Auditors' Role in Fair Value Monitoring: Evidence from Security-Level Data

Natalie Berfeld*
MIT Sloan School of Management
nberfeld@mit.edu

Preliminary
July 2020

ABSTRACT

In this paper, I study the economic forces that shape audit firms' effectiveness as monitors of their clients' fair value (FV) measurements, and in particular, the internal and external factors that affect FV audit outcomes. Specifically, by analyzing the dispersion in the FV estimates of the same security held by different insurance clients of the same auditor, I provide evidence that auditors' security-specific FV expertise is associated with increased precision in their clients' FV valuations. Moreover, I find that auditors use their built-up competency to curb insurance clients' incentives to overstate and understate FVs. I also assess how other client level monitors, including regulatory bodies and financial strength rating agencies, influence the propensity of audit firms to apply their influence on clients' FVs, finding evidence consistent with a substitution effect between audit firm influence and the strength of other monitors.

*I am grateful to Inna Abramova, Samuel Anderson, Brian Baik, Ki-Soon Choi, Tim de Silva, Eric So, Nemit Shroff, Andrew Sutherland, Rodrigo Verdi, Joe Weber, and Rachel Yoon for thoughtful comments and suggestions. I gratefully acknowledge financial support from the MIT Sloan School of Management and the Deloitte Foundation.

I. INTRODUCTION

I study the economic forces that shape audit firms' effectiveness as monitors of their clients' fair value (FV) measurements. Auditors mitigate information asymmetries that arise between firm insiders and outside stakeholders by reducing uncertainty regarding whether management has fairly represented the underlying performance of the firm in the financial statements (e.g. Jensen and Meckling 1976, Watts and Zimmerman 1983). This monitoring role is especially important when managers have increased scope for discretion over the values they report. The use of FV measurements, while having become an increasingly important facet of financial reporting (e.g. Barth 2006, Christensen and Nikolaev 2013), has been subject to exactly this criticism – detractors say the subjective and complex model assumptions required in FV allow managers too much scope for discretion, and sacrifice financial statements' reliability. Thus, auditors, in their position as monitors of financial statement quality, ought to play an important role in mitigating these concerns. However, whether and how auditors assert influence on clients' FVs remains an underexplored area in the literature, and one that I aim to study in this paper (e.g., Christensen et al. 2012; Bratten et al. 2013).

An important challenge in studying audit firms' role in FV reporting outcomes is that the audit process is fundamentally unobservable, with the empiricist seeing only the end product of the interaction between the auditor and the client. Moreover, it is empirically difficult to separate outcome differences stemming from the auditing process from those stemming from the underlying economics of the entity being audited (DeFond and Zhang 2014). This difficulty is particularly important in the FV reporting context, because of the heavy reliance on subjective assumptions inherent in the process. To overcome these challenges, I use security-level FV valuations that insurance companies (henceforth 'clients') report in annual regulatory filings for

their fixed income securities.[2] Security holding decisions are made by insurer clients independently of their auditors, such that audit firms are exposed to different securities at different times based on the individual portfolio decisions of their clients. This setting, which has recently been used to show that insurers take advantage of the discretion permitted in FV reporting (e.g. Hanley et al. 2018, Sen and Sharma 2020), allows me to control for the underlying economic construct by comparing audit outcomes across auditors and clients *for the same security in the same period.*

Whether and to what extent audit firms are likely to influence their clients' FVs depends on factors both internal and external to the audit firm. Internally, audit firms' propensity to influence their clients hinges on their development of FV expertise. Prior research suggests that task-specific expertise is valuable in developing auditor competencies, particularly in complex accounting areas (e.g. Bonner and Lewis 1990, Godfrey and Hamilton 2005, McGuire et al. 2012, Cannon et al. 2014). Audit firms may be better able to assess the appropriateness of a given client's methodology when they have more data on the range of possible assumptions for a given security through comparison across different clients, or when they have more experience with a security.[3] In addition, many audit firms have invested in establishing specific mechanisms to address FV issues in financial securities, like internal centralized pricing desks which employ dedicated, finance-trained, staff to support the audit teams in evaluating the appropriateness of reported FVs (PCAOB 2017). These pricing desks act as central clearing houses through which the auditing for the most complex FV measurements flows, and in which security-level competencies can develop. Thus, I hypothesize that audit firms' security-specific experience strengthens their views on

[2] Insurers must report annually the dollar FV of each fixed income security in their portfolio. Fixed income assets constitute a large part of insurers' portfolios: they make up roughly 64% of about $5 trillion assets in my sample. They also make up a significant share of the fixed income market: insurers own an estimated 20% of all corporate bonds in the US, making them an important investor in the bond market (Paulson and Rosen 2016).

[3] E.g. Clor-Proell and Nelson (2007) find that audit firms are apt to rely on examples in their work

appropriate FVs, leading to increased precision in allowable valuations of the same security across an audit firm's different clients.

In addition, audit firms may assert their influence more when they are worried about regulatory or reputation risk, for example through an eventual PCAOB inspection. Indeed, the PCAOB has applied continued pressure on audit firms' FV audit practices through inspections report citations, which have been shown to be costly for the audit firm (Aobdia 2019, Shroff 2019*).*[4] This may cause audit firms to apply their expertise unevenly, influencing clients most likely to be detected more than those that are less likely to be detected.

At the same time, auditing is not the only mechanism by which managers' actions are subject to scrutiny. Other parties that interact with the firm receive private information which they use to monitor the manager.[5] The presence of other monitors can affect the audit firm's application of its expertise insofar as it helps resolve a fundamental tradeoff that it faces in determining whether to push back against a client's proposed valuation. On the one hand, audit firms have incentives to retain their clients. The opaque and subjective nature of FV can provide a good opportunity to do so by allowing hard-to-detect within-GAAP discretion in valuations. On the other hand, audit firms face regulatory, litigation, and reputational pressure to ensure the quality of FVs. I hypothesize that when clients have relatively weaker monitors (i.e. when the manager's ex-ante scope for discretion is higher), the audit firm's expertise will have a relatively larger effect on FV estimations. In other words, I predict a substitution effect between the efforts of audit firms and those of other monitors in the client's institutional environment.

[4] For example, in May 2020 the PCAOB noted that their "oversight activities have revealed a recurring pattern of deficiencies in this (FV) area". The PCAOB considered 32 percent of the audits for annually inspected firms to be deficient in 2015 (PCAOB 2020).

[5] Some examples of such parties include regulators, long-term debt holders, and concentrated shareholders.

I use security level FVs of fixed income securities reported in annual insurance company statutory filings from 2012 to 2017.[6,7] I define audit firm-level imprecision as the absolute value difference between the FV of a security and the average value at which it is held by all other clients of the same auditor who hold the same security.[8] I study how audit firm-level precision is related to an audit firm's experience with that security.

I find that audit firm precision increases as the number of security instances in its portfolios grows.[9] Interestingly, I find that the amount of historical (i.e. time-series) experience an audit firm has with a particular security is less relevant to the degree of precision than cross-sectional experience. My research design compares differences across auditors in the FV measurement of the same security, in the same year. Because my analyses control for security-year and audit firm-year fixed effects, my results cannot be explained by security characteristics such as different liquidity or credit risk, or by audit firm-level attributes such as size or reputation, or by audit firm-client matching (e.g., Cook et al. 2020).

To address whether the above result is driven by expertise development or increased fear of adverse regulatory or reputation consequences, I take advantage of differences in the degree to which an audit firm's individual audit engagements are subject to regulatory scrutiny. Because the mandate of the PCAOB is to inspect only public clients' audit, I test whether the documented

[6] I follow Hanley et al. (2018) and start my sample in 2012 to capture a period during which there were no regulatory changes with respect to the reporting requirements.
[7] These make up the building blocks of aggregate FVs reported in GAAP financials. The definitions and methodologies of FVs are very similar between GAAP and statutory financials.
[8] For example, if an audit firm audits three instances of the same security, I calculate the measure for each instance as the absolute value difference between that instance and the average of the other two instances.
[9] In particular, an audit firm values a security about 15.6% [0.274 / 1.755] less precisely when it has less cross sectional experience with it (below median experience level).

effects are driven by public client security holdings alone.[10] I find that this is not the case, suggesting that PCAOB pressure does not fully account for my results.

To further validate the expertise mechanism, I explore how auditors respond to varying sources of bias in clients' FV estimates. I take advantage of differing incentives at the client firm level – while some clients may want to overstate the FV of their securities in an effort to appear better capitalized, others may want to understate the FV if they prefer to take write-downs. Using proxies for client firm financial strength and institutional incentives to understate surplus earnings, I find evidence that audit firms are more likely to apply their expertise to lower (raise) valuations when clients have incentives to overstate (understate) the value of their assets.[11]

I then turn to studying how auditors' application of their expertise varies with the presence and strength of three features of clients' institutional environments that are likely to affect managers' ex-ante scope for discretion. These are the regulatory, shareholder, and competitive forces clients face.[12] First, insurance companies are heavily regulated entities overseen by state-level regulators that vary in strictness. I hypothesize that audit influence is higher (lower) for client firms domiciled in states with less (more) strict statutory regulators that are likely to have more (less) leeway in reporting FVs. In states with strict regulators, audit firms may not need to assert their influence as much because client firms may already be motivated to have higher quality FV valuations to avoid regulatory action. Using regulator staff per insurer, budget per insurer, the

[10] Similarly, the litigation risk is increasing in the number of public clients moreso than the number of private clients (e.g., Bell et al. 2002; Johnstone and Bedard 2003; Venkataraman et al. 2008; Badertscher et al. 2014). To the extent that these differences are enough to influence audit quality, I expect precision to be more affected by public clients

[11] More detail on the proxies can be found in section 2. Briefly, I use the low regulatory capital status as a proxy for incentive to overstate securities' FV, while I use mutual company status as a proxy for incentive to understate. Mutual companies are companies that owned by their policyholders. They have to pay out surplus profits to shareholders either through a dividend or through a premium reduction, incentivizing more conservative reporting.

