HEC MONTRÉAL
École affiliée à l'Université de Montréal

Three Essays on Public Sector Financial Reporting Quality

par
Johnathon M. Cziffra

Thèse présentée en vue de l'obtention du grade de Ph. D. en administration
(option Sciences comptables)

Avril 2017

HEC MONTRÉAL

École affiliée à l'Université de Montréal

Cette thèse intitulée :

Three Essays on Public Sector Financial Reporting Quality

Présentée par :

Johnathon M. Cziffra

a été évaluée par un jury composé des personnes suivantes :

Claude Laurin
HEC Montréal
Président-rapporteur

Claude Francoeur
HEC Montréal
Codirecteur de recherche

Julien Le Maux
HEC Montréal
Codirecteur de recherche

Michel Magnan
Concordia University
Membre du jury

Natalia Kochetova-Kozloski
Saint Mary's University
Examinatrice externe

Renaud Lachance
HEC Montréal
Représentant du directeur de HEC Montréal

Résumé

Les citoyens octroient au gouvernement l'autorité de gérer les ressources publiques, mais ils sont incapables de surveiller la gérance de ces sources par les fonctionnaires. Les états financiers de haute qualité minimisent le problème d'asymétrie d'information en laissant le public déterminer si le gouvernement prend des décisions adéquates afin d'améliorer le bien-être social. Dans les trois essais qui composent cette thèse de doctorat, nous avons examiné la qualité des rapports financiers publics d'une manière globale en étudiant la qualité des audits fournis par les auditeurs du gouvernement et la transparence financière fournie par des fonctionnaires dans les sociétés d'État.

Le débat dans la littérature à propos de la qualité d'audit justifie le premier essai dont la question principale est de savoir si donner un monopole aux auditeurs du gouvernement (qui sont plus indépendants) pourrait améliorer la qualité de l'audit. En utilisant des données obtenues à la main, nous avons trouvé que les auditeurs monopolistiques du gouvernement exigent des niveaux excessifs de conservatisme, ce qui donne comme résultat des états financiers qui ne reflètent pas la réalité économique. De plus, nous avons établi une relation positive entre un conservatisme excessif et une augmentation de la réputation des auditeurs du gouvernement. Ces résultats empiriques suggèrent que le changement d'un marché régulé par le gouvernement à un marché monopolistique pourrait affecter défavorablement la qualité d'audit.

Dans le passé, la littérature, qui utilise normalement des paramètres commerciaux, trouve que des firmes « Big-N » octroient des niveaux plus élevés de qualité de l'audit. Le deuxième essai examine si les bureaux locaux d'audit de ces firmes « Big-N » fournissent un niveau égal de certification tant à leurs clients du secteur public qu'à ceux du secteur privé. Dans cette analyse, nous avons remarqué que les firmes « Big-N » offrent un niveau de service plus bas à leurs clients du secteur public parce que les firmes ne comprennent pas bien l'environnement unique de ces clients. Ces résultats suggèrent que les usagers locaux des firmes « Big-N » ne devraient pas supposer que le bureau local assure les mêmes niveaux de certification à tous leurs clients.

Dans le troisième essai, nous avons examiné si, suite à l'adoption de la norme IFRS 13, les fonctionnaires des banques d'État améliorent la transparence de la divulgation de la juste valeur. Nous avons trouvé que, dans un échantillon mondial de banques d'État, les fonctionnaires publics n'utilisent pas le nouveau standard de comptabilité d'une manière uniforme. Contrairement à l'objectif du nouveau standard de comptabilité, nous avons remarqué que la transparence dans la divulgation financière diminue lors des prêts politiques et, par conséquent, limite l'habileté des citoyens à comprendre ces transactions.

Mots clés : firmes comptables, marché d'audit, qualité d'audit, qualité de la divulgation des justes valeurs

Méthodes de recherche : archivistique, analyses du contenu

Abstract

Citizens grant governments the authority to manage public economic resources, but they are unable to directly monitor the stewardship of those resources by public officials. High quality financial statements mitigate the information asymmetry problem by allowing the public to determine whether governments are making decisions that enhance social welfare. In this doctoral thesis, divided in three essays, I examine public sector financial reporting quality in a global manner by studying the audit quality provided by government auditors and the financial transparency provided by public officials at state-owned banks.

The first essay is motivated by the following debate in the audit quality literature: would granting independent government auditors an audit market monopoly improve audit quality? Using hand-collected data, I find that monopolistic government auditors demand excessive levels of conservatism which results in financial statements that do not reflect economic reality. Moreover, I find that an increase in a government auditor's reputation causes excessive conservatism. These empirical results suggest that a shift from a government-regulated audit market to a monopolistic audit market could adversely impact audit quality.

Past academic literature, generally using a for-profit setting, finds that Big-N firms provide the highest level of audit quality. The second essay examines whether local Big-N audit offices provide an equally high level of assurance to both their government and non-government clients. I find that, at the audit office level, Big-N firms do not develop a sufficient understanding of their government clients' unique economic environment and, consequently, provide them with a lower level of audit quality than their non-government clients. This finding suggests that users should not assume that local Big-N audit offices provide the same level of assurance to all of their clients.

In the third essay, we study whether public officials at state-owned banks enhanced the transparency of their fair value measurement disclosures upon the adoption of IFRS 13. We find, in a global sample of state-owned banks, that public officials did not apply the new accounting standard in a uniform manner. Contrary to the underlying objectives of

the new accounting standard, we note that financial disclosure transparency in fact decreases in the presence of political lending and thus reduces the public's ability to understand these transactions.

Keywords: Accounting firms; Audit markets; Audit quality; Fair Value Measurement disclosure quality

Research methods: Archival, Content Analysis

Table of contents

List of Tables

List of acronyms

ACIR	Advisory Commission on Intergovernmental Relations
FASB	Financial Accounting Standards Board
FTA	Foreign Trade Agencies
GUAMcalc	Component Materiality Calculator
IAASB	International Auditing and Assurance Standards Board
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
MD&A	Management Discussion and Analysis
OAG	Office of the Auditor General
OECD	Organization for Economic Co-operation and Development
PCAOB	Public Company Accounting Oversight Board
SEC	Securities and Exchange Commission
SFAS	Statement of Financial Accounting Standards
SOX	Sarbanes-Oxley Act of 2002

Sara - your warmth, love, and care have brought so much joy into my life and I could not have completed my thesis without you. Francis - your smile and your wave good-bye in the morning fill me up with energy each day. Mom and Dad - you always encouraged me to simply do my best and gave me the tools to do so. Béla - you are my big brother and I look to you for wisdom.

Acknowledgements

I would like to thank the faculty at HEC Montréal, especially the Director of Accounting, Studies Dr. Suzanne Landry, for their support and the collaborative atmosphere that allowed me to conduct my research. Furthermore, I am grateful to my Co-Directors (Dr. Claude Francoeur and Dr. Julien Le Maux) for granting me the flexibility to pursue the research questions that interested and motivated me.

I would also like to acknowledge the support of Dr. Michel Magnan of Concordia University for his constructive and prompt feedback and Dr. Steve Fortin of McGill University who supported and encouraged me to conduct audit research. Moreover, this thesis benefited from the constructive comments of Dr. Peter Wilson and the entire accounting faculty of the Carroll School of Management at Boston College who hosted me as a Visiting Scholar and allowed me to conduct and present my doctoral research.

Furthermore, I would like to thank CPA Quebec, Stephen A. Jarislowsky Chair in Governance, and HEC Montréal for their research funding and the American Accounting Association Government Non-Profit Section for awarding me a Doctoral Grant.

Last but not least, I would like to thank my wife Sara Bhola for her invaluable contribution that has allowed me to complete my PhD: she has spent countless hours editing my work throughout the program and this thesis is possible because we were able to move to Montreal together and her support at home allowed me to spend a portion of my doctoral studies in Boston.

Introduction

Financial reporting quality measures how faithful financial statements are to economic reality and is determined by external auditors, managers, and a firm's economic situation (DeFond and Zhang 2014). The academic literature, generally utilizing a non-government setting, finds that financial reporting quality varies because of economic and reputational forces that influence both auditors and managers (Lennox 1999; Bergstresser and Philippon 2006; Francis et al. 2008; Weber et al. 2008).

In this three-essay thesis, I utilize a government setting to examine the influence of government auditors and public officials on financial reporting quality in order to study public sector financial reporting quality in a global perspective. In the first and second essays, I study the effects of government auditor competence and reputation and regulatory environment on audit quality. In the third essay, we (my co-authors and I) study how political lending decisions by public officials influence financial reporting quality.

The audit quality literature notes that both clients and auditors have economic incentives to ensure high quality audits. Clients engage higher quality auditors in order to provide stakeholders with more assurance that their disclosures are credible and to mitigate agency costs (Francis et al. 1999; DeFond and Zhang 2014). Auditors are economically motivated to supply a high level of audit quality in order to minimize legal and reputational risks (Simunic 1980; Chaney and Philipich 2002). However, the closely related nature of these two risks makes isolating the direct influence of auditor reputation on audit quality difficult, especially in highly litigious environments (Weber et al. 2008). The use of a government audit setting allows me to directly focus on the influence of auditor reputation on audit quality because government auditors face a low level of litigation risk.

In the first essay, I examine the influence of auditor reputation and audit market composition on audit quality. I first test whether a monopolistic government audit market would supply a higher level of audit quality compared to a government-regulated audit market. Francis (2004) states that, due to a lack of data, we can only hypothesize about which audit market structure would be optimal; it is this comment about the state of the

literature which motivates this paper. I examine the issue by comparing the student loan loss provisions of Canadian provincial departments of education with those of U.S. state-supported student loan authorities. Congressional testimony suggests that monopolistic auditors, given their higher levels of independence, should supply a higher level of audit quality than less independent regulated auditors (Securities Act 1933). I find that, even though monopolistic auditors have higher levels of independence, they actually supply a lower level of audit quality than regulated auditors because they use their bargaining position to demand excessively conservative loan loss provisions in order to minimize their reputational risks. Furthermore, unlike past audit research that used a negative shock to an auditor's reputation to examine the posited positive association between audit quality and auditor reputation (DeFond and Zhang 2014), I examine, in a monopolistic audit market, the effect of an increase in auditor reputation on audit quality. I find that this expected positive relationship does not hold and that an increase in auditor reputation actually causes a decrease in audit quality since monopolistic government auditors due demand more conservative measurements as their reputation increases.

In the second essay, I test whether Big-N auditors, with a reputation of supplying the highest level of audit quality, provide an equivalent level audit quality to all of their clients. In particular, I examine the knowledge transfer assumption which states that Big-N firms are able to provide superior audit quality because the firm specific industry knowledge can be applied by all audit staff to all of their clients (Deangelo 1981; DeFond and Zhang 2014). I hypothesize that this assumption is conditional on Big-N auditors developing an in-depth understanding of their audit clients' economic environment. I find that Big-N audit firms in Europe's most advanced financial markets do not develop a sufficient understanding of their public sector financial institutions' operational environment and therefore actually supply them with a lower level of audit quality.

In the third essay, we examine the influence of public officials on financial reporting quality. Past academic research, primarily within the for-profit earnings management literature, finds that economic factors determine the financial reporting choices of management. However, public officials are balancing society's expectation that they be good stewards of the public's assets with their personal temptation to maintain political

power. Thus, the question arises: do public officials present their financial disclosures in a more understandable manner in situations where new mandatory financial reporting standards may allow for more public scrutiny of their political decisions? We find that, when public officials are confronted with this situation, they systematically choose to present their financial statement disclosures in a more complex manner so as to prevent the public from understanding their political decisions in order to maintain political power.

References

Bergstresser, D., & Philippon, T. (2006). CEO incentives and earnings management. *Journal of Financial Economics*, 80(3), 511-529.

Chaney, P. K., & Philipich, K. L. (2002). Shredded reputation: The cost of audit failure. *Journal of Accounting Research*, 40(4), 1221-1245.

DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183-199.

DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2), 275-326.

Francis, J. R. (2004). What do we know about audit quality? *The British Accounting Review*, 36(4), 345-368.

Francis, J., Huang, A. H., Rajgopal, S., & Zang, A. Y. (2008). CEO reputation and earnings quality. *Contemporary Accounting Research*, 25(1), 109-147.

Francis, J., Maydew, E. L., & Sparks, H. C. (1999). The role of Big 6 auditors in the credible reporting of accruals. *Auditing: A Journal of Practice & Theory*, 18(2), 17-34.

Lennox, C. S. (1999). Audit quality and auditor size: An evaluation of reputation and deep pockets hypotheses. *Journal of Business Finance & Accounting*, 26(7-8), 779-805.

Securities Act of 1933: Hearings before the Senate Committee on Banking and Currency, 73rd Congress (1933).

Simunic, D. A. (1980). The pricing of audit services: Theory and evidence. *Journal of Accounting Research*, 161-190.

Weber, J., Willenborg, M., & Zhang, J. (2008). Does auditor reputation matter? The case of KPMG Germany and ComROAD AG. *Journal of Accounting Research*, 46(4), 941-972.

Chapter 1
From Government Regulation to Government Monopoly: The Path to Lower Audit Quality

Abstract

This paper investigates whether a government audit monopoly would improve the supply of audit quality. Since the 1930s, regulators have theorized that independent government auditors would enhance audit quality. I compare the supply of audit quality provided by regulated private sector auditors to monopolistic government auditors and I find that government auditors demand excessively conservative loan loss provisions. Furthermore, I find that this effect is caused by an improvement in the government auditors' reputation. I compare ex-ante audit data with ex-post audit data, allowing me to directly test the audit process in an empirical manner. Overall, the results suggest that the shift from a regulated audit market to a government audit monopoly is a path to lower audit quality because the financial statements diverge from economic reality.

KEYWORDS: Audit Quality, Conservatism, Regulation

1.1 Introduction

In 2001, the low quality audit work of a few Arthur Andersen offices caused the public to question the entire market's supply of audit quality (Chaney and Philipich 2002). This occurred because auditor independence could no longer be assumed since, in the pre-SOX environment, firms could offer clients both audit and consulting services (Moore et al. 2006). It has been suggested that audit firms structured and signed-off on transactions in order to generate both audit and non-audit fees (PCAOB 2012). Senate Banking Hearings put forward that the self-regulatory model was the cause of the auditor independence problem and government regulation was the solution (Accounting Reform and Investor Protection 2002). Accordingly, the Sarbanes-Oxley Act of 2002 (SOX) sought to enhance auditor independence by introducing two key regulations. First, it restricted accounting firms from providing both auditing and consulting engagements to the same firm, thus reducing an audit firm's dependence on consulting fees and improving its bargaining position relative to the client. Second, the legislation established the Public Company Accounting Oversight Board (PCAOB), and it was given standard setting and enforcement powers in order to improve audit quality.

Francis (2004) poses a question from a social welfare perspective: given that government regulations were adopted to improve audit quality, would granting the government an audit market monopoly enhance audit quality? This is the question which motivates this paper. Francis' (2004) question is based on two fundamental economic questions: first, should the government intervene in an oligopolistic audit market and second, in what manner should it intervene? The United Kingdom's House of Lords' inquiry into the audit market notes that the consolidation of audit firms has constrained choice (Auditors: Market Concentration and their Role 2011). Given the lack of competition in the audit market, governments "must [now] choose among [three] evils": allowing a private oligopoly, developing government regulations or creating a public monopoly (Friedman 1982).

In response to the 1929 stock market crash, legislators, favoring a private-oligopoly, took a laissez-faire approach with regards to the audit market and let the profession self-regulate. Successive rounds of consolidation over time occurred. Legislators determined

after many high profile accounting scandals that the self-regulatory framework was insufficient and moved to regulate the market in order to improve audit quality, believing that the societal benefits of government regulations would on balance be greater that the additional compliance costs.

Using an event study research design, Jain and Rezaee (2006) find the market responded favorably to events which increased the probability that SOX would be enacted. Li et al. (2008) suggest that this reaction was due to an anticipated reduction in financial reporting uncertainty which was expected to exceed the increase in SOX compliance costs. However, Zhang (2007) and Litvak (2007) disagree with both studies and find that the markets responded negatively because of an expectation that the regulatory costs would outweigh the expected improvement in information quality.

Following the passage of SOX, the academic community has examined its economic and audit quality consequences on the audit market but it remains unclear whether or not the information benefits are greater than the regulatory costs. Past research notes that financial reporting quality has increased because of a decrease in earnings management and higher levels of conservatism (Lobo and Zhou 2006; Krishnan et al. 2011). However, foreign firms that already produce high quality financial statements were especially negatively impacted by SOX compliance costs (Litvak 2007) , while Engel et al. (2007), find significantly more firms went from being publicly traded to being privately held, both studies signal that the compliances costs of SOX were higher than its informational benefits.

Since the private market oligopoly model failed and it is debatable whether the government regulation model has improved audit quality, based on Friedman's (1982) regulatory framework model, the government has only one remaining option through which it can influence the audit market: granting a government agency an audit market monopoly.

The creation of a government external audit agency was originally suggested in the U.S. Senate Banking and Currency Committee hearings into the Securities Act of 1933. Senator Alben Barkley, a future Vice-President during the Truman administration,

thought that the public interest would be best served by government-employed auditors who would be independent and therefore would enhance the credibility of their clients' financial disclosures. The possibility of the creation of a government audit agency seemed likely following the collapse of Enron due to the reduced choice caused by the consolidation of the Big-5 into the current Big-4. Paul Danos of Dartmouth College fears that another major audit firm failure could provide the impetus for the government to nationalize the audit market. He predicts, without empirical evidence, that a governmental monopoly would negatively impact capital markets (The Economist 2004). I ask whether or not, after the next accounting crisis, it would beneficial for the government to extend its jurisdictional reach and develop a monopoly over external auditing services.

Although there is no empirical data (Francis 2004), from a theoretical perspective, it could be argued that a government audit monopoly would improve audit quality because auditors would become more independent and, unlike in our current government-regulated model, would no longer be seen as simply agreeing with their clients to maintain their business (DeFond and Zhang 2014). Furthermore, with only one auditor in a monopolistic audit market, the problem of "opinion shopping" (clients that look for an auditor to agree with them) would be eliminated. However, I argue in this paper that a monopolistic audit environment causes audit quality to decrease by significantly reducing the clients bargaining power. Government auditors could use their monopolistic bargaining power to push for such conservative accounting measurements that financial statements would no longer reflect economic reality. This would be motivated by a desire to mitigate the auditor's primary audit risk - the overstatement of net assets (Hirst 1994) and to reduce the risk of an audit failure, an event for which legislators have no tolerance (DeFond and Zhang 2014).

I seek to provide empirical evidence of the effect of a government audit monopoly on audit quality. I find that granting a government agency an audit monopoly will result in a reduction in the supply of audit quality compared to that of private sector auditors who are regulated by the government.

Additionally, using a difference-in-difference research design, with regulated auditors as a control group, I analyze the audit quality provided by monopolistic government auditors after a positive exogenous reputation shock. In DeFond and Zhang's (2014) literature review, they note that auditor reputation is positively related with audit quality; however, this relationship is only empirically demonstrated using a negative reputation shock. Thus one could assume that a positive reputation shock is associated with an increased audit quality. I disagree and predict that audit quality will be negatively affected by a positive shock to the reputation of government auditors because monopolistic auditors could use their newfound bargaining advantage to push their clients for excessively conservative accounting measurements in order to protect their reputation capital by reducing the risk of a financial overstatement. While conservative estimates are generally a sign of higher audit quality, I predict that government auditors will demand excessively conservative valuations (measurements exceeding the bounds of materiality) causing the financial statements to no longer reflect economic reality and therefore reducing audit quality.

In this paper, I compare the audit quality supplied by Canadian government auditors that operate in a monopolistic audit market to U.S. non-Big-4-regulated audit firms. I define audit quality as the "probability that a given auditor will both detect a breach in the client's accounting system, and report the breach" (DeAngelo 1981). Specifically, I examine the audit quality of the student loan loss provisions of Canada's provincial departments of education and U.S. state-supported student loan authorities. This setting controls for audit quality by using a homogenous unit of analysis: in both cases, the same account is being audited and, from an operational perspective, the same sub-national governmental program is involved. This research design controls for litigation risk, the source of audit quality differences between American and Canadian auditors (Khurana and Raman 2004). Canadian government auditors are granted legal immunity,[1] while non-Big-4 auditors of state governments operate in a low litigation risk environment since their clients have a low risk of default: the last time a U.S. state declared bankruptcy was in 1933 (Ergungor 2016). Consequently, there is a low probability that bondholders will incur damages.

