THE EFFECT OF CHIEF ACCOUNTING OFFICERS ON FINANCIAL REPORTING QUALITY

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ABSTRACT

This study examines the effect of Chief Accounting Officers (CAOs) on financial reporting quality. I hypothesize that firms that employ a CAO will have better financial reporting quality. I posit that the CAO is different from other executives in incentives, priorities, and background and that they therefore provide valuable oversight over the firm financial reporting process. Indeed, I find that firms with CAOs have lower rates of severe restatements, instances of just meeting or beating earnings targets, and internal control weaknesses. I further structure tests that control for the firm's endogenous choice to appoint a CAO, with results that are generally consistent. I also test financial reporting quality by examining earnings management around seasoned equity offerings. I find that accruals earnings management is mitigated in CAO firms. Next, I examine CAO, CEO, and CFO compensation and career concerns to determine if differences in incentives drive these findings. CAO turnover occurs in the years around restatements and ICWs. I also find that CAO tenure is negatively associated with severe restatements, abnormal accruals, instances of just meeting or beating earnings targets, and internal control weaknesses Overall, these results suggest that having a designated CAO is associated with various improvements in financial reporting quality and that these improvements are related to the CAO's tenure within the firm.

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INTRODUCTION

Financial statements provide information to market participants, such as investors, creditors, and regulators. Research has theorized and shown that executives have self-interested incentives to influence financial statements (Healy, 1985; Bergstresser and Philippon, 2006; Ali and Zhang, 2015; Schroth, 2018). Previous studies have examined the effects of CEOs and CFOs on earnings and financial statement quality (e.g., Jiang, Petroni, and Wang, 2010). These executives are a natural choice for study because of their responsibility for financial reporting. Recently professionals have debated the role of the CFO, with many arguing that the function has shifted away from accounting and financial reporting and toward operational strategy and investor relations. [1] As CFOs focus less on accounting, the responsibility for financial reporting falls more on the chief accounting officer (hereafter CAO). However, few studies have examined the CAO's role in financial reporting. The CAO and her influence over financial reporting are important to investigate because she is the lead accountant in the firm. In this study, I first investigate how the presence of a CAO affects financial reporting quality. Some explanations for how the CAO may influence financial reporting include that she focuses more attention on financial reporting, her incentives are aligned with reporting quality, and that only those with greater influence over financial reporting are able to impact the quality. In the second part of this study, I investigate these explanations.

I determine whether a company has a CAO using data collected from the signature page of 10-K filings. I compare the financial reporting quality of firms that have a CAO to

[1]Sources of these claims are found in practitioner articles, see McCann (2016), Wimberley (2016), and Fisher (2016). This topic is a source of debate, however, as shown by arguments in Sisco (2016)

the financial reporting quality of firms that do not.[2] I find that approximately one-third of firms-years have a designated CAO, while the remainder almost always designate the CFO as also fulfilling the CAO role. I hypothesize that the presence of a separate CAO results in higher quality oversight over the financial statements. I proxy for financial reporting quality using five measures: non-severe restatements, severe restatements (with severity measured by the presence of an 8-K filing), absolute Dechow-Dichev accruals (Dechow and Dichev, 2002), just meeting or beating analyst forecasts (hereafter, meet-or-beat), and internal control weaknesses (hereafter, ICW). I find that firms with a CAO are less likely to have a severe restatement, meet-or-beat, or ICW. However, since firms select whether to have a CAO, one major concern is that the presence of a CAO is correlated with an omitted variable that impacts the financial reporting quality. To address this concern, I generate a propensity score for the likelihood of a firm to have a CAO based on firm characteristics. I then match firms with a CAO to firms without a CAO using this propensity score and estimate the effects of the CAO on financial reporting quality. Using the matched sample, I find results like those of the pooled sample: that firms that designate a CAO are associated with lower rates of severe restatements, meet-or-beats, and ICWs relative to otherwise similar firms. These results are consistent with CAOs improving the financial reporting quality of the firm.

Next, I examine the effects of CAOs on the reporting quality of firms that issue seasoned equity offerings (hereafter SEO), a setting where the literature has found an increase in earnings management (e.g., Rangan, 1998; Teoh et al., 1998; Shivakumar, 2000; Cohen and Zarowin, 2010). Specifically, I hypothesize that the CAO mitigates

[2]Sarbanes Oxley requires the firm to designate a Principal Accounting Officer in the signature section of the 10-K. Non-CAO firms are those that have the CFO sign the 10-K as both the CFO and CAO.

accruals earnings management but does not influence real earnings management. As accruals are tied to accounting policies of the firm, the chief accountant's responsibilities are directly connected to the accruals in the financial statements. However, the CAO's duties are generally not related to operational decisions, and it therefore follows that the CAO is less likely to influence real operations or real earnings management. Therefore, this setting is especially powerful as finding that firms with CAOs do not manage accruals but do conduct real earnings management would provide support against the alternative story that the presence of a CAO is just capturing other firm characteristics or decisions to improve financial reporting. Consistent with the literature (Cohen and Zarowin, 2010), I find an increase in discretionary accruals in years of SEOs. I test to see if there is a difference in earnings management for firms that employ a CAO. Overall, I find evidence consistent with accruals earnings management around SEOs that is mitigated in CAO firms. I find mixed evidence of real earnings management around SEOs as well as possible mitigation of real earnings management in CAO firms.

Next, I consider two channels that may explain the CAO's effect on financial reporting: incentives and relative power. Using EXECUCOMP data I examine pay structure of CAOs, CFOs, and CEOs. I document a difference in pay structure between the CAO and the other two executives. Specifically, I find that CAOs have a higher proportion of pay in salary and cash bonuses and a lower portion in options and other stock awards. These differences are consistent with firms giving CAOs less incentive related to firm performance and therefore less incentive to manipulate. These findings from EXECUCOMP correspond to a small subsample of public firms so for more rigorous testing on incentives. I examine incentives for my sample using equity-based compensation

and career concerns in the form of termination. Following the literature (Coles et al. 2006; Armstrong et al. 2013), I use delta and vega to measure equity-based incentives. I find initial results that meet-or-beat increases with CAO vega, but this result is not robust to the addition of CFO and CEO vega to the regression.

I examine turnover by examining the firm financial reporting around executive turnover events. I find that CAO turnover is positively associated with an increase in severe restatements and ICWs, while CFO turnover is positively associated with non-severe restatements and ICWs. CEO turnover is negatively associated with meet-or-beat, this result is consistent with previous work in the literature that has found that CEOs are incentivized to achieve market-based EPS goals (Armstrong et al., 2019). These results are consistent with CAO career concerns incentivizing high-quality financial reporting, but these results are also consistent with the reverse story, that turnover in executives leads to financial reporting failures. To try and find evidence that would differentiate these two stories I test career concerns by examining turnover around financial reporting failures, such as restatement announcements, restatement periods, and ICWs. I estimate the effect of restatement announcements, restatements, and ICWs on CAO, CFO, and CEO turnover. The results show a positive correlation between CAO turnover and the year before and the year of a restatement announcement and ICW. The significant result in the year before is consistent with a new CAO discovering and announcing problems from the predecessor, but the result in the year of is consistent with the story that firms punish CAO's with termination for financial reporting quality errors. Given the evidence of two competing and not mutually exclusive stories, I do not draw conclusion regarding turnover and instead believe it warrants further testing.

The second channel I examine is CAO power relative to the CEO and CFO. When the CFO or CEO has incentives to manage earnings for personal gains, the CAO may fill the role of a monitor. Then relatively powerful CAOs will more effectively fulfill the role of a monitor and be able to produce higher financial reporting quality. In other words, more powerful CAOs should mitigate the extent of earnings management and improve financial reporting quality, while the reverse will be true of less powerful CAOs. I use tenure as a proxy for CAO, CEO, and CFO power. [3] I estimate the effect on financial reporting quality using tenure as a continuous variable, and the results show that higher-tenure CAOs are associated with lower absolute levels of Dechow-Dichev accruals as well as lower rates of severe restatements, meet-or-beats, and ICWs. I also estimate the effect of CAO tenure relative to CFO and CEO tenure on financial reporting quality, using first an indicator of CAO being more tenured than the CFO or CEO, and again using the difference in tenure of the CAO and each of the two other executive. Tests using these measures of tenure also show a significantly negative association between CAO relative tenure and severe restatements, absolute DD accruals, and meet-or-beats. These results are consistent with CAO power influencing firm financial reporting quality.

Overall, my results indicate that firms with a CAO have higher financial reporting quality compared to firms that do not have a CAO. This result holds in settings of accruals earnings management, which implies the CAO may serve as an effective monitor of managers who have incentives to misreport. Further testing provides results that are consistent with firms incentivizing CAOs through termination to prioritize financial

[3]I also use interim CAOs, CFOs, and CEOs as a setting for changes to power, but I do not find results that interim executives are associated with any changes in financial reporting quality.

reporting quality. Lastly, I find that among firms that designate a CAO, more powerful CAOs are associated with better financial reporting quality.

This study contributes to the literature in several ways. First, it contributes to the managerial and financial accounting literature on how managers affect firm outcomes. Various studies in the literature showed the effect of different managers on the firm. For example, Bertrand and Schoar (2003) showed an association between firm outcomes and manager-level effects. Ge et al. (2011) showed that accounting practices and policies vary systematically across CFOs. Dyreng et al. (2010) documented results consistent with executives having significant effects on tax avoidance. Armstrong et al. (2012) linked tax expense reported in the financial statement specifically to the tax director's compensation. As the firm's highest-level accountant and one of the three managers required to sign the 10-K, the CAO is a key corporate leader. The CAO's foremost duty is over the financial statements and understanding her role can improve our understanding of financial reporting.[4]

As far as I am aware, Rhodes and Russomanno (forthcoming 2020) is the only other study that examines CAOs and financial reporting quality. Their research focuses on accounting executives in top management teams and their effects on reporting. While my study also examines CAOs and financial reporting, I extend my contribution by also providing evidence of differences in earnings management across firms, specifically that earnings management around SEOs is mitigated in firms with a CAO. Furthermore, my

[4]The logic of using the manager's defined responsibility to justify a potential impact follows Jiang et al. (2010) which that the CFO likely has a more significant effect on earnings management than the CEO because of her duty, and also Armstrong et al. (2012) who used a similar reason to investigate the tax manager.

study provides evidence of the channel(s) by which the CAO affects financial reporting quality.

Additionally, by defining the role of the CAO, I extend the literature by providing further empirical analyses of management incentives and of the relationship among high-level managers, specifically the CAO, CEO, and CFO. Previous studies have empirically and theoretically examined the relationship of managers with each other as well as with the Board of Directors (Friedman 2014, Feng et al. 2011). Jiang et al. (2010) even investigated whether the CEO or CFO had more influence over earnings management, while Wang et al. (2012) investigated who reveals more private information. I extend the literature by focusing on the CAO as a potential backstop to misreporting when other managers manipulate earnings. The literature has investigated how managers respond to different incentives. For example, Efendi et al. (2007) and Burns and Kedia (2006) show that equity-based compensation incentivizes managers to misreport. My paper contributes to this area of the literature by showing that another possible method firms employ to prevent misreporting is segregating duties by appointing a CAO. Thus, the role of the CAO is a possible mechanism for improving the firm information environment, corporate governance and decision making.

To summarize: the CAO influences accounting policies, earnings management, and financial reporting while interacting with the CEO and CFO. Therefore, better understanding the CAO and her interactions with other executives can help inform academics, boards, regulators, and investors.

This paper proceeds as follows: Chapter 1 details the role of the CAO and develops hypotheses; Chapter 2 describes data, research design, and results for initial tests used to

evaluate the CAO influence on financial reporting quality; Chapter 3 describes data, research design, and results for the CAO and earnings management; Chapter 4 describes data, research design, and results for CAO incentives; Chapter 5 describes data, research design, and results for CAO Power; and Chapter 6 concludes.