[12] Theory suggests long-term creditors are also likely to be strong monitors. Insurance companies generally do not have many long term creditors, however, as their reserves form the largest part of their liabilities.

number of exams per insurer, and a measure of regulatory security-level overstatement as proxies for regulator strictness, I find evidence consistent with audit firms and financial regulators acting as substitutes in ensuring FV reporting quality.

Second, block shareholders act as monitors of firms' reporting quality (Shleifer and Vishny 1986) and may prevent management from seeking discretion in their FV valuations. I proxy for dispersed ownership using mutual company status, and do not find that auditors' use of expertise is different based on this proxy for concentration of ownership.

Third, rating agencies who measure the financial strength of insurance companies can also act as monitors of firms' reporting quality. Insurance companies are often rated by one (or more) of four credit rating agencies (AM Best, Fitch, Moody's, S&P) as to their financial strength, and insurers use these ratings for advertising purposes in their product markets to signify to customers their reliability and investment-worthiness. Using the number of agencies rating a client as a proxy for the intensity of this type of external monitoring, I find evidence that auditors apply their expertise less the more that financial strength rating agencies monitor the firm.

I perform several additional tests to support my analyses. A potential concern with my results is that while they are consistent with an auditor becoming more confident in a particular value as it builds expertise, it is possible that they are confidently influencing towards some 'incorrect' value. I show that my results are generally robust to using a measure that looks at dispersion from the average FV of all the same securities audited by a *different auditor*, rather than at the same auditor as the main measure uses. This version of the measure takes *all other values of the same security* as a proxy for the 'true value', and I provide evidence that auditors are more likely to get closer to this 'true value' with more security-specific experience.

In addition, I support my main expertise measure through placebo tests, using simpler securities in which expertise is unlikely to be needed (i.e. securities for which the manager has less score for discretion). I show evidence that my measure of expertise is less meaningful both statistically and economically in this placebo sample.

My study contributes new evidence on the role of audit firms as monitors of FV measurements, and their interaction with the institutional environment of their clients. I provide security-level evidence of a substitution effect between audit firms and regulators and rating agencies, where audit firms constrain managerial incentives more when regulators and rating agencies are less able to constrain them. This evidence contributes to our understanding of the opaque and challenging FV auditing process, and may help address concerns of the PCAOB and others regarding auditors' perceived shortcomings in the FV auditing area.

I also provide evidence that auditors improve as monitors through FV expertise building, adding to the recent expansion of auditor competencies literature beyond industry expertise. These results add to a growing literature, largely experimental and survey-based, showing that audit firms develop FV expertise (e.g. Cannon et al. 2014; Barr-Pulliam et al. 2018). A notable exception is Ahn et al. (2020), who present archival evidence that clients of auditors with more expertise in auditing complex FV estimates are less likely to egregiously misstate values. In contrast to their paper, I study audit firms' role in monitoring more subtle, within-GAAP discretion that client firms have in setting FVs. This subtle discretion has been shown to be used by firms, in the same setting as in my paper, to strategically manipulate their FV measurements to overvalue securities when they have greater incentives to do so (Hanley et al. 2018).

II. INSTITUTIONAL BACKGROUND, LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Institutional Background

Public and private insurance companies writing business in the US file annual audited Statutory Accounting Principles (SAP)-compliant financial information with the National Association of Insurance Commissioners (NAIC), a centralized standard-setting and regulatory support organization of state insurance commissioners. As part of the NAIC's role to create and maintain the SAP upon which statutory financial submissions are based, beginning in 2012, the NAIC requires companies to disclose the FV of each fixed income security held on the books in schedule D of their submissions. As these schedules are a required part of the annual audited financial reports (SSAP 26R), they must be audited by an independent certified public accountant (NAIC Annual Financial Reporting Model Regulations). This reporting is done at the individual security level and allows a direct comparison of the same security held by different insurers. Fixed income securities are an important part of insurers' balance sheets because insurers face long term obligations which need to be balanced with a relatively steady stream of cashflow from the investment side. 72% of a typical insurance company portfolio is made up of fixed income securities, 68% of which are corporate bonds (with 15% of these privately placed), 18% are asset backed securities, and 9% are municipal bonds (Hanley et al. 2018). Insurance companies make up a significant share of the fixed income market: they own an estimated 20% of all corporate bonds in the US, making them an important investor in the bond market (Paulson and Rosen 2016).

FV Auditing

Security holding decisions are made by insurer clients independently of their auditors, such that audit firms are exposed to different securities at different times based on the individual portfolio decisions of their clients. When auditing their clients' security portfolios, audit firms begin by stratifying the securities into low and high estimation risk portfolios. This is generally done by the pricing desk, a national team of investment professionals within the audit firm, and is based largely on the risk profile of the security, as well as factors such as the availability of alternate pricing sources. Audit teams then tailor audit procedures based on these classifications, as well as the size of clients' portfolios. Low risk portfolios are generally checked against an external pricing service *different* from the one used by the client. Small portfolios are wholly checked, whereas larger portfolios are statistically sampled to ensure a representative sample of securities is audited. Using a pricing service to check the values of these securities is simple, and only required inputting them into an online user interface.

High estimation risks securities typically do not have a second pricing source (i.e. one the clients has not used), or are broker or client estimated. In these cases, the pricing desk gets involved. They work to model the securities out independently, as estimated acceptable ranges for securities, which can be smaller than the typical materiality thresholds at the auditors. The sampling, too, becomes narrower for these securities to ensure good coverage on the types of securities, brokers, model types and other characteristics.

Regulatory Environment

Although the NAIC is a forum through which state insurance commissioners can, and do, coordinate, insurance companies in the United States are still regulated primarily at the state level. State regulators are tasked with both market and solvency regulation. Market regulation involves licensing, approving product types, as well as approving prices charged for these products.

Solvency regulation involves assessing the financial position of insurers and ensuring that they are solvent and able to honor the promises made to policyholders.

One of the primary tools with which regulators ensure solvency is the requirement to maintain total adjusted capital levels above a minimum requirement as determined by the mix of risk categories the insurer is exposed to, such as investment risk or interest rate risk. The risk based capital (RBC) ratio, is the ratio of the insurer capital level to this minimum 'authorized' risk-based level. According to the NAIC's RBC for Insurers Model Act 2012, if this ratio falls below 200%, the state regulator can begin to take actions against the insurer ranging from requiring the submission of an action plan for corrective actions (if above 150%) to placing the company under regulatory control (if below 70%). In addition to these capital requirements, state regulators perform scheduled and discretionary exams of insurance companies to check their accounting methods and procedures.

Aside from these regulatory concerns, insurance companies are also monitored by rating agencies. The most common rating is by A.M. Best, but S&P, Moody's, and Fitch also rate some insurers. In addition, Demotech rates property and casualty (P&C) insurers. These agencies assign financial strength ratings based on their assessment of insurers' financial position and future ability to maintain their obligations. These ratings are viewed by investors and customers as an important measure of company reliability, and are often cited in marketing materials and used by insurance brokers.

FV Rules in Statutory Reporting

The FV of fixed income securities held on the insurer's balance sheet can have an impact on RBC in one of two ways, depending on the value at which the security must be carried on the

balance sheet. First, if the security is held at the lower of amortized cost or FV on the balance sheet, then any changes in its valuation below amortized cost flow directly through asset values and, by extension, capital levels. Second, when a security is held at amortized cost, SSAP guidelines dictate that it must be written down (i.e. recognize a loss) if there is an "other than temporary impairment" (OTTI), i.e. when "it is probable that the reporting entity will be unable to collect all amounts due according to the contractual terms of a debt security in effect at the date of acquisition." (SSAP 26R – Bonds). In this case also, the difference between the amortized cost and FV flows through to capital as a recognized capital loss either through surplus or through the Asset Valuation Reserve (AVR) if they carry one, either way decreasing the total adjusted capital and, therefore, the RBC ratio (SSAP 26R).

Whether a security is carried at FV or amortized cost depends both on the holder and the risk of the security. The NAIC's Securities Valuation Office (SVO) assigns a credit quality ranking between 1 and 6 to each security, with SVO level of 1(6) indicating a low (high) risk. The NAIC requires that all SVO level 6 securities be carried at FV, and securities designated levels 3 and higher be carried at FV by P&C insurers.