[1] Governing legislations were hand-collected and analyzed.

I find that government auditors are associated with more conservative student loan loss provisions than private sector-regulated auditors. Watts (2003) notes that conservatism is a desirable property of financial reporting because it minimizes management opportunism. However, I find that the difference between the reported and the expected loan loss provision is greater than materiality, a result I attribute to the increased bargaining power of government auditors who can demand excessively conservative financial measurements to mitigate audit risk.

In the second analysis, I find a positive relationship between increased government auditor reputation and conservatism, a result consistent with current academic thought. However, this increase in conservatism does not improve audit quality as it is excessive: the loan loss provisions become so conservative that financial statements do not reflect economic reality.

The findings in this paper contribute to the audit quality literature. First, my findings add empirical evidence to the debate about whether the government should nationalize the audit market. My results suggest that a government monopoly would appear to cause a reduction in audit quality. My second finding addresses a gap in the audit quality literature by examining the relationship between a positive shock to auditor reputation and audit quality (DeFond and Zhang 2014). I find that, as generally expected, an increase in auditor reputation results in more conservative financial statements; however, the increased bargaining power of monopolistic auditors results in excessive conservatism, which leads to a decrease in audit quality. Finally, I obtain a unique data set for government auditors, the ex-ante student loan loss provision which allows me to analyze the production of audit quality in a direct manner.

The remainder of this paper proceeds as follows. In the section 1.2, I conduct my literature review and develop my hypothesis. In section 1.3, I discuss my research methodology and I report my results in section 1.4. In the final section, I present my conclusions.

1.2 Literature Review and Hypothesis Development

Regulatory History

In the 1920s, optimistic American shareholders utilized easy access to credit to purchase $50 billion in new security issuances (Galbraith 2009; SEC 2016). Unfortunately, the stock market crash of 1929 wiped out $25 billion in stock value and signaled the beginning of the Great Depression (SEC 2016). This misallocation of financial capital can partially be attributed to the low quantity and quality of financial information available at the time (Simon 1989). Following the crash, interest groups were generally in agreement that the government should intervene in capital markets, however opinions diverged over the extent of this intervention. Some argued that, in order to shield the public, the government should have the power to determine which firms could be publicly traded, while others argued that the government should regulate the quantity and quality of financial disclosures (Benston 1973; The Wheat Report 1969; O'Connor 2004). The Securities Act of 1933 and 1934, mandated that the government focus on improving disclosure quality by i) improving the supply of financial disclosures, ii) granting enforcement power to the SEC, and iii) requiring annual audits.

However, the government stopped short of imposing regulations on the audit market and granted public accountants the power to self-regulate. This decision was justified on the basis that Congress recognized accountants as professionals with a responsibility to act in the public interest and thus needing to be independent from those firms that they audited (O'Connor 2004). Indeed, auditor independence is the cornerstone which allows financial statement users to know that the financial statement disclosures are credible.

In due time, the self-regulatory audit model came under public scrutiny because of a perception that external auditors were not in fact independent of their clients. In the pre-SOX period, Lennox and Park (2007) note that members of senior management regularly influenced appointments of external auditors. Government regulators suggested that auditors were not acting independently of management given their incentive to retain their clients' audit and non-audit fees (DeFond et al. 2002). Academic research finds that auditors with low levels of independence (auditors with close personal relationships to

their clients) supply lower levels of audit quality as suggested by their tolerance for higher levels of abnormal accruals (Menon and Williams 2004) and the higher probability that they will issue a clean audit opinion (Lennox 2005).

After Enron and a litany of other corporate scandals, the public questioned the credibility of the assurance provided by auditors and began to perceive that the audit market had failed (Abelson and Glater 2002). As explained by Tversky and Khaneman's (1973) availability heuristic, this perception of market failure occurred because of the high profile nature of the scandals which made it appear that audit failures were a common occurrence, even though the risk of audit failure is actually close to zero (Palmrose 2000; Francis 2004).

In 2002, the U.S. Federal Government introduced SOX and began an era of government regulation. The legislation was heralded by President Bush as "the most far-reaching [reform] of American business practices since the time of Franklin Delano Roosevelt" and it ended "the era of low standards" (Bumiller 2002). With SOX regulations, the government sought to improve audit quality by granting enforcement power to the PCAOB (Sarbanes Oxley Act of 2002) and mitigating threats to auditor independence. Two particular regulations promoted this last goal: i) auditors could no longer offer both auditing and consulting services therefore minimizing the auditor fee dependence problem and ii) legislation mandated that the audit committee appoint external auditors thus reducing management's bargaining power.

There is no clear consensus on the issue of whether a change in the regulatory environment improves audit quality. Following the introduction of government regulations, the PCAOB states that 35% to 40% of audit files still fail to meet their standards (Chasan 2014)[2], a finding consistent with the market's expectation that the compliance costs of SOX would outweigh its informational benefits (Zhang 2007; Litvak 2007). However,

[2] Peecher and Soloman (2014) take issue with the audit failure rate because it includes both audit failures and audit deficiencies. They note that the audit community defines audit failure as the joint effect of an audit firm rendering a clean opinion combined with materiality misstatement. While an audit deficiency may simply be an audit documentation which has no actual impact on the financial statements.

this view is not universally accepted as some researchers note that the markets perceived that the benefits of SOX outweighed its costs (Jain and Rezaee 2006; Li et al. 2008). Even when using more direct proxies for audit quality, the impact of SOX is unclear. Krishnan et al. (2011) find that financial reporting quality increased as earnings management decreased, but this was cancelled out by an increase in real earnings management (Cohen et al. 2008). While the literature notes that, in the post-SOX period, conservatism increased, this result was only temporary (Lobo and Zhou 2006; Fargher and Kiang 2008). Finally, the specific prohibition of consulting decreased audit efficiency services, but did not impact audit quality (Knechel and Sharma 2012).

It can be argued that the expected benefits of SOX have not materialized because auditor independence issues persist since clients continuously appoint the same audit firm. Le Vourc'h and Morand (2011) cite a U.S. survey from the Financial Executives Research Foundation that states that audit tenure lasts for twenty-one years on average and fifty years for the largest firms. The quasi-rents that audit firms derive from audit fees places pressure on audit firms to maintain their relationships with long-standing audit clients; this presents a risk to independence (European Commission 2016). A PCAOB (2011) inspection report states that long tenured auditors,

"[M]ay have a bias toward accepting management's perspective, rather than developing an independent view or challenging management's conclusions."

Therefore, to address auditor independence, the PCAOB has advocated for a mandatory auditor rotation rule to improve audit quality. However, Fortune 1000 companies and audit firms argue that this proposal is flawed because it will elevate audit risk (PCAOB 2011) and increase the probability of another significant audit failure.

Given the persistent level of public skepticism of auditor independence in the government-regulated market, there is public pressure to improve audit quality. Introducing new regulations to increase auditor independence, such as mandatory audit firm rotation, may not be socially desirable because, on balance, it may increase audit risk. The government is therefore left with the option of changing the audit market by granting a government agency a monopoly over the supply of audit services (Friedman

1982). From a purely theoretical perspective, a monopoly would address the public's concerns regarding the audit market and mitigate independence issues by improving the bargaining position of auditors relative to management: auditors could freely challenge their clients' accounting decisions without being concerned about retaining future business. An audit monopoly would also improve auditor independence by ending the practice of "opinion shopping" (clients who seek out non-independent auditors to receive a clean audit opinion (DeFond and Zhang 2014)). In contrast to the PCAOB's proposed audit firm rotation, a government monopoly, over the long-term, should on average reduce audit risk since auditors would develop an in-depth understanding of their client and their industry.

How would audit quality be effected by a monopolistic audit market? Francis (2004) notes that there is no prior empirical research in this area. I recognize that the traditional audit thought assumes that auditors with greater independence would on average increase audit quality, an assumption which led to the introduction of SOX. On a practical level, independent auditors should be free to challenge management's accounting choices without concerning themselves with client retention. However, I expect that an increase in auditor independence will in fact reduce audit quality as auditors will demand excessively conservative accounting estimates, measurements that will exceed the bounds of materiality. I base this hypothesis on the fact that monopolistic auditors would have a stronger bargaining position and would be minimally concerned about client retention. Therefore, I suggest that monopolistic auditors will attempt to minimize overstatement of net assets, their primary audit risk, and demand excessively conservative accounting measurements. This excessive conservatism would cause the financial statements to depart from economic reality. Based on these arguments, I hypothesize that:

H1: The adoption of a government audit monopoly would decrease audit quality.

Positive Reputation Shock

The second part of this paper examines the impact of a positive shock to the reputation of Canadian government auditors on the supply of audit quality within the monopolistic government auditing environment. DeAngelo (1981) finds that auditors with more prominent reputations supply a higher level of audit quality in order to protect their reputation capital. The market assumes that a better reputation among audit firms lends more credibility to the clients' financial statements and decreases information risk (Cahan et al. 2009). Conversely, research in an international setting, finds that an audit failure damages an auditor's reputation and results in many clients choosing to switch to a new audit firm (Weber et al. 2008; Skinner and Srinivasan 2012). Francis and Michas' (2013) findings support this client behavior when they note that a financial reporting misstatement is an indicator of office-wide audit quality issues. The audit literature focuses on the effects of a negative shock to audit reputation and consequently, no empirical evidence exists documenting the effect of an increase in an auditor's reputation (DeFond and Zhang 2014).

Sponsorship Scandal

The 2003 Canadian Federal Government Sponsorship Program audit report, publicly released in 2004, suggested that $100 million of public funds was transferred to communication agencies connected to the governing party (OAG 2003). The senior government auditor criticized public officials for their "blatant misuse of public funds" and breaking "just about every rule in the book" (CBC News 2004 and 2011). This breach of public trust (Free and Radcliffe 2009) exposed by the report, resulted in a 14 percent decrease in support for the government (Whttington 2004). Furthermore, 64 percent indicated that the audit findings would influence their voting decision (Policy Options 2005). Not surprisingly, the incumbent party was eventually removed from office (Elections Canada 2006).

While the reputation of government officials was damaged, the reputation of government auditors improved. The senior government auditor was lauded as being a "national hero" for having shone light on "the mismanagement, incompetence and corruption that (...)

[the] government [had] been trying to hide for a decade" (Baird 2006; Bryden 2014). After the release of the audit, the government audit agency became the third most trusted Canadian institution after the Supreme Court and the Department of Defense (Bozinoff 2014). This increase in the reputation of federal auditors also increased the reputation of sub-national government auditors. One subnational government auditor public stated the importance of reputation when conducting audit engagements (OAG Manitoba 2007). In another jurisdiction, the sub-national government rebranded their auditors in order to reflect an improvement in the institution's reputation and show the "respect the auditor truly deserves" (Sorbara 2004). Total media references to government auditors in Canada's 16 major newspaper increased on average by 1,093 articles annually after the release of the sponsorship report.

Canadian national and sub-national governments currently grant a monopoly over all government audits to an audit agency. Government auditors are granted legal immunity and access to sufficient funds in order to conduct their audit work.[3] Moreover, legislation prohibits the government from replacing an auditor.

With these safeguards, threats to auditor independence are significantly minimized. This grants the government auditor enough latitude to challenge their clients' assumptions. As previously mentioned, a high level of auditor independence and an improved auditor reputation, combined with pressure from a public that will not tolerate audit errors, results in a demand for more conservative financial statements. I hypothesize that auditors will push for conservative financial reporting to mitigate the risk of overstatement. However, I expect that audit quality will decrease because the level of conservatism demanded by the auditors will exceed the bounds of materiality.

H2: A positive shock to the auditors' reputation will result in excessively conservative financial statements which will ultimately decrease audit quality.

[3] Governing legislations were hand-collected and analyzed.

1.3 Research Methodology

Sample Selection

To test hypothesis one and two, I use a between-subjects research design to compare the audit quality of monopolistic government auditors to private sector auditors who operate under government regulations. I first construct my sample by hand-collecting the financial statements for all ten Canadian provinces from 1999 until 2015. I ensure that the government financial statements are audited and then collect the dollar value and estimated provision for the student loan program. I exclude samples where the student loan provision is aggregated with other loan provisions; this leaves 76 firm-year samples.

For the control group, I obtain from the Education Finance Council and the Department of Education a list of non-profit and government student loan authorities; I classify thirty-five of these as being affiliated with a level of government. To ensure that the control group consists solely of non-Big-4 private sector audit firms which are government regulated, I eliminate four authorities which are not audited by regulated non-Big-4 audit firms. Two other entities are removed because they are affiliated with a municipal government instead of a State government, while thirteen agencies are removed due to a lack of data, leaving sixteen agencies for the control group. I then hand-collect each of the available audited financial statements; this results in 135 firm-year samples.

Significant Variables

Audit Quality

Consistent with the auditing literature, I define audit quality as the ability of the auditors to detect and correct a material misstatement (DeAngelo 1981). I operationalize this definition by measuring audit quality using the following formula:

$$AUDIT\ QUALITY\ (AQ) = |(Actual\ Provision - Estimated\ Provision)| - Materiality$$

To measure the audit quality of government auditors, I obtain a unique data set from the government: the ex-ante loan loss provisioning rate. I then multiply the loan loss rate by

the total volume of outstanding student loans and I difference the expected provision with the actual provision as recorded in the financial statements; this allows me to empirically examine the audit process black box. This difference is then compared with component materiality, since this financial disclosure occurs in the governments' consolidated financial statements. Group materiality is estimated to be one half of one percent of expenditures, as stated in government auditors' testimony (Public Accounts 2006) and documentary submissions to legislators (OAG Ontario 2012). The component materiality of the relevant Department of Education is calculated in accordance with Stewart and Kinney's (2013) methodology, utilizing their Component Materiality Calculator: GUAMcalc.

To measure the audit quality of private sector auditors who operate in a government regulatory environment, I obtain the actual student loan provision as recorded in the audited financial statements and compare it with the estimated provision. The estimated provision is determined by multiplying the outstanding student loans by the default rate (Department of Education 2013 & 2015) and by the loss given default rate. The loss given default rate is dependent on whether the loan is insured or uninsured: if the loan balance is insured by the Federal Department of Education, guarantee terms prescribe a three percent loss given default[4], while for uninsured balances, the loss given default rate is determined using data from the Federal Reserve (Edminston et al. 2013) and bond offering information.[5] Materiality is determined using three percent of total assets; this threshold is consistent with the guidance from the Financial Audit Manual of the U.S. General Accountability Office (2008).

[4] Loss Given Default Rate program information is disclosed in the notes the financial statements of the Student Loan Authorities.

[5] Samples where the Loan Authority does not disclose the volume of insured student loan data the uninsured loss given default rate is applied.

Auditor Regulatory Environment

In order to test hypothesis one, I use a binary variable to measure the auditors' regulatory environment (REG). The variable is set to 1 for a government auditor operating in a monopolistic environment and to 0 for a private sector auditor operating within a government regulatory environment. This research design compares the supply of audit quality in regulated and monopolistic markets. A significant positive coefficient would indicate a difference between the actual and estimated student loan loss provision that is greater than materiality. This result would be interpreted as an indication that the financial statements do not reflect the government's economic position and that a monopolistic governmental audit environment supplies a lower level of audit quality than a government -regulated private sector audit market.

Auditor Reputation in Governmental Regulatory Environment

In order to test hypothesis two, utilizing a difference-in-difference methodology, I interact the auditors' regulatory environment (REG) with the positive exogenous shock received after the public release of the Sponsorship Program audit report in 2004 to determine how audit quality is affected by monopolistic auditors who had an increase in their reputational capital. For coding purposes, 1 is used to identify the post-exogenous shock period that begins in 2005 and 0 is used for the pre-exogenous shock period (REP). A positive significant result indicates that an increase in government auditors' reputation capital decreases aggregate audit quality.

Empirical Model

To empirically study the relationship between regulatory environment and audit quality (with REG as the variable of interest in Hypothesis 1), I use the following regression model, where Υ_t represents year-fixed effects:

$$\text{Model 1} - AQ_{i,t} = \boldsymbol{\beta 1} * \boldsymbol{REG_{i,t}} + \Upsilon_t + \sum \varphi * \text{Controls}_{i,t} + \varepsilon_{i,t} \qquad (1)$$

To examine the effect of a positive exogenous shock to the auditors' reputation (Hypothesis 2), I use the difference-in-difference method in model 2 and the fixed-effects

research design in model 3, with α_i representing firm-fixed effects and Υ_t representing year-fixed effects. The variable of interest is the interaction of regulatory environment with auditor reputation.

Model 2 – Difference-in-Difference Model

$$AQ_{i,t} = \beta 1 REG_{i,t} + \beta 2 REP_{i,t} + \boldsymbol{\beta 3 REG_{i,t} * REP_{i,t}} + \sum \varphi * \text{Controls}_{i,t} + \varepsilon_{i,t} \quad (2)$$

Model 3 – Fixed Effects Model

$$AQ_{i,t} = \alpha_i + \Upsilon_t + \boldsymbol{\beta 1 REG_{i,t} * REP_{i,t}} + \varepsilon_{i,t} \quad (3)$$

The variables of interest, $REG_{i,t}$ in Model 1 and $REG_{i,t}*REP_{i,t}$ in model 2 and 3, are used to test hypothesis 1 and 2 respectively. In both models, the following variables are used to control for audit quality: *SIZE, BUDGET, ELECTION, DQUALITY*. In model 1, I utilize year-fixed effects; in model 3, both firm- and year-fixed effects are incorporated into the model. *SIZE* is measured as the total student loan exposure scaled by the total population. *BUDGET* measures the effectiveness of each jurisdiction's balanced budget legislation in managing tax revenues and program expenditures. The Advisory Commission on Intergovernmental Relations (ACIR) utilizes the Balanced Budget Stringency Scale (ACIR 1987) to measure the strength of the jurisdiction's balanced budget legislation. The scale ranges from 0, no legislative controls, to 10, strict budgetary controls. I use the ACIR's analysis to measure the balanced budget strength of the American States and I apply their criteria to evaluate the strength of the balanced budget legislation of the Canadian provinces. *ELECTION* is a binary variable which controls for an election year; a particular year where legislators have an incentive to manipulate the financial statements for political purposes (Kido et al. 2012). *DQUALITY* is measured using Robbins and Austin's (1986) governmental disclosure quality scale; I use it to control for each entity's pre-existing differences in disclosure quality.

1.4 Results

Table 1-1 presents the descriptive statistics of the variables, as well as the actual and estimated loan loss provision used to determine audit quality. Column 1 provides the

descriptive statistics for the entire sample population. Audited loan loss provision is greater than estimated loan loss provision, indicating that auditors push their clients for conservative measurements. However, as noted by the audit quality variable, the values remain within the boundaries of materiality. The sample set is split in two: government monopolistic audit environment (Column 2) and government regulated audit environment (Column 3). The results indicate that, in the monopolistic audit environment, the government auditors demand conservative measurements. However, the demanded level of conservatism reduces audit quality since the difference between the actual provision and the estimated provision exceeds materiality. Within the government regulatory environment, the audited loan loss balance and estimated balance is within $2 million; this difference is well below the bounds of materiality and thus results in a measurement that reflects economic reality.

To examine the effect of a positive exogenous reputation shock on a monopolistic audit environment, the sub-sample is split into pre-reputation shock (Column 4) and post-reputation shock (Column 5). While in the pre-reputation shock environment, government auditors demand conservative loan loss estimates, in the post-shock environment, auditors begin to demand more conservative financial reporting. This is as expected, given that conservatism is generally seen as a positive attribute of financial reporting. Because auditors demand loan loss measurements that are excessively conservative, the provision exceeds materiality by $61 million, thus signaling lower audit quality.

In Table 1-2, I present the Pearson correlation matrix for all of the variables in the analysis. I find that, for the variables of interest, the regulatory environment is moderately correlated with audit quality. I find a low level of correlation between remaining variables, alleviating multi-collinearity concerns.