CHAPTER 1

Institutional Details and Related Literature

1.1 Role of the Chief Accounting Officer

The exact duties of a chief accounting officer vary from firm to firm,[5] but the primary responsibility consistent for CAOs is overseeing all accounting functions and being the critical manager for financial reporting. The CAO will manage accounting transactions and the General Ledger, ensuring compliance with accounting regulations. As part of this duty, the CAO implements internal controls over financial reporting; she is, therefore, responsible for control deficiencies identified by the external or internal auditor. The CAO is a subordinate of the CEO and CFO, but often she also reports to the board of directors or the audit committee to report on the financial statements. According to the general instructions for the Form 10-K direct that the controller or principal accounting officer must sign the form. Related to oversight of financial reporting, the CAO often has the responsibility to generate reports and forecasts for future periods and can serve as an advisor to the CFO and CEO regarding tax and other accounting effects of material business decisions.

In testing the effects of the CAO on financial reporting quality, I assume that the responsibilities over financial reporting and compliance with accounting regulation are a key responsibility and focus for the CAO. This assumption seems valid, given that the institutional details of the CAO role and that agency theory indicates that job-related performance should determine incentives (Holmstrom 1979). This assumption also means that firms should incentivize the CAO's regarding their primary responsibility: financial

[5]Even the title varies from firm to firm. What I label chief accounting officer is often holds a different title, including principal accounting officer and corporate controller.

reporting quality. While a portion of her compensation may still be related to performance via equity-based compensation, I predict this type of pay to be a smaller percentage of their compensation relative to the CEO and CFO who have much greater roles over the firm's performance. And indeed, as discussed in more detail in the results section, I see that CAOs, on average, have a larger portion of their total pay in salary and less in options. I also motivate this prediction by assuming that stock-based compensation incentivizes performance, sometimes to the detriment of financial reporting quality. Findings in the literature support this assumption by showing a positive relation between stock-based compensation and accounting restatements (Efendi et al., 2007; Burns and Kedia, 2006). Similar motivation has driven questions of whether compensation can be changed to mitigate misreporting, for example, by using claw back provisions (Dehaan et al., 2013).

1.2 Relevant Literature and Hypothesis Development

Existing literature provides evidence consistent with top managers—the CEO and CFO—influencing firm investment and reporting (e.g., Bamber, Jiang, and Wang 2010; Ge, Matsumoto, and Zhang, 2011). This study examines the influence of the chief accounting officer on financial reports, due to her role as the top accountant in a firm who oversees financial reporting processes. Unlike the CEO and CFO, whose roles encompass operating, investing, and finance policies, the CAO's role does not focus on operational responsibilities, instead focusing on oversight of the accounting process. Her ability to influence the financial reports will be due to choices related to accounting policy, estimates, controls, but typically not operational activities. Given that the CAO reports to the CFO and CEO, if the CEO or CFO have incentives tied to accounting outcomes, they may

override the CAO's ability to influence financial reporting quality for their own benefit. Despite being a subordinate, the CAOs has potential to influence financial reporting, this claim is supported anecdotally in Accounting and Auditing Enforcement Releases (AAER) naming CAOs as responsible parties for SEC enforcement. For example, one AAER names Richard A. Causey, the CAO of Enron, and charges him with fraudulently manipulating Enron's financial statements (AAER, 2004).

Despite the importance of the CAO, many firms choose not to employ one, opting instead to have a single individual fulfill both the CFO and the CAO duties. Historically, the focus on financial reporting was a major duty of the CFO, but as noted by practitioners, firms have recently "bifurcated the top finance and accounting functions" (Fisher, 2016). This bifurcation occurs because CFOs are focusing more on their duties that deal with non-financial reporting issues such as M&A decisions, raising capital, and managing investor relations. This change has led some practitioners to argue that the desired CFO skillset has shifted away from accounting, resulting in the CAO rising in importance (Wimberley, 2016). Furthermore, since the CFO's duties have increased, the combination of the CFO and CAO in one individual produces greater concerns regarding the segregation of duties, especially considering incentive compensation used to motivate the CFO. For example, the increase in responsibilities for the CFO could restrict her time, and with restricted time she may not focus on financial reporting, resulting in lower oversight regarding the generation of financial statements. In either case the presence of a CAO leads to a segregation of duties that improves financial reporting. This reasoning motivates my first prediction that firms which employ an individual CAO distinct from the CFO have better accounting quality. I state this prediction formally as hypothesis H1 stated in alternative form as follows:

H1: Firms with a designated CAO have better financial reporting quality than firms where the CFO fulfills the CAO role.

I further investigate the effect of the CAO on financial reporting by investigating firms that issue seasoned equity offerings. The literature has documented that firms conduct accruals earnings management (Rangan, 1998; Teoh et al., 1998; Shivakumar, 2000) and real earnings management (Cohen and Zarowin, 2010) around SEOs. As the motivation for earnings management around SEOs is related to capital generation, which is outside the CAO's duties, I predict that CAOs will prevent or mitigate earnings management related to accounting policies, such as accruals earnings management. This reasoning leads to hypothesis H2, stated as follows:

H2: Firms with a CAO experience less accruals earnings management around SEOs than firms without a CAO.

I focus on accruals earnings management in this hypothesis because the CAO does not bear responsibility regarding operations. Thus, it is not clear that the CAO would have influence over real earnings management, which is not related to accounting policy and financial reporting oversight. Cohen and Zarowin (2010) do find evidence of real earnings management around SEOs. If I assume that the CAO would not influence real earnings management at all, then the SEO setting provides a falsification test. If the CAO drives the reduction in accruals earnings management and not other characteristics of the firm that

the CAO variable captures, I expect that real earnings management should still occur in firms that designate a CAO.

Next, I hypothesize two possible channels to explain why CAOs influence financial reporting quality. The first plausible explanation for why a CAO would improve financial reporting quality is because the firm incentivizes her to. While the literature debates whether equity-based compensation incentivizes managers to manipulate financial reports (e.g., compare Cheng and Warfield, 2005; Bergstresser and Philippon, 2006; and Armstrong, Jagolinzer and Larker 2010), Armstrong et al. (2013), attempting to reconcile the debate, find evidence that vega[6] drives managerial misreporting. That CAOs have larger portions of their total pay in salary and less in equity, relative to CEOs and CFOs, implies that firms structure CAO compensation with less incentive to manipulate relative to the CEO and CFO. If so, then financial reporting quality would then be correlated with CAO equity incentives. Financial reporting quality would then vary with differences in CAO vega. I formally state this prediction as hypothesis H3a in alternative form:

H3a: CAO equity-based compensation is negatively associated with financial reporting quality.

Compensation is a common method of measuring incentives, but an alternative way to incentivize managers is through termination when the manager fails to fulfill her duties. For example, several studies in the literature have shown that CEO turnover increases when firms fail to meet expected performance (Puffer and Weintrop, 1991; Farnell and Whidbee,

[6] Vega is a measure of the option value's sensitivity to changes in the stock's volatility. Measured following Core and Guay (2002).

2003; Dikolli et al., 2014). However, I do not expect the presence of a CAO to be correlated with firm performance. Instead, the CAO's differences in responsibilities mean firm financial reporting failures, not firm performance, should be a factor of termination. Therefore, I hypothesize that the CAOs will experience more turnover when reporting quality is low. I formally state this assertion as H3b in alternative form.

H3b: CAOs turnover is positively associated with financial reporting failures such as restatements and internal control weaknesses.

The next explanation has to do with the relative 'power' of the executives. Power is often discussed in the organizational behavior literature and defined as "the ability of one individual to exert her will" (Haleblian and Finkelstein 1993). The CAO serves as a monitor of financial statement quality, yet sometimes other managers have incentives to manipulate earnings or the financial reports. The CAO is an effective monitor over potential earnings management only if she is powerful enough (relative to manipulating party) to prevent or mitigate manipulations. In this test, I consider the CEO and CFO as potential manipulating managers; while perhaps not all intentional manipulations come from the individuals in these roles, they serve as a good scale of the CAO's power to other managers in the firm. Friedman (2014) models a similar power dynamic between two managers, one of whom serves as a monitor of the other. I formalize my predictions into an empirical hypothesis H4, stated as follows in the alternative form:

H4: Firms with more powerful CAOs (relative to the CEO and CFO) have higher financial reporting quality.

CHAPTER 2

Firms with Chief Accounting Officers

2.1 Data Collection and Descriptive Statistics

First, I test H1 to provide evidence that the CAO does influencing firm financial reporting. I start by identifying firms that have a designated CAO from firms that have the CFO also fulfill the CAO role. I do this by using the signature page of firm 10-K filings, which requires the signature of the principal accounting officer. I collect data on executives from 51,014[7] annual reports for 7,390 firms for the period 2004-2015. I gathered the identity of the CAO, CFO, and CEO from the signatures page of the 10-K. While the CEO and CFO are identifiable in other locations, this is the only comprehensive source I am aware of that indicates the name of the CAO and their role. I gather data on firm characteristics from COMPUSTAT, and while all 51,014 firm-years are in COMPUSTAT, 4,864 firm-year observations drop out due to missing at least one control variable, leaving 46,150 firm-year observations made up of 6,694 unique firms and 25,623 unique executives. Table 1 Panel A gives a detailed breakdown of the number of firm-years, firms, and executives in the sample. Of the 46,150 firm-years, 14,923 (32.3%) of them have a designated CAO; the remaining 31,227 (67.7%) firm-years do not.

I use five variables to measure firm financial reporting quality: non-severe restatements, severe restatements, absolute Dechow-Dichev accruals, meeting or beating analyst forecasts by small margins, and internal control weaknesses. I gather data on restatements and ICWs from Audit Analytics, and I differentiate restatement severity by

[7]The number 51,014 does not represent all firm-years in COMPUSTAT in the time period, I first matched the universe of COMPUSTAT to firm filings and collected those that I was able to successfully match to an SEC filling. Comparing all COMPUSTAT my sample by year or pooled across the period did not reveal any significant differences in firm characteristics.

the presence of an 8-K filing with the restatement. An 8-K filing indicates a reissuance instead of a revision, and therefore restatements with an 8-K should be of greater materiality to financial statement users. I also gather data on analyst forecasts from I/B/E/S, I present descriptive statistics on the distribution of the different variables I use in multiple tests in Table 2 Panel A. The descriptive statistics for Panel A include firm characteristics such as total assets, leverage, growth, market-to-book, and others. For comparison I also present the same firm characteristics for the whole COMPUSTAT sample over the same period. These descriptive statistics for all COMPUSTAT firms are presented in Table 2 Panel B, and a comparison of firm characteristics between Panels A and B show that the samples are similar. Lastly, I present the correlations of key variables in Table 2 Panel C. Panel C shows that the presence of a CAO is significantly negatively correlated with severe restatements and internal control weaknesses. Unexpectedly, it is also positively correlated with non-severe restatements.

2.2 Research Design

Using the data described in Tables 1 and 2, I proceed to test H1 by estimating the following equation:

$$FRQI_{it} = \alpha + \beta_1 CAO_{it} + Controls_{it} + \varepsilon_{it} \quad (1)$$

Where *FRQI* stands for *Financial Reporting Quality Issues*, which is my designation for the variables I use to measure financial reporting quality: non-severe restatements, severe restatements (measured by the filing of an 8-K), absolute Dechow-

Dichev accruals, meet-or-beats, and ICWs. *CAO* is an indicator variable equal to 1 if the firm has designated a CAO who is not also the CEO nor the CFO. I base control variables on concerns of omitted variables, which include proxies of complexity. Complexity is important as more complex firms face both a higher risk of error in the financial statements and an increased need for a CAO separate from the CFO. I include firm size, growth, industry, year, number of business segments, leverage, and firm age as controls for firm complexity.

I then estimate the regression first for the pooled sample with industry and year fixed effects. Next, I estimate the regression with firm and year fixed effects. Firm fixed effects capture firm characteristics not in my controls that are constant over the sample period. Thus, including these effects in the estimation are useful as they could remove variation in the data, including firm characteristics that may result in omitted variable bias if not already in the controls. This addition does limit my test, however, as any firm that is constant in its CAO choice will be absorbed into firm fixed effects. That is, any firm that either has a designated CAO through the whole sample or does not have a CAO through the whole sample is going to be absorbed into firm fixed effects.

Furthermore, since firms self-select whether to employ a separate CAO or to have the CFO also fulfill CAO duties, there is still a concern regarding endogeneity that is not addressed by firm fixed effects. Specifically, the choice of whether to employ a CAO could yield results that indicate better financial reporting quality in firms with a CAO because the presence of a CAO captures other firm characteristics. For example, if firms prefer a specific level of financial reporting quality, firms that prefer higher quality may take many actions to improve reporting, one of which would be the hiring of a CAO. In this example,

the CAO may not influence reporting quality but may just capture other actions the firm takes to improve reporting. To mitigate concerns regarding this endogeneity, I generate a propensity score of the likelihood that a firm has a CAO based on firm characteristics, then match firms via this propensity score.

