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Is Audit Committee Chair's Compensation Related to Financial Reporting Quality?

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Introduction

In March 2022, the Public Company Accounting Oversight Board (PCAOB) issued a report to summarize the PCAOB staff's communication with over 240 audit committee chairs (ACC) of U.S. public companies during 2021 (PCAOB, 2002).[1] The report emphasizes that "engaged and informed audit committees can be a force for elevating audit quality (AQ) to the benefit of investors and our capital markets broadly." The report also states that ACCs take most efforts to discuss the topics related to financial reporting quality, including goodwill accounting and impairments, revenue recognition, and recording credit losses with their auditors. Thus, we believe that audit committee (AC) and ACC play a critical role in financial reporting quality. In this study, we examine whether ACC performs for pay. We further examine what type of ACC's compensation (cash vs. equity) is related to a firm's financial reporting quality (FRQ). Our study is partly motivated by the call in Sharma and Sharma (2011) that recommends an investigation of the relation between ACC's compensation and FRQ. Prior literature mainly focuses on the percentage of cash or equity compensation. For instance, Rickling and Sharma (2017) find that the proportion of ACC's cash compensation is negatively related to the likelihood of firms beating earnings. Engel et al. (2010) take an important first step by investigating the association between ACC's cash compensation level (absolute value) and audit fees. We extend their study by investigating the relationship between the level (absolute value) of ACC's cash compensation and FRQ proxies: misstatement and accrual-based earnings management.[2]

Given AC's critical role, AC research has attracted considerable attention from both researchers and regulators (DeFond and Zhang, 2014). Making AC responsible for appointing, compensating, and monitoring external auditors, regulators intend to strengthen AC's monitoring role. As for academic research, one stream of literature investigates the effects of AC size and independence on various accounting and auditing outcomes. Another stream examines the effects of AC's human capitals, such as accounting expertise (DeFond et al., 2005), legal expertise (Krishnan et al., 2011), industry expertise (Cohen et al., 2014), and social networks (Bruynseels and Cardinaels, 2014), on FRQ and AQ.[3] DeFond and Zhang (2014) observe unambiguous evidence that AC improves FRQ and call for studies on new AC characteristics. ACC's compensation is an important AC's characteristic. Therefore, it is important to learn the relation between ACC's compensation and FRQ. However, prior literature has not sufficiently covered this relation. Specifically, the literature on the levels of cash and equity-based compensations is limited.

Recently firms have been willing to compensate AC members more relative to other committee members (Engel et al., 2010).[4] This pay increase suggests that firms value the important role that AC plays in monitoring the financial reporting process. However, existing research narrowly focuses on AC's compensation structures such as the percentage of cash,

[1] Spotlight: 2021 Conversations with Audit Committee Chairs. https://pcaobus.org/documents/2021-conversations-with-audit-committee-chairs-spotlight.pdf.
[2] Following Engel et al. (2010), we focus on ACCs' cash and equity compensations.
[3] In this study, we use FRQ and AQ interchangeably. AQ is a joint product of financial reporting and audit.
[4] Anecdotally, according to IBM's proxy statement, IBM paid its ACC Michael L. Eskew $447,042 in 2015, which was higher than other committees' chairs.

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equity, and stock options (Cullinan et al., 2010; Liu et al., 2020). Little is known about the relation between the level of compensation and FRQ.

On the one hand, the management could buy a friendly AC by paying them high compensations (Wysocki, 2010).[5] If this is the case, AC may lose its independence in monitoring the financial reporting process. On the other hand, high compensation could attract directors that are more qualified and elicit more effort from them. Consistent with the second view, prior literature generally finds that the qualification of the AC members is positively related to FRQ. Further, Engel et al. (2010) document a positive correlation between AC's compensation and audit fee. They find that both ACC's compensation and audit fee increase after SOX is enacted. This increase signals that firms demand more monitoring from both auditors and AC members. To the extent that audit fee can proxy for audit effort, this audit fee's increase may improve FRQ. Therefore, the relationship between ACC's compensation and FRQ is not clear.

We collect AC and ACC's compensations data of U.S. public firms from the BoardEx database. We study the levels of cash and equity-based compensations separately. We use a sample of 4,486 firm-year observations during the period 2000–2015 to investigate the relationship between ACC's compensation and FRQ following Cohen et al. (2014).[6] The sample includes 891 misstatements and 3,595 non-misstatements.[7] We find that ACC's cash compensation is negatively associated with misstatement likelihood and earnings management (discretionary accruals), after controlling for the effects of ACC's financial expertise, corporate governance quality, and various firm and auditor characteristics.

This study contributes to the AC literature by examining one little-explored AC's characteristic: the level of ACC's compensation. While a few articles have investigated the relationship between ACC's compensation structure and FRQ, this study is one of the first to investigate the relationship between the level of ACC's compensation and FRQ. The findings may be of interest, particularly to regulators, the board of directors, and investors.

Literature Review and Hypotheses Development

AC Monitoring Effectiveness

Most prior research that examines the relation between AC characteristics and FRQ focuses on AC's human capital. It is well-documented that FRQ is higher when an AC has an accounting expert who is experienced in the financial reporting process (Raghunandan et al., 2001; Carcello and Neal, 2003; Anderson et al., 2004; Bedard et al., 2004; Lee et al., 2004; DeFond et al., 2005; Dhaliwal et al., 2010), and when who is an industry expert who has working experience in a similar industry (Cohen et al., 2014).

The U.S. Securities and Exchange Commission (SEC, 2003) requires a company to disclose whether it has at least one financial expert serving on its AC and the name of the expert. According to this final rule, both accounting and non-accounting (or supervisory) financial expertise qualifies for the definition of a financial expert. An accounting financial expert is restrictively defined as a person who has direct experience in financial statement preparation or audit, such as a public accountant, auditor, principal financial officer, comptroller, principal accounting officer, or a person holding a position of similar function. Differently, a non-accounting (supervisory) financial expertise refers to a person that has experience in actively supervising the financial reporting process, such as the CEO or president. Relative to supervisory financial experts, accounting experts tend to possess a deeper understanding of Generally Accepted Accounting Principles (GAAP) and more direct experience in the GAAP application. The SEC's initial proposal also limits financial experts to only accounting experts. Not surprisingly, prior studies find that the quality of financial reporting is higher for AC with accounting expertise but not supervisory expertise (Krishnan and Visvanathan, 2008; Dhaliwal et al., 2010; Cohen et al., 2014), and investors react more positively to the appointment of an accounting expert versus a supervisory expert (DeFond et al., 2005).

Accounting expertise enables an AC to better monitor GAAP reporting for the following reasons. First, accounting practice is heavily technical-skill-driven. Specialized accounting knowledge enables AC to conduct a more thorough and rigorous assessment of the financial reports. Second, accounting expertise can facilitate the communication between AC

[5]Wells Fargo banks created many fraudulent savings and checking accounts without their clients' consents prior to 2016. Before the fraud was revealed to the public, Wells Fargo's ACC got paid $429,002 in 2015. The AC's failure to catch the fraud may be a result of loss of independence.