The multivariate OLS regression results are presented in Table 1-3. Column 1 examines whether audit quality is impacted by differences in audit market composition. The overall model is significant at the one percent level and the Beta coefficient for *REG* is 100.975. This indicates that a monopolistic audit environment provides a lower level of audit quality than a government-regulated environment. Overall, this indicates that the

difference between the actual and estimated student loan loss provision exceeds materiality by $101 million. This result, combined with the results of the descriptive statistics, indicates that higher levels of auditor independence reduce audit quality.

In Table 1-3, I present the results of the second hypothesis using the difference-in-difference methodology (column 2) and the fixed-effects methodology (column 3). I find that an increase in the reputation of the government auditors in the government monopolistic audit environment decreases audit quality. Prior research has noted that audit quality and auditor reputation is positively related and that increased conservatism is generally a sign of high audit quality (DeFond and Zhang 2014). I attribute my result to the increase in the auditors' bargaining power and desire to maintain their newfound audit reputation.

Robustness Analysis

The above analyzes the direct influence that auditors have on the final loan loss provision by examining the difference between the estimated and the final provision. In an untabulated robustness analysis, I analyze the direct effect that provincial government officials have on the estimated provision by comparing the initial estimated net default rates with actual net default rates. This analysis allows me to explore whether the initial estimate is sufficient. I find that, on average, the government overestimated the loan loss provision by 3.99%, with the government overproviding in the pre-sponsorship scandal by .35% period and overproviding the loan loss provision by 4.8% in the post-sponsorship scandal period. This indicates that, in the Canadian context, the estimated provision is sufficiently conservative and that, during the audit process, the monopolistic government auditors cause the final loan loss provision to become even more conservative.

1.5 Conclusion

The audit risk model acknowledges the possibility that auditors will not detect a material misstatement. The estimated risk of an audit failure varies from .28%, which is determined by dividing the number of lawsuits by the number of publicly traded firms, (Palmrose 2000; Francis 2004) to 40%, according to quality reviews by the PCAOB (Chasan 2014).

Therefore, there is a possibility that another Arthur Andersen-sized audit failure could occur and significantly impact the audit market. According to Friedman's (1982) framework, in the absence of a free market, governments have three choices: they can let private forces govern the market, they can regulate the market themselves or they can create a public monopoly. Following the 1929 stock market crash, legislators made the public policy choice to allow auditors to self-regulate (Securities Act 1933b). However, after the collapse of Enron, legislators faced significant political pressure and decided to regulate the audit market themselves (Sarbanes-Oxley Act 2002). After the next significant audit failure, politicians could potentially impose additional regulations; however, from an audit market structure viewpoint, legislators have only one remaining public policy choice: to grant an audit monopoly to a governmental agency. This paper seeks to contribute empirical evidence on the effect of a monopolistic government audit market on audit quality. This research is especially important given that there is no empirical evidence to state which market model supplies a higher level of audit quality (Francis 2004).

The public perceives that audit quality issues are due to auditor independence problems. As first suggested in 1933 Congressional Hearings (which eventually laid the ground work for auditor self-regulation) Senator Barkley questioned whether non-government auditors could be independent of corporate controllers (Securities Act 1933a). The Senator's initial fears became reality as auditors began to monetize their knowledge accumulated from years of public auditing and started selling consulting services to their audit clients in order to increase firm revenue. However, as consulting revenue became more profitable than audit fees, a perception arose that auditors were not acting independently and were not challenging their client's audit decisions because they would be challenging their own work. The Federal Government dealt with this issue after the Enron audit failure by ending the self-regulatory model and imposing government regulations that would enhance auditor independence (Sarbanes Oxley Act 2002). Still, as noted by the head of the PCAOB, independence issues continue to persist in the post-SOX governmental regulatory environment because of the long length of auditor appointments (PCAOB 2011). If greater auditor independence improves audit quality, a monopolistic governmental audit model should have auditors who are not concerned with

future appointments and who can challenge their clients' accounting choices and thus increase audit quality.

In this paper, I find that a government audit monopoly requires clients to produce more conservative financial statements; however, contrary to conventional thought, I find that audit quality is decreased because the level of conservatism exceeds the bounds of materiality. Furthermore, I find that an exogenous shock to the auditors' reputation does in fact increase accounting conservatism; however, once again this increase in conservatism is so excessive that it causes a reduction in audit quality since the recorded amount exceeds materiality.

My findings in this paper contribute to the academic literature by providing empirical evidence that a monopolistic government audit market impacts social welfare in a negative manner since overall audit quality will be reduced. Furthermore, my findings fill a gap in the literature noted by DeFond and Zhang (2014) by examining the relationship between an improvement in an auditor's reputation and audit quality. I find that a positive reputation shock decreases audit quality in a monopolistic audit market since increased auditor independence allows auditors the freedom to require their clients to record excessively conservative measurements to mitigate the possibility of a financial overstatement. Most importantly, I obtain a unique data set, the ex-ante loan loss provision of the government auditors; this allows me to directly compare the ex-ante loan loss provision to the final audited provision.

TABLE 1-1: Descriptive Statistics - Mean					
PANEL 1					
	1	2	3	4	5
AQ	-17.143	46.003	-52.692	-2.939	61.193
Actual Provision	67.293	141.558	25.484	10.058	182.368
Estimated Provision	38.221	56.690	27.823	4.190	72.983
REG	0.360	1.000	0.000	1.000	1.000
SIZE	496.359	178.683	675.198	41.149	221.366
BUDGET	4.967	0.724	7.356	0.611	0.759
ELECTION	0.284	0.276	0.289	0.278	0.276
DQUALITY	0.150	0.161	0.144	.236	0.138
N	211	76	135	18	58

Table 1-2: Pearson Correlation Matrix						
Panel A						
	AQ	***REG***	***SIZE***	***BUDGET***	***ELECTION***	***DQUALITY***
AQ	1					
REG	0.504	1				
SIZE	-0.218	-0.359	1			
BUDGET	-0.362	-0.761	-0.09	1		
ELECTION	-0.007	-0.013	0.101	-0.073	1	
DQUALITY	-0.035	0.026	-0.012	-0.086	-0.026	1

Table 1-3: Multivariate Regression

OLS regression of regulatory environment and reputation on audit quality. The regression uses heteroscedasticity-consistent standard error estimators. (Hayes and Cai 2007).

	1	2	3
REG	**100.975*****	22.631	
	(.000)	(.117)	
REP		-22.566***	
		(.002)	
*REG*REP*		**87.387*****	**83.837*****
		(.000)	(.000)
SIZE	-.008	-.009	
	(.223)	(.126)	
BUDGET	-.158	-.223	
	(.931)	(.889)	
ELECTION	.801	.689	
	(.963)	(.951)	
DQUALITY	-14.419	-8.905	
	(.227)	(.423)	
Constant	-54.943	-23.173	-95.752***
	(.427)	(.153)	(.000)
YEAR FIXED EFFECTS	YES		YES
FIRM FIXED EFFECTS			YES
F	3.630***	18.019***	24.444***
p	.000	.000	.000
Adjusted R-sq.	.198	0.263	.783
N	211	211	211
Mean VIF	1.738	4.389	1.937

p-values in parentheses

* p < 0.10, ** p < 0.05, *** p < 0.01

References

Abelson, R., and Glater, J. (2002, January 15). Enron's Collapse: The Auditors; Who's Keeping the Accountants Accountable? *The New York Times*. Retrieved from: http://www.nytimes.com.

Accounting Reform and Investor Protection: Hearings before the Committee on Banking, Housing, and Urban Affairs, Senate, 107th Congress (2002).

Advisory Commission on Intergovernmental Relations (ACIR) (1987). "Fiscal Discipline in the Federal System: Experience of the States," Washington, D.C.

Auditors: Market Concentration and their Role: Select Committee on Economic Affairs, United Kingdom House of Lords, 2nd Report of 2010-2011 session (2011).

Baird, J. (2006, April 25). "Federal Accountability Act". Canada. Parliament. House of Commons. *Hansard*. 39th Parliament, 1st session.

Benston, G. J. (1973). Required disclosure and the stock market: An evaluation of the Securities Exchange Act of 1934. *The American Economic Review*, *63*(1), 132-155.

Bozinoff, L. (2014, May 26). Canadian military most trusted institution: Supreme Court, Auditor General Follow. *Forum Research*.

Bryden, J. (2014 April 3). Ex-auditor-general Fraser slams elections bill as attack on democracy. *The Globe and Mail.* Retrieved from: http://www.theglobeandmail.com.

Bumiller, E. (2002, July 31). Corporate Conduct: The President; Bush Signs Bill Aimed at Fraud in Corporations. *The New York Times*. Retrieved from: http://www.nytimes.com.

Cahan, S.F., Emanuel, D., Sun, J., 2009. Are the reputations of the large accounting firms really international? Evidence from the Andersen-Enron affair. *Auditing: A Journal of Practice and Theory* 28(2), 199–226.

CBC News, (2004, February 10). Auditor General's Report 2003 – In-depth Auditor General. *CBC News,* Retrieved from: www.cbc.ca.

CBC News, (2011, May 25). Sheila Fraser: Her Greatest Hits. *CBC News,* Retrieved from: www.cbc.ca.

Chaney, P. K., & Philipich, K. L. (2002). Shredded Reputation: The Cost of Audit Failure. *Journal of Accounting Research*, *40*(4): 1221-1245.

Chasan, E. One in Three Audits Fail, PCAOB Chief Auditor Says. *The Wall Street Journal*. Retrieved from: http://www.wsj.com.

Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and accrual-based earnings management in the pre- and post-Sarbanes-Oxley periods. *The Accounting Review, 83*(3), 757-787.

DeAngelo, L. E. (1981). Auditor Size and Audit Quality. *Journal of Accounting and Economics*, *3*(3): 183-199.

DeFond, M. L., Raghunandan, K., & Subramanyam, K. R. (2002). Do non–audit service fees impair auditor independence? Evidence from going concern audit opinions. *Journal of Accounting Research*, *40*(4): 1247-1274.

DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, *58*(2): 275-326.

Department of Education. (2013). National Student Loan Two Year Default Rates. Retrieved from: *https://studentaid.ed.gov.*

Department of Education. (2015). FY 2012 3-Year Official Cohort Default Rates. Retrieved from: *https://studentaid.ed.gov.*

Disclosure to Investors – A Reappraisal of Federal Administrative Policies under the '33 and '34 Acts (The Wheat Report), 1969. Securities and Exchange Commission report.

Edmiston, K. D., Brooks, L., & Shepelwich, S. (2013). Student loans: overview and issues. *Federal Reserve Bank of Kansas City Working Paper*, (12-05).

Elections Canada (2006). Report of the Chief Electoral Officer of Canada on the 39th General Election of January 23, 2006. Ottawa.

Engel, E., Hayes, R. M., & Wang, X. (2007). The Sarbanes–Oxley Act and firms' going-private decisions. *Journal of Accounting and Economics*, *44*(1): 116-145.

Ergungor, O. E. (2016). Sovereign Default in the US. *Federal Reserve Bank of Cleveland Working Paper No. 16-09*.

European Commission - Reform of the EU Statutory Audit Market, European Commission (2016).

Fargher, N. L., & Jiang, L. (2008). Changes in the audit environment and auditors' propensity to issue going-concern opinions. *Auditing: A Journal of Practice & Theory, 27*(2): 55-77.

Francis, J. R. (2004). What do we know about audit quality? *The British Accounting Review*, *36*(4): 345-368.

Francis, J., P. N. Michas. 2013. The contagion effect of low-quality audits. *The Accounting Review* 88(2): 521-552.

Free, C., & Radcliffe, V. (2009). Accountability in crisis: The sponsorship scandal and the office of the comptroller general in Canada. *Journal of Business Ethics*, *84*(2), 189-208.

Friedman, M. (1982). *Capitalism and Freedom*. Chicago: University of Chicago Press.

Galbraith, J. (2009). The Great Crash 1929. Boston: Houghton Mifflin Company.

Hayes, A. F., & Cai, L. (2007). Using heteroskedasticity-consistent standard error estimators in OLS regression: An introduction and software implementation. *Behavior Research Methods*, *39*(4), 709-722.

Hirst, D. (1994). Auditor sensitivity to earnings management. *Contemporary Accounting Research*, *11*(1): 405-422.

Jain, P. K., & Rezaee, Z. (2006). The Sarbanes-Oxley Act of 2002 and Capital-Market Behavior: Early Evidence. *Contemporary Accounting Research*, *23*(3), 629-654.

Khurana, I. K., & Raman, K. K. (2004). Litigation risk and the financial reporting credibility of Big 4 versus non-Big 4 audits: Evidence from Anglo-American countries. *The Accounting Review*, *79*(2), 473-495.

Kido, N., Petacchi, R., & Weber, J. (2012). The influence of elections on the accounting choices of governmental entities. *Journal of Accounting Research*, *50*(2), 443-476.

Krishnan, J., Su, L., & Zhang, Y. (2011). Non-audit services and earnings management in the pre-SOX and post-SOX eras. *Auditing: A Journal of Practice & Theory*, *30*(3), 103-123.

Knechel R. and Sharma D. (*2012*) Auditor-Provided Non-audit Services and Audit Effectiveness and Efficiency: Evidence from Pre- and Post-SOX Audit Report Lags. *Auditing: A Journal of Practice & Theory:* 31(4): 85-114.

Le Vourc'h, J., Morand, P. (2011). Study on the effects of the implementation of the acquis on statutory audits of annual and consolidated accounts including the consequences on the audit market. *Final report to European Commission.*

Lennox, C. (2005). Audit quality and executive officers' affiliations with CPA firms. *Journal of Accounting and Economics*, *39*(2): 201-231.

Lennox, C. S., & Park, C. W. (2007). Audit firm appointments, audit firm alumni, and audit committee independence. *Contemporary Accounting Research*, *24*(1): 235-258.

Li, H., Pincus, M., & Rego, S. O. (2008). Market Reaction to Events Surrounding the Sarbanes-Oxley Act of 2002 and Earnings Management. *Journal of Law and Economics*, *51*(1): 111-134.

Litvak, K. (2007). The effect of the Sarbanes-Oxley Act on non-US companies cross-listed in the US. *Journal of Corporate Finance*, *13*(2), 195-228.

Lobo, G. J., & Zhou, J. (2006). Did conservatism in financial reporting increase after the Sarbanes-Oxley act? Initial evidence. *Accounting Horizons, 20*(1), 57-73.

Menon, K., & Williams, D. D. (2004). Former audit partners and abnormal accruals. *The Accounting Review*, *79*(4): 1095-1118.

Moore, D. A., Tetlock, P. E., Tanlu, L., & Bazerman, M. H. (2006). Conflicts of Interest and the Case of Auditor Independence: Moral Seduction and Strategic Issue Cycling. *Academy of Management Review*, *31*(1), 10-29.

Office of the Auditor General of Canada (OAG). (2003). The Sponsorship Program. Retrieved from: http://www.oag-bvg.gc.ca.

Office of the Auditor General of Manitoba (OAG Manitoba). (2007) Operations of the Office. Retrieved from: http://www.oag.mb.ca.

Office of the Auditor General of Ontario (OAG Ontario). (2012) 2012 Annual Report of the Office of the Auditor General of Ontario. Retrieved from: www.auditor.on.ca.

O'Connor, S. M. (2003). Be careful what you wish for: How accountants and Congress created the problem of auditor independence. *Boston College Law Review*, *45*: 741-827.

Palmrose, Z., 2000. Empirical research in auditor litigation: considerations and data, studies in accounting research No. 33. American Accounting Association, Sarasota, FL.

Peecher, M. and Soloman, I. (2014, February 27). PCAOB's 'Audit Failure' Rate Is Highly Suspect. *CFO Journal*. Retrieved from: http://ww2.cfo.com.

Policy Options (2005, June 1st). The sponsorship scandal: Chrétien's mess, Martin's inheritance, *Policy Options*, Retrieved from: http://policyoptions.irpp.org.

Public Accounts: Hearings before the Standing Committee on Public Accounts, House of Commons, 39th Parliament 1st Session (2006).

Public Company Accounting Oversight Board (PCAOB). (2011). Concept Release on Auditor Independence and Audit Firm Rotation. PCAOB Release No. 2011-006.

Public Company Accounting Oversight Board (PCAOB). (2012). The Sarbanes-Oxley Act Ten Years Later. PCAOB Investor Advisory Group Working Group Presentation.

Robbins, W. A., & Austin, K. R. (1986). Disclosure quality in governmental financial reports: An assessment of the appropriateness of a compound measure. *Journal of Accounting Research*, 412-421.

Sarbanes Oxley Act of 2002, H.R.3763, 107th Congress (2002).

Securities Act of 1933a: Hearings before the Senate Committee on Banking and Currency, 73rd Congress (1933).

Securities Act of 1933b, H.R. 5480, 73TH Congress (1933).

Securities Act of 1934, H.R. 9323, 73TH Congress (1934).

Securities and Exchange Commission. (2016). U.S. Securities and Exchange Commission: What We Do. Retrieved from: https://www.sec.gov.

Simon, C. J. (1989). The effect of the 1933 Securities Act on investor information and the performance of new issues. *The American Economic Review*, 295-318.

Skinner, D.J., Srinivasan, S., 2012. Audit quality and auditor reputation: Evidence from Japan. *The Accounting Review*, 87(5): 1737–1765.

Sorbara, G. (2004, April 19). "Audit Statue Law". Ontario. Legislative Assembly of Ontario. *Hansard*. 38th Legislative Assembly, 1st session.

Stewart, T. R., & Kinney Jr, W. R. (2012). Group audits, group-level controls, and component materiality: How much auditing is enough? *The Accounting Review*, *88*(2): 707-737.

The Economist, (2004, November 18th). Called to Account, *The Economist.* Retrieved from: www.economist.com/node/3398724.

Tversky, A., & Kahneman, D. (1973). Availability: A Heuristic for Judging Frequency and Probability. *Cognitive Psychology*, *5*(2), 207-232.

United States Government Accountability Office. (2008). Financial Audit Manual. U.S. GAO-08-585G.

Watts, R. (2003). Conservatism in Accounting Part I: Explanations and Implications. *Accounting Horizons*, *17*(3), 207-221.

Weber, J., Willenborg, M., Zhang, J., 2008. Does auditor reputation matter? The case of KPMG Germany and ComROAD AG. *Journal of Accounting Research*, 46 (4): 941–972.

Whttington, L. (2004, February 28). Liberals climb back: Poll. *The Toronto Star.* Retrieved from: https://www.thestar.com.

Zhang, I. X. (2007). Economic Consequences of the Sarbanes–Oxley Act of 2002. *Journal of Accounting and Economics*, *44*(1): 74-115.

Chapter 2
Do Auditors Understand Their Clients' Economic Environment?

Abstract

I investigate whether auditors supply the same level of audit quality to all of their audit clients. The literature finds that audit quality varies between audit offices; however, does it vary within the same office? I argue that, even though International Standards on Auditing - 315 (IAASB 2015) require auditors to understand their clients' environment, auditors do not obtain a sufficient level of understanding of all of their clients primary economic environments and this, consequently, causes a variance in the supply of audit quality. I examine auditor understanding directly by determining whether their audit clients' primary economic area matches the disclosed functional currency as mandated by *IAS 21: The Effects of Changes in Foreign Exchange Rates*. I find that auditors do not develop a sufficient understanding of their government sector clients' economic environment. This finding signals that auditors may be conducting audits without fully understanding the economic environment of their clients.

2.1 Introduction

The archival audit quality literature has primarily examined how audit firm characteristics i.e. size and specialization influence audit quality (DeFond and Zhang 2014; DeAngelo 1981; Francis and Yu 2009;). I extend this literature by investigating whether local audit offices provide a uniform level of quality to all of their clients through an examination of the effect of auditor competency on audit quality, as suggested by DeFond and Zhang (2014). I predict that audit quality is dependent on how well the auditor understands the client's economic environment since auditors with a higher level of understanding will be better able to detect audit errors and therefore require their clients to make the necessary corrections. Consequently, these auditors should be able to supply a higher level of assurance compared with auditors with a lower level of understanding.