The standard guiding FV measurement under statutory reporting is SSAP 100, which generally adopts FAS 157, the principle governing FV calculations in the GAAP framework.[13] Under this standard, security values that cannot be obtained from an independent pricing service (e.g. the market price), have to be priced using either broker-quoted prices (third party) or internally derived (self-estimated) prices based on the expected cashflow of the security discounted by an appropriate market rate. The FV of a security is categorized in one of three levels; level 1

[13] Some modifications are adopted, in particular a rejection of the consideration of non-performance risk in determining the fair value measurement for liabilities under GAAP (SSAP 100).

securities are ones that have “observable, quoted prices for identical assets or liabilities in active markets”. Level 2 securities have “quoted prices for similar assets or liabilities in active markets [or] quoted prices for identical or similar assets in markets that are not active”. Level 3 securities have “unobservable inputs for the asset or liability” (FASB FAS 157).

Literature Review and Hypothesis Development

FV measurements have become an increasingly important facet of financial reporting, as standard setters around the world have been emphasizing relevance as a key feature of financial statement information (e.g. Barth 2006, Christensen and Nikolaev 2013). While proponents argue that the FV basis leads to increased relevancy and transparency, detractors are concerned that the high level of subjectivity and model complexity inherent in FV measurements sacrifice financials’ reliability and quality by leaving more room for managerial manipulations. Auditors, whose role it is to mitigate information asymmetry between insiders and outsiders, should then be particularly important in this context, when managers have increased scope for discretion.

The evidence on whether auditors successfully influence their clients’ FV estimations is mixed. An oft-cited piece of evidence is the fact that many PCAOB inspection reports cite auditors specifically for deficient FV auditing standards. However, Glover et al (2019) find that the difference between inspector and auditor values may be at least partly driven by a lack of clarity of the inspection process rather than deficiencies in the FV process itself. In addition, while Christensen et al. (2012) argue that even small changes in model assumptions can create large enough differences in the end result, such that it is difficult for auditors to be confident in rejecting management’s numbers, Dietrich et al. (2000) show that Big Six auditors provide better property fair-value estimates than non-Big Six auditors. A plausible explanation for the mixed results is that auditors’ influence on clients’ FVs is not uniform, with factors both internal and external to the

auditor likely influencing the audit outcome. The goal of my paper is to study these factors in detail.

First, auditors may be more likely to push back against management if they possess the required expertise. Researchers have argued that task-specific knowledge is more important than general experience variables such as years of service in developing auditor competencies (Frederick and Libby 1986; Bonner and Lewis 1990). While prior literature studying auditor competencies has focused on how industry specialization (e.g. Ashton 1991; Neal and Riley 2004; Reichelt and Wang, 2010) and geographic concentration (e.g. Choi et al. 2012) increases audit quality, more recent literature has started to examine specific subject-matter expertise in tax (McGuire et al. 2012), R&D (Godfrey and Hamilton 2005), and fair value (e.g. Cannon et al. 2014; Ahn et al. 2020), among others.

Literature shows that learning-by-doing is an important phenomenon in acquiring knowledge (e.g. Arrow 1971), so that it not only matters *how long* one has been doing something, but also *what specifically* one has been doing. For example, Kempt et al. (2017) show that mutual fund managers are better able to pick stocks in an industry when they have observed multiple shocks affecting that industry. Pan et al. (2015) show that increased number of observations of a signal about CEO performance helps investors assess his or her skill.

In FV auditing in particular, the complex and model-driven nature of the valuation and therefore the auditing process can further complicate the acquisition and transferability of feedback and knowledge (Bratten et al. 2013). Evidence suggests that auditors most often rely on managements' models as a starting point for their audit (as opposed to independently valuing the security), and find it difficult to determine the appropriateness of management assumptions, especially when independent data is unavailable (Bratten et al. 2013; Griffith et al. 2015b; Cannon

and Bedard 2017). Indeed, audit firms are apt to rely on examples in their work (Clor-Proell and Nelson 2007), and can be hampered by managers' first mover advantage in suggesting valuations (e.g. Bratten et al. 2013). Thus, I hypothesize that multiple observations of different client firms' valuations of the same security at the same time allow an audit firm to compare different methodologies and strengthen their view on an appropriate FV for a given security. This manifests itself in increased precision in valuations of the same security across its different clients.

H1: *Audit firms' security-specific expertise strengthens their views on appropriate FVs, leading to increased precision in valuations for the same security in the same year across an audit firm's clients.*

Auditors Counteracting Client Incentives

Beyond security-level increased precision, I expect expertise development to manifest itself in audit firms pushing back against managers' strategic use of FV. The literature has generally shown that managers use the discretion inherent in various FV based calculations in an opportunistic manner. Ramanna and Watts (2012) and Li and Sloan (2017) show that managers strategically use goodwill impairments to manipulate earnings. Dechow et al. (2010) find that managers use discretionary gains in securitization as an earnings management tool. Hilton and O'Brien (2009) show opportunism with regards to delayed asset write-downs.[14] In order to study audit firms' FV expertise, I identify two settings where managers are likely to have incentive to overstate and understate the FV of their securities, and study how auditors with more FV expertise react.

In the same setting as this study, Hanley et al (2018) show that managers of insurance companies manipulate the FV of their fixed income securities based on strategic requirements

[14] See Montague et al. (2012) for a review on managers' use of discretion around fair values.

around minimum statutory capital levels. As discussed above, having low capitalization level, or RBC ratios, provides an insurer with a particularly salient incentive to overstate FV. Thus, I expect that audit firms with expertise will influence their clients to lower the FV of the security in situations where clients' RBC is low.

On the other hand, mutual insurance companies likely have an incentive to understate their FV. Mutual companies, in contrast to stock companies, are owned by their policyholders. Managers of mutual companies are required to distribute any surplus among the owners-policyholders, and have no option to withhold such funds (Kreider 1972). Thus, managers have incentives to record losses to lower the available surplus. I expect that audit firms with expertise will influence their clients to raise the FV of the security in situations where their clients are mutual companies.

Interactions between Auditors and Other Monitors

The institutional environment in which clients operate impacts the degree to which they are likely to seek discretion. This in turn can influence auditors' role in the verification process. There is some evidence in the literature that auditors respond to the broader institutional conditions that their clients face. Copley and Douthett (2009) find evidence that auditors put in less effort in IPO audits during 'hot markets', when there is higher pressure to provide quick assurance. On the other hand, Carnes (2018) finds that auditors put in more effort during merger waves, when uncertainty is higher and the quality of financial statements is more likely to be threatened. Moreover, Nelson et al. (2002) and Pinto et al. (2020) provide some evidence that auditors respond to the precision of the accounting standards in deciding whether to push back against clients.

More specifically, there is recent evidence in banking literature that the presence of other monitors can affect audit firms' effort. Altamuro and Beatty (2010) find evidence of a substitution effect between internal control regulation and auditor presence. On the other hand, Gopalan,

Imdieke, Schroeder, and Stuber (2019) find evidence of an imperfect substitution of the same internal control regulation, while Dal Maso et al. (2018) find that there are complementarities between bank regulation and accounting enforcement in a different setting. In addition, Nicoletti (2018) studies the effect of auditors and regulators on banks' loan loss provisioning, and finds that auditors dominate regulators within this context in cases where their effects differ. In a related study, Balakrishnan et al. (2019) find evidence that the interaction between auditors and regulators can also substitute for another monitoring mechanism - market discipline.

Audit firms face a fundamental tradeoff in determining whether to push back against a client's proposed valuation. On the one hand, audit firms have incentives to retain their clients and maintain a positive relationship with them. The opaque and subjective nature of FV measurements can provide with an opportunity to do so by allowing hard-to-detect within-GAAP discretion in valuations. On the other hand, audit firms face regulatory, litigation, and reputational pressure to ensure the quality of FVs. The effect of the presence of other effective monitors of client FV quality on audit firms' decisions regarding how much pressure to apply to clients is ex-ante unclear. First, the presence of other strong monitors may induce clients to ex-ante improve FV quality even without auditor intervention, resulting in a substitution effect among monitors. Second, stronger monitors may be more likely to notice poor-quality FV, and any resulting negative publicity and/or litigation could hurt the auditor, such that it has incentives to apply more pressure the better the other monitors. This effect would result in auditors and other monitors acting as complements.

Moreover, auditors may already have incentives to improve client FV quality regardless of the strength of other monitors if they believe poor quality FV is likely to be noticed by their own regulator, the PCAOB. In this case there would be no impact of the presence of other monitors. Indeed, the PCAOB has applied continued strong pressure on audit firms with respect to FV

auditing through citations in inspections reports.[15] The citations are generally process, rather than outcome, oriented, and are costly for the audit firm, so they are motivated to avoid them (e.g. Aobdia 2019, Shroff 2019). Because the emphasis in PCAOB inspection is on the process, differential application of FV expertise may be viewed unfavorably and thus avoided.

I hypothesize that the presence of strong monitors in the form of regulators, block shareholders, and credit rating agencies all contribute to ex-ante decrease the opportunity managers have for discretion, and thus allow audit firms to resolve the above tension, and efficiently allocate resources, by concentrating on those clients where audit risk is highest. First, insurance companies are heavily regulated entities overseen by state-level regulators that vary in strictness. I hypothesize that audit influence is higher (lower) for client firms domiciled in states with less (more) strict statutory regulators that are likely to have more (less) leeway in reporting FVs. In states with strict regulators, audit firms may need to push back less because client firms may already be motivated to have higher quality FV valuations to avoid regulatory action.