Specifically, I generate a propensity score using firm characteristics[8]. The purpose of this match is to try to identify firms that are similar in measurable ways, assuming that they are more likely to be similar in the ways not measured, thus reducing chances of there being other firm characteristics that would explain any results. While this does not eliminate the self-selection concern, it does help mitigate the possibility that firm characteristics that may drive self-selection are also driving the results. For this test, I predict that β_1 should be significantly negative, indicating the presence of a dedicated CAO is negatively associated with accruals, restatements, meet-or-beats, and ICWs. Such results would be consistent with H1.

2.3 Results

Table 3 Panel A presents the results of the pooled regression of equation (1), using industry and year fixed effects. I predicted negative coefficients on CAO and as seen in the table, that is the case for severe restatements (-0.147), meet-or-beat (-0.051), and ICW (-0.102). The results are consistent with CAOs improving financial reporting quality and are statistically significant with meaningful magnitudes, as shown by the odds ratios. Specifically, I find that, all else equal, a firm with a CAO is 25% less likely to have a severe

[8] In addition to using the variables in the control sample to generate a propensity score, I also used a Lasso to select variables. I present the results using all controls to generate the propensity score, but the results are robust to using the variable selection from the Lasso as well. I also run this test using entropy matching and coarsened exact matching and find the results to be robust to the method of matching used.

restatement, 10% less likely to have a meet-or-beat, and 18% less likely to have an ICW. These results are calculated with one-way clustered standard errors using industry-year clusters but are robust to using firm and industry-year 2-way clustered standard errors.

Panel B of Table 3 presents the results of the estimating equation (1) with the pooled sample again, but using firm fixed effects instead of industry fixed effects. With firm fixed effects, I still find significant results for severe restatements (-0.016) and ICW (-0.015). The result for meet-or-beat does become statistically insignificant, however.

Table 3 Panel C presents the results of estimating equation (1) with the matched sample. Again, I predict that β_1 will be negative. Indeed, I find that the rates of severe restatements, meet-or-beats, and ICWs are significantly lower in firms with a CAO. The odds ratio shows that, all else equal in the matched sample, firms with a CAO are 16% less likely to have a severe restatement, 10% less likely to meet-or-beat, and 15% less likely to have an ICW. These results are again consistent with hypothesis H1 that CAOs provide firms with better accounting processes that improve financial reporting. The inclusion of firm fixed effects and the use of a matched sample attempt to mitigate the main alternative explanation, it is not ruled out. That main alternative explanation is that firms that focus on financial reporting quality take many actions to improve it, including hiring a CAO. Therefore, my variable CAO may just be capturing the firm characteristics regarding board proclivity to focus on higher quality financial reporting. Further testing is needed to differentiate between these competing stories.

CHAPTER 3

Earnings Management and Seasoned Equity Offerings

Next, I test H2, the influence of CAOs on earnings management. Results in this test not only provide further evidence consistent with CAOs influencing financial reporting but earnings management also provides a setting which may differentiate between the main alternative explanation. Specifically, I test firms that issue a seasoned equity offering. The literature has documented that firms that issue an SEO also experience increased earnings management around the time of the SEO. By first noting increases in accruals and real earnings management I can document the same result in my sample. Then following H2, I can potentially find empirical evidence that CAOs are associated with improvements to financial reporting quality by showing a decrease in accruals earnings management around SEOs. I specifically focus on accruals earnings management and do not predict that firms will not see a decrease in real earnings management. Finding results consistent with H2 would provide further evidence that firms with a CAO have improved financial reporting quality. In addition, by using real earnings management as a falsification test, I can potentially gather evidence that it is not other firm characteristics driving the higher financial reporting quality in CAO firms, as if the firm was taking other actions to improve financial reporting quality I would expect it to also manifest in real earnings management as well.

3.1 Data and Descriptive Statistics

To test H2, I collect data on SEOs from Securities Data Company New Issue database (hereafter, SDC). I also follow the literature and use four proxies for earnings management: discretionary accruals (I continue using Dechow-Dichev accruals), abnormal

cash flows from operations, abnormal production costs, and abnormal discretionary expenses (Cohen and Zarowin, 2010). I present descriptive statistics on seasoned equity offerings and these earnings management proxies in Table 4 Panel A. I note that 4,059 firm-years (about 8% of all firm-years) have a seasoned equity offering in the sample. These firm-years, however come from 2,038 unique firms, which makes up approximately 30.4% of the firms in my sample. I also present the correlations of the earnings management variables in Table 4 panel B.

3.2 Replication of Previous Results

Using the four measures of earnings management, I first replicate previous studies in the literature (Rangan, 1998; Teoh et al., 1998; Shivakumar, 2000; and Cohen and Zarowin, 2010) by documenting the median difference in the value of earnings management proxies for firms with a SEO in the three years preceding, the year of, and the three years following an SEO. I use the signed rank test to determine whether the median values are significantly different from zero. Table 5 presents these results. Matching the results in the literature, I find that median discretionary accruals and abnormal production costs are positive in the year of the SEO, and median abnormal cash flows from operations and abnormal discretionary expenses are negative in the year of the SEO. This not only matches previous literature but is consistent with firms that issue an SEO managing earnings around the event.

3.3 Research Design

Next, I attempt to provide more robust results of differences in accruals earnings management by estimating the following equation:

$$DD\ Acc_{it} = \alpha + \beta_1 CAO_{it} + \beta_2 SEO_{it} + \beta_3 CAO_{it} * SEO_{it} + Controls_{it} + \varepsilon_{it} \quad (2a)$$

Where $DD\ Acc_{it}$ is the Dechow Dichev accrual, CAO_{it} is an indicator of the presence of a CAO, and SEO_{it} is an indicator of an SEO, all for firm i in year t. Controls again include the same controls for firm complexity. I predict that the coefficient β_2 on SEO_{it} will be positive. A significantly positive β_2 would match the implications in the literature that firms conduct accrual earnings management around SEOs. I also predict that coefficient β_3 on the interaction of SEO_{it} and CAO_{it} will be negative, indicating that firms with a CAO do not have an increase in accruals around SEOs, or at least a smaller increase in accruals relative to firms without a CAO. Such results would be consistent with hypothesis H2.

Next, I use abnormal cash flows from operations, abnormal production costs, and abnormal discretionary expenses, (calculated as described on page 10 of Cohen and Zarowin, 2010). I then estimate a similar equation:

$$Real\ EM_{it} = \alpha + \beta_1 CAO_{it} + \beta_2 SEO_{it} + \beta_3 CAO_{it} * SEO_{it} + Controls_{it} + \varepsilon_{it} \quad (2b)$$

I estimate (2b) three times, once each for abnormal cash flows, abnormal production costs, and abnormal discretionary expenses for firm *i* in year *t*. I predict that β_2 will be positive for production costs and negative for cash flows and discretionary expenses. I do not predict that β_3 will be significantly different from 0, indicating that the firms with CAOs are not statistically different from those without CAOs regarding real earnings management.

3.4 Results

Table 6 presents the result of estimating equations (2a) and (2b). Column 1 shows the results of estimating (2a) using industry fixed effects. The results in this column show a significant increase in absolute Dechow-Dichev accruals in the year of a seasoned equity offering with a magnitude of 0.0045. This result lines up with that shown in the previous literature (Rangan, 1998; Teoh et al., 1998; Shivakumar, 2000; Cohen and Zarowin, 2010). I predicted that β_3, the coefficient on the interaction term *SEO x CAO*, would be significantly negative. This prediction would mean that firms with a CAO mitigate accruals earnings management around SEOs. That is what I find, with statistically significant coefficients of -0.0033. This result is consistent with H2.

Next, I examine the real earnings management measures. Table 6 columns 3, 5, and 7 respectively show the results of estimating (2b) for abnormal cash flows from operations, abnormal production costs, and abnormal discretionary expenses using industry and year fixed effects. Matching the previous literature (Rangan, 1998; Teoh et al., 1998; Shivakumar, 2000; and Cohen and Zarowin, 2010), I predict β_2 to be negative for abnormal cash flows from operations and abnormal discretionary expenses but positive for abnormal

production. I also predict that β_3 will be insignificant for cash flows, discretionary expenses, and production costs. I do find that β_2 is the predicted sign for abnormal cash flows from operations and abnormal production costs. I also find that β_3 is significantly positive for abnormal cash flows from operations and negative for abnormal production costs. This result is contrary to my prediction, and the results do not provide direct evidence against the alternative story that other firm characteristics are driving the financial reporting quality, not CAOs. These results are not inconsistent with the CAO driving the financial reporting quality, but do not provide strong evidence against the alternative story. Surprisingly, I find that β_2 is positive for abnormal discretionary expenses, the opposite of predicted. This result makes it difficult to interpret β_3, for discretionary expenses, but I note that β_3 is significantly negative when I hypothesized that it would be insignificant.

I also estimate equations (2a) and (2b) using firm fixed effects instead of industry fixed effects. In addition to controlling for omitted firm characteristics that are constant during the period, including firm fixed effects also holds constant the firm choice whether to have a CAO. This inclusion improves the interpretation of the interaction of CAO and SEO in the equation. Thus, the focus of this test is on the results from estimating equations (2a) and (2b) using firm fixed effects.

These results are shown in columns 2, 4, 6, and 8. For accruals (column 2), again β_2 is significantly positive (0.0039), and β_3 is significantly negative (-0.0031), which again is consistent with the CAO mitigating earnings management in SEO years. For real earnings management, β_2 is marginally significant for cash flows (column 4), indicating earnings management, and this time β_3 is insignificant, indicating no statistically significant difference between CAO and non-CAO firms for real earnings management. Interestingly,

β_2 is insignificant for production costs (column 6), but this is true for both CAO and non-CAO firms, as β_3 is also insignificant. Lastly, β_2 is again positive for discretionary expenses (column 8), which makes discretionary expenses hard to interpret, but β_3 is the opposite sign and marginally significant. Overall, I have robust results of accruals earnings management around SEOs and mitigation of that result in firms with a CAO. I have results of some real earnings management around SEOs, and mixed results on whether this is different for CAO firms.

To further present the results of this earnings management test, I also present Figures 1 through 4. These graphs present the change in SEO firms relative to non-SEO firms in the earnings management measures in the three years preceding, the year of, and the three years following an SEO. Figure 1 especially presents results consistent with non-CAO firms with an SEO managing accruals in the year of an SEO, while CAO firms with an SEO do not. Ideally I would see that in figures 2, 3, and 4 the non-CAO and the CAO firms would line up around an SEO, but neither lines follow the predicted pattern of a jump (for abnormal production costs) or a drop (for abnormal cash flows from operations and abnormal discretionary expenses). The result is that figures 2 through 4 are harder to interpret.

CHAPTER 4

Chief Accounting Officer Incentives

Next, I begin to examine potential mechanisms that could explain why CAOs affect financial reporting quality, assuming the CAO is at least partially responsible. I explore the first mechanism in this chapter: incentives.

4.1 Pay Structure

First, using data from EXECUCOMP, I investigate for differences in compensation between the CAO and the other two executives (CEO and CFO). I predict that the CAO has less incentive to manipulate earnings, and if this is present in pay, then I expect that the CAO will have a higher portion of pay in salary and bonus, and less proportional pay in stock options and stock awards. I test for differences in CAO pay proportions in salary, bonus, stock options, and awards from the CEO and CFO. This data is limited, however, due to EXECUCOMP only having data on the CEO, CFO (from 2006 on), and the next top 3 paid employees. Even when the firm has a CAO, she is not always one of these named executives. This restriction in data limits the sample, but since I am only examining the firms with the top paid CAOs (relative to the others in their firm) this restriction likely biases against my predictions.