In order to examine whether a local audit office provides a uniform level of audit quality to all of its clients, I examine the relationship between the auditors' understanding of the client's economic environment and the functional currency selected by management and found in the audited financial statements. In order to conduct this test, I examine whether Big-N auditors located in Europe's largest and most sophisticated financial capitals and Anglo-American national government audit offices both ensure that Foreign Trade Agencies (FTAs) select the appropriate functional currency. In my PROBIT analysis, I empirically measure audit quality using a binomial variable to indicate whether the appropriate functional currency is used and in my OLS analysis, I use a continuous variable to measure the location of the entity's primary economic environment. Sample selection in the Big-N audit group controls for audit office size and auditor knowledge by examining the supply of audit quality in the same local audit offices located in Europe's largest financial centers. Furthermore, in the OLS model, fixed-effects are used in order to control for omitted correlated variables.

I hypothesize that auditors in certain instances will not be able to detect and correct an FTA's inappropriate functional currency determination because they have an insufficient understanding of the FTA's unique economic environment. I posit this because the psychology and experimental auditing literature finds that people simplify their decision making-process by comparing how similar and how frequently they encounter their

comparative frame of reference compared with the unit of analysis which causes non-random decision making errors (Tversky and Khaneman 1974; Bar-Hillel 1980; Joyce and Biddle 1981).

Big-N auditors develop their knowledge by auditing non-governmental commercial banks who, like FTAs, operate in a lending market environment where inherent risks need to be managed to ensure profit generation (Becker and McClenahan 2003) and who also fund their operations with liabilities which are then loaned out to their clients (Moravcsik 1989; Roengpitya et al. 2014). I expect that the high frequency with which auditors deal with non-governmental commercial banks (the auditors comparative frame of reference) and the operational similarities between non-governmental commercial banks and FTAs (the auditors unit of analysis) together cause auditors to not develop a sufficient understanding of the FTAs economic environment. FTAs differ from non-governmental commercial banks in that they primarily operate in the economic environment of the vehicle currency in order to finance the foreign trade credit market. Exporters and importers prefer to use a vehicle currency – one that is generally different from their home currencies, in order to conduct a transaction and mitigate foreign exchange risks and transaction costs (Friberg and Wilander 2008; Goldberg and Tille 2008). FTAs facilitate these transactions by raising debt in the vehicle currency; in this way, their economic and regulatory environment, does not reside within their home country, but within a foreign country (OECD 2016).

I find that audit offices do not supply a uniform level of audit quality to all of their clients because they do not appear to develop a sufficient understanding of the FTAs' economic environment. I find that both Big-N audit offices and national government audit offices who develop their expertise performing government audits appear unable to detect the appropriate functional currency used in financial statements. This finding is consistent with Tversky and Khaneman's (1974) representativeness heuristic: auditors do not develop a sufficient understanding of the FTAs' economic environment because of their operational similarities with non-governmental commercial banks and the low frequency with which they are exposed to clients whose functional currency does not reflect their

domestic economic environment. These results suggest, that within individual audit offices, a variance in the supply of audit quality exists.

To provide additional evidence that FTAs operate in an economic environment different from the disclosed functional currency found in the financial statements, I conduct a value relevance test and compare the vehicle currency's interest rate and the functional currency's interest rate to the FTAs financial information. I find that FTAs are significantly associated with the vehicle currency's economic environment and not significantly associated with the firm's audited functional currency.

My study contributes to the literature by answering DeFond and Zhang's (2014) call to examine the effect that specific auditor competencies have on audit quality. I find that auditor understanding is significantly associated with audit quality: auditors must have a sufficient understanding of their client's economic environment in order to detect and correct financial statement errors and provide an equivalent level of audit quality to all of their clients. Furthermore, I suggest a new proxy for audit quality: a firm's correct identification of functional currency. This allows me to test audit quality in a direct manner in contrast to past academic literature which utilizes noisy proxies derived from the earnings quality literature (Bamber and Bamber 2009). The functional currency proxy allows me to test auditor understanding since auditors need to have a sufficient understanding of their clients' economic environment in order to determine whether they have selected the appropriate functional currency. Finally, I suggest that the assumption in the audit-specialist literature - that specific audit knowledge is transferable, is conditional on auditors developing a sufficient understanding of their clients' economic environment.

I acknowledge that this study focuses on the financial services sector and, more specifically, FTAs - financial services firms operate in a very specialized economic environment. This limits the generalizability of the results.

The remainder of this paper proceeds as follows. In section 2.2, the Literature Review and Hypothesis Development, I discuss the FTAs' unique economic environment, foreign currency accounting history, functional currency accounting choice and determinants of

auditor quality. In section 2.3, I discuss my research methodology and report the results of my work in section 2.4. In section 2.5, I present my conclusions.

2.2 Literature Review and Hypothesis Development

Economic Environment

International trade increases economic growth rates and, on average, increases living standards. However, foreign trade volumes can only increase if exporters and importers have access to financing (Krugman 1980; Dollar and Kraay 2002; Chauffour et al. 2010). Consistent with welfare economics and given the limited supply of private sector capital, governments create FTAs to fill the void and allow trade transactions to occur with the hopes of enhancing economic efficiency (Megginson and Netter 2001; Becker and McClenahan 2003). Specifically, governments have an incentive to assist domestic firms by making them more competitive: maintaining and/or gaining market share (Gale 1972) and ensuring profitability in order to enhance domestic social welfare (Quadagno 1987). In times of economic crisis such as the Great Depression and the most recent Financial Crisis, FTAs stabilize credit markets by injecting liquidity and allowing international trade to continue (Becker and McClenahan 2003; Chauffour et al. 2010). Chauffour and Farole (2009) note that, during the financial crisis, FTAs made $250 billion of public financing available to a credit market that was experiencing a $500 billion credit-financing gap.

FTAs support foreign trade by providing liquidity to exporters and importers in a vehicle currency, a currency which may be different than the FTA's home currency. Contractual parties, looking to minimize transaction costs, prefer to denominate a transaction in a vehicle currency (one that is very liquid) instead of their domestic currencies (Krugman 1980; Portes and Rey 1988; Black 1991; Friberg and Wilander 2008; Goldberg and Tille 2008). Moreover, the use of a vehicle currency minimizes the exporters and importers foreign exchange risk exposure because the relationship between their domestic currencies and the vehicle currency is generally less volatile than the direct relationship between the contracting parties' domestic currencies (Goldberg and Tille 2008).

The FTA's business model revolves around supplying the foreign trade market with vehicle currency denominated credit as such, they are reliant on the economic and regulatory environment of the vehicle currency as that is the market in which they issue their debt and the market which determines the cost of debt (OECD 2016). FTAs (those that abide by OECD rules) agree that the cost of the base rate of financing that they provide must be based on the medium-term bond yields of the vehicle currency's government (OECD 2016). This business model requires management to plan sufficient FTA liquidity in the vehicle currency so as to ensure the timely receipt of interest revenue to fund their debt obligations and thus ensure that foreign currency risk exposure is neutralized.

Foreign Currency Accounting History

The Bretton Woods Conference laid the foundation for the post-war international monetary system: the core of the monetary system would revolve around the pegged value of the U.S. dollar to gold (Bordo 1993a). With this corner stone in place, the remaining countries fixed their currencies to the U.S. dollar (Bordo 1993a). The interconnected organization of fixed foreign currency exchange rates reduced foreign exchange valuation risk which allowed international trade to grow (Mitchener and Weidenier 2015). This exchange rate regime remained in place until the United States of America changed its monetary policy by withdrawing the option for eligible currency holders to convert their U.S. dollar assets into gold and allowing market forces to determine the value of the dollar (Bordo 1993b). Consequently, an international floating exchange rate system was born in 1973 and, with certain exceptions, is still in use today (Edwards and Santella 1993).

The systematic shift from fixed to flexible exchange rates directly impacted firms with foreign currency operations because it increased their foreign currency exchange risk (Bartov et al. 1996). FASB recognized that foreign currency risk could influence a user's economic choice and determined that this risk needed to be reflected in the financial statements. *SFAS No. 8 Accounting for the Translation of Foreign Currency Transactions and Foreign Currency Financial Statements (SFAS No. 8)* was issued by FASB in 1975 and it adopted the position that all foreign currency transactions needed to be translated

into a single unit of account and be presented in the financial statements in U.S. dollars (FASB 1975).

The board conceded, as noted in their Basis for Conclusions, that the SFAS No. 8 requirement - to convert all foreign currency monetary units into U.S. dollars, might confuse users because the foreign currency translation process could report translation losses when in fact no economic loss had occurred (FASB 1975). The issue arose with the issuance and repayment of liabilities in a foreign currency. From an economic perspective, the entire debt issuance/repayment and revenue generation process occurs in a single foreign currency. Therefore, no foreign exchange gain/loss should be reported on the financial statements because no foreign exchange transaction has occurred. However, from an accounting perspective, the aforementioned series of transactions may crystalize foreign exchange losses when these transactions are translated into U.S. dollars using fluctuating exchange rates (FASB 1975). This disconnect between the economic reality and financial reporting of transactions caused financial statement users to be highly critical of SFAS No. 8 (Revsine 1984).

To address the needs of users, FASB withdrew its original guidance and issued *SFAS No. 52 Foreign Currency Translation* (SFAS No. 52). In order to present the firm's economic reality in a clearer manner, FASB eliminated the SFAS No. 8 requirement to convert all transactions into U.S. dollars; SFAS No. 52 mandates that firms analyze the economic substance of transactions to determine their functional currency - the "primary currency in which each entity conducts its business" (FASB 1981). This becomes the unit of measure used for financial statement reporting purposes (FASB 1981). It is worth noting that SFAS No. 52 only mitigated the gap between financial reporting and economic reality since firms could make transactions in multiple non-functional currencies and these still needed to be translated into the functional currency.

FASB's desire to reduce accounting income volatility influenced the intellectual underpinnings of *IAS 21: The Effects of Changes in Foreign Exchange Rates* (IAS 21) (Detzen 2016). In particular, the revised standard, which has been in effect since 2005, adopts and utilizes FASB's definition of functional currency.

IAS 21 and SFAS No. 52 are closely aligned, yet two fundamental differences remain between the two standards in terms of functional currency determination and presentation currency guidance. Firstly, IAS 21 creates a hierarchy of economic factors that management needs to consider when determining a firm's functional currency, whereas SFAS No. 52 provides a non-weighted list of economic factors even though the IASB adopts the view that the functional currency should reflect the currency in which the firm "primarily generates and expends cash" (IASB 2004). Secondly, while SFAS No. 52 requires that the functional currency be used for financial statement presentation purposes, IAS 21 separates the presentation currency concept (currency used for financial reporting purposes) from the functional currency concept and thus grants management the discretion to utilize any currency for presentation purposes so long as they disclose their rationale for doing so in the notes to the financial statements.

Functional Currency Accounting Choice

The single currency financial statement model requires management to analyze its operations to determine the economic environment in which it operates in order to ensure that the financial statements best reflect economic reality (IASB 2004). However, many firms make transactions in multiple currencies for various operational reasons. The functional currency guidance contained in SFAS No. 52 is criticized for being so ambiguous that management can select virtually any functional currency and still comply with the standard (Bartov and Bodnar 1996). Gray (1984) and Rutledge (1995) find that management strategically takes advantage of this flexibility in order to increase their firm's net income.

IAS 21 limits management discretion related to the determination of a functional currency by creating a hierarchy of factors, with the most important being the primary economic environment — the country in which cash flows are generated and disbursed (IASB 2004). Reducing management discretion with regards to functional currency choice has a positive economic impact: when the functional currency is appropriately aligned with the presentation currency, the foreign currency translation line item becomes value relevant (Bartov 1997). Furthermore, this causes higher levels of liquidity (Bartov and Bodnar

1996) and more efficient pricing of foreign currency disclosures (Bartov and Bodnar 1995).

Auditor Quality

DeFond and Zhang's (2014) literature review finds that audit quality is primarily driven by auditor competencies and their desire to minimize litigation and reputation risks (DeAngelo 1981; Wilson and Grimlund 1990). Big-N and audit specialist researchers argue that these two groups provide a higher level of audit quality compared with their peer groups because they are able to recruit higher quality auditors, dedicate more resources to staff training and methodology, and enable auditors to specialize in a particular industry (Dopuch and Simunic 1982; Krishnan; 2003; DeFond et al. 2014). This logic is supported empirically through tests of earnings management (Francis et al. 1999) and accounting fraud (Lennox and Pittman 2010). Moreover, audit specialists are associated with more accurate forecasts and larger earnings response coefficients (Balsam et al. 2003; Behn et al. 2008). Direct audit quality measures indicate that firms audited by specialists also have better financial statement disclosures and issue more going-concern opinions (Dunn and Mayhew 2004; Lim and Tan 2007). Moreover, audit clients note that differences in audit quality exist and thus pay a fee premium for a specialist (Ferguson and Stokes 2002).

Clarkson and Simunic (1994) indicate that the results of the Big-N audit literature should be interpreted with caution because researchers use a binary variable to measure audit quality; this inherently assumes that, within the Big-N audit firm group, there is no variance in the supply of audit quality. Their underlying measurement concern is also applicable to research that bifurcates specialists from non-specialists using a binary variable. Furthermore, DeFond and Zhang (2014) note that the audit specialization literature relies strongly on the assumption that specialized auditing knowledge is in fact "transferable across clients, personnel and over time."

I believe that knowledge transference is conditional on the auditors understanding their clients' economic environment. Libby (1985) finds that experienced auditors use their knowledge of the frequency of past errors to conduct their analytical procedures, a result

consistent with the representativeness heuristic (Tversky and Khaneman 1974; Bar-Hillel 1980). Libby (1985) argues that this heuristic improves audit quality, whereas I posit that this decision-making process may negatively impact audit quality in certain situations, specifically, in settings where auditors are frequently exposed to an audit issue with one client and apply their experience to a similar audit issue at another client without developing a sufficient understanding of the underlying audit issue.

Hypothesis Development

In this paper, I examine whether a local audit office provides a uniform level of audit quality to all of their clients. DeFond and Zhang (2014) note that the auditing literature assumes that the transfer of knowledge allows specialists and Big-N auditors to provide a higher uniform level of audit quality compared with non-specialists and non-Big-N firms. However, Francis et al. (2013) document that auditor knowledge transfer can also have negative consequences: the existence of one financial restatement is associated with low audit quality across their remaining clients.

I hypothesize that audit office knowledge transfer is conditional on auditors understanding their clients' economic environments. Thus, if auditors sufficiently understand each of their clients, they will be able to appropriately apply their past audit knowledge and firm methodology to future engagements. However, in experimental auditing studies, Joyce and Biddle (1981) and Libby (1985) find that auditors do not incorporate all relevant financial information, but make auditing judgments based on the similarity and frequency with which they have experienced similar auditing issues.

In order to examine auditor understanding, I study local Big-N audit offices located in Europe's financial capitals. As these are also considered to be among the world's largest and most sophisticated financial centers their selection controls for variances in the auditors' financial industry knowledge. Furthermore, I focus on this audit group because the literature notes that Big-N audit firms have a reputation for providing the highest level of assurance due to their advanced audit methodology and economic incentives (DeAngelo 1981; DeFond and Zhang 2014).

I specifically examine whether these auditors develop an understanding of an FTA's unique economic environment. As discussed above, the FTA's technical operations are similar to those of non-governmental commercial banks; however, these two financial institutions differ in that, whereas as non-governmental commercial banks operate in the domestic currency, FTAs operate in the vehicle currency's economic environment in order to support international trade. Furthermore, these FTA auditors in the sample have more frequent exposure to non-governmental commercial banks given that the European capital markets are primarily composed of private sector financial institutions (The Banker 2014).

Therefore, I expect that auditors will transfer their knowledge that they gained from non-governmental commercial bank audits to their FTA clients and so not develop a sufficient understanding of their clients' economic environment. I can observe this lack of understanding in situations where the FTA's functional currency does not reflect the economic environment of the vehicle currency.

H1: Big-N auditors do not develop a sufficient understanding of the FTA's primary economic environment.

My second test examines whether British-influenced state auditors in Westminster democracies understand the economic environment of FTAs. The role of the state audit office is to audit the executive branch of government, allowing parliamentarians to hold the executive branch accountable (Funnell 1994). They are granted the authority to audit the entire scope of government operations, from mainline departments to government business enterprises (Australia 1997; Canada 2011). Using the market share definition, I consider them to be government audit specialists because of their virtual government audit market monopoly which accounts for 29 percent of the Australian economic output and 18 percent of the Canadian economic output (Australia 2015; Canada 2015; World Bank 2015).

Government auditors are mostly exposed to entities that stress rules and regulations therefore variations in output are minimized (Osborne 1993). Governments primarily collect revenue and redistribute expenditures in the domestic currency; however,

occasionally, some programs require governments to deal in an international environment. Therefore, given that government audit specialists develop their expertise auditing government enterprises that utilize standardized procedures and operate in the domestic market, I hypothesize that, when auditing FTAs, these auditors will assume that these characteristics are the same instead of developing the depth of understanding of their clients economic environment that would allow them to determine whether the client has appropriately determined functional currency.

H2: Government audit specialists do not develop a sufficient understanding of the FTA's primary economic environment.

2.3 Research Methodology

Sample Selection

As discussed above, I want to test whether auditors develop a sufficient understanding of the economic environment of the FTAs that they audit. To test this, I create a homogenous group of auditors in order to control for audit quality variations that arise because of differences in regulatory environment, location, and firm size: I examine the level of understanding in Big-N audit offices in Europe's world-leading financial centers. These cities attract a deep pool of talented professionals (Behrens et al. 2014): consequently, only the most competent auditors at the highest quality audit firms are being examined. Furthermore, given the relative economic importance of the financial services sector in these cities, these auditors have a strong financial motivation to conduct high quality financial sector audits in order to maintain their reputation and retain and gain more clients.

I construct my sample by obtaining a list of FTAs from the Organisation for Economic Co-operation and Development (OECD) from which I identify twenty-seven European FTAs and hand collect twenty-two English-language annual reports. From the annual reports, I specifically note the auditor's name and location. From this list, I identify ten FTAs that apply IFRS and are audited by Big-N European audit offices located in alpha cities (as ranked by the Globalization and World Cities Research Network). I then develop

an understanding of the primary business operations of each of the FTAs and categorize them as either primarily engaged in "pure cover" operations (insurance and guarantee) or primarily engaged in direct financing operations similar to those of non-governmental commercial banks (Moravcsik 1989).

Using the *Bankscope* database, I download a list of commercial banks that are audited by the same audit office in order to create my control group. I then combine my sample of FTAs with my control group in order to utilize a within-subject research design to determine whether auditors develop an equivalent understanding of the economic environments of their commercial banking clients and their FTA clients.

The sample window extends from 2006 (the first year that all IFRS reporting firms were required to utilize the foreign translation guidance found in the revised version of IAS 21) to 2015 (the most recent publicly available audited financial statements).

For the two audit quality proxy models (described in the Significant Variables section below) used to test the first hypothesis, I obtain 163 firm-year samples in model one and 164 firm-year samples in model two. This data is used to perform an OLS and a Probit regression.

I test hypothesis two by examining government auditor understanding in Anglo-American countries. From the OECD list of FTAs, I identify five Anglo-influenced countries: Australia, Canada, New Zealand, UK and the USA. All of these countries' state audit offices, except the American audit office, were modeled after the British system (Funnell 1994). I then download the financial statements of each of the FTAs and manually identify the auditor. I exclude the FTAs from New Zealand and the USA from the analysis because they are not audited by the state auditor. I then obtain a listing of all government departments and agencies for Australia, Canada and the UK and identify all of the governmental financial agencies/institutions to form a control group. To test hypothesis two, I obtain 81 firm-year samples for empirical model one and 56 firm-year samples for empirical model two. Furthermore, in accordance with the methodology of Neal and Riley (2004), I classify these auditors as specialists because they hold at least 10 percent of the government sector audit market.