[6] Following Engel et al. (2010), we use ACC's compensation to proxy for the average level of AC's compensation because it varies more than the averaged AC member's compensation in one firm.

[7] The sample size is small due to the limited AC's compensation data from BoardEx. We focus on misstatement, not restatement in this study.

and management because such expertise allows AC to better understand managers' justification of accounting choices. In the case of disagreements, accounting expertise allows AC to better explain to the management why certain accounting choices are inappropriate. Third, accounting experts' presumed professional skepticism and objectivity can improve the AC's effectiveness in evaluating management's practices.

While AC's financial expertise is well studied in prior literature, AC's industry expertise is much less researched (Cohen et al., 2014). Industry expertise enables AC to better monitor the management for the following reasons. First, demand and cost conditions are interrelated within an industry (Mitchell and Mulherin, 1996). Companies operating in the same industry often incur costs of similar kinds. Such knowledge will facilitate AC's evaluation and review of managers' proposed accounting policies. Second, an industry's common accounting practice provides a useful benchmark to evaluate an individual company's reporting. When its practice diverges from industry common practice, a company's reporting may be questionable. Industry experts possess industry-specific knowledge of whether certain accounting choices are used by industry peers. In a similar vein, prior studies suggest that industry expertise improves AC's monitoring effectiveness (Cohen et al., 2014).

Background Information on AC's Compensation and Remuneration

While regulators have provided some guidance on AC, such as independence, size, and composition. There are no formal regulations on the compensation for AC members. Instead, the CEO and board of directors usually follow the recommendations from the National Association of Corporate Directors (NACD) to compensate AC members. As an initial but influential report on directors' professionalism, NACD Blue Ribbon Commission Report (1996) recommends that the compensation package for directors include cash and equity but exclude pensions and benefit programs which are too closely aligned with management. In 2001, motivated by the lack of authoritative regulations regarding directors' compensation and the desire to improve directors' monitoring performance by aligning the interests of directors with those of shareholders (Dalton and Daily, 2001), NACD Blue Ribbon Commission on Director Compensation (2001) further recommends that at least half of directors' compensation packages should be equity compensation (Hayek, 2018). Subsequently, NACD (2003) confirms that the compensation packages for directors are moving from cash payment to a cash/equity compensation structure and the proportions of equity compensation are increasing (Yermack, 2004). The recommendations of NACD are endorsed by the Business Roundtable (BRT), which believes that a mix of cash and equity aligns the directors' interests with shareholders' long-term perspectives (BRT, 2010).

Currently, the governance practices adopt the practitioner recommendations to include more equity compensation than cash compensation. Based on the findings of Rickling and Sharma (2017), the proportion of equity compensation to total AC's compensation is 51.0%, while the proportion of cash compensation is only 43.5%. Sengupta and Zhang (2015) also document that options and shares granted to AC members increased by about 425% from 1996 to 2005. Therefore, prior literature mainly focuses on AC members' equity compensation, especially the proportion of equity compensation.

AC's Equity and Cash Compensation

While practitioner recommendations and governance practices emphasize the critical role of equity compensation in the board of directors' monitoring mechanism, the academic researchers find mixed evidence. One stream of research has documented evidence against the suggestion by NACD. In particular, Archambeault et al. (2008) find that both short-term and long-term stock options for AC members increase the likelihood of an accounting restatement. Cullinan et al. (2010) find that stock options granted to AC members are positively associated with weak internal controls. Keune and Johnstone (2015) suggest that AC's stock option compensation is positively associated with the likelihood that managers are allowed to waive misstatements that, if they had been corrected, would have caused the firms to miss the analyst forecast. Campbell et al. (2015) find that stock option compensation is negatively associated with FRQ. Bierstaker et al. (2012) find that AC members with long-term stock options are more likely to favor the auditor in an accounting dispute.

Another stream of the literature finds that equity compensation better aligns the interests of directors with those of shareholders and increases directors' monitoring incentives, resulting in higher-quality financial reporting (Yermack, 2004; Masulis et al., 2012). Although much work has been done to explore the effect of compensation structure on AC's monitoring effectiveness, little work focuses on whether the amount of compensation paid to AC matters. On the one hand, agency theory suggests that equity-based compensation can align board members' interests with those of shareholders (Jensen and Meckling, 1976). To the extent that equity-based compensations motivate AC to behave on behalf of shareholders' best interests, equity-based compensation will result in more effective monitoring. However, a potential downside of equity-based compensation is to incentivize equity holders to focus on short-term stock prices to maximize the value of equity holding and thus be tolerant of aggressive financial reporting. As such, equity-based compensation may lead

to slack in AC's monitoring and result in low FRQ. Ex-ante, it is unclear whether the effect is beneficial or detrimental. Therefore, we form the following null hypothesis:

H1*: A firm's FRQ is not associated with the level (absolute value) of equity-based compensation of its ACC.*

The above anecdotal evidence shows that people exert effort in exchange for small amounts of money. Consistent with this evidence, Adams and Ferreira (2008) find that board-meeting fees increase directors' attendance and directors perform for even small financial rewards. Therefore, the level of cash compensation might motivate directors to perform better.

Our second research question examines the association between the level (absolute value) of cash compensation and FRQ. The prior literature on cash compensation documents that cash compensation plays an important role in ACC's oversight. For instance, Engel et al. (2010) take an important first step by investigating the association between ACC's cash compensations and audit fees. They suggest that financial reporting complexity and risk increase the demand for AC's monitoring, thereby leading to increased cash compensation for ACC. Another study by Rickling and Sharma (2017) investigates the association between cash compensation of AC and the propensity of a firm to beat earnings forecasts by a large margin. They find that the larger the absolute value of the cash amount is, the less likely the firm is to beat earnings forecasts by a large margin. While the archival study of cash compensation for ACC in the U.S. is limited, an experimental study by Magilke et al. (2009) shows that the level (absolute value) of cash compensation for ACC appears to be positively associated with effective oversight of the financial reporting process.

On the one hand, even though the reputation and the market for directors are the primary incentive mechanism for outside directors (Fama and Jensen, 1983), directors perform for even small financial rewards (Adams and Ferreira, 2008). In 1989, Spy Magazine sent 58 of the wealthiest Americans a check for $1.11 to see if they would cash them. 26 endorsed and deposited the checks (Spy Magazine, 1990). This suggests that people exert effort in exchange for small amounts of money. Therefore, higher cash compensation may make directors exert more effort in the monitoring process. To the extent that more pay incentivizes more effort, an increased level of diligence may result in better monitoring and less opportunism in financial reporting.