Second, block shareholders act as monitors of firms' reporting quality (Shleifer and Vishny 1986) and may prevent management from seeking discretion in their FV valuations. To test whether auditors use their expertise more when stockholder monitoring is weaker, I take advantage of stock and mutual companies in my dataset. A mutual company is a firm that is owned by its customers (i.e. policyholders) and thus has more dispersed ownership with arguably less monitoring. I hypothesize that audit firms will use expertise more to influence their clients' valuations when the clients are mutual companies.

[15] For example, in May 2020 the PCAOB noted that their "oversight activities have revealed a recurring pattern of deficiencies in this (FV) area". The PCAOB considered 32 percent of the audits for annually inspected firms to be deficient in 2015 (PCAOB 2020).

Third, financial strength rating agencies can also act as monitors of firms' reporting quality in this context. Insurance companies are often rated by one (or more) of four credit rating agencies (AM Best, Fitch, Moody's, S&P) as to their financial strength, a rating insurers use in product markets to signify to customers their reliability and investment-worthiness. I hypothesize that audit firms apply their expertise less the more rating agencies monitor the firm.

H2: *The extent to which auditors assert their influence depends on the level of other monitoring (from regulators, investors, and credit rating agencies) the client is subject to.*

III. DATA AND SAMPLE SELECTION

To construct the sample, I use required statutory disclosures from the insurance industry that provide security-level information on the fair value at which an insurer's fixed income securities are held at the end of each calendar year-end. The National Association of Insurance Commissioners (NAIC), the state insurance standard-setting and regulatory governance body, requires private and public insurance companies to file audited annual regulatory statements. Starting in 2012, insurers are required to report at each calendar year-end, the individual security level (CUSIP level) dollar FV of all their fixed income securities. This information is reported in NAIC Schedule D Part 1. I begin by collecting the FV, par value, input level (level 1, 2 3), SVO quality designation, and estimation source (self-estimated or through a third party) from this schedule for all fixed income securities owned by life and P&C insurers for the calendar years 2012 through 2017.[16] Following Hanley et al. (2018), I retain observations with a positive par value, FV, and purchase price. I use insurer financials (assets, income, capital, type of insurer) and

[16] All insurers report annual statutory reports as of December 31 each year.

audit firm information for the duration of the sample from the NAIC Five Year Historical and General Interrogatories forms respectively. I retain only insurers with positive assets.

I match insurers in my dataset with S&P Global Market Intelligence dataset to include additional information on the public/private status, the number of financial strength rating agencies, and the mutual/stock status of the company. To decide whether a group is public, I merge my data with the S&P Global Market Intelligence dataset, which includes information by company and group number. I use the 'Ultimate Parent SEC Exchange' field to assign a public status to a group as follows. If a group in my data is listed in the S&P database as having an SEC Exchange listed for the ultimate parent, then I deem it public. If a group is not listed in S&P, I go down to the company level and check whether each company within the group has an SEC Exchange listed for the ultimate parent. I also hand collect data from the NAIC about the staff per insurer, budget per insurer, and number of exams per insurer at the state-year level over my sample's time period.

Many insurance companies are part of the same 'group'. For example, for regulatory reasons, John Hancock Life Insurance Company files separately as John Hancock NY and John Hancock USA. Decisions regarding FV estimates are typically thought to be done at the group level (Hanley et al. 2018), and I verify that indeed there is little variation within insurers that belong to the same group in terms of the FV they assign to the same securities they hold.[17] Therefore, I combine my sample at the group-cusip-year level. To do this, I first identify cusips for which the number of holders in the group-year is greater than one. For these cusips, I remove groups that are comprised of insurers which own the same security but do not have the same audit firm because I need a one-to-one relationship between client firm and audit firm to identify an audit firm effect. To combine

[17] Insurers share securities within the group in 20% of cases while in 80% of the data, no two insurance firms within a group share a security. In the cases where multiple insurance firms own the same security, the differences in the FV they assign is miniscule.

security information, I sum the fair value, book value, and par value at the group-cusip-year level, and assign the mode of characteristics such as FV level and estimation source at the group-cusip-year level.

To combine firm financials at the group level, I sum the total assets, net income, and capital amounts across the individual members. In addition, I assign the public indicator to the group as follows: if at least one company in the group is public I assign the entire group as public under the assumption that the group decision making will be geared towards public incentives.[18] Lastly, I assign a group as mutual if all subsidiaries are mutual within the group, and I use the average number of financial strength rating agencies within the group. In the rest of the paper, I refer to 'client firm' and 'group' interchangeably.

Next, again following Hanley et al. (2018), I truncate at the 0.5^{th} and 99.5^{th} percentile of FV to limit errors, and I remove securities that held by fewer than five holders in my sample to reduce the effect of outliers. I remove non-standard cusips from the data and entries that have missing values for the set of controls I use in my regression.

Lastly, I create a subsample of securities where I expect the audit firm-level monitoring improvement results to be most concentrated. Based on the institutional details described in section 2, these should be securities that are most likely to be sent to the centralized pricing desk, which are the most difficult to value securities. For my subsample, therefore, I select securities from the full sample above that were ever self-estimated at any client, *and* that were valued as a level 3 security at any client.

[18] Alternatively, I assigned public status to a group if the majority of the insurance firms in it were public, and found this approach yielded very similar results, with different assignments to only four groups in my data.

IV. RESEARCH DESIGN

I begin by constructing a measure of security-level FV variation within auditor, $Within\ Auditor\ FV\ Diff_{iast}$. This variable represents the difference between the FV client *i* at audit firm *a* assigns to security *s* in year *t*, and the average FV of this security at all other clients of the same audit firm in the given year. I normalize FV per $100 of par value for ease of comparison. Mathematically,

$$Within\ Auditor\ FV\ Diff_{iast} = \overline{FV_{iast}} - \frac{1}{N_I - 1}\sum_{I \neq i}^{N_I} \overline{FV_{Iast}} \quad (1)$$

I then define imprecision using the absolute value of the deviation measure in equation (1) above, and analyze how audit firm security-level experience is associated with the degree of imprecision it allows for that security. This measure, $|Within\ Auditor\ FV\ Diff_{iast}|$, captures the dispersion of security *s* at audit firm *a* at time *t* as compared to the average of the audit firm means of the same security *s* at all audit firms in the economy. The larger the security-level dispersion, the more leeway the client gets in valuing this security compared to clients of the same auditor. I estimate the following security-year level regression:

$$|Within\ Auditor\ FV\ Diff_{iast}| = \beta_1 Auditor\ Experience_{ast} + Controls_{iast} + u_{at} + v_{it} + w_{st} \quad (2)$$

The dependent variable is the absolute value security level measure of dispersion described and motivated above. I create two measures of audit firm security-level experience. First, $Num\ Sec\ Audited_{ast}$ represents, for each security, the number of times the audit firm audits that security in a given year across all its clients. This measure captures the value of seeing an *additional* security *this year* to the audit firm's ability to perform a high quality audit. Second, I create a measure of time-series experience with a security. $Hist\ Num\ Sec\ Audited_{ast}$ represents the number of prior observations the audit firm has had with a security. I can only calculate this

measure for securities that are new at an audit firm during my sample period, so this measure is only defined for a subset of the sample. Still, I am interested in understanding the relative benefit of time series vs. cross sectional experience.

I control for security-level characteristics that can vary at the client level such as the assigned FV level, the par value, and the status of the security as one that must be carried at FV. I use a fixed effects structure that includes audit firm-year, client-year, and security-year fixed effects. I use audit firm-year fixed effects to hold constant time variant and invariant audit firm characteristics, such as general audit firm quality. The client-year fixed effects control for time variant and invariant observable and unobservable differences between clients that could lead to variations in the values clients assign within auditor. For example, the propensity of the client to manage the financials could be related to its public/private status, its capital position, the aggressive nature of the manager, etc. I add security year fixed effects to control for time variant and invariant differences in securities, such as liquidity and riskiness. I double cluster all analyses at the audit firm and security level to take into account the fact that valuations are not independent within audit firm and within security. I expect the coefficient on β_1 to be negative (i.e. the more securities an audit firm sees the more precise the valuations get).

Next, I investigate how other monitors' strength influences the extent to which audit firm experience is correlated with clients' discretion:

$$|Within\ Auditor\ FV\ Diff_{iast}| = \beta_1\ Auditor\ Experience_{ast} x\ Other\ Monitors_{iat} + \beta_2\ Auditor\ Experience_{ast} + \beta_3\ Other\ Monitors_{iat} + Controls_{iast} + u_{at} + v_{it} + w_{st} \quad (3)$$

$Other\ Monitors_{iat}$ represents the strength of the other monitoring client i faces. I use three proxies for this variable – statutory regulator strength, mutual company indicator (as a proxy

for the strength of invest monitoring), and the number of financial strength agencies rating the client. For the regulatory strength measure, I use three proxies for regulator strength – staff per insurer at the regulator, budget per insurer at the regulator, and the number of exams at the regulator (Sen and Sharma 2020). I combine the three measures of strength into a single strength index by ranking each state along the three dimensions and then using the sum of weighted ranks as the index. For groups that have multiple state holders of the same security, I assign the security strength of the strictest regulator.