Significant Variables

Economic Environment

According to IAS 21, management needs to determine its functional currency based on the primary currency that their firm generates and the currency in which it expends cash. Since assets and liabilities represent future cash inflows and outflows from the financial statements, I obtain the currency exposure through the following calculations:

Model 1: Difference in Assets Model

$$DIFF\_ASSET = \frac{FUNCTIONAL\ CURRENCY}{TOTAL\ ASSETS} - \frac{LARGEST\ FOREIGN\ CURRENCY}{TOTAL\ ASSET}$$

Model 2: Difference in Liabilities Model

$$DIFF\_LIAB = \frac{FUNCTIONAL\ CURRENCY}{TOTAL\ LIABILITY} - \frac{LARGEST\ FOREIGN\ CURRENCY}{TOTAL\ LIABILITY}$$

If the functional currency is appropriately determined in the financial statements, a positive difference is expected as there is more economic exposure in the primary currency. Conversely, if the result is negative, the entity has more economic exposure to the largest foreign currency's economic environment. This reduces financial statement quality because the financial statements are more reflective of the foreign currency's environment.

In order to conduct the Probit analysis, I use the results from Model one and Model two and code the dependent variable as one when DIFF_ASSET is negative in model one and

DIFF_LIAB is negative in model two. Both are coded as being zero when the amounts are positive.

Auditor Understanding

In the first hypothesis, I use a dichotomous variable (UNDERSTAND1) to measure the auditors' understanding of the economic environments of FTAs and the control group. The variable equals one when the audit client is a public sector FTA and zero if the client is a commercial bank. For the second hypothesis, where I examine the understanding of government auditors, I use a dichotomous variable (UNDERSTAND2) that is set to one when the client is a public sector FTA and zero when the client is a public sector financial institution.

Empirical Model

To empirically examine auditor understanding of their clients' economic environment, the following two regression specifications are used.

Model 1 – The clients' economic environment is the dependent variable and, in the OLS model, it is measured using the difference between the most used foreign currency asset and the functional currency asset. In the Probit model, the dependent variable is coded one when the foreign currency asset is greater than the functional currency asset.

$$DIFF\_ASSET_{i,t} = \alpha + \beta 1 * UNDERSTAND_{i,t} + \sum \varphi * Controls_{i,t} + \varepsilon_{i,t} \quad (1)$$

Model 2 – The clients' economic environment is the dependent variable and, in the OLS regression, it is measured using the difference between the most used foreign currency liability and the functional currency liability. In the Probit model, the dependent variable is coded as one when the foreign currency liability is greater than the functional currency liability.

$$DIFF\_LIAB_{i,t} = \alpha + \beta 1 * UNDERSTAND_{i,t} + \sum \varphi * Controls_{i,t} + \varepsilon_{i,t} \quad (2)$$

Given that I am examining whether auditors develop a sufficient understanding of their clients' economic environment, I empirically examine β1. If β1 is significant and negative, this result provides statistical evidence that the auditors did not sufficiently understand the underlying differences between the economic environment of FTAs and their regular audit clients because the economic environment of the largest foreign currency is greater than the selected functional currency. To control for other correlated variables related to audit quality, I utilize the following variables: SIZE, ROA, LEV, and EFF. My model also includes year-fixed effects which control for correlated omitted variables. I measure Size in year t using the natural logarithm of the firm's total assets. ROA (return on assets), a measure of bank profitability (Lin and Zhang 2009), is calculated by dividing the net income by total assets. LEV (Leverage) is the ratio of debt to equity and EFF (bank efficiency) is measured by dividing interest and non-interest income by total assets (Nathan and Neave 1989; Chiou et al. 2014).

2.4 Results

In Table 2-1, I present the descriptive statistics of the Big-N auditor group for the entire sample, including Direct Financing and Insurance FTAs and their related control samples. Table 2-2 includes only Direct Financing FTAs and associated control samples. In both Table 2-1 and Table 2-2, I find, consistent with IAS 21 and using both the asset specification (Column 1) and liability specification (Column 2), that the mean difference is positive, indicating that percentage of assets/liabilities denominated in the functional currency is greater than the assets/liabilities denominated in the largest foreign currency. More specifically, column 1 in Table 2-1 demonstrates that the total sample population has 46% more economic exposure to the determined functional currency than the most held foreign currency. However, when I bifurcate the control group (column 3 for the asset specification and column 4 for the liability specification in both Table 2-1 and Table 2-2), and the FTA group (column 5 for the asset specification and column 6 for the liability specification in both Table 2-1 and Table 2-2), the mean result is positive for the control

group and negative for the FTA group. Moreover, in Table 2-2, in which only Direct Financing FTAs are analyzed, I find that, for these entities, foreign currency exposure compared to functional currency exposure increases to 34 percent for my asset analysis (Column 5) and climbs to 45 percent when liability analysis is used (Column 6). This indicates that the firms in this group are mostly generating and expending cash in the largest foreign currency, a result inconsistent with IAS 21.

In Table 2-3, I present the descriptive statistics of the significant variables used for hypothesis two (in which I examine whether government auditors develop a sufficient understanding of the economic environment of FTAs). When using the asset specification (column 1), I find that the entire population has 45% more exposure to the functional currency's economic environment than the vehicle currency's economic environment and, using the liability model (column 2), I find a 49% greater exposure. However, when I focus only on the FTA group (column 5 and column 6), I find that the mean economic exposure to the foreign currency exceeds the economic exposure to the disclosed functional currency by 29% for both the asset and liability models. This result is inconsistent with the guidance provided in IAS 21 since the largest foreign currency is primarily being used in both the cash receipts and the disbursements cycle. Instead, this result suggests, in accordance with my hypothesis, that auditors do not develop a sufficient understanding of the FTA's economic environment.

In Table 2-4 (difference in asset model) and Table 2-5 (difference in liability model), I present the Pearson correlation matrix for the Big-N audit sample population. I find a negative correlation between Big-N auditor understanding and their FTA clients' economic environment. In Table 2-6 and Table 2-7, I present the Pearson correlation matrix for the government auditor group and, as with the Big-N audit group, I find a negative correlation between government auditor understanding and the FTA's economic environment. The correlations in these tables are consistent with the results noted in the descriptive statistics table. None of the control variables are significantly correlated.

Table 2-8 presents the results of the multivariate regression an examination of the relationship between DIFF_ASSET and DIFF_LIAB and Big-N auditor understanding. I

find that the OLS (Column 1, 2, 3 and 4) and Probit model (Column 5 and 6) specifications are significant and highly powerful. The explanatory power in column three and four increases relative to column one and two because the noise caused by FTAs that primarily engage in Cover Operations is removed and the model now consists of only FTAs that primarily engage in Direct Lending transactions. In columns 1 through 4, the Beta coefficient for UNDERSTAND1 is significant and negative at the one percent level of significance. This empirical finding indicates that the FTAs will have more cash outflows and inflows in their largest foreign currency than in their disclosed functional currency. The Beta coefficients becomes stronger in column 3 and 4, where only FTAs that primarily engage in Direct Lending operations remain. These institutions have operations that most closely resemble commercial banks, indicating that Big-N auditors rely on decision heuristics, in this case the similarity between FTA operations and commercial banks (the source of their baseline auditing knowledge). In the Probit models found in columns 5 and 6, the UNDERSTAND1 variable is dropped because of singularity issues thus resulting in one less explanatory variable. Consequently, I note a significant negative relationship between SIZE and the economic environment. It follows that FTAs, which are smaller in size than commercial banks, have a greater probability of having a foreign currency in the audited financial statements that is greater than their selected functional currency. I can interpret this by referring to Table 2-1, where the mean size of the control group (using the asset specification) is the natural log of the total assets (11.335 from column 3), while the mean size of the FTA group is the natural log of the total assets (8.045 from column 5).

In Table 2-9, I examine the government auditor understanding of their clients' economic environment using an OLS model in columns 1 and 2 and using a Probit model in column 3 and 4. The dependent variable in columns 1 and 3 uses the DIFF_ASSET specification, while columns 2 and 4 use the DIFF_LIAB specification. All of the models are significant. The UNDERSTAND2 variable has a Beta coefficient of -1.132 in the difference in asset model and -1.302 in the difference in liability model. Under both specifications, the variables are statistically significant at the one percent level of significance. This suggests that the primary economic environment in which FTAs operate is the economic environment of the largest foreign currency and thus signals that auditors do not appear

to have developed a sufficient understanding of the FTAs economic environment. Using a Probit model, the UNDERSTAND2 variable is dropped due to singularity issues, but the model remains significant with a high pseudo *R-Square*. I find that that the audited financial statements of FTAs, which are smaller in size (Table 2-3 Column 5: natural log of total assets equals 8.547) than other public sector financial institutions (Table 2-3 Column 3: natural log of total assets equals 9.491), have a greater probability of being associated with the largest foreign currency than the largest functional currency. Taken as a whole, the results of my OLS and Probit regressions support my second hypothesis: government auditors do not appear to understand the FTA's economic environment.

ROBUSTNESS TEST

In Table 2-10, I provide additional evidence that the financial statements of FTAs reflect the economic reality of the vehicle currency instead of the reality of the disclosed functional currency. I do this by examining the relationship between medium-term bond yields, the minimum financing rate that OECD registered FTAs are required to charge their clients (OECD 2016), and the FTA's financial characteristics. I find that there is no significant relationship between the FTA's financial characteristics and the bond yield denominated in the functional currency (F = 1.356), a result consistent with my assumption that the disclosed functional currency does not represent the primary economic environment of the FTA. However, when the bond-yields of the largest functional currency are used as the dependent variable, I do find a significant association (F = 16.197) between the vehicle currency and the FTA's financial characteristics. This provides additional evidence FTA operations are most closely associated with the vehicle currency (the currency most consistent with the actual economic operations of FTAs).

2.5 Conclusion

DeFond and Zhang (2014), in their archival auditing literature review, find that researchers have primarily investigated differences in audit quality between groups of auditors with differing characteristics, such as size, expertise and location. They encourage a move away from this type of research and suggest a focus on the relationship between the auditors' competencies and audit quality. DeFond and Zhang (2014) also note

that such a research design is challenging, because the audit process occurs within a "black box." I build on their work by using two distinct settings to investigate whether the audit industry specialists' level of understanding of their clients' economic environment affects the level of audit quality.

IAS 21 requires management to determine their firm's functional currency based on the facts of their economic environment; this subsequently needs to be verified by the auditors during the audit process. The appropriate determination of the functional currency influences the entire financial statements: in my sample population, the functional currency is always used as the financial statements presentation currency. The results of the tests of my first and second hypothesis show that Big-N auditors and government audit specialists do not gain a sufficient understanding of the FTA's economic environment because the primary economic environment in which they operate using the vehicle currency is not reflected in the identified functional currency. This result is consistent with auditors relying on the representativeness heuristic when determining whether management appropriately identifies the functional currency: auditors do not appear to detect this auditing issue because of the similarities between FTAs and their commercial banking clients and the infrequent exposure to firms that primarily operate in their vehicle currency's economic environment. With the identification of this decision-making bias, a systematic auditor-understanding issue is detected.

The findings in this paper contribute to the auditing literature by using archival hand-collected data to examine decisions within the auditing process that lead to differences in audit quality. Specifically, I find that the auditors' reliance on representativeness heuristics influences their level of understanding of their clients' economic environment which then impacts the supply of audit quality. I link the behavioral and archival auditing research fields: experimental research has suggested that auditors rely on a representativeness heuristic decision-making process and, in this paper, I provide external validity to their findings. Past literature has used direct and indirect audit quality proxies; however, none of these measures were able to test whether auditors had an understanding of their client's primary economic environment. I develop a new proxy for audit quality by applying *IAS 21*, which states that management needs to determine functional currency

based on economic environment. I verify whether auditors can detect and correct management's incorrect functional currency determination. Auditors can only verify management's determination if they develop a sufficient understanding of the entity's primary economic environment. Finally, I suggest that the assumption in the audit specialist literature that audit knowledge is transferable is conditional on auditor understanding.

Table 2-1: Descriptive Statistics Big-N Audit Sample Population including Direct Financing and Insurance FTAs Mean						
	1	**2**	**3**	**4**	**5**	**6**
DIFF_ASSET	.458		.558		-.003	
DIFF_LIAB		.334		.564		-.237
SIZE	10.766	10.552	11.355	11.190	8.045	8.961
ROA	.009	.010	.006	.006	.024	.019
LEV	5.776	8.337	5.416	3.827	7.435	19.561
EFF	.799	.791	.947	1.082	.115	.067
N	163	164	134	117	29	47

Column 1 and 2 includes the entire population of the control group and Direct Financing and Insurance FTAs

Column 3 and 4 includes the results for the control group

Column 5 and 6 includes the results for the and Direct Financing and Insurance FTAs

Table 2-2: Descriptive Statistics Big-N Audit Sample Population including Direct Financing FTAs Mean						
	1	**2**	**3**	**4**	**5**	**6**
DIFF_ASSET	.385		.534		-.343	
DIFF_LIAB		.280		.550		-.450
SIZE	10.817	10.623	11.394	11.180	7.988	9.118
ROA	.008	.007	.007	.007	.014	.007
LEV	11.882	15.561	12.326	11.476	9.708	26.615
EFF	1.029	1.006	1.228	1.372	.049	.013
N	124	126	103	92	21	34

Column 1 and 2 includes the entire population of the control group and Direct Financing FTAs

Column 3 and 4 includes the results for the control group

Column 5 and 6 includes the results for the Direct Financing FTAs

Table 2-3: Descriptive Statistics Government Audit Sample Mean						
	1	**2**	**3**	**4**	**5**	**6**
DIFF_ASSET	.453		.665		-.291	
DIFF_LIAB		.488		.857		-.292
SIZE	9.281	9.228	9.491	9.550	8.547	8.547
ROA	.015	-.018	.010	-.042	.032	.032
LEV	2.872	4.112	2.110	3.437	5.536	5.536
EFF	.137	.157	.164	.211	.045	.045
N	81	56	63	38	18	18

Column 1 and 2 includes the entire population of the control group and FTAs.

Column 3 and 4 includes the results for the control group.

Column 5 and 6 includes the results for the FTAs.

Table 2-4: Pearson Correlation Matrix Big-N Audit Sample Difference in Asset Model						
	DIFF_ASSET	***UNDERSTAND1***	***SIZE***	***ROA***	***LEV***	***EFF***
DIFF_ASSET	1.000					
UNDERSTAND1	-.738	1.000				
SIZE	.176	-.442	1.000			
ROA	.160	.112	-.470	1.000		
LEV	-.024	.015	-.011	.118	1.000	
EFF	-.015	-.054	-.163	.122	-.002	1.000

Table 2-5: Pearson Correlation Matrix Big-N Audit Sample Difference in Liability Model						
	DIFF_LIAB	***UNDERSTAND2***	***SIZE***	***ROA***	***LEV***	***EFF***
DIFF_LIAB	1.000					
UNDERSTAND2	-.810	1.000				
SIZE	.225	-.334	1.000			
ROA	-.066	-.080	-.438	1.000		
LEV	-.060	.090	-.029	.092	1.000	
EFF	-.008	-.075	-.164	.104	-.006	1.000

Table 2-6: Pearson Correlation Matrix Government Audit Sample Difference in Asset Model						
	DIFF_ASSET	***UNDERSTAND1***	***SIZE***	***ROA***	***LEV***	***EFF***
DIFF_ASSET	1.000					
UNDERSTAND1	-.778	1.000				
SIZE	-.056	-.171	1.000			
ROA	-.170	.040	.587	1.000		
LEV	-.034	.306	.286	.058	1.000	
EFF	.340	-.206	-.140	-.044	-.273	1.000

Table 2-7: Pearson Correlation Matrix Government Audit Sample Difference in Liability Model						
	DIFF_LIAB	***UNDERSTAND2***	***SIZE***	***ROA***	***LEV***	***EFF***
DIFF_LIAB	1.000					
UNDERSTAND2	-.896	1.000				
SIZE	.004	-.191	1.000			
ROA	-.159	.131	.670	1.000		
LEV	-.076	.191	.369	.164	1.000	
EFF	.352	-.272	-.158	-.024	-.356	1.000

Table 2-8: Multivariate Regression – Big-N Audit Sample

Regression of Big-N auditor understanding on their client's economic environment. Columns 1, 2, 5 and 6 include the entire population of the control group and Direct Financing and Insurance FTAs. While columns 3 and 4 include Direct Financing FTAs and controls group. The dependent variable for the OLS regressions in columns 1 and 3 is *DIFF_ASSET* and, for columns 2 and 4, it is *DIFF_LIAB.* For the Probit analysis in column 5, the variable is coded with a 1 when the largest foreign currency asset is greater than the assets denominated in the functional currency. In column 6, the variable is coded with a 1 when the largest foreign currency liability is greater than the liabilities denominated in the functional currency.

	1	2	3	4	5	6
UNDERSTAND1	-.791***	-.938***	-.999***	-1.119***		
	(.000)	(.000)	(.000)	(.000)		
SIZE	.001	-.026	-.015	-.042***	-.568***	-.459***
	(.971)	(.117)	(.214)	(.004)	(.000)	(.000)
ROA	12.525***	5.031**	6.459***	-4.104	-4.124	17.470*
	(.000)	(.018)	(.003)	(.193)	(.868)	(.086)
LEV	.000	.000	.000	.000	.014	.023***
	(.675)	(.958)	(.756)	(.985)	(.338)	(.003)
EFF	-.009	-.011	-.008	-.008	-24.137	-16.223*
	(.745)	(.809)	(.770)	(.846)	(.190)	(.068)
CONSTANT	.521	.843***	.731***	1.083***		
	(.003)***	(.000)	(.000)	(.000)		
YEAR FIXED EFFECTS	YES	YES	YES	YES		
F or Chi Square Statistic	7.485	17.280	15.426	39.196	48.556	60.190
P	.000	.000	.000	.000	.000	.000
Adjusted R-square or Pseudo R Square	.426	.563	.555	.720	.464	.344
N	163	164	155	151	163	164
Mean VIF	1.373	1.349	1.364	1.374	1.373	1.349

p-values in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2-9: Multivariate Regression – Government Audit Sample

Regression of government auditor understanding of their client's economic environment. The dependent variable for the OLS regressions in column 1 is *DIFF_ASSET* and, for column 2, it is *DIFF_LIAB*. For the Probit analysis in column 3, the variable is coded with a 1 when the largest foreign currency asset is greater than the assets denominated in the functional currency. In column 4, the variable is coded with a 1 when the largest foreign currency liability is greater than the liabilities denominated in the functional currency.

	1	2	3	4
UNDERSTAND2	-1.132***	-1.302***		
	(.000)	(.000)		
SIZE	-.075***	-.100***	-.339**	-.522***
	(.001)	(.001)	(.012)	(.002)
ROA	.125	.459	42.468*	124.057***
	(.948)	(.445)	(.095)	(.006)
LEV	.045***	.033***	.102**	.103**
	(.001)	(.000)	(.020)	(.046)
EFF	.493	.273	-60.423**	-127.691***
	(.083)*	(.046)**	(.021)	(.003)
CONSTANT	1.509	1.971	-2.967**	-5.389***
	(.916)	(.668)	(.021)	(.002)
YEAR FIXED EFFECTS	YES	YES		
F or Chi Square Statistic	24.734	37.438	30.268	31.960
p	.000	.000	.000	.000
Adjusted R-square or Pseudo R Square	.750	.889	.406	.507
N	81	56	81	56
Mean VIF	1.426	1.603	1.426	1.603

p-values in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2-10: Multivariate Regression – Value Relevance

Regression of FTA banking characteristics on medium-term bond yields. The dependent variable in column 1 is the bond yields on debt denominated in the functional currency. The dependent variable in column 2 is the bond yields on debt denominated in the largest foreign currency.

	1	2
SIZE	-.592**	-.098*
	(.043)	(.057)
ROA	-3.601	-3.408
	(.858)	(.337)
LEV	-.016	.000
	(.441)	(.962)
EFF	-8.943	-3.040*
	(.320)	(.058)
CONSTANT	10.816***	5.977***
	(.002)	(.000)
YEAR FIXED EFFECTS	YES	YES
F	1.356	16.197
p	.218	.000
Adjusted R-square	.073	.770
N	60	60
Mean VIF	3.304	3.304

p-values in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

References

Commonwealth of Australia (Australia). 1997. The Auditor General Act 1997. Canberra, Australia: Office of Parliamentary Counsel.