On the other hand, Wysocki (2010) argues that high compensation also could result from "management buying a friendly board." In other words, higher compensation increases the economic bonds between ACC and the company they oversee. As a result, these well-compensated ACCs may be reluctant to question managerial aggressiveness in financial reporting which can expose them to the risk of losing the well-paid directorship. Consistent with this argument, Ye (2014) documents a positive association between independent directors' cash compensation and the magnitude of earnings management in the Chinese setting. This suggests that paying directors with higher cash pay compromises their independence and reduces their effectiveness in financial reporting oversight. In addition, Alkebsee et al. (2021) find that AC's cash compensation is positively related to earnings management in Chinese public firms. American firms differ from Chinese firms in many aspects. First, Chinese firms operate in a weaker institutional environment than American firms do. Second, Chinese firms mainly compensate their boards of directors using cash, while American firms use a mixture of cash and equity. Therefore, the association between the level of cash compensation of ACC and FRQ is an interesting empirical question to explore. We form the following null hypothesis:

H2*: A firm's FRQ is not associated with the level (absolute value) of cash compensation of its ACC.*

Model Specification and Sample Selection

Test Models

We use the following logistic regression model to test hypotheses H1 and H2 when misstatement is the dependent variable:[8]

$$MISSTATE_t = a_0 + a_1(LN\_CASH \text{ or } LN\_EQUITY)_t + CONTROLS + Industry\ Dummies + Year\ Dummies \quad (1)$$

We use the following ordinary least squares (OLS) regression to study the level of discretionary accruals.

[8] A non-reliance announcement (8-K item 4.02, triggering inclusion in the database) occurs, by definition, after the misstatement. The non-reliance signals a restatement of a previous misstatement. We use misstatement instead of restatement following Zhao et al. (2017) and Li et al. (2020).

$$ABSDA\_ROA_t = b_0 + b_1(LN\_CASH \text{ or } LN\_EQUITY)_t + CONTROLS + Industry\ Dummies + Year\ Dummies \quad (2)$$

We examine cash and equity-based compensations separately. We also include both cash and equity-based compensations in models (1) and (2). Table 1 shows the definitions, calculations, and database of variables used in regressions to test hypotheses H1 and H2.

Test Variables

CASH (*LN_CASH* is the natural logarithm form) is the cash compensation (in thousands) earned by an ACC. *EQUITY* (*LN_EQUITY* is the natural logarithm form) is the sum of stock and option awards in thousands for a given year for a given ACC. We present both the dollar values and the natural logarithm values of the two compensation measures in the descriptive statistics table. However, we only use the natural logarithm forms in the regressions.[9]

Dependent Variables

We use misstatement (*MISSTATE*) and the absolute value of performance-adjusted discretionary accruals (*ABSDA_ROA*) to measure FRQ (Koh et al., 2013; DeFond and Zhang, 2014; Zhao et al., 2017; Li et al., 2020).

MISSTATE is the dependent variable that equals 1 for each year in which clients had a misstatement, 0 otherwise. Since misstatement data is obtained from Audit Analytics' non-reliance dataset, *MISSTATE* refers to misstatements due to an irregularity, such as fraud-related or error-related misstatements, in the financial reporting process. Our sample excludes errors and misstatements of quarterly results since auditors do not audit quarterly financial statements (i.e., 10-Qs).

The second dependent variable is *ABSDA_ROA*, the absolute value of performance-adjusted discretionary accruals (Kothari et al., 2005). We use the absolute value of discretionary accruals to measure earnings management, which is one type of FRQ. While accruals are subject to measurement errors, they can capture subtle within-GAAP manipulations (DeFond and Zhang, 2014). Thus, discretionary accruals complement the misstatement measure. The detailed calculation of *ABSDA_ROA* is listed in Appendix.

Control Variables

Controls variables include corporate governance controls, auditor controls, and financial controls (Hennes et al., 2008; Reichelt and Wang, 2010). Corporate governance controls include ACC characteristics, ACC's financial expert (*FIN_EXP*), ACC tenure (*TIMEBRD*), board size (*NUMBERDIRECTORS*), and CEO duality (*CEO_IS_CHAIR*). *FIN_EXP* is 1 if ACC is a financial expert, 0 otherwise. *TIMEBRD* is the variable that measures the tenure of the ACC. The longer the ACC is connected with the company, the more company-specific knowledge s/he has. Therefore, ACC tenure should be positively associated with FRQ. *NUMBERDIRECTORS* which stands for the total number of directors measures the size of the board. The bigger the size of the board is, the stricter corporate governance is. *CEO_IS_CHAIR* equals 1 if the firm's CEO also chairs the board of directors (CEO duality), 0 otherwise. CEO duality is expected to hurt FRQ (Bliss, 2011).

Auditor controls include *BIG4COMPU*, *CITY_INDUSTRY_EXPERT*, and *AUTEN*. *BIG4COMPU* equals 1 if a firm is audited by one of the Big Four accounting firms, 0 otherwise. We also control for auditor industry expertise. The industry expertise of auditors improves audit effectiveness (e.g., DeFond et al., 2000; Balsam et al., 2003; Reichelt and Wang, 2010). *CITY_INDUSTRY_EXPERT* is a binary variable indicating whether the company is audited by an industry specialist auditor, where an industry specialist is an auditor with 50% or more market share, based on audit fees, measured at the office level and two-digit SIC (Reichelt and Wang, 2010). *AUTEN* is the number of years a firm has been audited by its current auditor. Big Four, auditor industry expertise, and audit tenure are all expected to have positive effects on FRQ (DeFond and Zhang, 2014). Financial controls such as firm size, profitability, and complexity are included in all models (DeFond and Zhang, 2014).

Sample Selection

We collect ACC's compensation and corporate governance data from BoardEx, audit data from Audit Analytics, and financial data from Compustat provided by Wharton Research Data Services (WRDS), for the period 2000–2015.[10] Table 2 summarizes the sample selection process. The sample contains 4,486 firm-year observations. The sample has 891

[9] The natural logarithm form can reduce the skewness in dollar value. We add one cent to the dollar amount to prevent log (0) when the dollar value is zero.

[10] Our sample period ends in 2015 due to data access limitations.

misstatement firm-years and 3,595 non-misstatement firm-years. Observation needs to satisfy the following conditions to be included in the final sample: having ACC's cash and equity-based compensations, having corporate governance controls, and having all audit-related controls and financial controls as in Table 1.[11]

Results

Panel A of Table 3 reports the descriptive statistics for the whole sample. The mean of *MISSTATE* is 0.199, suggesting that 19.9% of observations have misstatements. Cash paid to ACC ranges from 0 to 173,000 dollars, with an average of 58,147 dollars. Equity compensation paid to ACC ranges from 0 to 810,000 dollars, with an average of 85,405 dollars.[12] Panel B of Table 3 reports the descriptive statistics of the test for the misstatement and non-misstatement groups. We document that the misstatement group has lower cash (44,616 dollars vs. 61,500 dollars) and equity-based compensations (64, 686 dollars vs. 90, 540 dollars) than the non-misstatement group. The results suggest that ACC with more cash and equity-based compensations may reduce the likelihood of financial misstatements. Untabulated results show that only 292 observations have zero cash compensation, while 1,226 observations have zero equity-based compensation. We also find that 29 observations have zero total compensation. Considering that 292 is only 6.5% of the total 4,486 observations, if we compare the group with zero cash with the group with non-zero cash, it will have small sample biases. Therefore, we do not study the group with zero cash compensation separately.

