procedures related to evaluating the consequence, on the scope of the auditor's opinion, of not receiving a response to an audit inquiry letter sent to the client's counsel.

[Issuer A]

(ii) Allowance for Doubtful Accounts

As discussed above, in the audit reviewed, the inspection team identified a significant deficiency related to the Firm's auditing of the allowance for doubtful accounts. This information provides cause for concern regarding the Firm's quality control policies and procedures related to auditing the allowance for doubtful accounts.

[Issuer A]

* * * *