V. RESULTS

Descriptive Statistics

Table 1 presents descriptive statistics on the variables of interest and the controls used in the analysis. Panels A and B present statistics at the security and the insurer level, respectively. There are just under 100K insurer-security-years in the sample. The average par value for a security is $9.15M while the average FV is $9.52M. The average FV per $100 par is about $107. The average difference from within auditor mean at the security level is -$0.026 per $100 of par value. This small value is to be expected since the measure is a difference from the mean so mechanically should be close to zero.[19] The standard deviation, however, is larger, at $3.22 per $100 par, representing about $17.4 million dollars for an average insurance firm's portfolio in the sample.[20] The average dispersion (i.e. absolute value of the difference) for a security is $1.75 per $100 par with a standard deviation of $3.07 per $100 par.

[19] It is not exactly zero because the measure is calculated before excluding firms that have non-missing control variables from the regressions.
[20] (3.22/100) * 59 average insurer securities * 9.15M security par

An auditor sees an average of five instances of the same security held by its different clients, while the average number of holders of a security in the overall economy is 19. Approximately 1.8% are classified as FV level 1, 77% are level 2 assets, and 21.2% are classified as level 3. About 7.7% of securities must be held at FV on the balance sheet according to the NAIC. Lastly, approximately 96% of all securities in the sample are audited by Big 4 auditors.

At the insurer firm level, Panel B shows that the sample contains about 1.8K firm-years, with an average portfolio difference measure of -$0.05, again mechanically expected to be close to zero, and a standard deviation of $0.96 per $100 par. The average natural log of the risk based capital (RBC) measure is 2.2, and a similar median, which represents a median RBC ratio of about 8.6, well above the 2 threshold for regulatory action. The average ROA is 2%. 26.8% of the insurers in my sample are public, and 58.3% are property and casualty insurers, 26.5% are life insurers, and the rest are 'mixed'. I define a mixed group as consisting of both Life and P&C insurers. An example could be Allstate Insurance, which has both P&C and life operations.

Main Results

Table 2 presents results for security-level regressions described in model (2) that examine how within auditor security-level precision is associated with the audit firm's security-level expertise. Columns (1) and (2) consider a cross-sectional measure of auditor expertise (i.e. the number of the same security the audit firms sees at its various clients in the same year) while column (3) considers a time-series based measure (i.e. the number of the same security the auditor has historically audited). I expect that the most relevant auditor experience is that of auditing the same security *at the same time* because manager manipulations are more likely in the most volatile and unpredictable assumptions, so that historical experience is not as relevant as the ability to compare contemporaneous valuations of the exact same security. Therefore, I expect that multiple

observations of different client firms' valuations of the same security help the auditor develop knowledge and expertise in performing FV audits.

In column (1) I find that, controlling for time variant and invariant security, client, and auditor characteristics, being a low-experience auditor (i.e. seeing below the median number of that security compared to other auditors) is associated with an increase in dispersion of 0.042 (t-stat 1.86) or about 2.7% of security-level average dispersion. Column (2) shows that on average, the more instances of the same security an auditor sees at the same time the lower the imprecision measure gets, as expected (t-stat 3.26).

In column (3) I find evidence that historical experience with a security is less significant, both economically and statistically, than cross-sectional measures, although the sample here is smaller because I am only able to calculate the historical experience measure for securities that have been newly purchased by a client within the time of my sample. To verify that cross-sectional expertise is more important, in column (4) I use both measures together in the same regression. I find that indeed, only cross-sectional expertise loads significantly, with an additional security decreasing the within auditor security-level deviation by about 1.4% of the mean (t-stat 2.78).

I interpret these results as broadly consistent with the idea that audit firms' expertise is associated with lower imprecision in clients' valuations, with the more securities as audit firm sees the more it is able to determine what appropriate values for that security are. An alternative explanation, however, is that audit firms face stronger external pressure to align valuations across different clients as the number of holders grows, for example through an increased likelihood of these securities being included in an eventual PCAOB inspection or litigation risk. Because the mandate of the PCAOB is to inspect only public clients' audit, I contrast the documented effect in public and private clients to distinguish between the two channels.

Table 3 considers whether PCAOB related pressure could drive the results in Table 2. The table presents the results of regression (2) when the independent variable (*Num Securities Audited*) is split into the number of securities at the audit firm held by public vs. private clients. If PCAOB pressure drives the main result, I expect that the number of securities at private clients should not be important in explaining precision. However, I find that the number of securities held by private firms loads significantly as well (t-stat 3.77), such that the effect is not only driven by public holders, which is not consistent with a PCAOB threat driven effect.

I have so far studied precision because it does not require me to take a stand on whether client firms will want to overstate or understate their securities, as this decision is likely specific to the circumstances of each client. An important aspect of expertise is the ability to be responsive to, and successfully counteract, a client's incentives to misreport. I thus identify specific cases where clients are more likely to over (under) state the FV of their securities, and study whether audit firms use their expertise to influence their clients to under (over) state.

Table 4 presents evidence on audit firm behavior with two proxies of incentives – one to overstate and one to understate. The incentive to overstate is likely related to a client's statutory capital position (Hanley et al. 2018). Insurers that have low RBC are likely to want to increase the value of their portfolios, or at least avoid taking writedowns. On the other hand, I argue that mutual companies are more likely to want to understate the value of their securities. Managers of mutual companies are required to redistribute surplus to the owners-policyholders in the form of premium credits at the end of the year. This, along with the weaker manager oversight and higher agency costs that characterize this ownership structure, can lead managers to want to 'hide' surplus earnings.

Column (1) and (2) of Table 4 study the case where the client has incentive to overstate the FVs. The dependent variable is a signed (i.e. not absolute value) version of the dependent variable used in the main analysis. The variable *incentive to overstate* is defined as -1 times the natural log of RBC, such that the lower RBC the more incentive the client has to overstate. The results in columns (1) and (2) are consistent with audit firm expertise being used to influence the FV of securities in the opposite direction of the incentive – i.e. when the client has more incentive to overstate, audit firms are more likely to use their expertise to ensure lower values.

Columns (3) and (4) of Table 4 show analogous analysis but for the case of incentive to understate. Again, in this case audit firms appear to use their expertise to influence clients in the opposite direction of their incentives.

Next, I investigate how the influence of audit firms' expertise on their clients' valuations changes with the strength of other client monitors. Table 5 presents results for regressing model (3) using three proxies for the strength of other monitors – regulatory strength index, the number of financial strength rating agencies, and an indicator for mutual company status. First, the regulatory strength index is a combined average ranking of each client's state regulator along three dimensions - staff per insurer at the regulator, budget per insurer at the regulator, and the number of exams at the regulator. Higher values of the index imply that the regulator has higher budget, staff, and exams per insurer, meaning it is likely to be a stricter regulator. Column (1) presents evidence consistent with audit firms using their influence less when regulators are stronger (t-stat 1.82).

In column (2) on Table 5 I study how the strength of credit rating agency oversight influences the extent of audit firm's use of expertise. I proxy for the strength of credit rating agency oversight by counting the number of credit agencies that rate the financial strength of each client. Results in

column (2) are consistent with audit firms using their influence less when more agencies rate the financial strength of insurance clients.

Last, I study how block shareholder monitoring can affect audit firms' propensity to influence their clients' FV valuations. I use the mutual company indicator as a proxy for low investor oversight, as mutual companies are owned by their policyholders and therefore do not have large blockholders that can exert strong monitoring power. However, as results in column (3) of Table 5 indicate, I do not find statistically significant results using this proxy.

Additional Tests

I perform additional tests to support my main inferences. First, it is possible that while audit firms become more precise in their views, the views they come to are not correct, i.e. they become overconfident in some false understanding. Table 5 reruns the main analysis using as dependent variable a measure of dispersion from the average FV of all the same securities audited by a *different audit firm.* This version of the measure takes *all other values of the same security in the economy* as a proxy for the 'true value'. Table 6 presents evidence that the main result is robust to this alternative specification, and the magnitude of the coefficient is also consistent with the main result in Table 2.

Next, I rerun the analysis for a sample of securities where I do not expect to see strong results as a falsification test. As discussed in further detail in Section 3, my main sample consists of securities that are more likely to be complex and thus require to be sent up to the pricing desk. These are securities that have ever been assigned a level 3 or have ever been self-estimated. I use the previously dropped securities (i.e. relatively more simple securities) and rerun the above analysis in Table 7. Columns (1), (2), and (3) of Table 7 shows that the documented effects are

weaker in this sample, with much smaller magnitudes. The only statistically significant coefficient is found in the cross-sectional expertise design of column (1), but column (4) shows that the magnitude is significantly smaller than in my main sample. Given the imperfect sample selection procedure, I interpret these results as consistent with the document effects being largely present where the opportunity for cross-client comparison is strongest.

Lastly, a maintained assumption in my analysis is that auditors have views regarding what the FV of a security should be, and influence their clients' FV valuations towards this view. While this assumption seems uncontroversial as auditors must opine on the quality of all submitted financials, including FV estimates, and therefore must develop capabilities in assessing their validity, there is debate about whether auditors indeed have FV competencies in the area of FV given that many PCAOB inspection reports cite auditors specifically for deficient FV auditing standards.[21] Results in column (1) of Table B1 confirm that there is a positive correlation between firm-level overstatement and auditor-level overstatement at the security level after controlling for auditor-level, client-level, and security-level attributes, as well as auditor-client matching (e.g., Cook et al. 2019). I interpret these findings as consistent with auditors developing particular views on security-level valuations and playing a role in influencing their clients' FVs towards these views. A related concern is that audit influence may take place at the security level, but dissipates at the client portfolio level. Column (2) of Table B1 shows that the security level effects in column (1) do not disappear when aggregated to the par-weighted firm portfolio level. This evidence suggests that audit firms have an important role to play in the FV determination process, supporting the significance of my findings.