In Table 4, we present the Pearson correlations between dependent variables and independent variables for the whole sample. Specifically, both *MISSTATE* and *ABSDA_ROA* are negatively correlated with both cash and equity-based compensations, suggesting that firms with high cash and equity-based compensations paid to ACC may reduce the likelihood of financial misstatements and discretionary accruals.

Table 5 presents the results for the misstatement model using two types of compensations: *LN_CASH*, and *LN_EQUITY*. The coefficient (coefficient = -0.029; t-stat = -2.45; p-value = 0.015) on *LN_CASH* is negative and significant. This suggests that higher cash compensation is associated with lower likelihood of misstatements. The coefficient (coefficient = -0.009; t-stat = -1.29; p-value = 0.199) on *LN_EQUITY* is negative but insignificant. These results indicate that FRQ is positively associated with ACC's cash compensation, while there is no relation between FRQ and ACC's equity-based compensation. Consistent with prior AC literature (Hennes et al., 2008), for the two types of compensations, we find that CEO duality (*CEO_IS_CHAIR*) is positively associated with the likelihood of financial misstatements. We further include both *LN_CASH* and *LN_EQUITY* in the same model. The results show that the coefficient on *LN_CASH* is negative and significant (coefficient = -0.032; t-stat = -2.68; p-value = 0.008), while the coefficient on *LN_ EQUITY* is insignificant (coefficient = -0.012; t-stat = -1.63; p-value = 0.103), which further suggests that FRQ is positively associated with ACC's cash compensation.

Table 6 presents the OLS regression results of discretionary accruals. The coefficient on cash compensation (*LN_CASH*) is negative and significant (coefficient = -0.000; t-stat = -18.55; p-value < 0.001) while the coefficient (coefficient = -0.000; t-stat = -0.23; p-value = 0.822) on equity-based compensation (*LN_EQUITY*) is insignificant. Consistent with prior literature (Cohen et al., 2014), we find that board size (*NUMBERDIRECTORS*) and financial expertise (*FIN_EXP*) are negatively associated with discretionary accruals. Similar to those in Table 5, we include both *LN_CASH* and *LN_EQUITY* in the same model. The results show that the coefficient on *LN_CASH* is negative and marginally significant (coefficient = -0.000; t-stat = -1.56; p-value = 0.103), while the coefficient (coefficient = -0.000; t-stat = -0.43; p-value = 0.664) on *LN_ EQUITY* is insignificant, which further suggests that FRQ is positively associated with ACC's cash compensation.

In summary, the results in Table 5 and Table 6 suggest that FRQ is positively associated with the level of ACC's cash compensation, which rejects H2, while FRQ is not associated with the level of ACC's equity-based compensation, which fails to reject H1. Specifically, we find that the likelihood of misstatements and the extent of earnings management are negatively associated with the level of ACC's cash compensation, but not equity-based compensation.

Conclusions

In this article, we extend Rickling and Sharma (2017) and Liu et al. (2020) to further examine the relationship between ACC's cash and equity-based compensations and FRQ. We find that ACC's cash compensation is negatively

[11] See Table 1 for variable definitions. Our sample size is consistent with Liu et al. (2020) that use AC's compensation dada from BoardEx. For instance, Liu et al. (2020) have 3,685 firm-year observations for the years 2007 through 2015.

[12] These are consistent with the dollar values documented in Engel et al. (2010).

associated with financial misstatement and accruals-based earnings management. This study is one of the first to investigate the association between the level of ACC's compensation and FRQ. This research shows that ACC's cash compensation, as an important dimension of AC characteristics, is associated with FRQ.

This article's findings suggest that firms choose various levels of ACC pay. This choice conveys information useful to corporate outsiders. Market participants may infer a firm's FRQ from its ACC's cash compensation. The findings in this research also may be informative to regulators, the board of directors, financial executives, and investors.

AC plays an important role in monitoring a firm's financial reporting process by working with the external auditor. Given its critical role, research on AC has attracted considerable attention from both researchers and regulators. ACC's cash compensation is an important AC characteristic. Therefore, it is important to know the relationship between ACC's cash compensation and financial reporting quality. However, only a few studies have studied this important relationship. Recently, researchers have started to explore the differential effect of cash and equity compensation (e.g., Liu and Yu, 2018; Schrader and Sun, 2019; Behrend and Pitman, 2021). Our study adds to this conversation of compensation literature. Our findings suggest that financial incentive matters. Therefore, when auditors detect fraud or earnings management, they should keep in mind AC's incentives.

This study has limitations. Due to data limitations, it is not possible to control for various types of AC's expertise, such as industry expertise. In addition, we only use ACC's compensation in this study This study might have an endogeneity issue that this stream of literature suffers. That is the observed association between ACC's cash compensation and FRQ might be driven by another omitted variable. To address this endogeneity issue, future research may create a model of ACC's compensation, and then use the residual from that model to proxy unexpected ACC's compensation.

Appendix

Performance-adjusted discretionary accruals (*DA_ROA*) are estimated following Kothari et al. (2005). Specifically, the sample firms are partitioned by their industry, and the classification of industry is based on two-digit SIC codes. Industries with fewer than 15 firm-years are excluded. Parameters for normal accruals for each two-digit SIC industry by year are estimated using the following equation:

$$TAcc_t = \beta_0 + \beta_1(1/TA_{t-1}) + \beta_2(\Delta Rev_t - \Delta AR_t) + \beta_3(PPE_t) + \beta_4(ROA_{t-1}) + \varepsilon_t$$ where:

$TAcc_t$	=	Income before extraordinary items and discontinued operations minus net cash flow from operating activities adjusted for extraordinary items and discontinued operations reported on the statement of cash flows, scaled by total assets at the beginning of the year *t*;
TA_{t-1}	=	Total assets at the beginning of the year *t*;
ΔRev_t	=	Net sales in year *t* less net sales in year *t-1* scaled by total assets at the beginning of the year *t*;
ΔAR_t	=	Accounts receivable in year *t* less accounts receivable in year *t-1* scaled by total assets at the beginning of the year *t*;
PPE_t	=	Net Property and Plant Equipment in year *t*, scaled by total assets at the beginning of the year *t*;
ROA_{t-1}	=	Income before extraordinary items scaled by total assets in year *t-1*.