Table 7 presents the differences in proportion of pay for CAOs and CFOs, as well as CAOs and CEOs. I find that the CAO has a significantly larger portion of pay in salary compared to the CFO (9.8% more) and the CEO (15.1% more). Similarly, CAO has significantly more pay in bonus than the CEO (0.9% more). In addition, the CAO has less pay in options than the CFO (-3.3%) and the CEO (-4.5%), as well as stock awards (-7.1%

compared to the CFO and -13.1% compared to the CEO). One last variable identified in EXECUCOMP and presented here is the percentage of shares owned in the company, and once again the CAO has significantly less than both the CFO (-0.348%) and the CEO (-2.62%). All these results are consistent with the idea that the CAO having fewer pay-based incentives related to the performance of the firm, and therefore less incentive to manage earnings or allow for manipulations to financial reporting.

4.2 Stock-Based Compensation

To test H3a with a more complete sample, I follow the literature that uses portfolio delta and portfolio vega to capture the effect of equity-based compensation on incentives. Using data from Thompson Reuters, I calculate delta and vega for every CAO's compensation portfolio following the methods in the literature (see Core and Guay, 2002; Coles, Daniel, and Naveen 2006; Armstrong et al. 2013). I present the correlations of these deltas and vegas in Table 8. The Following H3a, I expect that if the CAO has higher vega, she has more to gain from manipulations, and firms that give CAOs a higher portfolio vega should see a decrease in financial reporting quality. To test this, I estimate the following equation:

$$FRQI_{it} = \alpha + \beta_1 CAO\_Vega_{it} + Controls_{it} + \varepsilon_{it} \quad (3)$$

While *FRQI* would be non-severe restatements, severe restatements, absolute Dechow-Dichev accruals, meet-or-beats, and ICWs. I run this test three times for each dependent variable, the first time only adding CAO delta to the controls used previously.

The second estimation include CFO vega and delta, and the third estimation includes CEO vega and Delta. I run these regressions separately to account for the high and significant correlations between them presented in Table 8. I predict that β_1 will be significantly positive, indicating *CAO_Vega* is positively correlated with lower financial reporting quality. Results along these lines would be consistent with H3a.

Table 9 presents the results of estimating equation (3), which tests the effect of CAO equity compensation on financial reporting quality. I note marginally significant increases in non-severe restatements with CAO vega when only CFO vega and delta are part of the estimation. I also document that meet-or-beat is significantly increasing in CAO vega, but this result is not robust to the addition of other executive vegas. Overall, the results are not consistent with H3a, and I fail to reject the null that CAO equity incentives are correlated with any of the measures of financial reporting quality. Interestingly, I do not find the results documented in Armstrong et al. (2013) that CFO and CEO vega is correlated with misreporting. This difference could be due to the addition of CAO vega and delta which is significantly correlated with CEO and CFO vega, but that explanation would likely result in significant CAO vega when CFO and CEO vegas were not in the estimation. Another possible cause of the difference is the later sample period used. That is, perhaps in recent years compensation committees have mitigated the incentives to manipulate by adjusting compensation contracts. For example, this change would match the result in Dehaan et al. (2013), which shows claw back provisions are associated with improvement in financial reporting quality. That said, these results bear closer investigation.

4.3 Turnover

To test H3b, I examine Turnover by investigating the effects of executive turnover on financial reporting quality. In this test, I adjust equation (1) by adding CAO turnover to the right-hand side. I predict that CAO turnover should be associated with drops in financial reporting quality, as measured by an increase in restatements, accruals, meet-or-beats, and ICW. Such results could be consistent with at least two explanations regarding the CAO: 1) the CAO is terminated as punishment for lapses in financial reporting quality, or 2) when a company changes the CAO, the incoming CAO initially makes changes that result in increased financial reporting indicators. Situation 2) above could result from a new CAO finding and fixing errors from the predecessor among other possibilities. In this test, I also include CFO and CEO turnover as they could have similar relations to financial reporting quality. In summary I estimate the following equation:

$$FRQI_{it} = \alpha + \beta_1 CAO\ Turnover_{it} + \beta_1 CFO\ Turnover_{it} + \beta_1 CEO\ Turnover_{it} + Controls_{it} + \varepsilon_{it} \quad (4)$$

Next, I use the research design from Choi and Gipper (working paper), which estimates employee turnover before, during, and after periods of fraud. I adjust the Choi and Gipper design to instead estimate turnover before, during, and after periods of restatement announcements, restatement periods, and internal control weaknesses. Specifically, I estimate equations (5) below:

$$Turnover_{it} = \alpha + \beta_1 CAO_{it} + \beta_{2,p} \sum_{p=1,2,3} Pre(\tau - p)_{i,t} + \beta_{3,p} \sum_{p=1,2,3} FRQI(\tau - p)_{i,t} + \beta_{4,p} \sum_{p=1,2,3} Post(\tau - p)_{i,t} + Controls_{it} + \varepsilon_{it} \quad (5a)$$

Where $Turnover_{it}$ represents the turnover of the executive in year t for firm i. $Pre(\tau - p)_{i,t}$ is an indicator equal to 1 if year t is 1, 2, or 3 years before the restatement announcement, restatement period, or ICW period. $FRQI(\tau - p)_{i,t}$ is an indicator equal to one if year t is in the year of the restatement announcement, in the restatement period or in the ICW period.[9] $Post(\tau - p)_{i,t}$ is an indicator equal to 1 if year t is 1, 2, or 3 years after the restatement announcement, restatement period, or ICW period. I estimate (5) three times for each financial reporting quality indicator, once for the CAO, CFO, and CEO. I predict that if turnover is used to incentivize high financial reporting quality then $\beta_{3,p}$ should be significantly positive, signaling punitive termination of the executive when restatements or ICW occur.

Table 10 presents the results of the regression estimating equation 5, the effects of turnover on financial reporting quality. Panel A presents the results of the pooled sample. I document that there is a significant increase in severe restatements and ICWs when the CAO changes. Both results are consistent with the idea that when the firm experiences financial reporting quality issues they punish the CAO through termination, but a valid alternative explanation is that when a new CAO comes into the firm financial reporting quality drops. In this second explanation, the drop could be due to a learning period for the new executive, or it could be due to the low tenure of the CAO makes her unable to prevent manipulations by other executives. Interestingly, we see that non-severe restatements and ICWs increase when the CFO changes but meet-or-beats decrease. And severe restatements

[9]Note years 4+ of restatements that last longer than 3 years are coded as the 3rd year of the restatement. Similarly, the 4+ consecutive years of ICWs are coded as the 3rd year of the ICW.

increase when the CEO changes but meet-or-beats decrease. The decrease in meet-or-beats, while not predicted ex ante, are especially interesting as they are consistent with the idea of the CFO and CEO being punished when performance drops, while the non-result for the CAO indicates they are not.

Panel B of Table 10 presents the results of the same estimation but using the matched sample instead. Again, CAO turnover is positively associated with severe restatements and ICWs. CFO turnover is still positively associated with increases in non-severe restatements and ICWs, but the meet-or-beat result becomes insignificant while accruals become significantly negative. CEO turnover is still negatively associated with meet-or-beats, but the severe restatement result goes away, while non-sever restatements becomes significantly negative. Overall, the results of Panel B are consistent with the results from Panel A. I do note that these interpretations are just some of the potential ways to interpret my results.

Table 11 Panel A presents the results of estimating equation (4a) for executive turnover around a restatement. Table 11 Panel B presents the results of estimating equation (4a) for executive turnover around a restatement announcement. Lastly, Table 11 Panel C presents the results of estimating equation (4b) for turnover around an ICW. CAO turnover is positively correlated with years t=*-2* (two years before the restatement period) and s=3 (the third year after the restatement period ends.) Turnover in year t=-2 is consistent with termination being used as a punishment for CAOs that execute their duties poorly. Specifically, if a CAO is not performing to the expected standard, they are terminated and the new CAO comes in to fix their mistakes, discovering problems with financial reporting

that demand restatements. It is worth noting that CFO turnover is positively associated with the year t=-1 around a restatement, and CEO turnover is positive in *t=0*.

The results of turnover around restatement announcements shows that CAOs see a significant increase in turnover in the year t=-1 (the year before an announcement) as well as t=0 (the year of an announcement). Both results are consistent with a new CAO coming in and discovering the error then making the announcement, but they are also consistent with a CAO who is failing to prevent restatements being terminated as punishment when restatements are discovered. Of note, the CFO sees an increase in turnover in the year t=-2 (two years before announcement) and the CEO sees an increase in year t=-1, but a decrease in years s=1 (the year after an announcement) and s=2 (two years after the announcement.

For ICW, CAO turnover is also positively correlated with year *t=-1* and *t=0*, but also *t=1* (the second year of the ICW period, or the 2nd consecutive year with an ICW). Again, these results are consistent with termination being used to punish poor performing CAOs. CFO turnover is significant in the years t=-1, t=0, and t=1. CEO turnover is significantly positive in*t=-1* and *t=0*, and significantly negative in the year *t=2*.

CHAPTER 5

Chief Accounting Officer Power

Next, I examine a second possible mechanism for explaining CAO ability to influence financial statements: Power.

5.1 Interim CAOs

To test H4, I use a few different tests to attempt to identify the power of an executive. First, I test for differences in financial reporting quality when a firm hires an interim CAO. As a temporary employee, the CAO have significantly less power than a permanent hire. In addition, the interim CAO may have different incentives due to the short-term horizon. Even if the interim CAO hopes for a permanent appointment after the interim period, she will have higher incentives to give in to demands from the CEO and CFO relative to a non-interim CAO. For this test, I collect interim appointments from Audit Analytics 8-K filings and find only 147 firm-years with an interim CAO appointment. Using these interim CAO then estimate the following equation twice:

$$FRQI_{it} = \alpha + \beta_1 CAO_{it} + \beta_2 Interim\ CAO_{it} + Controls_{it} + \varepsilon_{it} \quad (6)$$

In the above equation, CAO_{it} is an indicator equal to 1 if the firm has a designated CAO who is not also the CFO or CEO, and *Interim CAO* is an indicator equal to 1 when the firm-year has an interim CAO, and 0 otherwise. As interim appointments are a proxy for less powerful CAOs, and less powerful CAOs should be associated with lower quality financial reporting, I predict that β_2 should be positive for firm effect year 0, indicated that

the presence of an interim CAO is associated with increases in financial reporting problems like restatements and ICWs.

Table 12 presents the results of estimating equation 6 or the effects of interim executives on financial reporting quality. I find that there is a marginally significant increase in severe restatements when there is an interim CAO (0.348), with an odd's ratio of 2.005, meaning that all else equal, a firm with an interim CAO is more than twice as likely to have a severe restatement than a firm without an interim CAO. This result is a stark comparison with the previous result that firms with a CAO are less likely to have a severe restatement (observable in both Table 3 and Table 12). This increase when an interim CAO is present is only marginally significant, and the lack of results on other variables presents a lack of evidence for CAO power influential financial reporting quality.

5.2 Tenure

I continue to examine the possibility of CAO power influencing financial reporting by using tenure as a measure of executive power.

To measure CAO, CFO, and CEO tenure I require that I can observe the first year the executive serves in the role in my sample. The result is that the sample is greatly reduce the sample size used in tenure-related tests. I do observe that this sample includes firms that are significantly larger (as measured by total assets) with higher net income volatility as show by the descriptive statistics of the firm displayed in Table 13 Panel A. These firm-years include fewer years in the beginning of the period, as shown by the average year in this sample being 2012, where the average year in both my full sample and the

COMPUSTAT full sample is 2009. These differences should be considered when reflecting on the external validity of the results of tests using this sample.

Table 14 reports the results of estimating equation (7). I predicted that β_1 would be significantly negative, indicating that CAO tenure is associated with fewer financial reporting issues and better financial reporting quality. This result would be consistent with more powerful CAOs being better able to fulfill their function. I find that CAO tenure is negatively correlated with severe restatements (16% less likely for year of CAO tenure), meet-or-beat (4% less likely), ICW (20% less likely), and absolute Dechow-Dichev accruals (coefficient of -0.0003). Interestingly CFO tenure is negatively associated with non-severe restatements and ICW, while CEO tenure is positively associated with meet-or-beat. Overall, the results are consistent with H4, that more powerful CAOs are associated with better financial reporting quality.

Using tenure as a proxy for power, I estimate the effects of CAO power on financial reporting quality by estimating the following equation:

$$FRQI_{it} = \alpha + \beta_1 CAO\ Tenure_{it} + Controls_{it} + \varepsilon_{it} \quad (7)$$

I use the same proxies for financial reporting quality as in the estimation of equation (1), specifically non-severe restatements, severe restatements, absolute DD accruals, meet-or-beats, and ICWs. I measure tenure as the length of time the executive has been in the position. To get an accurate measure of tenure, I drop executives that were already in the position when the firm first appears in the sample, as I otherwise do not have year when that individual first took the role. I include controls for firm characteristics and control for

the power of the CFO and CEO, again by using tenure. I predict that β_1 is negative, indicating that CAO tenure is positively associated with financial reporting quality.