[21] recent literature has found some evidence of the presence of FV expertise within audit firms (e.g. Cannon et al. 2014, Ahn et al. 2018)

VI. CONCLUSION

This paper studies the economic factors that determine how audit firms develop FV expertise and how they apply this expertise to their clients' valuations. Using a security-level measure of auditor expertise, I show that audit firms develop more precise views on what the FV of complex securities should be and get better at valuing securities the more instances of the same security that they audit at their different clients. My findings suggest that multiple observations of the same security across clients allows auditors to develop their modeling expertise and to check reasonability of assumptions against other instances of the same security. I also show that audit firms use their FV expertise to curb clients' incentives for misreporting. Auditors that have more cross-sectional experience with a security are able to diminish the influence of statutory capital based incentives for overstatement as well as ownership structure based incentives for understatement.

I then study how the presence of other client monitors affects are auditors apply their expertise. I show evidence that when a client has stronger external monitors, auditors apply their expertise less. This is consistent with substitution effects between various monitors of FV in the ecosystem, and contributed new evidence on the role of audit firms as monitors of FV measurements in the context of their interaction with the institutional environment of their clients. This evidence contributes to our understanding of the opaque and challenging FV auditing process, and may help address concerns of the PCAOB and others regarding auditors' perceived shortcomings in the FV auditing area.

REFERENCES

Abbott, L.J, K. Gunny, and T.C. Zhang. 2013. When the PCAOB talks, who listens? Evidence from stakeholder reactions to GAAP-deficiant PCAOB inspection of small audit firms. *Auditing: A Journal of Practice and Theory* 32(2): 1-31.

Ahn, J., R. Hoitash, and U. Hoitash. 2018. Audit firm Fair Value Expertise. Working Paper.

Aobdia, D., 2018. The impact of the PCAOB individual engagement inspection process—Preliminary evidence. *The Accounting Review* 93(4): 53-80.

Arrow, K.J. 1971. The economic implications of learning by doing. In Readings in the Theory of Growth (131-149). Palgrave Macmillan, London.

Ashton, A.H. 1991. Experience and error frequency knowledge as potential determinants of audit expertise. *The Accounting Review*: 218-239.

Barr-Pulliam, D., S.A. Mason, and K.A. Sanderson. 2018. A Cog in the Wheel or a Spanner in the Works: Examining the Perspectives of Valuation Service Providers. Working Paper.

Barth, M.E. 2006. Including estimates of the future in today's financial statements. *Accounting Horizons* 20 (3): 271-285.

Bens, D.A., M. Cheng, and M. Neamtiu. 2016. The impact of SEC disclosure monitoring on the uncertainty of fair value estimates. *The Accounting Review* 91(2): 349-375.

Blokdijk, H., F. Drieenhuizen, D.A. Simunic, and M.T, Stein. 2006. An analysis of cross-sectional differences in big and non-big public accounting firms' audit programs. *Auditing: A Journal of Practice & Theory* 25(1): 27-48.

Bonner, S.E., and B.L. Lewis. 1990. Determinants of audit firm expertise. *Journal of Accounting Research*: 1-20.

Boone, J. P., I.K. Khurana, and K.K. Raman. 2015. Did the 2007 PCAOB disciplinary order against Deloitte impose actual costs on the firm or improve its audit quality? *The Accounting Review* 90 (2): 405–441.

Bratten, B., L.M. Gaynor, L. McDaniel, N.R. Montague, and G.E. Sierra. 2013. The audit of fair values and other estimates: The effects of underlying environmental, task, and audit firm-specific factors. *Auditing: A Journal of Practice & Theory* 32 (1): 7-44.

Cannon, N., and J.C. Bedard 2017. Auditing challenging fair value measurements: Evidence from the field. *The Accounting Review* 92(4): 81-114.

Cannon, N., B. Christensen, T. Omer, and D. Wood. 2014. Complex Fair Value Measurements and Material Weaknesses: It's Not All Bad News. Working Paper.

Caramanis, C., and C. Lennox. 2008. Audit effort and earnings management. *Journal of Accounting and Economics* 45(1): 116-138.

Choi, J.H., J.B. Kim, and Y. Zang. 2012. Gerographic proximity between audit firm and client: how does it impact audit quality? *Auditing: A Journal of Practice and Theory* 31(2): 43-72.

Christensen, B.E., S.M. Glover, and D.A. Wood. 2012. Extreme estimation uncertainty in fair value estimates: Implications for audit assurance. *Auditing: A Journal of Practice & Theory* 31(1): 127-146.

Church, B.K., and L.B. Shefchik. 2012. PCAOB Inspections and Large Accounting Firms. *Accounting Horizons* 26 (1): 43-63.

Clor-proell, S., and M.W. Nelson. 2007. Accounting standards, implementation guidance, and example-based reasoning. *Journal of Accounting Research* 45(4): 699-730.

Cook, J.A, Z. Kowaleski, M. Minnis, A. Sutherland, and K.M. Zehms. 2019. Audit firms are Known by the Companies They Keep. Working Paper. Chicago Booth Research Paper No. 19-12. Available at SSRN: https://ssrn.com/abstract=3326595

Dechow, P.M., L.A. Myers, C. Shakespeare. 2010. Fair value accounting and gains from asset securitizations: A convenient earnings management tool with compensation side-benefits. *Journal of Accounting and Economics* 49(1-2): 2-25.

DeFond, M.L., J.R. Francis, and T.J. Wong. 2000. Audit firm industry specialization and market segmentation: Evidence from Hong Kong. *Auditing: A Journal of Practice & Theory* 19(1): 49-66.

DeFond, M.L. and C.S. Lennox. 2017. Do PCAOB inspections improve the quality of internal control audits? *Journal of Accounting Research* 55(3): 591-627.

DeFond, M.L., and J. Zhang. 2014. A review of archival auditing research. *Journal of Accounting and Economics* 58(2-3): 275-326.

Dietrich, J.R., M.S Harris, and K.A. Muller III. 2000. The reliability of investment property fair value estimates. *Journal of Accounting and Economics* 30(2): 125-158.

Dye, R.A. 1993. Auditing standards, legal liability, and audit firm wealth. *Journal of Political Economy* 101(5): 887-914.

FASB Statement of Financial Accounting Standards No. 157 (2006) available at: http://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220130001&acceptedDisclaimer=true

Frederick, D.M., and R. Libby. 1986. Expertise and audit firms' judgments of conjunctive events. *Journal of Accounting Research*: 270-290.

Glover, S.M., M.H. Taylor, and Y.J. Wu. 2017. Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy. *Auditing: A Journal of Practice & Theory* 36(1): 63-84.

Glover, S.M., M.H. Taylor, Y.J. Wu, and K.T. Trotman. 2019. Mind the gap: Why do experts have differences of opinion regarding the sufficiency of audit evidence supporting complex fair value measurements? *Contemporary Accounting Research*: 1-44.

Godfrey, J.M., and J. Hamilton. 2005. The impact of R&D intensity on demand for specialist audit firm services. *Contemporary Accounting Research* 22 (1): 55-93.

Griffith, E.E. 2016. Audit firms, specialists, and professional jurisdiction in audits of fair values. *Contemporary Accounting Research*.

Griffith, E.E., J.S. Hammersley, and K. Kadous. 2015a. Audits of complex estimates as verification of management numbers: How institutional pressures shape practice. *Contemporary Accounting Research* 32(3), 833-863.

Griffith, E.E., J.S. Hammersley, K. Kadous, and D. Young. 2015b. Audit firm mindsets and audits of complex estimates. *Journal of Accounting Research* 53(1), 49-77.

Hanley, K.W., A.D. Jagolinzer, and S. Nikolova. 2018. Strategic estimation of asset fair values. *Journal of Accounting and Economics* 66 (1): 25-45.

Hilton, A. S., and P. C. O'Brien. 2009. Market value, fair value, and management discretion. *Journal of Accounting Research* 47 (1): 179–211.

Hux, C.T. 2017. Use of specialists on audit engagements: A research synthesis and directions for future research. *Journal of Accounting Literature* 39, 23-51.

Insurance Information Institute, 2017. Facts + Statistics: Industry overview. Available at: https://www.iii.org/fact-statistic/facts-statistics-industry-overview

Kempf, E., A. Manconi, A. and O.G. Spalt. 2017. Learning by doing: The value of experience and the origins of skill for mutual fund managers. Working Paper.

Kumarasiri, J., and R. Fisher, 2011. Audit firms' Perceptions of Fair-Value Accounting: Developing Country Evidence. *International Journal of Auditing* 15(1), 66-87.

Lennox, C.. 2000. Do companies successfully engage in opinion-shopping? Evidence from the UK. *Journal of Accounting and Economics* 29(3): 321-337.

Lennox, C., X. Wu, and T. Zhang. 2016. The effect of audit adjustments on earnings quality: Evidence from China. *Journal of Accounting and Economics* 61(2-3): 545-562.

Li, K.K., and R.G. Sloan. 2017. Has goodwill accounting gone bad? Review of Accounting Studies 22(2), 964-1003.