All variables are winsorized at the 1st and 99th percentiles. Using coefficients estimated from the equation above, we estimate *DA_ROA* and calculate the absolute performance-adjusted discretionary accruals as:

$$DA\_ROA_t = TAcc_t - [b_0 + b_1(1/TA_{t-1}) + b_2(\Delta Rev_t - \Delta AR_t) + b_3(PPE_t) + b_4(ROA_{t-1})]$$

$$ABSDA\_ROA_t = |DA\_ROA_t|$$

References

Adams, R.B. and Ferreira, D., 2008. Do directors perform for pay? Journal of Accounting and Economics 46 (1): 154–171.

Alkebsee, R., Alhebry, A., Tian, G., and Garefalakis, A., 2021. Audit committee's cash compensation and earnings management: The moderating effects of institutional factors. Spanish Journal of Finance and Accounting: 1–28.

Anderson, R.C., Mansi, S.A. and Reeb, D.M., 2004. Board characteristics, accounting report integrity, and the cost of debt. Journal of Accounting and Economics 37 (3): 315–342.

Archambeault, D.S., DeZoort, F.T. and Hermanson, D.R., 2008. Audit committee incentive compensation and accounting restatements. Contemporary Accounting Research 25 (4): 965–992.

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

Bedard, J., Chtourou, S.M. and Courteau, L., 2004. The effect of audit committee expertise, independence, and activity on aggressive earnings management. Auditing: A Journal of Practice and Theory 23 (2): 13–35.

Behrend, M.J. and Pitman, M.K., 2021. The effect of cash versus equity compensation on audit committee decision-making-evidence from the 2007 Deloitte censure. Managerial Auditing Journal 37 (1):1–16.

Bierstaker, J.L., Cohen, J.R., DeZoort, F.T. and Hermanson, D.R., 2012. Audit committee compensation, fairness, and the resolution of accounting disagreements. Auditing: A Journal of Practice and Theory 31 (2): 131–150.

Bliss, M.A. 2011. Does CEO duality constrain board independence? Some evidence from audit pricing. Accounting and Finance 51(2): 361–380.

Bruynseels, L. and Cardinaels, E., 2014. The audit committee: Management watchdog or personal friend of the CEO? The Accounting Review 89 (1): 113–145.

Campbell, J.L., Hansen, J., Simon, C.A., and Smith, J.L., 2015. Audit committee stock options and financial reporting quality after the Sarbanes-Oxley Act of 2002. Auditing: A Journal of Practice and Theory 34 (2): 91–120.

Carcello, J.V., and Neal, T.L., 2003. Audit committee characteristics and auditor dismissals following "new" going-concern reports. The Accounting Review 78 (1): 95–117.

Chen, X., Cheng, Q. and Wang, X., 2015. Does increased board independence reduce earnings management? Evidence from recent regulatory reforms. Review of Accounting Studies 20 (2): 899–933.

Cohen, J.R., Hoitash, U., Krishnamoorthy, G. and Wright, A.M., 2014. The effect of audit committee industry expertise on monitoring the financial reporting process. The Accounting Review 89 (1): 243–273.

Cullinan, C.P., Du, H., and Wright, G.B., 2008. Is there an association between director option compensation and the likelihood of misstatement? Advances in Accounting 24 (1): 16–23.

Cullinan, C.P., Du, H. and Jiang, W., 2010. Is compensating audit committee members with stock options associated with the likelihood of internal control weaknesses? International Journal of Auditing 14: 256–273.

Dalton, D.R. and Daily, C.M., 2001. Director stock compensation: An invitation to a conspicuous conflict of interests? Business Ethics Quarterly 11 (1): 89–108.

DeFond, M.L., Hann, R.N. and Hu, X., 2005. Does the market value financial expertise on audit committees of boards of directors? Journal of Accounting Research 43 (2): 153–193.

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

Dhaliwal, D.A.N., Naiker, V.I.C. and Navissi, F., 2010. The association between accruals quality and the characteristics of accounting experts and mix of expertise on audit committees. Contemporary Accounting Research 27 (3): 787–827.

Engel, E., Hayes, R.M. and Wang, X., 2010. Audit committee compensation and the demand for monitoring of the financial reporting process. Journal of Accounting and Economics 49 (1–2): 136–154.

Fama, E.F. and Jensen, M.C., 1983. Separation of ownership and control. The Journal of Law and Economics 26 (2): 301–325.

Hayek, C.C., 2018. The state of the literature on audit committee compensation and its implications for practice and research. Current Issues in Auditing 12 (2): A1–A11.

Hennes, K.M., Leone, A.J. and Miller, B.P., 2008. The importance of distinguishing errors from irregularities in restatement research: The case of restatements and CEO/CFO turnover. The Accounting Review 83 (6): 1487–1519.

Jensen, M.C., and Meckling, W. H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics 3 (4): 305–360.

Keune, M.B. and Johnstone, K.M., 2015. Audit committee incentives and the resolution of detected misstatements. Auditing: A Journal of Practice and Theory 34 (4): 109–137.

Klein, A. 2002. Audit committee, board of director characteristics, and earnings management. Journal of Accounting and Economics 33 (3): 375–400.

Koh, K., Rajgopal, S. and Srinivasan, S., 2013.Non–audit services and financial reporting quality: evidence from 1978 to 1980. Review of Accounting Studies, 18 (1): 1–33.

Kothari, S.P., Leone, A.J. and Wasley, C.E., 2005. Performance matched discretionary accrual measures. Journal of Accounting and Economics 39 (1): 163–197.

Krishnan, G.V., and Visvanathan, G., 2008. Does the SOX definition of an accounting expert matter? The association between audit committee directors' accounting expertise and accounting conservatism. Contemporary Accounting Research 25 (3): 827–858.

Krishnan, J., Krishnan, J., Wen, Y. and Zhao, W., 2011. Legal expertise on corporate audit committees and financial reporting quality. The Accounting Review 86 (6): 2099–2130.

Lee, H.Y., Mande, V. and Ortman, R., 2004. The effect of audit committee and board of director independence on auditor resignation. Auditing: A Journal of Practice and Theory 23 (2): 131–146.

Liu, X., Lobo, G.J. and Yu, H.C., 2021. Is audit committee equity compensation related to audit fees? Contemporary Accounting Research 38 (1): 740–769.

Liu, X., and Yu, H.C., 2018. How do companies react to restatements? Evidence from audit committee compensation. Asia-Pacific Journal of Accounting and Economics 25 (5): 546–585.

Magilke, M.J., Mayhew, B.W. and Pike, J.E., 2009. Are independent audit committee members objective? Experimental evidence. The Accounting Review 84 (6): 1959–1981.

Masulis, R.W., Wang, C. and Xie, F., 2012. Globalizing the boardroom-The effects of foreign directors on corporate governance and firm performance. Journal of Accounting and Economics 53 (3): 527–554.

Mitchell, M.L., and Mulherin, J.H., 1996. The impact of industry shocks on takeover and restructuring activity. Journal of Financial Economics 41 (2): 193–229.

National Association of Corporate Directors (NACD), 2003. Director compensation: Purpose, principles, and best practices. Washington, D.C.: The National Association of Corporate Directors.