This previous test, however, assumes that CAO, CFO, and CEO tenure are independent. Examination of correlations in the next section quickly reveal that is not the case, in fact CAO, CFO, and CEO tenure and turnover is highly correlated. The result is a better test of power would be to indicate relative tenure, or measure tenure in a way that includes measurement of the other executive's tenure. To do this, I use indicator variables: *CAO>CFO Tenure* and *CAO>CEO Tenure*, which will each equal 1 if the CAO's tenure is greater than the CFO's tenure and CEO's tenure, respectively. Then I estimate the following equation twice, once for *CAO>CFO Tenure* and once for *CAO>CEO Tenure*:

$$FRQI_{it} = \alpha + \beta_1 CAO > Executive\ Tenure_{it} + Controls_{it} + \varepsilon_{it} \quad (8)$$

Similar to the test of equation (7), I again predict that β_1 will be negative. indicating a decrease in restatements, discretionary accruals, meet-or-beats, and ICWs when the CAO has greater tenure than each of the other two executives.

In addition to an indicator of whether the CAO is more tenured, I also take the difference between the CAO's tenure and each of the other two executive's tenure. *CAO-CFO Tenure* is the difference in CAO and CFO tenure, while *CAO-CEO Tenure* is the difference in CAO and CEO tenure. The addition of this variable potentially provides marginal insight as this variable are continuous. I accordingly estimate the following equation once each for these two variables. Again, I predict that β_1 will be negative.

$$FRQI_{it} = \alpha + \beta_1 CAO - Executive\ Tenure_{it} + Controls_{it} + \varepsilon_{it} \quad (9)$$

Table 15 presents the results of estimating equation (8) and Table 16 the results of estimating equation (9). Using the indicator of longer CAO tenure, I find that the CAO being more tenured than the CFO is significantly negatively associated with severe restatements, absolute DD accruals, and meet-or-beats. Oddly, I also find a significant increase in non-severe restatements. I also find that the CAO being more tenured than the CEO is also significantly associated with severe restatements and negatively with non-severe restatements. In addition, the same is marginally negatively associated with meet-or-beats. These results are consistent with hypothesis H4.

As presented in Table 16, I find that the *CAO-CFO Tenure* is significantly negatively associated with severe restatements, absolute DD accruals, and meet-or-beats. Again, it is also positively associated with non-severe restatements. Interestingly the difference between the CAO and CEO tenures is significantly negatively associated with severe restatements, meet-or-beats, and ICWs. Overall, both these tests provide results consistent with more powerful CAOs being more able to improve firm financial reporting quality.

CHAPTER 6

CONCLUSION

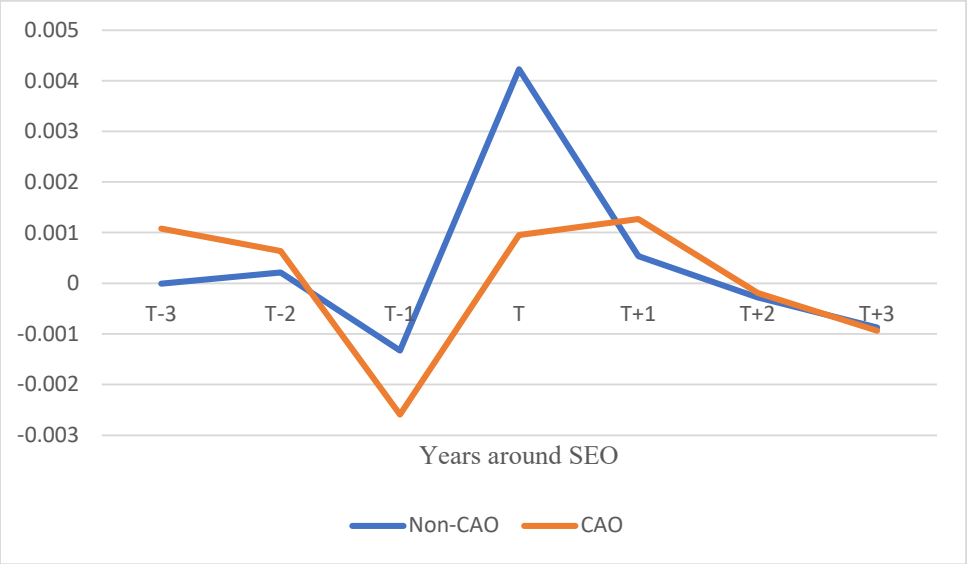
In this study, I have examined the effect of the chief accounting officer on financial reporting. As the head accountant in the firm, I expect that the CAO is an important resource for the firm and provides value by improving firm financial reporting and mitigating misreporting or earnings management by other managers. I find results consistent with this story as firms with a CAO are associated with higher financial reporting quality, specifically, firms that hire a CAO are associate with fewer severe restatements, instances of just meeting or beating analyst forecasts, and internal control weaknesses. The severe restatements and ICWs results hold up to inclusion of firm fixed effects and a matched sample. This result is reinforced by results that indicated decreases in earnings management in firms with a CAO around seasoned equity offerings, a setting that has been shown to have earnings management. I also find evidence that CAO turnover is associated with failures in reporting quality, and that the relative power of CAO is also correlated with firm financial quality. Despite these results, analysis of real earnings management provided mixed results around seasoned equity offers. Similarly, I did not find strong results of CAO equity-based compensation being tied to financial reporting. Further testing and work in this area are necessary to eliminate some still plausible alternative explanations, but, overall, these results are promising and provide an important early step in defining the role and importance of the chief accounting officer.

Appendix Table A: Variable Definitions

Variable	Definition	Data Source
Dependent Variables		
Non-Severe Restatements	Accounting Restatements that do not have an 8-K filing	Audit Analytics
Severe Restatements	Accounting Restatements that have an 8-K filing	Audit Analytics
Dechow-Dichev Accruals	Discretionary Accruals calculated following Dechow-Dichev (2002).	COMPUSTAT
Absolute Dechow-Dichev Accruals	Absolute value of Dechow-Dichev Accruals	COMPUSTAT
Meet or Beat	Indicator equal to 1 if the firm eps is between 0.00 and 0.05 above analyst consensus.	I/B/E/S
Internal Control Weaknesses (ICW)	Indicator equal to 1 if the firm had a 404 internal control weakness.	Audit Analytics
Abnormal Cash Flows from Operations	Residual from regressing (by industry and year) cash flows from operations scaled by lagged total assets on one over lagged total assets plus sales over lagged total assets plus change in sales over lagged total assets.(See Cohen and Zarowin, 2010)	COMPUSTAT
Abnormal Production Costs	Production costs are defined as costs of goods sold plus change in inventory. Abnormal production costs are the residual from regressing (by industry and year) production scaled by lagged total assets on one over lagged total assets plus sales over lagged total assets plus change in sales over lagged total assets plus lagged change in sales over lagged total assets. (See Cohen and Zarowin, 2010)	COMPUSTAT
Abnormal Discretionary Expenses	Discretionary expenses are defined as advertising expenses, R&D expenses, and SG&A expenses. Abnormal discretionary expenses are the residual from regressing (by industry and year) discretionary expenses scaled by lagged total assets on one over lagged total assets plus lagged sales over lagged total assets. (See Cohen and Zarowin, 2010)	COMPUSTAT
Independent Variables		
CAO Indicator	Indicator equal to 1 if the firm has a designated CAO who is not also the CFO or CEO. 0 otherwise.	Hand Collected
Vega	Sensitivity of Option value to change in stock price volatility. Calculated following Core and Guay (2002).	Thompson Reuters

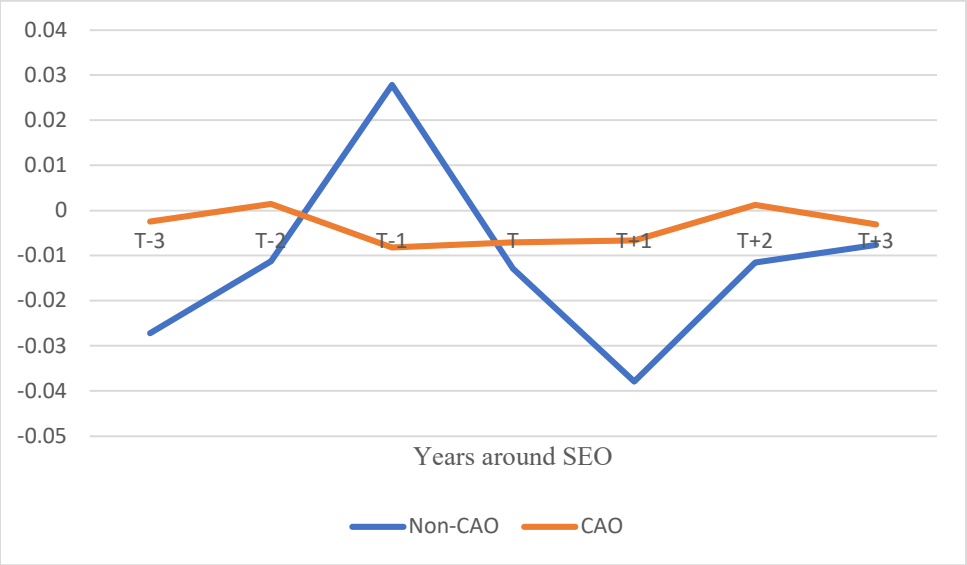
Restate Firm	Indicator equal to 1 if the firm has a restatement within the time period. 0 otherwise.	Audit Analytics
Restatement Year Effects	Series of year variables set equal to 1 for the appropriate year around a restatement. E.g., t-3=1 if and only if it is three years before the start of a restatement.	Audit Analytics
ICW Firm	Indicator equal to 1 if the firm has an ICW within the time period. 0 otherwise.	Audit Analytics
ICW Year Effects	Series of year variables set equal to 1 for the appropriate year around an ICW. E.g., t-3=1 if and only if it is three years before the start of an ICW.	Audit Analytics
Executive Turnover	Change in the designated CAO, CFO, or CEO.	Hand Collected
Executive Tenure	Number of years since the CAO, CFO, or CEO first appeared on the signature page of the 10-K in that position.	Thompson Reuters
Controls		
Size	Natural log of total assets.	COMPUSTAT
Net Income Volatility	Standard deviation of earnings calculated using the most recent five years of data.	COMPUSTAT
Leverage	Total Liabilities divided by total assets.	COMPUSTAT
Asset Growth	Current year assets divided by the previous year's assets.	COMPUSTAT
ROA	Income before extraordinary items divided by total assets.	COMPUSTAT
MTB	Market value of equity divided by book value of equity.	COMPUSTAT
Absolute Accruals	Absolute value of the difference in net income and cash flows from operations.	COMPUSTAT
Current Ratio	Current assets divided by total assets.	COMPUSTAT
File Lag	Number of days from year-end to filing of 10-K.	Audit Analytics
Loss	Indicator equal to 1 if earnings were negative for the year.	COMPUSTAT
December	Indicator equal to 1 if the firm has a December Year-end.	COMPUSTAT
Firm Age	Age of the firm (calculated using a firm's first appearance in COMPUSTAT).	COMPUSTAT
Business Segments	Number of business segments.	COMPUSTAT
Foreign Sales	Indicator equal to 1 if firm has foreign sales.	COMPUSTAT
Number of Analysts	Number of analysts following firm in a given year.	I/B/E/S
Executive Delta	Sensitivity of Option value to change in stock price. Calculated following Core and Guay (2002).	Thompson Reuters

Figure 1. Accruals Earnings Management around SEO



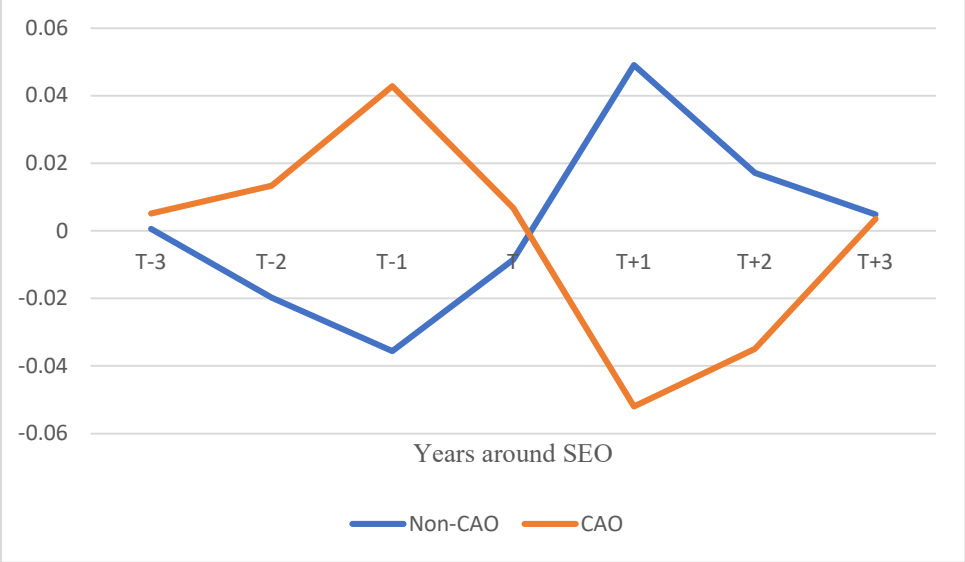
This figure displays the difference in DD accruals in CAO and non-CAO firms that have a SEO (relative to firms that do not have an SEO) from t=-3 to t=3, where t=0 is the year of an SEO. These differences were generated using a regression of DD accrual on event years, the presence of a CAO and the interaction of event years and the presence of a CAO.