Commonwealth of Australia (Australia). 2015. Consolidated Financial Statements for the year ended 30 June 2015. Canprint Communications Pty Ltd.

Balsam, S., Krishnan, J., & Yang, J. S. (2003). Auditor industry specialization and earnings quality. *Auditing: A Journal of Practice & Theory*, 22(2), 71-97.

Bamber, E. M., & Bamber, L. S. (2009). Discussion of" Mandatory Audit Partner Rotation, Audit Quality, and Market Perception: Evidence from Taiwan". *Contemporary Accounting Research*, 26(2), 393-402.

Bar-Hillel, M. 1980. The base-rate fallacy in probability judgments. *Acta Psychologica*, 44(3): 211-233.

Bartov, E., G. Bodnar. 1995. Foreign Currency Translation Reporting and the Exchange-Rate Exposure Effect. *Journal of International Financial Management & Accounting*, 6 (2): 93–114.

Bartov, E., G. Bodnar. 1996. Alternative Accounting Methods, Information Asymmetry and Liquidity: Theory and Evidence. *The Accounting Review*, 71(30): 397-418.

Bartov, E., G. Bodnar, A. Kaul. 1996. Exchange rate variability and the riskiness of U.S. multinational firms: Evidence from the breakdown. *Journal of Financial Economics*, 42(1): 105-132.

Bartov, E. 1997. Foreign currency exposure of multinational firms: Accounting measures and market valuation. *Contemporary Accounting Research*, 14(4): 623–652.

The Banker (2014). The Banker: Top 1000 World Banks: How we did it - The Top 1000: how we did it. Accessed on February 14, 2015.

Becker, W., W. McClenahan Jr. 2003. The Market, the State, and the Export Import Bank of the United States, 1934-2000. New York: Cambridge University Press.

Behn, B. K., Choi, J. H., & Kang, T. (2008). Audit quality and properties of analyst earnings forecasts. *The Accounting Review*, 83(2), 327-349.

Behrens, K., Duranton, G., & Robert-Nicoud, F. (2014). Productive cities: Sorting, selection, and agglomeration. *Journal of Political Economy*, 122(3), 507-553.

Bordo, M. 1993a. The Bretton Woods International Monetary System: A Historical Overview. University of Chicago Press.

Bordo, M. 1993b. The Gold Standard, Bretton Woods and Other Monetary Regimes: An Historical Appraisal. National Bureau of Economic Research.

Black, S. 1991. Transaction Costs and Vehicle Currencies. *Journal of International Money and Finance*, 10(4) 512-527.

Government of Canada (Canada). 2011. Auditor General Act 2011. Ottawa: Minister of Justice.

Government of Canada (Canada). 2015. Consolidated Financial Statements of the Government of Canada and Report of the Auditor General of Canada. Ottawa: Receiver General for Canada.

Chaney, P., K. Philipich. 2002. Shredded reputation: The cost of audit failure. *Journal of Accounting Research*, 40(4): 1221-1245.

Chauffour, J.P., Farole, T., 2009. Trade finance in crisis: market adjustment or market failure? World Bank Policy Research Working Paper No. 5003.

Chauffour, J.-P., Saborowski, C., and Soylemezoglu, A. 2010. Trade Finance in Crisis: Should Developing Countries Establish Export Credit Agencies? World Bank Policy Research Working Paper 5166.

Chiou, W. J. P., Porter, R. L., & Sopranzetti, B. J. (2014). Understanding the Channels of Bank Value Creation During Times of Crisis: Deconstructing ROA. *Journal of Accounting and Finance*, 14(5), 11.

Clarkson, P. M., & Simunic, D. A. (1994). The association between audit quality, retained ownership, and firm-specific risk in US vs. Canadian IPO markets. *Journal of Accounting and Economics*, 17(1-2), 207-228.

Craswell, A. T., Francis, J. R., & Taylor, S. L. (1995). Auditor brand name reputations and industry specializations. *Journal of Accounting and Economics*, 20(3), 297-322.

DeAngelo, L. (1981). Auditor size and audit quality. *Journal of Accounting and Economics* 3(3): 183 - 199.

DeFond, M., D.H. Erkens, and J. Zhang. 2014. Do Client Characteristics Really Drive the Big N Effect? University of Southern California, Working Paper.

DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2), 275-326.

Detzen, D. (2016). From compromise to concept? A review of 'other comprehensive income'. *Accounting and Business Research*, 46(7), 760-783.

Dollar, D., & Kraay, A. (2002). Spreading the wealth. *Foreign Affairs*, 120-133.

Dopuch, N., Simunic, D., 1982. Competition in Auditing: An Assessment. In Fourth Symposium on Auditing Research. Urbana: University of Illinois, 401-450.

Dunn, K. A., & Mayhew, B. W. (2004). Audit firm industry specialization and client disclosure quality. *Review of Accounting Studies*, 9(1), 35-58.

Edwards, S., Santaella, J.A., 1993. Devaluation controversies in the developing countries: lessons from the Bretton Woods Era. In: Bordo, M.D., Eichengreen, B. A Retrospective on the Bretton Woods System. University of Chicago Press.

Ferguson, A., & Stokes, D. (2002). Brand Name Audit Pricing, Industry Specialization, and Leadership Premiums post-Big 8 and Big 6 Mergers. *Contemporary Accounting Research*, 19(1), 77-110.

Financial Accounting Standards Board (FASB). 1975. Accounting for the Translation of Foreign Currency Transactions and Foreign Currency Financial Statements. Statement of Financial Accounting Standard No. 8. Stamford, CT.

Financial Accounting Standards Board (FASB). 1981. Foreign Currency Translation. Statement of Financial Accounting Standard No. 52. Stamford, CT.

Francis, J., E. Maydew, H. Sparks. 1999. The role of Big 6 auditors in the credible reporting of accruals. *Auditing: A Journal of Practice & Theory*, 18(2): 17-34.

Francis, J. R., & Michas, P. N. (2013). The contagion effect of low-quality audits. *The Accounting Review*, 88(2), 521-552.

Francis, J. R., Michas, P. N., & Yu, M. D. (2013). Office size of Big 4 auditors and client restatements. *Contemporary Accounting Research*, 30(4), 1626-1661.

Francis, J. R., & Yu, M. D. (2009). Big 4 office size and audit quality. *The Accounting Review*, 84(5), 1521-1552.

Friberg, R., F, Wilander. 2008. The currency denomination of exports—a questionnaire study. *Journal of International Economics*, 75(1): 54-69.

Funnell, W. 1994. Independence and the State Auditor in Britain: A Constitutional Keystone or a Case of Reified Imagery? *Abacus*, 30(2): 175-195.

Gale, B. 1972. Market Share and Rate of Return. *The Review of Economics and Statistics*, 54(4): 412-423.

Goldberg, L.S., C. Tille. 2008. Vehicle currency use in international trade. *Journal of International Economics*, 76(2): 177-192.

Gray, D. 1984. Corporate preferences for foreign currency accounting standards. *Journal of Accounting Research*, 22(2): 760-764.

International Auditing and Assurance Standards Board (IAASB 2015). ISA 315, Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and its Environment. Handbook of International Quality Control, Auditing, Review, Other Assurance and Related Pronouncements. New York, NY: IAASB.

International Accounting Standards Board (IASB). 2004. The Effects of Changes in Foreign Exchange Rates IAS 21. International Financial Reporting Standards 2004: including International Accounting Standards and Interpretations as at 31 March 2004. London, UK: IASB.

Joyce, E., G. Biddle. 1981. Are auditors' judgments sufficiently regressive? *Journal of Accounting Research*, 19(2): 323-349.

Krishnan, G. 2003. Does Big 6 auditor industry expertise constrain earnings management? *Accounting Horizons*, 17(Supplement):1-16.

Krugman, P. 1980. Vehicle currencies and the structure of international exchange. *Journal of Money Credit and Banking*, 12: 513–526.

Lennox, C., & Pittman, J. A. (2010). Big Five audits and accounting fraud. *Contemporary Accounting Research*, 27(1), 209-247.

Libby, R. (1985). Availability and the generation of hypotheses in analytical review. *Journal of Accounting Research*, 648-667.

Lim, C. Y., & Tan, H. T. (2008). Non-audit service fees and audit quality: The impact of auditor specialization. *Journal of Accounting Research*, 46(1), 199-246.

Lin, X., & Zhang, Y. (2009). Bank ownership reform and bank performance in China. *Journal of Banking & Finance*, 33(1), 20-29.

Megginson, W., J. Netter. 2001. From State to Market: A Survey of Empirical Studies on Privatization. *Journal of Economic Literature*, 39(2): 321-389.

Moravcsik, A. M. (1989). Disciplining trade finance: the OECD export credit arrangement. *International Organization*, 43(01), 173-205.

Mitchener, K.J., M.D. Weidenmier. 2015. Was the Classical Gold Standard Credible on the Periphery? Evidence from Currency Risk. *The Journal of Economic History*, 75(02), 479-511.

Nathan, A., & Neave, E. H. (1989). Competition and contestability in Canada's financial system: Empirical results. *Canadian Journal of Economics*, 576-594.

Neal, T. L., & Riley Jr, R. R. (2004). Auditor industry specialist research design. *Auditing: A Journal of Practice & Theory*, 23(2), 169-177.

Organization for Economic Co-operation and Development (OECD). 2016. Arrangement on Officially Supported Export Credits. Available at: http://www.oecd.org/tad/xcred/theexportcreditsarrangementtext.htm

Osborne, D. 1993. Reinventing government. *Public Productivity & Management Review*, 16(4): 349-356.

Portes, R., H. Rey. 1998. The Emergence of the Euro as an International Currency. *Economic Policy*, 13(26): 306-343.

Quadagno, J. 1987. Theories of the Welfare State. *Annual Review of Sociology*, 13: 109-128.

Reichelt, K. J., & Wang, D. (2010). National and office-specific measures of auditor industry expertise and effects on audit quality. *Journal of Accounting Research*, 48(3), 647-686.

Revsine, L. 1984. The Rationale Underlying the Functional Currency Choice. *The Accounting Review*, 59(3): 505-514.

Roengptiya, R., N. Tarashev, K. Tsatsaronis. 2014. Bank Business Models. *BIS Quarterly Review*, December 2014: 55-65.

Rutledge, R. 1995. Does management engage in the manipulation of earnings? The case of SFAS 52. *Journal of International Accounting Auditing and Taxation*, 4(1): 69-86.

Tversky, A., Kahneman, D. 1974. Judgment under Uncertainty: Heuristics and Bias. *Science*, 185: 1124-1131.

Wilson, T., R. Grimlund. 1990. An examination of the importance of an auditor's reputation. *Auditing: A Journal of Practice & Theory*, 9(2): 43-59.

The World Bank (World Bank). 2016. GDP (current US$): World Bank national accounts data, and OECD National Accounts data files. Available at: http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

Chapter 3
Do State-Owned Banks Strategically Obfuscate Fair Value Measurement Disclosures?

Abstract

The International Accounting Standards Board (IASB) mandated that firms apply IFRS 13 - Fair Value Measurement in order to enhance user understanding. It is deemed that financial institutions should benefit the most from this new standard because of their extensive use of fair value accounting. However, more transparent disclosures also increase the probability that the general public will detect political lending activities. We examine whether public officials at state-owned banks present their disclosures in a more understandable manner following the adoption of IFRS 13. Our results show that public officials strategically increase disclosure complexity to reduce the probability of detection of their political lending transactions. Moreover, we find that regulator independence from the government is a key determinant of the level of understandability of fair value disclosures by state-owned banks.

3.1 Introduction

The change over from historical cost to fair value accounting enhanced user understanding of an entity's true economic position at a specific point in time by reducing management's ability to strategically recognize income through a requirement that economic gains and losses be recognized when they occur (Barth 1994; Magnan 2009). During the financial crisis, the information quality of fair value accounting was questioned since balance sheet items were being measured using transitory economic losses arising from abnormal market activity (Allen and Carletti 2008; Laux and Leuz 2009). Due to a lack of fair value measurement disclosures, the market incorporated distressed market valuations which then amplified economic losses in the financial markets (Laux and Leuz 2009).

International Financial Reporting Standard 13: Fair Value Measurement (IFRS 13), which came into force after the Financial Crisis, resolved the fair value pricing problem caused by abnormal markets by defining fair value as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." Since its implementation, market participants can bifurcate the cause of recognized economic gains and losses: market conditions or management's decisions. Moreover, since the pre-IFRS 13 disclosures were criticized as being too complex (IASB 2008), the new standard requires additional disclosures of valuation techniques, market inputs and unobservable inputs in order to allow users to better understand the firm's fair valuation techniques and limit management's ability to strategically influence the valuation of assets and liabilities. This provides a transparent picture of management's actual performance.

In this essay, we examine the disclosure ethics of politicians and bureaucrats[6] at state-owned banks. Compared with pre-IFRS 13 conditions, do they present the new IFRS 13 disclosures in a more understandable manner as per the IASB's intent and thus allow the public to hold their political officials accountable? In theory, state-owned banks enact government policies in order to resolve market failures and maximize social welfare

[6] Collectively referred to as political officials for the remainder of this paper

(Atkinson and Stiglitz 1980; Shleifer and Vishny 1994). Indeed, the legitimacy of public officials to govern, like the legitimacy granted to other institutions, is based on the underlying premise that their actions will enhance social welfare (Cormier et al. 2004). However, the personal political motives of public officials to retain political power may interfere with social welfare objectives, because politicians can use their influence to direct bureaucrats at state-owned banks to repay their supporters through political lending[7] transactions (Dinç 2005; Micco et al. 2007).

The inherent complexity associated with financial instruments, as well as the latitude granted to firms in how accounting standards are interpreted and implemented (Berthelot et al. 2003), presents public officials with an ethical dilemma: comply with the objectives of the standard (IASB 2008) or strategically influence the understandability of the fair value measurement disclosures. Where political lending occurs, an increase in disclosure transparency threatens the governing legitimacy of public officials as it increases the risk that the general public will detect the hidden purpose of their transactions: to maximize the self-interest of politicians instead of societal welfare (Dowling and Pfeffer 1975; Lindblom 1994; Cormier et al. 2004). Conversely, increasing the complexity of disclosures (making the disclosures less understandable) reduces or delays the public's ability to detect political lending transactions and allows public officials to hold on to their political power.

Verrecchia (1983) states that firms strategically determine information quality by weighing the costs and benefits of providing information to users. For example, petroleum firms, in order to avoid costly environmental regulations, have enhanced the quantity of their environmental disclosures in order to legitimize their business practices (Patten 1992; Cho and Patten 2007). Moreover, Li (2008) finds that firms seek to minimize the impact of bad news on their stock price by reducing the information quality of their 10-Ks and making their disclosures more complex and harder to fully understand. These

[7] Political lending refers to the redistribution of rents by state-owned banks to interest groups which are pivotal to their political standing (Shleifer and Vishny 1994; Dinç 2005; Micco et al. 2007).

authors examine the strategic disclosures of publicly-traded firms whose managers are influenced by economic interests. In this paper, we examine the disclosure practices of public officials who are primarily motivated by political interests. Drawing from Nordhaus (1975), who theorizes that public officials are driven to enact short term policies to maximize political support, we expect - and find that public officials, in the presence of political lending activities, strategically make their fair value measurement disclosures less understandable in order to maximize public support and keep their legitimacy to govern.

The second part of this paper examines the effect of cross-country differences in regulatory quality on the implementation of IFRS 13 by public officials. In response to user complaints that fair value measurement disclosures were too complex to understand, the IASB studied the topic in a discussion paper entitled *Reducing Complexity in Reporting Financial Instruments* (IASB 2008) and subsequently issued IFRS 13 to develop guidance and meet users' informational needs. However, harmonized financial reporting standards do not result in uniform financial reporting quality because of differences in the quality of local institutions (Ball 2006). Christensen et al. (2013), in their international study examining the mandatory adoption of IFRS, find that IFRS only improved financial reporting quality in jurisdictions that also improved regulatory quality.

Past academic literature, through capital market reaction testing, has indirectly examined the effect of regulatory quality on IFRS disclosure quality (Daske et al. 2008). The literature generally finds that higher quality regulatory jurisdictions are associated with higher quality financial statement disclosures. However, the literature does not identify which specific elements of regulatory quality influence financial reporting quality. The OECD has suggested that regulators need to have sufficient independence from the government to ensure that regulations are transparently enforced (OECD 2005a). The issue of regulatory independence is amplified in a state-owned bank setting since, without sufficient independence, regulators tend to not be able to enforce the rules because of fear of political reprisal (OCED 2005b). Consequently, we hypothesize - and find that regulators with higher (lower) levels of independence enforce the IFRS 13 fair value

measurement disclosure standard in a manner which increases (decreases) user understanding.

This essay contributes to the financial reporting quality literature by examining the financial disclosure practices of public officials when new mandatory accounting disclosures leads to private information being revealed. Rather than communicating this new information in a clear manner, public officials strategically choose to obfuscate in order to prevent the public from understanding the underlying nature of the transactions in which they engage. In line with Patelli and Pedrini's (2014) assertion that persistent strategic disclosures should not be found in financial statements because this communication choice threatens a firm's long-term organizational legitimacy, we show that it is the short-term political environment that drives public officials to strategically obfuscate fair value measurement disclosures in financial statements in order to maintain political power. An obfuscation disclosure strategy can be particularly advantageous to public officials since it delays the public's ability to understand information and allows them to maintain their legitimacy to govern and their political support until the next election. We also find that regulatory bodies of state institutions require independence from public officials in order to appropriately enforce accounting standards as intended by standard setters.

Section 3.2 presents the literature review and hypothesis development. Section 3.3 describes our research methodology. Finally, in section 3.4 and 3.5, we present our results and conclusion.

3.2 Literature Review and Hypothesis Development

Strategic Financial Disclosures

Financial statements and their accompanying notes communicate information that influences the beliefs of users (Beaver 1968; Francis and Shipper 1999; FASB 2008). Previous studies about voluntary disclosure have found that firms do not disclose information in a neutral manner, but rather attempt to shape the users' perception of their socio-environmental performance (Al-Tuwaijri et al. 2004). Financial reporting standards

seek to limit this strategic disclosure behavior by requiring firms to communicate their financial information in a standardized format in order to allow their stakeholders to make rational economic decisions (IASB 2010; IASB 2013).

Even though mandatory disclosures limit management's ability to act strategically, accounting standards still allow managers enough room to make financial reporting choices that lead to uneven disclosure quality and important variations in interpretation (Berthelot et al. 2003). According to Ball (2006), the quality of regulated financial reporting greatly varies across countries because, due to differences in regulatory environment, managers must clearly communicate their financial position or can strategically obscure it.

The obfuscation hypothesis suggests that managers use complex language strategically when disclosing information in order to redirect the public's focus away from negative information (Courtis 1998). Decreasing disclosure understandability exploits the public's limited ability to process complex information; and reduces the probability that obfuscated information will be detected. (Simon 1955; Tversky and Kahneman 1975). Managers employ this strategy in order to mitigate legitimacy threats (Lindblom 1994; Neu et al. 1998): for instance, when executive compensation is greater than benchmark compensation (Laksmana et al. 2012), when firms report below-average financial results (Clatworthy and Jones 2003; Li 2008), and when firms act in a non-environmentally friendly manner (Neu et al. 1998). However, empirical support for the obfuscation hypothesis is not entirely conclusive: two papers, one that examined the risk disclosures of UK firms and a second that studied the financial performance disclosures of publicly-traded Hong Kong firms, did not detect confirmatory evidence (Courtis 1986; Linsley and Lawrence 2007).

Theory of Communicative Action

In contrast to the Obfuscation Hypothesis, the Theory of Communicative Action suggests that actors communicate in a manner which fosters understanding (Habermas 1984, 1987). This theory predicts that firms will disclose information in a "comprehensible, truthful, sincere and legitimate" manner (Yuthas et al. 2002). The economic rationale

supporting this theory suggests that obfuscation will impact organizational legitimacy to such an extent that the legitimacy cost of being caught will be higher than the cost of disclosing information in a manner which fosters understanding (Yuthas et al. 2002; Patelli and Pedrini 2014). Stated alternatively: the cover-up is worse than the crime. Yuthas et al. (2002) find empirical evidence for this theory: firms with both positive and negative earning surprises communicating in the management discussion and analysis (MD&A) chapter of their annual reports in a manner which can be characterized as being "comprehensible, truthful, sincere and legitimate." Furthermore, Patelli and Pedrini (2014) find that the optimistic tone detected in CEO letters to stakeholders written during difficult macroeconomic cycles is sincere.