Public Company Accounting Oversight Board (PCAOB), 2022, Spotlight: 2021 Conversations with Audit Committee Chairs. Available at: https://pcaobus.org/documents/2021-conversations-with-audit-committee-chairs-spotlight.pdf.

Raghunandan, K., Rama, D.V. and Read, W.J., 2001. Audit committee composition, "gray directors," and interaction with internal auditing. Accounting Horizons 15 (2): 105–118.

Reichelt, K.J., and 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.

Rickling, M.F. and Sharma, D.S., 2017. Audit committee cash compensation and propensity of firms to beat earnings by a large margin: Conditional effects of CEO power and agency risks. International Journal of Auditing 21 (3): 304–323.

Schrader, C.L. and Sun, H.L., 2019. How does the type of equity compensation of audit committee affect audit fees? Advances in accounting 45: 100411.

Securities and Exchange Commission (SEC). 2003. Final Rule. Release Nos. 33-8177; 34-47235; File No. S7-40-02. Available at: https://www.sec.gov/rules/final/33-8177.htm

Sengupta, P., and Zhang, S., 2015. Equity-based compensation of outside directors and corporate disclosure quality. Contemporary Accounting Research 32 (3): 1073–1098.

Sharma, D.S. and Sharma, V.D., 2010. Audit committee independence: Regulatory developments, the empirical literature, and directions for future research. World Scientific Book Chapters: 103–127.

Spy Magazine, 1990. Every man has his price.

Wysocki, P., 2010. Corporate compensation policies and audit fees. Journal of Accounting and Economics 49 (1–2): 155–160.

Ye, K., 2014. Independent director cash compensation and earnings management. Journal of Accounting and Public Policy 33 (4): 391–400.

Yermack, D. 2004. Remuneration, retention, and reputation incentives for outside directors. Journal of Finance 59 (5): 2281–2308.

Zhao, Y., Bedard, J.C. and Hoitash, R., 2017. SOX 404, auditor effort, and the prevention of financial report misstatements. Auditing–a Journal of Practice and Theory 36 (4): 151–177.

Table 1: Variable Definitions, Calculations, and Database

Dependent Variable		**Definition [Database]**
MISSTATE	=	1 if a client's financial report for fiscal year *t* contains a material misstatement, 0 otherwise [Audit Analytics].
ABSDA_ROA	=	The absolute value of discretionary accruals introduced by Kothari et al. (2005) [Compustat].
Test Variable		
LN_CASH	=	The natural logarithm of fees paid to ACC in cash (in thousand dollars) [BoardEx].
LN_EQUITY	=	The natural logarithm of equity value to ACC (in thousand dollars) [BoardEx].
Corporate Governance Controls		
FIN_EXP	=	1 if ACC is a financial expert, 0 otherwise [BoardEx].
TIMEBRD	=	Measures ACC tenure [BoardEx].
NUMBERDIRECTORS	=	Total number of directors on a board. It measures board size [BoardEx].
CEO_IS_CHAIR	=	A binary variable indicating whether the CEO also chairs the board of directors [BoardEx].
Auditor Controls		
BIG4COMPU	=	1 if a client is audited by one of Big Four accounting firms, 0 otherwise [Audit Analytics].
CITY_INDUSTRY_EXPERT	=	A binary variable indicating whether the company is audited by an industry specialist auditor, where an industry specialist is an auditor with 50% or more market share, based on audit fees, measured at the office level and two-digit SIC code [Audit Analytics].
AUTEN	=	The number of years a client is audited by its current auditor [Audit Analytics].
Financial Controls		
LNAT	=	The natural logarithm of total assets [Compustat].
LEVERAGE	=	(Long term debt + short-term debt reported in current liabilities)/total assets [Compustat].
ROA	=	Net income /total assets at the beginning of the period [Compustat].
LOSS	=	Percentage of the number of years reporting negative net income in the prior three years [Compustat].
BOOKMKT	=	Book to market ratio [Compustat].
SEGMENT	=	The natural logarithm of the total number of business segments [Compustat].
RESTRUCT	=	1 if a firm recognizes restructuring charges during year t and 0 otherwise [Compustat].
SI	=	The absolute value of special items / total assets at the beginning of the period [Compustat].
MA	=	1 if a client undertakes a large merger or acquisition, and 0 otherwise [Compustat].
FOREIGN	=	1 if a client has foreign transactions and 0 otherwise [Compustat].
ISSUANCE	=	1 if a client issues new debt or equity in the following year and 0 otherwise [Compustat].
LNAGE	=	The natural logarithm of the number of years that a client has total assets information covered by Compustat [Compustat].

LITIND	=	1 if a client operates in the following industries: Biotechnology (2833–2836 and 8731–8734), industries (based on Francis et al., 1994), and 0 otherwise [Compustat].
BUSY	=	1 if client's fiscal year end is December 31st [Compustat].

Table 2: Sample Selection Description

	No. of observations
BoardEx ACC with cash and equity-based compensations for the period 2000–2015	7,435
Less observations without CEO duality data	(471)
Less observations without controls for misstatements and discretionary accruals models	(2,478)
Final firm-year observations (891 misstatements and 3,595 non-misstatements)	4,486

Table 3: Panel A: Descriptive Statistics of Test Variables for the Whole Sample

Variable	N	Mean	Minimum	Median	Maximum	Std Dev
MISSTATE	4,486	0.199	0.000	0.000	1.000	0.399
ABSDA_ROA	4,486	0.043	0.001	0.030	0.260	0.045
CASH	4,486	58.147	0.000	50.000	173.000	40.767
LN_CASH	4,486	2.886	-11.513	3.912	5.153	3.870
EQUITY	4,486	85.405	0.000	54.000	810.000	118.851
LN_EQUITY	4,486	-0.015	-11.513	3.989	6.697	7.109
FIN_EXP	4,486	0.782	0.000	1.000	1.000	0.413
TIMEBRD	4,486	7.822	0.400	6.500	27.900	5.732
NUMBERDIRECTORS	4,486	10.023	5.000	10.000	17.000	2.384
CEO_IS_CHAIR	4,486	0.307	0.000	0.000	1.000	0.461
BIG4COMPU	4,486	0.961	0.000	1.000	1.000	0.193
CITY_INDUSTRY_EXPER	4,486	0.349	0.000	0.000	1.000	0.477
AUTEN	4,486	14.209	1.000	12.000	40.000	10.129
LNAT	4,486	8.573	4.560	8.619	13.381	1.641
LEVERAGE	4,486	0.260	0.000	0.237	0.949	0.200
ROA	4,486	0.047	-0.397	0.050	0.322	0.099
LOSS	4,486	0.177	0.000	0.000	1.000	0.381
BOOKMKT	4,486	0.456	-0.661	0.381	2.077	0.381
LNSEG	4,486	1.683	0.000	1.792	2.944	0.608
RESTRUCT	4,486	0.504	0.000	1.000	1.000	0.500
SI	4,486	0.017	0.000	0.005	0.235	0.037
MA	4,486	0.146	0.000	0.000	1.000	0.353
FOREIGN	4,486	0.321	0.000	0.000	1.000	0.467
ISSUANCE	4,486	0.972	0.000	1.000	1.000	0.165
LNAGE	4,486	3.117	1.099	3.178	4.143	0.762
LITIND	4,486	0.315	0.000	0.000	1.000	0.465
BUSY	4,486	0.816	0.000	1.000	1.000	0.387