Figure 2. Abnormal Cash Flows from Operations around SEO



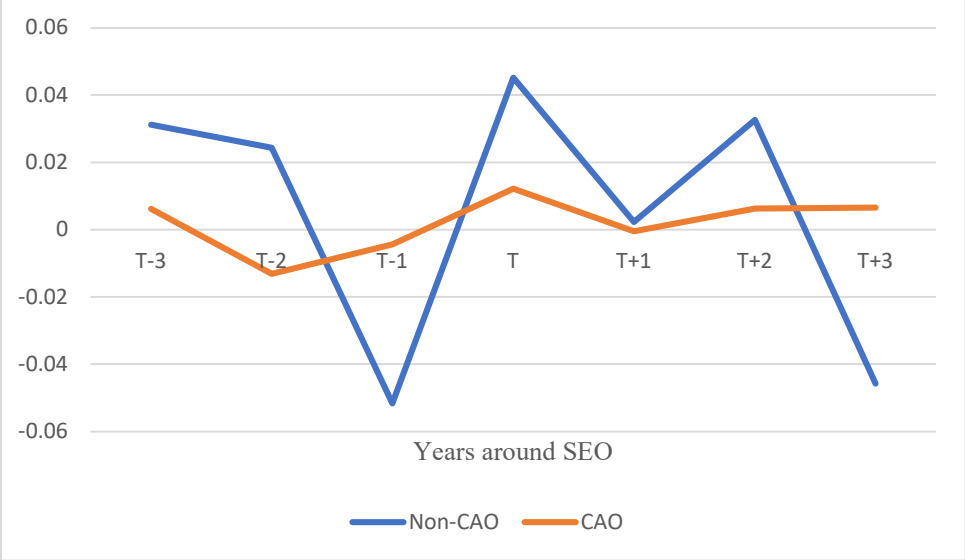
This figure displays the difference in abnormal cash flows from operations in CAO and non-CAO firms that have a SEO (relative to firms that do not have an SEO) from t=-3 to t=3, where t=0 is the year of an SEO. These differences were generated using a regression of abnormal cash flows from operations on event years, the presence of a CAO and the interaction of event years and the presence of a CAO.

Figure 3. Abnormal Production Costs around SEO



This figure displays the difference in abnormal production costs in CAO and non-CAO firms that have a SEO (relative to firms that do not have an SEO) from t=-3 to t=3, where t=0 is the year of an SEO. These differences were generated using a regression of abnormal production costs on event years, the presence of a CAO and the interaction of event years and the presence of a CAO.

Figure 4. Abnormal Discretionary Expenses around SEO



This figure displays the difference in abnormal discretionary expenses in CAO and non-CAO firms that have a SEO (relative to firms that do not have an SEO) from t=-3 to t=3, where t=0 is the year of an SEO. These differences were generated using a regression of abnormal discretionary expenses on event years, the presence of a CAO and the interaction of event years and the presence of a CAO.

Table 1. Sample Selection

Panel A – Observations Dropped for Missing Controls

Data	
Observations collected	51,014
Missing Firm Characteristics	(4,864)
	46,150

Panel B – Observations Dropped for Missing Dependent Variables

Dependent Variable	DD Accruals	Meet or Beat	Internal Control Weaknesses
Missing	(7,405)	(15,647)	(6,639)
Subtotal	38,745	30,503	39,511

Panel C – Executive and Firm Count

Executives	Firm Years	Individuals
CAOs	14,923	4,111
CFOs	45,795	11,946
Not joint CAOs	19,840	5,787
CEOs	45,791	10,898

Unique Firms	6,694

Panel A presents the observation count, starting with data collected. Data was collected for firms in COMPUSTAT from 2004-2015. Any firms with missing controls are dropped before estimating any regressions. Panel B presents the number of observations dropped from Panel A's 46,150 subtotal due to missing values for the three of the dependent variables. Observations were missing values due to one of three reasons: 1) data needed to calculate the variable was missing (DD Accruals), 2) unable to successfully merge the observation with I/B/E/S (Meet or Beat), or 3) unable to successfully merge the observation with Audit Analytics (ICW). Panel C presents a detailed breakdown on the number of executives and executive-years in the full 46,150 sample.

Table 2. Descriptive Statistics
Panel A – Distribution Descriptive Statistics

	N	Mean	Std Dev	P25	Median	P75
Financial Quality Measures						
Restatements	46,150	0.07	0.249	0	0	0
Severe Restatements	46,150	0.04	0.200	0	0	0
DD Accruals	38,745	0.00	0.029	-0.008	0	0.009
Meet or Beat	30,503	0.35	0.476	0	0	1
ICW	39,511	0.08	0.270	0	0	0
Firm Characteristics						
Total Assets	46,150	6913	51630	118	607	2490
Income Volatility	46,150	131	826	4.45	15.7	60.3
Leverage	46,150	0.90	8.79	0.35	0.57	0.82
Asset Growth	46,150	1.28	6.50	0.96	1.05	1.17
ROA	46,150	-0.14	2.27	-0.03	0.02	0.06
MTB	46,150	3.01	57.79	1.0	1.78	3.23
Abs Accruals	46,150	256	1751	4.87	22.9	107
Current Ratio	46,150	0.51	0.27	0.29	0.53	0.74
File Lag	46,150	71.8	27.7	58	70	77
Loss	46,150	0.33	0.47	0	0	1
Number of Business Segments	46,150	2.18	1.79	1	1	3
Executive Characteristics						
CAO Tenure	4,572	2.37	2.32	0	2	4
CFO Tenure	4,572	2.44	2.29	1	2	4
CEO Tenure	4,572	2.60	2.35	1	2	4
CAO Full Tenure	3,544	3.61	2.46	2	3	6
CFO Full Tenure	4,286	3.33	2.32	1	3	5
CAO Full Tenure	5,519	3.63	2.50	2	3	5
CAO Turnover Rate	40,596	0.18	0.39	0	0	0
CFO Turnover Rate	40,596	0.17	0.38	0	0	0
CEO Turnover Rate	40,596	0.12	0.33	0	0	0

Panel A of this table presents the distributions of the dependent variables used to measure financial reporting quality, the firm characteristics used as controls, and the current tenure (or simply called tenure), full tenure, and turnover of the three executives. Tenure is calculated as the number of years since the executive first took the role, while full tenure is the amount of time individuals served in the role before leaving. For example, if executive A, was hired in 2005 and replaced in 2010, her tenure would 1 in 2006, 2, in 2007, and so on, while her full tenure would be 5, marking approximately five full years in the position before she left. I winsorized all variables at the 1st and 99th percentiles. Tenure captures the current tenure for the executive in the executive-year observation, "Tenure at Turnover" captures the tenure of executives when they leave the position.

Table 2. Descriptive Statistics

Panel B – COMPUSTAT Distribution Descriptive Statistics

	N	Mean	Std Dev	P25	Median	P75
Total Assets	83,574	6454	24,358	54	432	2326
NI Volatility	74,080	137	422	3.50	14.4	63.4
Leverage	83,400	1.12	3.48	0.35	0.59	0.86
Asset Growth	78,629	1.28	1.24	0.96	1.05	1.19
ROA	78,554	-0.27	1.35	-0.06	0.01	0.06
MTB	73,572	2.53	12.42	0.9	1.68	3.27
Abs Accruals	82,797	275	967	3.16	18.1	107
Current Ratio	83,574	0.51	0.29	0.25	0.51	0.75
Loss	83,574	0.38	0.49	0	0	1
Number of Business Segments	69,132	2.24	1.81	1	1	3

As a comparison to the sample presented in panel A and subsequently used in the tests, Panel B of this table presents the distributions of firm characteristics for the whole COMPUSTAT sample in the same time period. File lag is missing as calculation of that variable used filing date data obtained from Audit Analytics for the sample in Panel A.

Table 2. Descriptive Statistics
Panel C - Correlations, Pearson Below Diagonal, Spearman Above

	Non-Severe Restate	Severe Restate	DD Accruals	Meet-or-Beat	Internal Control Weakness	CAO
Non-Severe Restate	1	**-0.056**	-0.006	**-0.015**	**0.024**	**0.054**
Severe Restate	**-0.056**	1	0.008	0.010	**0.098**	**-0.029**
DD Accruals	-0.004	0.007	1	**0.020**	**-0.011**	-0.006
Meet-or-Beat	**-0.015**	0.010	**0.015**	1	**-0.039**	-0.008
Internal Control Weakness	**0.024**	**0.098**	**-0.012**	**-0.039**	1	**-0.094**
CAO_Ind	**0.054**	**-0.029**	-0.003	-0.008	**-0.094**	1
CAO Turnover	0.003	**0.035**	**-0.011**	**-0.025**	**0.088**	**0.022**
CFO Turnover	**0.010**	**0.032**	**-0.019**	**-0.032**	**0.102**	**-0.012**
CEO Turnover	-0.002	**0.018**	**-0.028**	**-0.034**	**0.062**	-0.008
CAO Tenure	0.012	**-0.045**	-0.006	-0.007	**-0.111**	**.**
CFO Tenure	-0.018	-0.008	0.010	**0.037**	**-0.096**	**.**
CEO Tenure	0.005	-0.013	**0.026**	**0.043**	**-0.063**	**.**

Panel C presents the correlations of the dependent variables (Non-Severe Restatements, Severe Restatements, DD Accruals, Meet-or-Beat, and IC Weaknesses) and specific independent variables of interest. Pearson correlations are reported below the diagonal and Spearman correlations are reported above. Any correlation significant at the 5% level is bolded.

Panel C - Continues

	CAO Turnover	CFO Turnover	CEO Turnover	CAO Tenure	CFO Tenure	CEO Tenure
Non-Severe Restate	0.003	**0.010**	-0.002	0.019	-0.015	0.005
Severe Restate	**0.035**	**0.032**	**0.018**	**-0.050**	-0.014	-0.018
DD Accruals	**-0.012**	**-0.019**	**-0.024**	0.008	0.015	0.028
Meet-or-Beat	**-0.025**	**-0.032**	**-0.034**	-0.003	**0.037**	**0.042**
Internal Control Weakness	**0.088**	**0.102**	**0.062**	**-0.126**	**-0.112**	**-0.068**
CAO_Ind	**0.022**	**-0.012**	-0.008	.	.	.
CAO Turnover	1	**0.598**	**0.147**	**-0.750**	**-0.309**	**-0.179**
CFO Turnover	**0.598**	1	**0.189**	**-0.271**	**-0.721**	**-0.248**
CEO Turnover	**0.147**	**0.189**	1	**-0.164**	**-0.227**	**-0.699**
CAO Tenure	**-0.586**	**-0.212**	**-0.139**	1	**0.406**	**0.247**
CFO Tenure	**-0.256**	**-0.569**	**-0.190**	**0.402**	1	**0.354**
CEO Tenure	**-0.151**	**-0.209**	**-0.565**	**0.237**	**0.347**	1

Panel C presents the correlations of the dependent variables (Non-Severe Restatements, Severe Restatements, DD Accruals, Meet-or-Beat, and IC Weaknesses) and specific independent variables of interest. Pearson correlations are reported below the diagonal and Spearman correlations are reported above. Any correlation significant at the 5% level is bolded.