Patelli and Pedrini (2014) attempt to reconcile their findings with those papers that note the existence of the obfuscation hypothesis by suggesting that the regularity of the disclosure determines the firm's disclosure strategy. They propose that regular disclosure mediums, such as periodic financial statements, are presented in a non-strategic manner because of societal monitoring. Thus, they infer that the obfuscation hypothesis will not hold in a setting where regular periodic disclosures are made. Rather, they suggest that strategic disclosures are more likely to occur in settings where disclosure mediums are presented in an unstandardized fashion with low levels of market discipline (Yuthas et al. 2002; Patelli and Pedrini 2014).

Fair Value Measurement Disclosure Setting

The Washington Consensus, traditionally advocates for greater private sector involvement, argues that in a market economy, state-owned banks play an important role in enhancing social welfare (Williamson 2000; La Porta et al. 2002). For instance, state-owned banks, primarily in the developing world, fill a private sector capital market void by extending credit to projects that support economic development and in turn improve social welfare (Atkinson and Stigltiz 1980; Shleifer and Vishny 1994; Stiglitz 1994).

The developmental view suggests that economic development and social welfare are intrinsically linked. State-owned banks are deemed to act as an institutional tool to create economic development (Gerschenkron 1962; La Porta et al. 2002). They take part in

developing the economy by providing the necessary funds to make significant investments in technology in order to improve productivity (Kniivilä 2007). However, in developing countries, private sector credit markets may not be sufficiently developed and thus access to the financial capital required to purchase productivity improving equipment can be limited. Gerschenkron (1962) notes that state-owned banks solve the financial capital scarcity problem by gaining society's trust and attracting deposits. This allows them to accumulate a deep capital pool that can be used to create a credit market. Institutions such as the Russian Agricultural Bank and Agricultural Bank of China are good examples of state-owned banks attracting and providing financial capital to enable productivity improvements. Similarly, many other countries have established specialized state-owned banks to support specific economic sectors (OECD 2015). For example, post-war Japanese economic development can largely be attributed to state-owned banks that directed credit to targeted industries that did not have access to the private credit markets. This then allowed them to grow into well-developed global firms (Calomiris and Himmelberg 1993).

Given the self-interested nature of politicians and their control over vast sums of capital, it is fair to wonder if they always maximize social welfare and resist the temptation to further their own personal political objectives. The political view of government interventionism by state-owned banks suggests that resource allocation decisions are made in order to enhance the political interests of public officials: economic benefits are granted to interest groups in exchange for political support (Shleifer and Vishny, 1994, La Porta et al. 2002). This exchange is enforced by interest groups who communicate directly with politicians to ensure that politically motivated transactions are completed (Weingast 1984). State-owned banks, because of their financial relationship with many economic players and the inherently high levels of information asymmetry that surround their lending process (Dinç 2005), are a popular vehicle through which economic benefits can be funneled to political loyalists. This asymmetric information environment protects the legitimacy of the State by masking political lending that benefits special interest groups and public officials.

The academic literature provides empirical evidence consistent with the political lending hypothesis. Dinç (2005) finds that state-owned banks grant more loans in election years than in non-election years, while Sapienza (2004) finds that the interest on debt is negatively related to political electoral support. Moreover, the lower levels of profitability of state-owned banks relative to non-state-owned banks can be explained by political pressures that lead to sub-optimal political lending (Micco et al. 2007).

The governing legitimacy of public officials is dependent on their making resource allocation decisions that are seen as treating society in a ''fair, responsive and valuable manner'' (Useem and Useem 1979). The existence of political lending, combined with the mandatory adoption of IFRS 13 (which has the potential to expose political lending and, by ricochet, harm the governing legitimacy of politicians), provides a unique setting to examine the manner in which public officials apply the new standard.

Regulatory Environment

Past research on capital markets has shown that local institutions are economically significant. Starting with La Porta et al. (1997), the literature finds that various legal traditions offer differing levels of investor protection which impacts the overall size of the capital markets. Specifically, with regards to IFRS, Ball (2006) predicts that fundamental cross-country institutional variations will create differences in financial reporting quality, even when uniform accounting standards are in place. For instance, high quality regulators will require firms to consistently disclose both positive and negative news in order to reduce information asymmetry (Bushee and Leuz 2005). Hail and Leuz (2006) and Christensen et al. (2013) empirically demonstrate that better regulatory enforcement results in higher levels of liquidity. These papers show that regulators with strong enforcement capacities show greater financial reporting quality. However, these papers do not specifically examine the local environmental determinants that cause differences in regulatory enforcement.

Hypothesis Development

Prior to the IASB issuing IFRS 13, users commented that fair value measurement disclosures were so complex that they could not process the underlying information (IASB 2008). To address this issue, IFRS 13 now requires firms to use a standardized fair value definition, utilize a uniform fair value measurement framework and disclose valuation techniques and inputs (IFRS 2012). These new fair value disclosures require management to reveal private information and also allow users to better understand management's performance by clearly disclosing assumptions and filtering out excess market volatility and so allow users to hold management accountable for their decisions.

By examining non-state firms, the academic literature shows evidence that some entity's strategically disclose information in an opaque manner, as predicted by the obfuscation hypothesis, while other firms disclose information in a clear manner in order to promote understanding, in accordance with the Theory of Communicative action. Both the obfuscation hypothesis and the theory of communicative action are compatible with Verrecchia (1983) who states that the information quality of disclosures is based on disclosure costs. It follows that managers will select a communication strategy based on the probability that the public will detect the underlying financial information. Consequently, managers will obfuscate so long as the expected cost of obfuscation is less than the cost of understandable disclosures. When the expected cost of obfuscation exceeds the cost of understandable disclosure, they will communicate clearly. However, Patelli and Pedrini (2014) predict that firm's will always communicate clearly when they are required to produce regulated financial disclosures.

Contrary to Patelli and Pedrini (2014), we argue that, in some situations, obfuscation can occur in a regulated setting. We posit that state-owned banks will implement IFRS 13 in a different manner than commercial non-state owned banks. State-owned banks are motivated to deal with short-term political issues (Nordhaus 1975) and will be more inclined to obfuscate their fair value disclosures in order to prevent and/or delay the public from understanding the inner workings of the State to maintain their legitimacy to govern. Simply stated, the public cannot hold public officials accountable if they cannot

understand their performance. We expect that managers of commercial banks, due to their need to maintain their long-term reputation in the eyes of the capital markets (Skinner 1994), will apply the standard in a more understandable manner as suggested by the theory of communicative action. Therefore, we expect to see a difference in how IFRS 13 fair value measurement disclosures are applied by state-owned banks and non-state-owned banks.

Our first hypothesis is:

H1: We expect that state-owned banks implemented IFRS 13 in a different manner than non-state-owned banks. More specifically, public officials of state-owned banks will have made their disclosures less understandable, while managers at non-state-owned banks will have made their disclosures more understandable.

The academic literature notes that state-owned banks engage in political lending practices that serve their political self-interest rather than enhancing social welfare (Sapienza, 2004; Dinç 2005). The new mandatory disclosures mandated by IFRS 13, if prepared in a transparent manner, should allow the public to understand the nature of transactions threatening the governing legitimacy of public officials. In our second hypothesis, we predict that, to prevent this from occurring, state-owned banks that engage in political lending will make the fair value measurement disclosures more complex and thus less understandable in order to mitigate the public's ability to process this information. We suggest that obfuscation disclosure strategy minimizes detection risk and therefore increases the possibility that public officials will be able to retain their hold on power.

Our second hypothesis is:

H2: Higher levels of political lending from state-owned banks are associated with lower levels of IFRS 13 financial disclosure understandability.

Ball (2006) put forward that the implementation of IFRS is dependent on the quality of local institutions and therefore its application is expected to vary greatly. This hypothesis that was supported by the work of Hail and Leuz (2006) and Christensen et al. (2013). A key feature of regulatory quality is assumed to be market protection from political

interference (OECD 2005a). We suggest, in this paper, that a regulator with low independence from the government will not stringently enforce accounting standards on state-owned banks in order to avoid challenging the State.

Our third hypothesis is as follows:

H3: Governmental regulatory agencies with lower levels of independence are associated with less understandable fair value measurement disclosures.

3.3 Research Methodology

Sample

From The Banker's 2013 ranking of the Top 1000 largest global bank-holding companies, we identified 116 state-owned banks that produced IFRS 13 compliant financial statements by March 31st 2014 in the English language. The single industry nature of the sample and focus on the largest banks mitigates the confounding effects of industry and size on disclosure quality (Buzby 1975; Neu et al. 1998). Furthermore, given that the standard became effective as of 1 January 2013, the entire time period of our primary analysis occurs well after the financial crisis and thus eliminates the possibility that results are due to abnormal market conditions. We first documented each bank's country of origin and, utilizing the PricewaterhouseCoopers: IFRS Adoption by Country report (PWC 2013) and Orbis database, we identified 464 banks that use IFRS for financial statement preparation purposes. This methodology eliminates the self-selection bias which occurs when some firms voluntarily choose to adopt a standard for reasons other than local regulation requirements.

From this subset, consistent with the methods of La Porta et al. (1999) and Dinç (2005), we classified each bank as being either state-owned[8] or non-state-owned by determining whether or not the State controlled at least 20 percent of the bank. In total, we identified 119 state-owned banks for which we collected the pre- and post-IFRS 13 English financial

[8] The sample excludes Central Banks (Dinç 2005) and their subsidiaries.

statements, from which we confirmed application of the standard. We then ran a textual analysis on the disclosures in order to calculate our dependent variable: the level of understanding (Understand). Our final sample contains 116 state-owned banks. Control variables were obtained from the Orbis and World Bank databases and hand collected from the financial statements.

To test our first and second hypothesis, we employ a difference-in-difference approach. We were able to find 57 private sector banks that matched our sample state-owned firm on the basis of their Tier I capital (a measure of firm risk). We allowed a maximum of two and one half percent difference between the matched values. This methodology controls for inherent disclosure variances that would be expected to emerge as a result of differences in risk. Moreover, the difference-in-difference methodology expands the power of the test by directly focusing on how the standard was implemented by state-owned banks and by eliminating the alternative explanation that the requirements of the standard itself were the cause of the change in understandability. We removed extreme values by truncating observations more than three standard deviations from the mean. Our final sample comprises 106 state-owned banks.

Empirical model

We utilize the following regression model to perform a difference-in-difference analysis:

$$Understand_i = Lending_i + State + Lending*State + REG \quad (1)$$

$$+ \sum\varphi Controls_{i,t} + \varepsilon_{i,t}$$

The second model we use covers the entire state-owned bank sample:

$$Understand_i = Lending_i + REG + \sum\varphi Controls_i + \varepsilon_i \quad (2)$$

Level of Understanding

There are a number of readability formulas that can be used to perform content analysis and they may yield differing results (Dreyer 1984; Jones and Shoemaker 1994). In this study, we measure the textual complexity of our dependent variable (Understand) by using

the Fog Index. The Fog index measures the number of years of education that an average person requires in order to understand a piece of written text (Gunning 1969). It is deemed that as a text becomes more (less) complex, it becomes less (more) understandable. This index, used in seminal financial disclosure research (Li, 2008; Callen et al. 2013), is specifically designed to measure the readability of government and business communications (Gunning 1969). Indeed, Dreyer (1984) suggests that a valid readability measure should reflect the match between the text itself and the audience to which it is destined.

We hand collected the fair value measurement note disclosures from the banks' financial statements for the fiscal years preceding and following the adoption of IFRS 13.[9] Following Li (2008) and Lee (2012), we used the Lingua-EN-Fathom program to measure the level of understandability of these note disclosures using the Fog Index. We then measured financial reporting complexity by differencing the understandability of the pre- and post-IFRS 13 disclosures.

Political Lending

Our proxy for political lending (Lending) is the dollar value of impaired loans that a bank holds relative to its equity. Following Shen and Lin (2012), we consider that high levels of impaired loans are indicative of political interference in the lending process.

State-Owned Banks

We codify state-owned banks (S_Banks) using a binary variable: 1 when the bank is state-owned and 0 otherwise. Consistent with La Porta et al. (1999), state-owned banks are defined as being controlled by the State when they hold a minimum of 20% of the bank's outstanding voting shares.

[9] Adoption of IFRS 13 was mandatory beginning January 1st 2013.

Regulatory Independence

We measure regulatory independence using the regulatory quality measure from the *World Bank's Worldwide Governance Indicators* (Kaufman et al. 2010). The OECD (2005a) notes that a key feature of regulatory quality is regulatory independence. In particular, stronger regulatory institutions buffer the state-owned banks from political influences.

Control Variables

Size

Size correlates with many firm-specific factors, including complexity and accounting policy choices (Healy and Palepu 2001). Specifically, Jones (1988) notes that size is positively related to annual report complexity. Size is measured by the standardized z-score of the bank's total assets.

Profitability

A positive or negative relationship can be expected between firm profitability (Profit) and complexity. Li (2008) finds that less profitable firms produce more complex annual reports, while more profitable firms produce less complex annual reports. Alternatively, profitable firms act as predicted by the political cost hypothesis and make accounting choices to redirect the public's attention away from large profits (Watts and Zimmerman 1990) and also increase the complexity of their disclosures in order to reduce the possibility of the government expropriating their assets. Profitability is measured by standardizing the bank's return on average assets.

State-Ownership

This variable (S_Own) controls for the actual level of State ownership, since a higher level of state ownership indicates that public officials are more exposed to the economic performance of the bank.

Macro-economic Environment

Banks operating within a highly developed macro-economic environment are exposed to and utilize more complex instruments that require more complex disclosures. The ratio of Stock Market Capitalization to GDP measures the country's macro-economic environment (Macro) (Holthausen 2009).

Judicial Enforcement

Firms located in common-law countries are generally associated with higher quality financial statements (Ball et al. 2000). We control for this by identifying the country's judicial family (0 = common law country and 1 = civil law country).

Tier 1

The amount of Tier_1 capital controls for the level bank risk.

3.4 Results

Univariate Analysis

Table 3-1 shows the descriptive statistics for the understandability of fair value measurement disclosures in the pre- and post-IFRS 13 adoption period. Using the Fog Index to quantify understandability and taking into consideration that the average American citizen has received 12 years of formal education (Barro and Lee 2013), we find that these fair value disclosures are extremely complex because it takes an average of 21 years of formal education to comprehend them. Although the average citizen may have comprehension problems, there still remains a segment of society that will be able to understand and communicate the underlying economic transactions to the general public.

When looking at the entire sample of state-owned banks in column 1 and non-state-owned banks in column 2, we find a significant increase in the understandability of the fair value measurement disclosures (T-test $p < .01$), as per the IASB's mandate (IASB 2008). However, when we analyze the understandability of our matched sample of non-state-

owned banks (columns 3 and 4) and state-owned banks (columns 5 and 6), we find that, as per our expectations, managers at non-state-owned banks and public officials at state-owned banks apply the standard in a different manner. The understandability of fair value measurement disclosures of state-owned banks (columns 5 and 6) has significantly decreased (T-test $p < .01$) (the disclosures have become more complex) since it takes an average of .98 additional years of formal education to understand them. This disclosure strategy prevents and/or delays the public from understanding economic transactions in order to avoid questions related to the legitimacy of public officials. Non-state-owned banks present their post-IFRS 13 disclosures in a significantly more understandable manner (T-test $p < .01$) since it takes an average of .76 of a year less education (column 3 and 4) to understand them. We find that the standard deviation for the understandability of state-owned bank fair value measurement disclosures has increased, indicating that it is more difficult for users to process and compare financial information.

Multivariate Analysis

Table 3-3 shows the results of our multivariate analysis using OLS for the matched difference-in-difference sample. For the first hypothesis, the variable of interest is *S_Banks*, a dichotomous variable which equals one when the State controls 20% or more of the bank. We expect, as discussed in the hypothesis development section, that public officials are more responsive to short-term political issues while managers at non-state-owned banks are more concerned with maintaining their long-term reputation (conditional on controlling for risk and profitability). Due to these differences, managers at non-state-owned banks and public officials at state-owned banks are expected to apply IFRS 13 differently. The results from the multivariate analysis, at the one percent level of significance, indicate a positive relationship between state-owned banks and disclosure complexity, indicating that these banks strategically presented their IFRS 13 disclosures in a less understandable manner, as posited in hypothesis one.

We test hypothesis two and present our results in Table 3-3, our matched sample, and we find that political lending (Lending) is significantly associated, at the one percent level of significance, with Understand. When we interact state-owned banks with political

lending, we find that public officials further increase the disclosure complexity of political lending transactions. In Table 3-4, when we examine all of the state-owned banks in our sample, we detect the same relationship. This result is consistent with our expectation that public officials will strategically obscure political lending transactions in order to inhibit the public from understanding them and to maintain their legitimacy to govern.

In Table 3-4, we examine H3: the effects of the regulatory environment on disclosure understandability. We find, at the one per cent level of significance, that regulators with more independence from the State require public officials to apply the standard to the degree intended by the standard setters. Regulators with more independence from the central State have a greater ability to enforce regulations and thus require public officials to present more understandable disclosures as mandated by the IASB (IASB 2008).

In Table 3-5, as a robustness test, we examine the value relevance of IFRS 13 fair value disclosures in order to provide evidence that the market views the new disclosure information as being useful. We find that IFRS 13 disclosures are significant at the 1% level of significance for decision-making purposes.

The results from the correlation matrix are presented in Table 3-2 and the results of the mean variance inflation factor (VIF) are presented in Tables 3-3, 3-4 and 3-5. In each case, results of the VIF are less than 10, reducing multicollinearity concerns.

3.5 Conclusion

This study investigates whether public officials of state-owned banks implemented IFRS 13 to improve disclosure quality as intended by standard setters. We find that state-owned banks applied the standard in a significantly less understandable manner compared to non-state owned banks. Specifically, we find that public officials tend to increase the complexity of their disclosures under IFRS 13. We argue that their purpose is to mask political lending in order to maintain their governing legitimacy. We also find that the manner in which public officials implement new accounting standards is influenced by the level of independence of governmental regulatory agencies; independent regulators from the State enforce the standard in a more stringent manner.

This paper contributes to the accounting literature by studying the disclosure ethics of public officials in situations where they are mandated to disclose private information in a understandable way. We find that public officials choose to obfuscate instead of communicating clearly. At first glance, this finding appears to contradict Patelli and Pedrini (2014) who suggest that firms, when faced with financial disclosure choices, will choose to communicate clearly and understandably in order to maintain their legitimacy. We refine their argument and suggest that the manner in which public officials/bank managers choose to communicate is conditional on their time horizon. We find that the public officials at state-owned banks who are motivated by short-term political interests will engage in an obfuscation disclosure strategy to ensure that the public does not understand their self-interested economic transactions and so that they can maintain their legitimacy to govern. Firm mangers at non-state-owned banks who need to maintain their long-term reputation choose to communicate in an understandable manner in order to maintain the trust of the markets. This paper also finds that a regulator needs sufficient independence from the government in order to effectively monitor a state-owned bank. Only independent regulators, those not subject to significant political pressures, enforced the standard as envisioned by the standard setters.