Panel B: Descriptive Statistics of Test Variables for the Misstatement and Non-Misstatement Groups

Variable	MISSTATE=0 (N=3,580) Mean	MISSTATE=1(N=890) Mean	t-stat	
ABSDA_ROA	0.042	0.049	-4.14	***
CASH	61.500	44.616	11.78	***
LN_CASH	3.022	2.337	4.39	***
EQUITY	90.540	64.686	6.09	***
LN_EQUITY	0.402	-1.697	7.54	***
FIN_EXP	0.799	0.715	5.06	***
TIMEBRD	7.901	7.500	1.94	*
NUMBERDIRECTORS	10.082	9.782	3.08	***
CEO_IS_CHAIR	0.297	0.349	-2.95	***
BIG4COMPU	0.964	0.948	1.99	**
CITY_INDUSTRY_EXPER	0.345	0.365	-1.09	
AUTEN	14.456	13.211	3.41	***
LNAT	8.670	8.182	7.65	***
LEVERAGE	0.258	0.266	-1.02	
ROA	0.049	0.038	3.02	***
LOSS	0.169	0.207	-2.50	**
BOOKMKT	0.452	0.472	-1.38	
LNSEG	1.693	1.639	2.37	**
RESTRUCT	0.504	0.504	0.01	
SI	0.017	0.019	-1.60	
MA	0.144	0.157	-1.00	
FOREIGN	0.325	0.309	0.92	
ISSUANCE	0.972	0.972	-0.01	
LNAGE	3.159	2.946	7.33	***
LITIND	0.300	0.374	-4.09	***
BUSY	0.814	0.824	-0.67	

Two-tailed t-test of difference from zero is significant at *** < 0.01, **<0.05, *<0.1.

Table 4: Pearson Correlations Between Dependent Variables and Independent Variables for the Whole Sample

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	*MISSTATE*																								
2	*ABSDA_ROA*	**0.06**																							
3	*LN_CASH*	**-0.07**	**-0.06**																						
4	*LN_EQUITY*	**-0.12**	**-0.09**	**-0.05**																					
5	*FIN_EXP*	**-0.08**	**-0.08**	**0.04**	**0.21**																				
6	*TIMEBRD*	-0.03	**-0.05**	0.02	*0.03*	**-0.14**																			
7	*NUMBERDIRECTORS*	**-0.05**	**-0.16**	**0.04**	**0.15**	-0.02	**0.14**																		
8	*CEO_IS_CHAIR*	**0.05**	**-0.05**	-0.02	-0.01	**-0.08**	**0.14**	**0.14**																	
9	*BIG4COMPU*	*-0.03*	**-0.05**	0.01	**0.07**	**0.10**	0.01	**0.09**	-0.02																
10	*CITY_INDUSTRY_EXPERT*	0.02	0.03	-0.01	-0.02	0.00	0.02	-0.02	-0.03	0.02															
11	*AUTEN*	**-0.05**	**-0.10**	**0.05**	**0.15**	**0.06**	**0.18**	**0.23**	**0.10**	**0.04**	0.01														
12	*LNAT*	**-0.12**	**-0.22**	**0.10**	**0.28**	**0.09**	**0.13**	**0.55**	**0.11**	**0.17**	**-0.04**	**0.25**													
13	*LEVERAGE*	0.01	*-0.04*	**0.05**	-0.01	**-0.08**	-0.01	**0.09**	0.00	-0.02	0.03	0.00	**0.16**												
14	*ROA*	*-0.03*	**-0.15**	*0.04*	**0.13**	**0.08**	**0.09**	**0.06**	0.00	**0.07**	0.03	**0.10**	**0.10**	**-0.20**											
15	*LOSS*	**0.04**	**0.17**	-0.03	**-0.12**	**-0.07**	**-0.10**	**-0.14**	**-0.05**	**-0.08**	0.00	**-0.14**	**-0.19**	**0.18**	**-0.60**										
16	*BOOKMKT*	0.01	-0.02	0.01	0.01	-0.03	0.01	**0.04**	0.03	0.02	-0.02	0.02	**0.04**	-0.11	**0.04**	**-0.04**									
17	*LNSEG*	*-0.04*	**-0.13**	0.01	**0.12**	0.02	0.01	**0.18**	**0.07**	**0.05**	**-0.10**	**0.24**	**0.33**	**-0.05**	**0.09**	**-0.05**	*0.03*								
18	*RESTRUCT*	0.00	**-0.05**	**0.05**	**0.10**	**0.12**	**-0.06**	**0.10**	-0.01	**0.05**	0.00	**0.12**	**0.10**	0.02	**-0.12**	**0.14**	-0.02	**0.24**							
19	*SI*	0.02	**0.39**	**-0.05**	**-0.07**	**-0.05**	**-0.07**	**-0.08**	*-0.03*	*-0.03*	0.02	**-0.04**	**-0.14**	**0.04**	**-0.38**	**0.37**	**-0.06**	-0.01	**0.14**						

20	*MA*	0.02	**0.05**	-0.02	0.00	0.01	**-0.04**	**-0.06**	-0.02	-0.01	*0.03*	**-0.05**	**-0.09**	-0.03	0.02	-0.02	0.00	*0.03*	*0.04*	**0.06**					
21	*FOREIGN*	-0.01	-0.01	**0.06**	**0.06**	**0.08**	*-0.03*	0.00	**-0.06**	**0.04**	**-0.08**	**0.14**	*-0.03*	**-0.12**	**0.08**	-0.03	0.01	**0.31**	**0.17**	**0.04**	*0.03*					
22	*ISSUANCE*	0.00	-0.01	*-0.03*	0.00	-0.01	0.02	0.01	-0.01	-0.02	0.01	0.00	**0.04**	**0.05**	0.01	-0.02	0.00	-0.01	*-0.03*	-0.01	*0.04*	0.00				
23	*LNAGE*	**-0.11**	**-0.18**	**0.06**	**0.20**	0.01	**0.23**	**0.35**	**0.24**	**0.06**	-0.01	**0.48**	**0.41**	**0.07**	**0.09**	**-0.15**	0.02	**0.31**	**0.12**	**-0.08**	**-0.08**	**0.04**	0.02			
24	*LITIND*	**0.06**	**0.12**	**-0.04**	**-0.06**	0.02	-0.01	**-0.22**	**-0.14**	-0.03	**0.08**	**-0.07**	**-0.26**	**-0.26**	*-0.03*	**0.05**	0.01	**-0.17**	0.00	**0.09**	**0.07**	0.03	0.00	**-0.15**		
25	*BUSY*	0.01	**-0.04**	0.02	**0.04**	**-0.05**	-0.02	**0.04**	**0.06**	**-0.04**	**-0.04**	-0.02	**0.09**	**0.15**	**-0.07**	**0.05**	-0.01	**-0.06**	**-0.04**	0.01	-0.03	**-0.06**	-0.01	-0.01	**-0.07**	

Coefficients with bold and italic are significant at 0.01 and 0.05 levels.