Table 3. Financial Reporting Quality and CAOs
Panel A - Pooled Sample

Regression: FRQI = CAO_Ind + Controls

	Non-Severe Restatements	Severe Restatements	Absolute DD Accruals*	Meet-or-Beat	IC Weakness
Intercept	-3.911***	-4.831***	0.649***	-0.446***	-2.467***
	(-30.46)	(-32.46)	(2.75)	(-3.68)	(-8.24)
CAO	**0.023**	**-0.147*** **	**-0.027**	**-0.051*** **	**-0.102*** **
Odds-Ratio	**1.05**	**0.75**	N/A	**0.90**	**0.82**
T Value	**(1.00)**	**(-4.41)**	**(-0.97)**	**(-3.24)**	**(-3.23)**
Log Assets	0.128***	0.083***	-0.125***	-0.086***	-0.264***
	(8.54)	(4.39)	-9.72	(-5.28)	(-13.43)
Income Vol	0.000	0.0002**	0.000	0.000	0***
	(-1.29)	(-2.26)	(-1.51)	(-1.03)	(4.99)
Leverage	0.003**	-0.022	0.032	-0.125*	0.001
	(2.5)	(-1.61)	(0.75)	(-1.82)	(0.5)
Asset Growth	0.002	0.001	-0.013***	-0.050	0.000
	(1.27)	(0.64)	(-3.09)	(-1.5)	(-0.08)
ROA	-0.005	-0.034*	-0.259*	0.363***	-0.04***
	(-0.92)	(-1.67)	(-1.76)	(3.12)	(-3.26)
MTB	0.0004***	0.000	0.000	0.000	0.002**
	(2.82)	(-0.04)	(0.83)	(-0.8)	(2.39)
Abs Accruals	0.000	0.000	0.00004***	0**	0***
	(-0.96)	(0.85)	(3.65)	(-2.22)	(2.91)
Current Ratio	-0.49***	-0.093	1.583***	-0.163**	-0.625***
	(-4.74)	(-0.75)	(17.14)	(-1.98)	(-4.67)
File Lag	0.001*	0.003***	-0.001	-0.002***	0.019***
	(1.78)	(5.87)	(-0.99)	(-3.29)	(9.15)
Loss	0.115***	0.086***	0.366***	-0.351***	0.388***
	(4.9)	(2.67)	(7.91)	(-13.42)	(10.73)
Dec	0.043*	-0.111***	0.029	-0.024	-0.016
	(1.73)	(-3.64)	(0.92)	(-1.53)	(-0.59)
Age	0.001	-0.016***	0.0022**	0.002	-0.017***
	(0.85)	(-7.11)	(2.19)	(1.44)	(-7.65)
Segment Count	0.027**	0.05***	0.003	-0.009	0.046***
	(2.55)	(3.78)	(0.45)	(-1.11)	(3.18)
Foreign	0.223***	-0.021	-0.054	0.049**	0.053*
	(6.05)	(-0.57)	(-1.18)	(2)	(1.83)
Analyst N				0.039***	
				(15.99)	
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
Specification	Logit	Logit	OLS	Logit	Logit
N	46,150	46,150	38,745	30,503	39,511
R-Squared	0.028	0.029	0.103	0.079	0.103

This table reports estimates from logistic regression analyses (OLS regression for DD Accruals) estimating equation (1), which estimates the difference in financial reporting quality between firms with a CAO vs. firms without a CAO. T-values are in parentheses and calculated using standard errors clustered one-way by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an

indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

Table 3. Financial Reporting Quality and CAOs
Panel B - Firm Fixed Effects

Regression: FRQI = CAO_Ind + Controls

	Non-Severe Restatements	Severe Restatements	DD Accruals*	Meet-or-Beat	IC Weakness
Intercept	-0.200	-0.028	0.0299***	0.882***	-0.278***
	(-1.25)	(-0.51)	(4.48)	(3.67)	(-3.73)
CAO	**-0.001**	**-0.016*****	**-0.0001**	**-0.007**	**-0.015****
T Value	**(-0.18)**	**(-2.66)**	**(-0.25)**	**(-0.69)**	**(-2.34)**
Log Assets	0.012***	0.018***	-0.001**	-0.072***	0.015***
	(3.61)	(5.96)	(-2.5)	(-7.47)	(3.11)
Income Vol	0.000	0.000	0.000	0*	0.000
	(1.31)	(0.94)	(-0.24)	(1.93)	(0.91)
Leverage	0.000	0.000	0.000	-0.011	0.000
	(1.61)	(1.41)	(0.97)	(-0.87)	(0.44)
Asset Growth	0.000	0.000	0.000	0.000	0.000
	(0.72)	(1.09)	(-0.35)	(-0.24)	(-0.7)
ROA	0.000	-0.001**	0.001	0.057***	-0.004***
	(0.36)	(-2.24)	(0.55)	(2.66)	(-4.27)
MTB	0***	0**	0*	0.000	0***
	(3.09)	(-2.42)	(1.82)	(0.54)	(10.1)
Abs Accruals	0*	0.000	0**	0.000	0*
	(1.73)	(1.05)	(2.16)	(-0.39)	(1.81)
Current Ratio	0.005	-0.043***	0.001	-0.054	-0.025
	(0.31)	(-3.59)	(0.87)	(-1.64)	(-1.41)
File Lag	0***	0.000	0.000	-0.001***	0.003***
	(2.61)	(-1.62)	(1.1)	(-3.15)	(11.48)
Loss	0.011***	-0.006	0.0018***	-0.096***	0.035***
	(2.93)	(-1.57)	(4.12)	(-9.56)	(7.16)
Dec	0.028	-0.059***	0.002	-0.052	0.034
	(1.32)	(-2.68)	(0.79)	(-0.8)	(1.06)
Age	0.006	0.002	-0.0005**	0.004	0.001
	(0.82)	(0.82)	(-2.08)	(0.42)	(0.25)
Segment Count	0.004**	0.005***	0.000	-0.001	0.002
	(2.12)	(3.36)	(0.77)	(-0.18)	(0.87)
Foreign	0.014**	-0.011*	0.000	0.015	-0.001
	(2.1)	(-1.66)	(0.2)	(0.95)	(-0.08)
Analyst N				0	
				(0)	
Fixed Effects	Firm, Year	Firm, Year	Firm, Year	Firm, Year	Firm, Year
Specification	LPM	LPM	OLS	LPM	LPM
N	45,579	45,579	38,729	29,971	38,774
R-Squared	0.190	0.214	0.446	0.192	0.397

This table reports estimates from logistic regression analyses (OLS regression for DD Accruals) estimating equation (1), which estimates the difference in financial reporting quality between firms with a CAO vs. firms without a CAO. Panel B uses a matched sample to estimate the equation, where firm-years with a CAO are matched to firm-years without one via a propensity score generated by the likelihood of a firm-year having a CAO. T-values are in parentheses and calculated using standard errors clustered one-way by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the

restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

Table 3. Financial Reporting Quality and CAOs
Panel C - Matched Sample

Regression: FRQ = CAO_Ind + Controls

	Non-Severe Restatements	Severe Restatements	DD Accruals*	Meet-or-Beat	IC Weakness
Intercept	-4.834***	-5.48***	0.755*	-1.131***	-2.544
	(-19.51)	(-18.92)	(1.95)	(-5.78)	(0.00)
CAO	**0.026**	**-0.09****	**0.004**	**-0.055****	**-0.082****
Odds-Ratio	**1.05**	**0.84**	N/A	**0.90**	**0.85**
T Value	**(0.73)**	**(-2.04)**	**(0.15)**	**(-2.42)**	**(-2.05)**
Log Assets	0.109***	0.06*	-0.156***	-0.067***	-0.244***
	(4.19)	(1.72)	(-8.73)	(-2.59)	(-6.49)
Income Vol	0.000	0.000	0.0001*	0.000	0***
	(-0.79)	(-0.29)	(1.77)	(-1.31)	(2.86)
Leverage	0.069*	0.091**	0.136	-0.285**	0.099
	(1.65)	(2.18)	(1.03)	(-2.51)	(1.58)
Asset Growth	0.017**	0.006	-0.001	-0.115**	-0.002
	(2.31)	(0.86)	(-0.62)	(-2.07)	(-0.24)
ROA	0.065	0.25**	-0.299	0.718***	0.112
	(0.9)	(2.16)	(-1.48)	(2.58)	(1.49)
MTB	-0.001	-0.005	0.000	0.000	0.000
	(-0.5)	(-1.35)	(0.62)	(-0.06)	(0.2)
Abs Accruals	0.000	0**	0.0001***	0.000	0.000
	(-1.5)	(-2.05)	(3.07)	(-1.11)	(-0.5)
Current Ratio	-0.32.000*	0.399*	1.656***	-0.252*	0.100
	(-1.67)	(1.76)	(13.87)	(-1.79)	(0.32)
File Lag	0.001	0.003***	-0.001**	-0.001	0.013***
	(0.56)	(3.02)	(-2.45)	(-0.81)	(10.19)
Loss	0.142***	0.192***	0.257***	-0.287***	0.55***
	(3.27)	(3.32)	(4.44)	(-6.83)	(9.83)
Dec	0.108**	-0.112**	0.111***	-0.059**	-0.014
	(2.47)	(-2.1)	(2.8)	(-2.17)	(-0.27)
Age	0.005**	-0.014***	0.000	0.004***	-0.006*
	(2.22)	(-3.52)	(-0.02)	(2.64)	(-1.67)
Segment Count	0.020	0.038	0.007	0.006	0.039
	(1.11)	(1.47)	(0.96)	(0.51)	(1.44)
Foreign	0.281***	0.098	0.015	0.087**	-0.019
	(4.78)	(1.28)	(0.2)	(2.07)	(-0.33)
Analyst N				0.035***	
				(9.81)	
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
Specification	Logit	Logit	OLS	Logit	Logit
Weighted N	24,656	24,656	21,712	18,540	21,532
R-Squared	0.031	0.0319	0.0140	0.0829	0.0651

This table reports estimates from logistic regression analyses (OLS regression for DD Accruals) estimating equation (1), which estimates the difference in financial reporting quality between firms with a CAO vs. firms without a CAO. Panel B uses a matched sample to estimate the equation, where firm-years with a CAO are matched to firm-years without one via a propensity score generated by the likelihood of a firm-year having a CAO. T-values are in parentheses and calculated using standard errors clustered one-way by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

Table 4. Earnings Management Descriptive Statistics
Panel A – Distribution Descriptive Statistics

	N	Mean	Std Dev	P25	Median	P75
Seasoned Equity Offerings	50,749	0.08	0.27	0	0	0
Abnormal Discretionary Accruals	41,621	0.00004	0.028	-0.008	3.47E-18	0.008
Abnormal Cash Flows from Operations	49,961	0.009	0.197	-0.034	0.005	0.072
Abnormal Production Costs	49,086	-0.006	0.217	-0.081	-0.001	0.066
Abnormal Discretionary Expenses	50,033	-0.014	0.340	-0.127	-0.010	0.030

This table presents the distributions of the variables used to measure earnings management as well as the number of seasoned equity offerings in the sample period. The real earnings management variables are calculated following Cohen and Zarowin, 2010. Accruals were estimated using Dechow-Dichev accruals.

Table 4. Earnings Management Descriptive Statistics
Panel B - Correlations, Pearson Below Diagonal, Spearman Above

	Abnormal Discretionary Accruals	Abnormal Cash Flows from Operations	Abnormal Production Costs	Abnormal Discretionary Expenses
Abnormal Discretionary Accruals	1	**-0.023**	**-0.020**	0.002
Abnormal Cash Flows from Operations	**-0.026**	1	**-0.366**	**-0.266**
Abnormal Production Costs	**-0.019**	**-0.322**	1	**-0.398**
Abnormal Discretionary Expenses	0.001	**-0.456**	**-0.351**	1

This table presents the correlations of the variables used to measure earnings management. Bold numbers indicate correlations significant at the 1% level. The real earnings management variables are calculated following Cohen and Zarowin, 2010. Accruals were estimated using Dechow-Dichev accruals.