Table 3-1 – Descriptive Statistics

Understandability of Fair Value Measurement disclosure

	1	2	3	4	5	6
Mean	21.610	21.590	22.027	21.265	20.858	21.839
Standard Error	0.180	0.180	.354	.330	.264	.305
Standard Deviation	2.33	2.33	2.671	2.495	1.992	2.304
Minimum	15.706	15.433	15.706	15.432	16.146	16.806
Maximum	27.900	27.587	26.599	26.454	25.716	27.587
Count	168	168	57	57	57	57

Column 1: Pre-IFRS 13 (Entire Sample)

Column 2: Post-IFRS 13 (Entire Sample)

Column 3: Pre-IFRS 13 (Non-State-Owned Banks) from Matched Sample

Column 4: Post-IFRS 13 (Non-State-Owned Banks) from Matched Sample

Column 5: Pre-IFRS 13 (State-Owned Banks) from Matched Sample

Column 6: Post-IFRS 13 (State-Owned Banks) from Matched Sample

TABLE 3-2: Pearson Correlation Matrix

Panel A – Matched Sample

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	1							
2	.554	1						
3	.033	-.039	1					
4	.062	.061	-.317	1				
5	.105	.346	.066	-.112	1			
6	.454	.816	.074	-.140	.234	1		
7	.030	.016	-.253	-.041	.066	.023	1	
8	.104	-.039	.202	-.116	-.157	.071	-.409	1

Variables

1. *Understand*
2. *S_Banks*
3. *Lending*
4. *Profit*
5. *Size*
6. *S_Own*
7. *Macro*
8. *Law*

TABLE 3-2: Pearson Correlation Matrix

Panel B – State-Owned Bank Sample

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	
1	1								
2	.246	1							
3	-.197	.154	1						
4	.191	-.456	-.145	1					
5	.047	-.015	-.060	-.009	1				
6	-.022	.315	.144	-.346	-.008	1			
7	.041	-.187	.359	.008	.041	.014	1		
8	.183	.024	-.017	-.061	.022	.182	-.332	1	
9	-.091	-.130	.034	.092	-.261	.111	-.255	.138	1

Variables

1. *Understand*
2. *Lending*
3. *REG*
4. *Profit*
5. *Size*
6. *S_Own*
7. *Macro*
8. *Law*
9. *Tier_1*

TABLE 3-3: Multivariate Regression – Matched Sample

We present the OLS regression matched sample regression of the change in understandability of fair value disclosures after the adoption of IFRS 13 on state-owned banks and political lending variables. OLS regressions use heteroscedasticity-consistent standard error estimators (Hayes and Cai 2007).

	Model 1	**Model 2**
H1: *S_Banks*	2.213***	1.613***
	(.000)	(.004)
Lending	.004	-.005
	(.547)	(.513)
H2: *S_Banks* Lending*		.030***
		(.006)
Profit	.142	.333
	(.478)	(.129)
Size	-.218	-.295*
	(.153)	(.055)
S_Own	-.003	-.009
	(.744)	(.178)
Macro	.003**	.004***
	(.016)	(.002)
Law	.700**	.919**
	(.014)	(.019)
Constant	-1.891***	-1.827***
	(.000)	(.000)
F	10.004	7.978
p	0.000	0.000
Adjusted R-squared	.295	.361
N	106	106
Mean VIF	1.946	2.256

p-values in parentheses:

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE 3-4: Multivariate Regression – State-Owned Bank Sample

Using the state-owned bank sample, we present the regression of the change in understandability of fair value disclosures after the adoption of IFRS 13 on political lending and regulatory independence. The OLS regression uses heteroscedasticity-consistent standard error estimators (Hayes and Cai 2007).

H2: Lending	.034***
	(.000)
H3: REG	-.775***
	(.004)
Profit	.699***
	(.004)
Size	.032
	(.658)
S_Own	-.005
	(.409)
Macro	.011***
	(.005)
Law	1.394***
	(.005)
Tier_1	.007
	(.794)
Constant	-1.705**
	(.036)
F	4.134
p	0.000
Adjusted R-squared	.289
N	93
Mean VIF	1.330

p-values in parentheses:

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3-5: Multivariate Regression – Value Relevance of IFRS 13

From our listing of firms with positive earnings that adopted IFRS 13, we present the regression of the year-end market price on IFRS 13 adoption. To conduct the analysis, we utilize data three years before adoption and three years after adoption.

	1
IFRS 13 Adoption	1.731***
	(.000)
Constant	2.465***
	(.005)
Firm Fixed Effects	**YES**
F	79.495
P	.000
Adjusted R-squared	.942
N	678
Mean VIF	1.128

p-values in parentheses:

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

References

Allen, F. & Carletti, E. (2008). Mark-to-market accounting and liquidity pricing. *Journal of Accounting and Economics*, 45(2): 358-378.

Al-Tuwaijri, S., Christensen, T. E., & Hughes, K. E. (2004). The relations among environmental disclosure, environmental performance, and economic performance: A simultaneous equations approach." *Accounting, Organizations and Society*, 29(5): 447–471.

Atkinson, A. B., & Stiglitz, J. E. (1980). Lectures on Public Economics. McGraw-Hill.

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. (2006). International Financial Reporting Standards (IFRS): pros and cons for investors. *Accounting and Business Research* 36 (sup1): 5-27.

Barro, R. J., & Lee, J. W. (2013). A new data set of educational attainment in the world, 1950–2010. *Journal of Development Economics*, 104, 184-198.

Barth, M. (1994). Fair Value Accounting: Evidence from Investment Securities and the Market Valuation of Banks. *The Accounting Review* 69(1): 1-25.

Beaver, W. (1968). The information content of annual earnings announcements. *Journal of Accounting Research* 6: 67-92.

Berthelot, S., Cormier, D., & Magnan, M. (2003). Environmental Disclosure Research: Review and Synthesis. *Journal of Accounting Literature*, 22: 1–44.

Bushee, B. J., & Leuz, C. (2005). Economic consequences of SEC disclosure regulation: Evidence from the OTC bulletin board. *Journal of Accounting and Economics*, 39(2): 233–264.

Buzby, S. L. (1975). Company Size, Listed Versus Unlisted Stocks, and the Extent of Financial Disclosure. *Journal of Accounting Research*, 13(1): 16–37.

Callen, J. L., Khan, M., & Lu, H. (2013). Accounting Quality, Stock Price Delay, and Future Stock Returns. *Contemporary Accounting Research*, 30(1): 269-295.

Calomiris, C. W., & Himmelberg, C. P. (1993). Directed credit programs for agriculture and industry: arguments from theory and fact. *The World Bank Economic Review*, 7(suppl 1), 113-138.

Cho, C., & Patten, D. (2007). The role of environmental disclosures as tools of legitimacy: A research note. *Accounting, Organizations and Society*, 32(7): 639–647.

Christensen, H., Hail, L., & Leuz, C. (2013). Mandatory IFRS reporting and changes in enforcement. *Journal of Accounting and Economics*, 56(2): 147-177.

Clatworthy, M. A., & Jones, M. J. (2003). Financial reporting of good and bad news: evidence from accounting narratives. *Accounting and Business Research*, 33(3): 171 – 185.

Courtis, J. K. (1986). An Investigation into Annual Report Readability and Corporate Risk-Return Relationships. *Accounting and Business Research*, 16(64): 285–294.

Courtis, J. K. (1998). Annual report readability variability: tests of the obfuscation hypothesis. *Accounting, Auditing & Accountability Journal*, 11(4): 459 – 472.

Cormier, D., Gordon, I. M., & Magnan, M. (2004). Corporate environmental disclosure: Contrasting management's perception with reality. *Journal of Business Ethics*, 49: 143–165.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research*, 46(5), 1085-1142.

Dinç, I. (2005). Politicians and banks: Political influences on government-owned banks in emerging markets. *Journal of Financial Economics*, 77(2): 453–479.

Dowling, J., & Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior. *The Pacific Sociological Review*, 18(1): 122 – 136.

Dreyer, L. G. (1984). Readability and responsibility. *Journal of Reading*, 27(4): 334–338.

Financial Accounting Standards Board (FASB) (2008). Statement of Financial Accounting Concepts No. 5.

Francis, J., & Schipper, K. (1999). Have Financial Statements Lost Their Relevance? *Journal of Accounting Research*, 37(2): 319–352.

Gerschenkron, A. (1962). Economic Backwardness in Historical Perspective. Harvard University Press.

Gunning, R. (1969). The fog index after twenty years. *Journal of Business Communication*, 6(2): 3-13.

Hail, L., & Leuz, C. (2006). International differences in the cost of equity capital: Do legal institutions and securities regulation matter? *Journal of Accounting Research*, 44(3), 485-531.

Habermas, J. (1984, 1987). The Theory of Communicative Action (Vols. 1 & 2). Boston: Beacon Press.

Hayes, A. F., & Cai, L. (2007). Using heteroskedasticity-consistent standard error estimators in OLS regression: An introduction and software implementation. *Behavior Research Methods*, 39(4), 709-722.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1-3): 405–440.

Holthausen, R. W. (2009). Accounting standards, financial reporting outcomes, and enforcement. *Journal of Accounting Research*, 47(2): 447–458.

International Accounting Standards Board (IASB). (2008). Discussion Paper: Reducing Complexity in Reporting Financial Instruments. London: IASC Foundation Publications Department.

International Accounting Standards Board (IASB). (2010). The Conceptual Framework for Financial Reporting. IFRS Foundation.

International Accounting Standards Board (IASB). (2013). Discussion Paper: A Review of the Conceptual Framework for Financial Reporting. London: IFRS Foundation Publications Department.

International Financial Reporting Standards (IFRS). (2012). IFRS 13 Fair Value Measurement. London: IFRS Foundation Publications Department.

Jones, M. J. (1988). A Longitudinal Study of the readability of the chairman's reports of a UK Company. *Accounting and Business Research*, 18(72): 297–306.

Jones, M. J., & Shoemaker, P. A. (1994). Accounting narratives: A review of empirical studies of content and readability. *Journal of Accounting Literature*, 13, 142.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The worldwide governance indicators: methodology and analytical issues. Policy Research Working Paper: The World Bank.

Kniivilä, M. (2007). Industrial development and economic growth: Implications for poverty reduction and income inequality. Industrial development for the 21st century: Sustainable development perspectives, 295-333.

Laksmana, I., Tietz, W., & Yang, Y. W. (2012). Compensation discussion and analysis (CD&A): Readability and management obfuscation. *Journal of Accounting and Public Policy*, 31(2): 185–203.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal determinants of external finance. *The Journal of Finance*, 52(3): 1131-1150.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate Ownership around the World. *The Journal of Finance*, 54(2): 471–517.

La Porta, R., Lopez-De-Silanes, F., & Shleifer, A. (2002). Government Ownership of Banks. *The Journal of Finance*, 57(1): 265–301.

Laux, C., & Leuz, C. (2009). The crisis of fair-value accounting: Making sense of the recent debate. *Accounting, Organizations and Society*, 34(6), 826-834.

Lee, Y. J. (2012). The Effect of Quarterly Report Readability on Information Efficiency of Stock Price. *Contemporary Accounting Research*, 29(4): 1137–1170.

Li, F. (2008). Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and Economics*, 45(2): 221–247.

Lindblom, C. K. (1994). The Implication of Organizational legitimacy for Corporate Social Performance and Disclosure. Paper presented at the Critical Perspectives on Accounting Conference, New York, 1993.

Linsley, P. M., & Lawrence, M. J. (2007). Risk reporting by the largest UK companies: readability and lack of obfuscation. *Accounting, Auditing & Accountability Journal*, 20(4), 620-627.

Magnan, M. (2009) Fair Value Accounting and the Financial Crisis: Messenger or Contributor? *Accounting Perspectives*, 8(3): 189-213.

Micco, A., Panizza, U., & Yañez, M. (2007). Bank ownership and performance. Does politics matter? *Journal of Banking and Finance*, 31(1): 219–241.

Nordhaus, W. (1975). The Political Business Cycle. *The Review of Economic Studies*, 42(2), 169-190.

Neu, D., Warsame, H., & Pedwell, K. (1998). Managing Public Impressions: Environmental Disclosures in Annual Reports. *Accounting, Organizations and Society*, 23(3): 265–282.

Organisation for Economic Co-operation and Development (OECD). (2005a). Designing Independent and Accountable Regulatory Authorities for High Quality Regulation. (OECD London Meeting).

Organisation for Economic Co-operation and Development (OECD). (2005b). Corporate Governance of State-Owned Enterprises. OECD Publishing.

Organisation for Economic Co-operation and Development (OECD). (2015). State-owned Enterprises in the Development Process. OECD Publishing.

Patelli, L., & Pedrini, M. (2014). Is the Optimism in CEO's Letters to Shareholders Sincere? Impression Management versus Communicative Action during the Economic Crisis. *Journal of Business Ethics*, 124(1): 19 – 34.

Patten, D. (1992). Intra-industry environmental disclosures in response to the Alaskan oil spill: A note on legitimacy theory. *Accounting, Organizations and Society*, 17(5): 471–475.

Patten, D. (2002). The relation between environmental performance and environmental disclosure: a research note. *Accounting, Organizations and Society*, 27(8): 763–773.

PriceWaterhouseCoopers (PWC), (2013). IFRS Adoption by Country. PWC: Delaware.

Sapienza, P. (2004). The effects of government ownership on bank lending. *Journal of Financial Economics*, 72: 357–384.

Shleifer, A., & Vishny, R. W. (1994). Politicians and firms. *The Quarterly Journal of Economics*, November: 995-1025.

Shen, C. H., & Lin, C. Y. (2012). Why government banks underperform: A political interference view. *Journal of Financial Intermediation*, 21(2): 181-202.

Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics* 69(1): 99-118.

Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, 32(1), 38-60.

Stiglitz, J. E. (1994). The Role of the State in Financial Markets. *The World Bank Economic Review*, 7(sup. 1): 19-52.

The Banker (2013, July). Top 1000 World Banks. The Banker, 180 – 213.

Tversky, A., & Kahneman, D. (1975). Judgment under uncertainty: Heuristics and biases. In Utility, probability, and human decision making (pp. 141-162). Springer Netherlands.

Useem, B., & M. Useem. (1979) Government legitimacy and political stability. *Social Forces* 57 (3): 840-852.

Verrecchia, R. (1983). Discretionary Disclosure. *Journal of Accounting and Economics*, 5: 179 – 194.

Watts, R. L., & Zimmerman, J. L. (1990). Positive Accounting Theory: A Ten Year Perspective. *The Accounting Review*, 65(1): 131–156.

Weingast, B. (1984). The Congressional-Bureaucratic System: A Principal Agent Perspective. *Public Choice*, 44(1): 147-191.

Williamson, J. (2000). What should the World Bank think about the Washington Consensus? *The World Bank Research Observer*, 15(2), 251-264.

Yuthas, K., Rogers, R., & Dillard, J. (2002). Communicative and Corporate Annual Reports. *Journal of Business Ethics*, 41(1): 141–157.

Conclusion

In this thesis, I examined the effect of government auditors and public officials on public sector financial reporting quality. I did so by drawing on theory from the fields of economics, psychology and political science to test how auditors influence audit quality and determine how public officials influence financial reporting quality. I find that economic incentives and decision making-biases directly affect the quality of public sector financial statements.

In the first essay, I examined whether audit markets influence audit quality. The audit quality literature finds that the market perceives that lower levels of auditor independence (both in the self-regulatory and government-regulated audit markets) negatively influence audit quality (Chaney and Philipich 2002; Chasan 2014; Le Vourc'h and Morand 2011). Therefore, in a monopolistic audit market, where auditors would have very high levels of independence, would granting a government agency a monopoly improve audit quality? Francis (2004) notes that, due to lack of empirical data, academics, regulators and users can only speculate. In this essay, I find that the adoption of a government audit monopoly, compared with a government-regulated audit market, does not improve audit quality, but rather that monopolistic auditors reduce audit quality because they demand excessively conservative loan loss provisions. Furthermore, as a monopolistic auditor's reputation increases, I find that they demand even more excessively conservative loan loss provisions. These two results are consistent with the auditors' desire to maintain their reputation capital in order to minimize economic losses that can arises due to an overstatement of net assets in the audited financial statements. Auditors, in a monopolistic audit market, are able to focus on protecting their reputational capital because they do not have to balance their long-term reputational interests with short-term economic issues, such as client retention and opinion shopping.

My results contribute to the auditing literature because they provide empirical evidence, rather than theory, about the potential impact of a government audit market monopoly. I find that this potential audit market change would decrease overall information quality because audit quality would decrease. I recognize that this finding is limited by the fact

that I only examine audit quality from the perspective of accounting conservatism and that there are direct and indirect proxies for audit quality and thus more research is required before we can definitely determine the optimal audit market structure. In the future, I intend to examine this question using these different proxies for audit quality to discuss the net societal impact of adopting a monopolistic audit environment.

My second essay studied whether Big-N auditors located in Europe's financial capitals supplied a uniform level of audit quality to all of their clients. The auditing literature assumes that Big-N auditors are able to provide a uniformly high level of audit quality to all of their clients because a firm's audit knowledge can be applied by all of the firm's auditors (DeFond and Zhang 2014). However, in this paper, I suggest that the Big–N auditor knowledge transfer assumption is conditional on auditors developing a sufficient understanding of their clients' economic environment. I test this hypothesis by comparing the supply of audit quality provided to public sector FTAs to the audit quality provided to private sector commercial banks. Both of these financial institutions have very similar business operations yet differ in one important aspect: FTAs operate in the economic environment of the vehicle currency, while commercial banks operate in the economic environment of the domestic currency. However, given the similarity of these institutions and the regular frequency with which auditors deal with non-governmental commercial banks I draw from the psychology literature and suggest – and find that auditors primarily rely on the representativeness heuristic (Tversky and Kahneman 1974) and, consequently, do not develop a sufficient understanding of the public sector FTA's economic environment and thus do not detect inappropriate functional currency determinations by FTAs.

This essay contributes to the audit quality literature by suggesting that the knowledge transfer assumption is conditional on an auditor understanding a client's economic environment. This finding suggests that users should not simply assume that a given local audit office supplies the same level of audit quality to all of its clients. Moreover, this paper contributes to the audit quality literature by utilizing a new direct measure of audit quality: correct functional currency determination. The generalizability of the results may be limited because FTAs operate in a highly specialized area of international finance. In

the future, I intend to further explore auditor understanding using an experimental research design.

The third essay examines how public officials at state-owned banks applied IFRS 13. The new standard sought to improve the information quality of fair value measurement disclosure by increasing the understandability of disclosures (IASB 2008). If public officials apply the standard as intended and present disclosures in a more understandable manner, they should also be increasing the probability that the public will understand political lending activities at state-owned banks and demand political change. It is noted in the political science literature that public officials are primarily motivated to maintain their political power (Nordhaus 1975) and so I predict - and find that public officials strategically reduce the understandability of their IFRS 13 disclosures to reduce the public's ability to detect political lending activities. Furthermore, I find that the level of regulatory independence from the government possessed by state-owned banks also influences how the standard is applied: regulators with more independence are better able to use their regulatory power to ensure that public officials apply the standard as intended.

This paper contributes to the literature by examining the disclosure strategies of public officials. Patelli and Pedrini (2014) state that firms communicate in an understandable manner to maintain their organizational legitimacy. We find that this relationship is conditional on the time-horizon faced by public officials. Public officials with short-term horizons are motivated by short-term political interests and thus can utilize an obfuscation disclosure to delay the public's understanding of negative information and maintain political power. However, managers with long-term horizons must maintain their long-term reputations and therefore must communicate in an understandable manner.

Bibliography

Chaney, P. K., & Philipich, K. L. (2002). Shredded reputation: The cost of audit failure. *Journal of Accounting Research*, 40(4), 1221-1245.

Chasan, E. One in Three Audits Fail, PCAOB Chief Auditor Says. *The Wall Street Journal*. Retrieved from: http://www.wsj.com.

DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2), 275-326.

Francis, J. R. (2004). What do we know about audit quality? *The British Accounting Review*, 36(4), 345-368.

International Accounting Standards Board (IASB). (2008). Discussion Paper: Reducing Complexity in Reporting Financial Instruments. London: IASC Foundation Publications Department.

Le Vourc'h, J., Morand, P. (2011). Study on the effects of the implementation of the acquis on statutory audits of annual and consolidated accounts including the consequences on the audit market. *Final report to European Commission.*

Nordhaus, W. (1975). The Political Business Cycle. The Review of Economic Studies, 42(2), 169-190.

Patelli, L., & Pedrini, M. (2014). Is the Optimism in CEO's Letters to Shareholders Sincere? Impression Management versus Communicative Action during the Economic Crisis. *Journal of Business Ethics*, 124(1): 19 – 34.

Tversky, A., Kahneman, D. 1974. Judgment under Uncertainty: Heuristics and Bias. *Science*, 185: 1124-1131.