McGuire, S.T., T.C. Omer, and D. Wang. 2012. Tax avoidance: Does tax-specific industry expertise make a difference? *The Accounting Review* 87 (3): 975-1003.

Messier Jr, W.F., N. Martinov-Bennie, and A. Eilifsen. 2005. A review and integration of empirical research on materiality: Two decades later. *Auditing: A Journal of Practice & Theory* 24(2): 153-187.

Minutti-Meza, M. 2013. Does audit firm industry specialization improve audit quality? *Journal of Accounting Research* 51(4): 779-817.

Montague, N.R., L.M. Gaynor, and J. Cohen. 2012. Auditing fair value estimates: The impact of confirmation bias on audit firm judgments. Working paper, Wake Forest University, University of South Florida, and Boston College.

National Association of Insurance Commissioners. 2012. Risk-based capital (RBC) for insurers model act. Available at: https://www.naic.org/store/free/MDL-312.pdf

Nagy, A.L. 2014. PCAOB quality control inspection reports and audit firm reputation. *Auditing: A Journal of Practice & Theory* 33(3): 87-104.

Neal, T.L., and R.R. Riley. 2004. Audit firm Industry Specialist Research Design. *Auditing: A Journal of Practice & Theory* 23 (2): 169-177.

New York Life. 2017. Newsroom. Available at: https://www.newyorklife.com/newsroom/2017/nyl-maintains-highest-possible-financial-strength-ratings

Paulson, A. and R. Rosen. 2016. The life insurance industry and systemic risk: A bond market perspective. *Annual Review of Financial Economics* 8: 155-174.

Public Company Accounting Oversight Board (PCAOB) AS 1210, available at: https://pcaobus.org/Standards/Auditing/Pages/AS1210.aspx

Public Company Accounting Oversight Board (PCAOB) AS 2502, available at: https://pcaobus.org/Standards/Auditing/Pages/AS2502.aspx

Public Company Accounting Oversight Board (PCAOB). 2018. Auditing Accounting estimates, including fair value measurements and amendments to PCAOB auditing standards. PCAOB Release No. 2018-005 (December 20, 2018).

Ramanna, K., and R.L. Watts. 2012. Evidence on the use of unverifiable estimates in required goodwill impairment. *Review of Accounting Studies* 17(4): 749-780.

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

Seekingalpha.com, 2018. MetLife, Inc. (MET) CEO Steve Kandarian on Q4 2018 results – earnings call transcript. Available at: https://seekingalpha.com/article/4239115-metlife-inc-met-ceo-steve-kandarian-q4-2018-results-earnings-call-transcript?page=6

Shroff, 2019. Real Effects of PCAOB International Inspections. *The Accounting Review*.

Wall Street Journal, 2019. More detail and plain English: audit firms' reports get a makeover. Available at: https://www.wsj.com/articles/more-detail-and-plain-english-audit firms-reports-get-a-makeover-11553012005?mod=searchresults&page=1&pos=1

Willenborg, M. 1999. Empirical analysis of the economic demand for auditing in the initial public offerings market. *Journal of Accounting Research* 37(1): 225-238.

TABLE 1

Descriptive Statistics

The table presents the descriptive statistics for variables used in the analysis. Panel A presents security level statistics and Panel B presents insurer level statistics. The final data is unique at the cusip-audit firm-year level. Detailed variable definitions are included in Appendix A. Values are winsorized at the 1 and 99 percentiles.

	Mean	SD	P25	P50	P75	N
Within Auditor FV Diff	-0.026	3.222	-0.545	0.000	0.613	98,513
|Within Auditor FV Diff|	1.755	3.068	0.107	0.577	2.019	98,513
Number of firms holding security	19.327	18.968	8.000	13.000	23.000	98,513
Par Value	9,147,346	14,600,000	1,100,000	4,142,000	10,900,000	98,513
Fair Value	9,516,539	15,200,000	1,166,977	4,415,175	11,400,000	98,513
Fair Value Per $100 Par	107	335	100	103	109	98,513
must FV	0.077	0.267	0.000	0.000	0.000	98,513
Big4	0.960	0.195	1.000	1.000	1.000	98,513
FV level 1	0.018	0.133	0.000	0.000	0.000	98,513
FV level 2	0.770	0.421	1.000	1.000	1.000	98,513
FV level 3	0.212	0.409	0.000	0.000	0.000	98,513
SVO level 1	0.041	0.198	0.000	0.000	0.000	98,513
SVO level 2	0.538	0.499	0.000	1.000	1.000	98,513
SVO level 3	0.034	0.180	0.000	0.000	0.000	98,513
SVO level 4	0.001	0.024	0.000	0.000	0.000	98,513
SVO level 4	0.000	0.003	0.000	0.000	0.000	98,513
SVO level 6	0.032	0.176	0.000	0.000	0.000	98,513

	Panel B: Insurer Years (2012-2017)					
	Mean	**SD**	**P25**	**P50**	**P75**	**N**
Within Auditor FV Diff - Par Weighted	-0.049	1.225	-0.204	0.000	0.166	2,713
|Within Auditor FV Diff| - Par Weighted	0.959	1.467	0.106	0.381	1.402	2,713
Num securities at firm	59.142	125.348	3.000	10.000	40.000	2,713
LN(RBC)	2.170	0.631	1.812	2.176	2.485	2,713
LN(Assets)	7.012	2.312	5.437	6.893	8.498	2,713
ROA	0.020	0.041	0.006	0.018	0.034	2,713
PC	0.583	0.493	0.000	1.000	1.000	2,713
Life	0.265	0.441	0.000	0.000	1.000	2,713
Mixed	0.152	0.359	0.000	0.000	0.000	2,713
Big4	0.652	0.476	0.000	1.000	1.000	2,713
Public	0.268	0.443	0.000	0.000	1.000	2,713

TABLE 2

Security Level Precision

The table presents audit firm-security-year level results from regressing the absolute value of the audit firm-security level measure in equation (1) on audit firm experience. The dependent variable is the unsigned mean FV level of the security at the focal audit firm minus the mean of that security's level at all clients of the audit firm. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles.

Dependent Variable:		**| Within Auditor FV Diff |**			
	Pr. Sign	*(1)*	*(2)*	*(3)*	*(4)*
Low X-S Expertise Auditor (below auditor median)	+	0.274***			
		(6.63)			
Number of securities at auditor	-		-0.048***		-0.022***
			(-5.93)		(-2.78)
Cumulative Number of securities at auditor	-			-0.006	0.000
				(-1.60)	(0.12)
Group Par		0.197	0.211	0.869	0.879
		(0.22)	(0.23)	(0.78)	(0.79)
Must FV		0.034	0.035	-0.196**	-0.197**
		(0.61)	(0.63)	(-2.44)	(-2.45)
FV Level		0.308***	0.313***	0.079	0.081
		(5.23)	(5.29)	(1.58)	(1.63)
Auditor-Year FE		Yes	Yes	Yes	Yes
Client-Year FE		Yes	Yes	Yes	Yes
Security-Year FE		Yes	Yes	Yes	Yes
Cluster		Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year
Adjusted R-Squared		0.568	0.568	0.590	0.590
No. of Observations		98513	98513	38008	38008

TABLE 3

PCAOB Pressure

This table presents the results from regressing the firm-security-year measure of within auditor deviation on the number of securities held by public and private clients. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles

Dependent Variable:	**| Within Auditor FV Diff |**
	(1)
Number of securities at public clients	-0.058***
	(-5.95)
Number of securities at private clients	-0.040***
	(-3.77)
Group Par	0.230
	(0.25)
Must FV	0.033
	(0.59)
FV Level	0.316***
	(5.23)
Auditor-Year FE	Yes
Client-Year FE	Yes
Security-Year FE	Yes
Cluster	Auditor-year, Security-year
Adjusted R-Squared	0.567
No. of Observations	98513

F-statistic on test for equivalence of two coefficients of interest: 2.41 (0.1224)

TABLE 4

Security Level Bias

The table presents the results from regressing the signed measure of security-level FV difference on proxies for incentive to over and under state securities. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles

Dependent Variable:		**Within Auditor FV Diff**			
	Pr. Sign	*(1)*	*(2)*	*(3)*	*(4)*
RBC incentive to overstate x Low X-S Expertise Auditor	+	0.323***			
		(4.02)			
RBC incentive to overstate x Number of securities at auditor	-		-0.029***		
			(-3.45)		
Mutual incentive to understate x Low X-S Expertise Auditor	-			-0.318***	
				(-2.71)	
Mutual incentive to understate x Number of securities at auditor	+				0.030**
					(2.54)
Group Par		1.616**	1.600**	-0.109	-0.100
		(2.12)	(2.09)	(-0.09)	(-0.08)
Must FV		-0.079	-0.077	-0.087	-0.087
		(-1.10)	(-1.07)	(-1.20)	(-1.20)
FV Level		-0.667***	-0.668***	-0.659***	-0.660***
		(-5.77)	(-5.77)	(-4.67)	(-4.67)
Main effects		included	included	included	included
Auditor-Year FE		Yes	Yes	Yes	Yes
Client-Year FE		Yes	Yes	Yes	Yes
Security-Year FE		Yes	Yes	Yes	Yes
Cluster		Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year
Adjusted R-Squared		0.036	0.036	0.133	0.133
No. of Observations		98513	98513	91862	91862

TABLE 5

Security Level Precision and Other Monitors

The table presents the results from regressing the unsigned client-security-level FV difference measure on indicator for mutual company and the number of rating agencies rating the client. Detailed variable definitions are included in Appendix A. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles.