Table 5: Misstatement Logistic Model Results

Variable	*Misstatement (Dependent Variable)*		
Intercept	-2.675***	-2.807***	-2.767***
	(-4.59)	(-4.78)	(-4.70)
LN_CASH	-0.029**		-0.032***
	(-2.45)		(-2.68)
LN_EQUITY		-0.009	-0.012
		(-1.29)	(-1.63)
FIN_EXP	0.016	0.015	0.012
	(0.10)	(0.09)	(0.08)
TIMEBRD	-0.004	-0.005	-0.004
	(-0.45)	(-0.47)	(-0.45)
NUMBERDIRECTORS	0.039	0.040	0.038
	(1.33)	(1.35)	(1.30)
CEO_IS_CHAIR	0.240*	0.245*	0.241*
	(1.82)	(1.86)	(1.83)
BIG4COMPU	-0.158	-0.146	-0.169
	(-0.60)	(-0.55)	(-0.64)
CITY_INDUSTRY_EXPER	0.006	0.011	0.006
	(0.05)	(0.09)	(0.05)
AUTEN	0.012	0.012	0.012
	(1.55)	(1.53)	(1.56)
LNAT	-0.112**	-0.110**	-0.100*
	(-2.02)	(-1.99)	(-1.80)
LEVERAGE	0.530	0.474	0.524
	(1.43)	(1.29)	(1.42)
ROA	0.148	0.152	0.219
	(0.22)	(0.23)	(0.33)
LOSS	-0.088	-0.086	-0.077
	(-0.54)	(-0.52)	(-0.47)
BOOKMKT	0.207	0.185	0.194
	(1.41)	(1.25)	(1.32)
LNSEG	0.088	0.094	0.088
	(0.59)	(0.63)	(0.59)
RESTRUCT	0.164	0.160	0.169
	(1.37)	(1.34)	(1.42)
SI	0.098	0.237	0.094
	(0.07)	(0.17)	(0.07)
MA	-0.053	-0.045	-0.048

	(-0.41)	(-0.35)	(-0.37)
FOREIGN	0.187	0.167	0.187
	(1.26)	(1.13)	(1.25)
ISSUANCE	-0.038	-0.014	-0.040
	(-0.14)	(-0.05)	(-0.14)
LNAGE	-0.298***	-0.297***	-0.293***
	(-2.70)	(-2.71)	(-2.66)
LITIND	0.172	0.168	0.163
	(0.61)	(0.61)	(0.58)
BUSY	0.138	0.138	0.145
	(0.81)	(0.82)	(0.86)
INDUSTRY DUMMIES	YES	YES	YES
YEAR DUMMIES	YES	YES	YES
TOTAL N	4,486	4,486	4,486
PSEUDO R^2	0.175	0.174	0.177

This table reports the estimates from the following regression: $MISSTATE_t = a_0 + a_1(LN\_CASH \text{ or } LN\_EQUITY)_t + CONTROLS + Industry\ Dummies + Year\ Dummies$. The sample period spans the years 2000-2015. Two-tailed t-test of difference from zero is significant at *** < 0.01, **<0.05, *<0.1. Industry dummies are defined using SIC 2-digit codes.

Table 6: OLS Regression Results of Discretionary Accruals

Variable	*ABSDA_ROA (Dependent Variable)*		
Intercept	0.134***	0.614***	0.280***
	(8.53)	(7.98)	(3.68)
LN_CASH	0.000***		0.000
	(-18.55)		(-1.56)
LN_EQUITY		0.000	0.000
		(-0.23)	(-0.43)
FIN_EXP	-0.006**	-0.006**	-0.006**
	(-2.33)	(-2.32)	(-2.34)
NUMBERDIRECTORS	-0.001	-0.001	-0.001
	(-1.34)	(-1.31)	(-1.35)
CEO_IS_CHAIR	0.000	0.000	0.000
	(0.12)	(0.14)	(0.13)
BIG4COMPU	0.000	0.000	0.000
	(0.03)	(0.05)	(0.02)
CITY_INDUSTRY_EXPER	0.000	0.000	0.000
	(0.05)	(0.04)	(0.04)
AUTEN	0.000	0.000	0.000
	(-0.41)	(-0.42)	(-0.41)
LNAT	-0.002**	-0.002**	-0.002**
	(-2.38)	(-2.44)	(-2.34)
LEVERAGE	-0.006	-0.006	-0.006
	(-0.85)	(-0.91)	(-0.86)
ROA	0.022	0.021	0.022
	(1.16)	(1.16)	(1.18)
LOSS	0.003	0.003	0.003
	(1.14)	(1.15)	(1.16)
BOOKMKT	-0.009***	-0.009***	-0.009***
	(-3.47)	(-3.53)	(-3.49)
LNSEG	-0.006***	-0.006***	-0.006***
	(-3.11)	(-3.08)	(-3.12)
RESTRUCT	-0.006***	-0.006***	-0.006***
	(-3.63)	(-3.64)	(-3.60)
SI	0.420***	0.421***	0.420***
	(11.81)	(11.84)	(11.8)
MA	0.003	0.003	0.003
	(1.20)	(1.21)	(1.20)
FOREIGN	-0.003	-0.003	-0.003

	(-1.26)	(-1.34)	(-1.26)
ISSUANCE	-0.003	-0.003	-0.003
	(-0.88)	(-0.80)	(-0.89)
LNAGE	-0.004**	-0.004**	-0.004**
	(-2.46)	(-2.46)	(-2.44)
LITIND	0.007	0.007	0.007
	(1.56)	(1.56)	(1.55)
BUSY	-0.006**	-0.006**	-0.006**
	(-2.32)	(-2.33)	(-2.32)
INDUSTRY DUMMIES	YES	YES	YES
YEAR DUMMIES	YES	YES	YES
TOTAL N	4,486	4,486	4,486
PSEUDO R^2	0.247	0.246	0.246

This table reports the estimates from the following regression: $ABSDA\_ROA_t = b_0 + b_1(LN\_CASH \text{ or } LN\_EQUITY)_t + CONTROLS + Industry\ Dummies + Year\ Dummies$. The sample period spans the years 2000–2015. Two-tailed t-test of difference from zero is significant at: *** < 0.01, **<0.05, *<0.1. Industry dummies are defined using SIC 2-digit codes.