Dependent Variable:	**| Within Auditor FV Diff |**		
	(1)	*(2)*	*(3)*
Regulatory strength index x Number of securities at auditor	0.005*		
	(1.82)		
Number of Credit Agencies Rating x Number of securities at auditor		0.004***	
		(2.88)	
Mutual Indicator x Number of securities at auditor			0.002
			(0.29)
Group Par	0.231	0.185	0.237
	(0.25)	(0.20)	(0.26)
must FV	0.034	0.032	0.034
	(0.60)	(0.58)	(0.61)
FV Level	0.316***	0.314***	0.316***
	(5.23)	(5.24)	(5.24)
Main effects	included	included	included
Auditor-Year FE	Yes	Yes	Yes
Client-Year FE	Yes	Yes	Yes
Security-Year FE	Yes	Yes	Yes
Cluster	Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year
Adjusted R-Squared	0.567	0.567	0.567
No. of Observations	98406	98513	98513

TABLE 6

Alternative Measure

The table presents the results from a regression of equation (3) with an alternative dependent variable which captures the unsigned difference between firm security FV and the average for the same security in the overall economy, as a proxy for the 'true value'. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles

Dependent Variable:		**|Firm FV - Average Economy FV|**	
	Pr. Sign	*(1)*	*(2)*
Number of securities at auditor	-	-0.011***	
		(-3.17)	
Cumulative Number of securities at auditor	-		0.001
			(0.36)
Group Par		0.589	0.498
		(0.63)	(0.45)
Must FV		0.019	-0.128*
		(0.44)	(-1.97)
FV Level		0.356***	0.009
		(4.64)	(0.14)
Auditor-Year FE		Yes	Yes
Client-Year FE		Yes	Yes
Security-Year FE		Yes	Yes
Cluster		Auditor-year, Security-year	Auditor-year, Security-year
Adjusted R-Squared		0.586	0.550
No. of Observations		98513	38008

TABLE 7

Falsification Tests

The table presents audit firm-security-year level results from running the regression in model (2) on the sample of simpler securities (i.e. ones expected to be lower estimation risk by the auditor. Columns (1) , (2), and (3) mimic the same columns in Table 2 but use the simple sample. Column (4) uses the combined main and simple sample to statistically show the difference between the two coefficients. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles.

Dependent Variable:	**| Within Auditor FV Diff |**			
sample:	*Simple Securities*	*Simple Securities*	*Simple Securities*	*Full Sample*
	(1)	*(2)*	*(3)*	*(4)*
Number of securities at auditor	-0.003***		-0.001	-0.003***
	(-4.82)		(-1.16)	(-4.39)
Cumulative Number of securities at auditor		-0.000	0.000	
		(-0.42)	(0.64)	
Number of securities at auditor				-0.023***
x Main Sample				(-5.79)
Group Par	-0.191	-0.285**	-0.284**	-0.244
	(-1.07)	(-2.42)	(-2.40)	(-1.20)
Must FV	-0.018**	-0.022***	-0.022***	-0.021**
	(-2.58)	(-3.69)	(-3.68)	(-2.27)
FV Level	-0.013*	-0.036***	-0.036***	0.053***
	(-1.71)	(-4.08)	(-4.08)	(4.06)
Auditor-Year FE	Yes	Yes	Yes	Yes
Client-Year FE	Yes	Yes	Yes	Yes
Security-Year FE	Yes	Yes	Yes	Yes
Cluster	Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year
Adjusted R-Squared	0.657	0.691	0.691	0.674
No. of Observations	1511688	558392	558392	1610201

APPENDIX A: DETAILED VARIABLE DEFINITIONS

VARIABLE	*DEFINITION*
Within Auditor FV Diff	The difference between the FV of the security at the insurer and the average FV for the same security at its own auditor, excluding its own valuation.
|Within Auditor FV Diff|	The absolute value measure of the adjusted measure above
Number of securities at auditor	The number of different clients' values for this security that the auditor sees in the given year.
Low X-S Expertise Auditor	An indicator variable equal to 1 if the auditor sees below the median number of securities that year
Cumulative Number of securities at auditor	The number of instances of this security that the auditor has seen in the past.
ln(Assets)	Natural log of the total assets of the group, as reported in NAIC financials.
ROA	The ratio of net income to assets.
Public	Indicator variable equal to 1 if the firm is public.
P&C	An indicator variable equal to 1 if the firm is in the property & casualty (P&C) business
Life	An indicator variable equal to 1 if the firm is in the Life business
Mixed	An indicator variable equal to 1 if the firm has subs in both the property & casualty (P&C) and the Life insurance business
Group Par	The par value of the security as reported in Schedule D, Part 1 by the firm
Must FV	An indicator variable equal to 1 if the security must be carried at FV according to the NAIC guidelines.
Regulator strength index	An index of three measures of regulatory strength, which I get by ranking each state by each variable and averaging the ranks across all variables. The three measures are: the number of staff employed by the state regulator divided by the number of insurers the regulator oversees; the annual budget of the state regulator divided by the number of insurers the regulator oversees; the number of exams the state regulator conducts divided by the number of insurers the regulator oversees.
Number of Raters	The number of credit agencies rating the financial strength of the insurer.
Mutual Indicator	An indicator variable equal to 1 if the security is owned by a mutual company, 0 if by a stock company

APPENDIX B: ADDITIONAL TESTS

TABLE B1

Auditor Influence at the Firm Level

The table presents the results from regression security FV differences from the economy-wide mean on average auditor level FV differences from the economy-wide mean as follows:

$$Insurer\ FV\ Difference_{ia(s)t} = \beta_1 Auditor\ FV\ Difference_{a(s)t} + Controls + Fixed\ Effects$$

Column (1) presents results at the security level, whereas column (2) aggregates both the dependent and independent variables at the firm and auditor level, respectively, using security par weighting. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles

Dependent Variable:		**Insurer FV Difference**	
		Security level	*Par Weighted at Firm Level*
	Pr. Sign	*(1)*	*(2)*
Auditor FV Difference (Security Level)	+	0.114***	
		(4.12)	
Auditor FV Difference (Par Weighted Aggregate)			0.141***
			(3.63)
Group Par		1.655**	
		(2.28)	
Must FV		-0.082	
		(-1.17)	
FV Level		-0.639***	
		(-5.81)	
Ln (RBC)			-0.082
			(-1.06)
Ln (assets)			0.009
			(0.16)
ROA			0.106
			(0.21)
Auditor-Year FE		Yes	Yes
Client-Year FE		Yes	Yes
Security-Year FE		Yes	Yes
Cluster		Auditor-year, Security-year	Auditor-year, Security-year
Adjusted R-Squared		0.169	0.308
No. of Observations		98513	2713

TABLE B2

Materiality

The table presents audit firm-security-year level results from regressing an indicator for absolute within-auditor differences (equation (1)) being above 5% on audit firm experience. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles.

Dependent Variable: **Indicator: | Within Auditor FV Diff |>=5%**

	Pr. Sign	*(1)*	*(2)*	*(3)*	*(4)*
Low X-S Expertise Auditor (below auditor median)	+	0.026***			
		(5.66)			
Number of securities at auditor	-		-0.004***		-0.002***
			(-5.70)		(-3.18)
Cumulative Number of securities at auditor	-			-0.001	0.000
				(-1.57)	(0.34)
Group Par		-0.083	-0.082	0.039	0.040
		(-0.87)	(-0.87)	(0.28)	(0.28)
Must FV		0.005	0.005	-0.012*	-0.012*
		(0.86)	(0.88)	(-1.73)	(-1.75)
FV Level		0.025***	0.025***	0.004	0.005
		(3.87)	(3.93)	(0.76)	(0.81)
Auditor-Year FE		Yes	Yes	Yes	Yes
Client-Year FE		Yes	Yes	Yes	Yes
Security-Year FE		Yes	Yes	Yes	Yes
Cluster		Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year	Auditor-year, Security-year
Adjusted R-Squared		0.401	0.400	0.399	0.399
No. of Observations		98513	98513	38008	38008

TABLE B3

Audit Office

The table includes a count of the number of securities seen at the audit *office* in addition to the audit firm level counts. *,**,*** indicate statistical significance at the 10%, 5%, and 1% level, respectively, using a two-tailed t-test. Values are winsorized at the 1 and 99 percentiles.

Dependent Variable:		**| Within Auditor FV Diff |**	
	Pr. Sign	*(1)*	*(2)*
Number of securities at auditor	-	-0.054***	-0.025***
		(-6.33)	(-2.84)
Number of securities at audit office	-	-0.028*	-0.018
		(-1.90)	(-1.08)
Cumulative Number of securities at auditor	-		0.002
			(0.40)
Group Par		0.509	0.558
		(0.54)	(0.46)
Must FV		-0.016	-0.155**
		(-0.32)	(-2.17)
FV Level		0.329***	0.099*
		(5.32)	(1.93)
Auditor-Year FE		Yes	Yes
Client-Year FE		Yes	Yes
Security-Year FE		Yes	Yes
Cluster		Auditor-year, Security-year	Auditor-year, Security-year
Adjusted R-Squared		0.564	0.585
No. of Observations		94957	35734