Table 5. Real Earnings Management around SEOs

Year	-3	-2	-1	0	1	2	3
Discretionary Accruals	1.245	0.850	0.061	0.052***	0.014	0.038	-0.032
Abnormal Cash Flows from Operations	1.855	1.09***	1.861**	-0.024***	-3.221***	-3.885***	-4.269***
Abnormal Production Costs	-0.091	-0.049*	0.169**	0.087**	0.119***	-0.118**	0.238***
Abnormal Discretionary Expenses	-0.013***	-0.013***	-0.014***	-0.010***	-0.013***	-0.011***	-0.010**

Following the literature on earnings management around seasoned equity offerings (Cohen and Zarowin, 2010), this table presents the median value of the earnings management variables in the three years leading up to, the year of, and the three years following a seasoned equity offering. The medians correspond to firms that have a SEO and were evaluated using signed rank tests, with *, **, and *** representing significant difference from zero at the 10%, 05%, and 1% levels, respectively.

Table 6. Earnings Management and CAOs
Regression: EM Proxy = CAO + SEO + CAO x SEO + Controls

Dep. Var	DD Accruals		Cash Flows		Prod. Costs		Disc. Expenses	
CAO	0.00045	-0.0001	-0.008	-0.002	0.009*	0.004	-0.006	0.005
	(1.52)	(-0.14)	(-1.48)	(-0.53)	(1.91)	(1.13)	(-0.48)	(0.54)
SEO	0.004***	0.004***	-0.06***	-0.025*	0.042***	-0.00367	0.059***	0.042**
	(5.12)	(3.52)	(-5.14)	(-1.93)	(3.61)	(-0.43)	(3.23)	(2.39)
Predicted Sign	+	+	-	-	+	+	-	-
CAO x SEO	-0.003***	-0.003**	0.049***	0.015	-0.028**	0.0004	-0.058***	-0.03*
	(-3.12)	(-2.39)	(4.65)	(1.1)	(-2.25)	(0.05)	(-3.4)	(-1.72)
Predicted Sign	-	-	NS	NS	NS	NS	NS	NS
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind, Year	Firm, Year	Ind, Year	Firm, Year	Ind, Year	Firm, Year	Ind, Year	Firm, Year
N	38,745	38,729	46,137	45,566	46,142	45,569	46,184	45,614
R-Squared	0.021	0.0469	0.0243	0.2997	0.0161	0.4879	0.0231	0.3093

This table reports estimates equation (2), which estimates earnings management around seasoned equity offerings. I use earnings management proxies from the literature (see Cohen and Zarowin, 2010). T-values are in parentheses and calculated using two-way clustered standard errors by firm and industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Following Cohen and Zarowin, abnormal cash flows from operations are calculated as the residual of regressing cash flow from operations (less cash flows from extraordinary items) scaled by assets on one over total assets, sales scaled by total assets, and change in sales scaled by total assets. Abnormal Production costs is calculated as the residual of regressing production costs (sum of costs of goods sold and change in inventory) scaled by total assets on one over total assets, sales over total assets, change in sales over total assets, and change in last year's sales over total assets. Abnormal discretionary expenses are defined as the residual of regressing discretionary expenses (sum of advertising expenses, R&D expenses, and SG&A) scaled by total assets on one over total assets and last year's sales over total assets. As the predicted sign varies with the different dependent variable, I include a row of predictions, where "+" indicates a positive prediction, "-" a negative prediction, and "NS" a non-significant prediction.

Table 7. EXECUCOMP Pay Differences

	N	Salary	Bonus	Option	Stock Awards	%Shares Owned
CAO	1524	0.423	0.058	0.085	0.266	0.118
CFO	1524	0.325	0.054	0.118	0.337	0.467
Difference		**0.098*** **	0.003	**-0.033*** **	**-0.071*** **	**-0.348*** **
CAO	1792	0.432	0.058	0.087	0.255	0.119
CEO	1792	0.281	0.050	0.132	0.386	2.739
Difference		**0.151*** **	**0.009*** **	**-0.045*** **	**-0.131*** **	**-2.620*** **

This table uses EXECUCOMP data from 2005 to 2018 to compute differences in CAO and CFO as well as CAO and CEO salary, bonus, option value, and stock awards as a percent of total pay, and differences in the percentage of shares owned by the executive. Differences in mean value are marked with *, **, and *** when significant at the 10%, 5%, and 1% level.

Table 8. Stock Option Correlations

	CAO Vega	CFO Vega	CEO Vega	CAO Delta	CFO Delta	CEO Delta
CAO Vega	1	**0.731**	**0.659**	**0.991**	**0.723**	**0.653**
CFO Vega	**0.645**	1	**0.781**	**0.727**	**0.990**	**0.773**
CEO Vega	**0.473**	**0.692**	1	**0.657**	**0.775**	**0.989**
CAO Delta	**0.858**	**0.589**	**0.441**	1	**0.730**	**0.661**
CFO Delta	**0.611**	**0.878**	**0.616**	**0.653**	1	**0.781**
CEO Delta	**0.461**	**0.649**	**0.902**	**0.497**	**0.700**	1

This table reports the correlations of CAO, CFO, and CEO vegas and deltas. Bold numbers indicate correlations significant at the 1% level. Pearson correlations are displayed below the diagonal, Spearman above.

Table 9. FRQ and Executive Incentives
Regression: FRQI = CAO Vega + CFO Vega + CEO Vega + Controls

	Restatements			Severe Restatements			Absolute DD Accruals*			Meet-or-Beat			ICW		
CAO vega	0.029	0.058*	0.058	0.003	0.001	0.012	0.0002	0.0002	0.0002	0.069**	0.019	0.015	-0.100	0.039	0.054
T value	(0.90)	(1.70)	(1.32)	(0.76)	(0.02)	(0.23)	(1.34)	(0.93)	(1.08)	(2.34)	(0.66)	(0.48)	(-0.98)	(0.48)	(0.82)
CFO vega		-0.02	-0.060***		0.036	0.037		-0.0001	0.000		0.044***	0.039**		-0.030	-0.010
T value		(-1.26)	(-2.87)		(1.59)	(1.10)		(-0.71)	(0.10)		(3.25)	(2.27)		(-0.91)	(-0.22)
CEO vega			0.017			-0.001			0.000			0.007			-0.020
T value			(1.12)			(-0.04)			(-0.65)			(0.82)			(-0.69)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
N	9081	7388	6,522	9081	7388	6,522	5,409	4,469	3,980	7,691	6,389	5,662	8,546	6,984	6,167
R-Squared	0.0433	0.0456	0.0486	0.0435	0.0433	0.0432	0.1809	0.187	0.1934	0.0979	0.1058	0.1088	0.0685	0.0665	0.067

This table reports estimates from logistic regression analyses (OLS regression for DD Accruals) estimating equation (3): Chief Accounting Officer vega on financial reporting quality. CAO, CFO, and CEO delta are included in the controls when the corresponding vega is in the regression. Delta and vega were calculated using Thomson Reuters data on insider equity holdings. T-values are in parentheses and calculated using standard errors clustered by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and *** respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 1000.

Table 10. FRQ and Executive Turnover
Panel A - Pooled Sample

Regression: FRQI = CAO_Ind + CAO Turn + CFO Turn + CEO Turn + Controls

	Non-Severe Restatements	Severe Restatements	DD Accruals*	Meet or Beat	IC Weakness
CAO_Ind	**0.05***	**-0.168*****	0.294	**-0.048*****	**-0.082****
Odds-Ratio	**1.11**	**0.72**	.	**0.91**	**0.85**
T Value	**(1.96)**	**(-3.77)**	(0.25)	**(-2.82)**	**(-2.08)**
CAO Turn	-0.012	**0.153*****	0.515	-0.027	**0.155*****
Odds-Ratio	0.98	**1.36**	.	0.95	**1.36**
T Value	(-0.38)	**(2.97)**	(-0.81)	(-1.21)	**(3.43)**
CFO Turn	**0.075****	0.005	0.514	**-0.048***	**0.151*****
Odds-Ratio	**1.16**	1.01	.	**0.91**	**1.35**
T Value	**(2.36)**	(0.09)	(-1.5)	**(-1.85)**	**(3.18)**
CEO Turn	-0.020	**0.112****	0.507	**-0.087*****	0.054
Odds-Ratio	0.96	**1.25**	.	**0.84**	1.11
T Value	(-0.6)	**(2.52)**	(-1.3)	**(-3.68)**	(1.47)
Controls	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
N	35,539	36,290	22,151	24,670	32,803
R-Squared	0.0307	0.0208	0.0347	0.0779	0.1175

This table reports the outcome of the regression of executive turnover on financial reporting quality indicators. Following previous regressions, regressions on binary dependent variables (non-severe restatements, severe restatements, meet-or-beat, and ICW) were estimated using a logistic regression, while the continuous dependent variable was estimated using a standard OLS regression. Panel A presents the results of the regression using the pooled sample. T-values are in parentheses and calculated using standard errors clustered one-way by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

Table 10. FRQ and Executive Turnover
Panel B - Matched Sample

Regression: FRQI = CAO_Ind + CAO Turn + CFO Turn + CEO Turn + Controls

	Non-Severe Restatements	Severe Restatements	DD Accruals*	Meet or Beat	IC Weakness
CAO_Ind	0.040	**-0.151*** **	-0.434	**-0.046***	**-0.124****
Odds-Ratio	1.08	**0.74**	.	**0.91**	**0.78**
T Value	(1.03)	**(-2.65)**	(-1.28)	**(-1.88)**	**(-2.44)**
CAO Turn	0.025	**0.212*** **	0.333	-0.048	**0.229*** **
Odds-Ratio	1.05	**1.53**	.	0.91	**1.58**
T Value	(0.51)	**(3.15)**	(0.46)	(-1.37)	**(3.33)**
CFO Turn	**0.113****	0.093	**-2.054*** **	0.000	**0.142***
Odds-Ratio	**1.25**	1.21	**.**	1.00	**1.33**
T Value	**(2.57)**	(1.21)	**(-2.71)**	(0)	**(1.71)**
CEO Turn	**-0.14****	0.106	-0.220	**-0.073***	0.011
Odds-Ratio	**0.76**	1.24	.	**0.86**	1.02
T Value	**(-2.33)**	(1.43)	(-0.3)	**(-1.7)**	(0.17)
Controls	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
Unique N	15,943	15,943	9,450	11,970	14,428
Weighted N	20,100	20,100	11,895	15,336	18,197
R-Squared	0.0293	0.0185	0.0525	0.0761	0.0436

This table reports the outcome of the regression of executive turnover on financial reporting quality indicators. Following previous regressions, regressions on binary dependent variables (non-severe restatements, severe restatements, meet-or-beat, and ICW) were estimated using a logistic regression, while the continuous dependent variable was estimated using a standard OLS regression. Panel B uses a matched sample to estimate the equation, where firm-years with a CAO are matched to firm-years without one via a propensity score generated by the likelihood of a firm-year having a CAO. T-values are in parentheses and calculated using standard errors clustered one-way by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

Table 11. Turnover
Panel A - Restatement Announcements

Regression: Turnover = Restate Firm + Pre-period + Announcement Year + Post Period + Controls

	Pooled Sample		
	CAO	CFO	CEO
Restatement Firm	**-0.042***	-0.010	**-0.084*****
	(-1.8)	(-0.34)	**(-3.01)**
Pre-Restate t-3	-0.005	0.023	0.039
	(-0.14)	(0.65)	(0.95)
Pre-Restate t-2	0.008	**0.077****	0.042
	(0.29)	**(2.43)**	(1.3)
Pre-Restate t-1	**0.048***	0.032	**0.083*****
	(1.65)	(1.04)	**(2.64)**
Restate Period t=0	**0.066****	0.039	0.022
	(2.47)	(1.35)	(0.68)
Post Period s=1	-0.014	-0.016	**-0.138*****
	(-0.47)	(-0.49)	**(-3.8)**
Post Period s=2	0.014	0.022	**-0.09****
	(0.46)	(0.66)	**(-2.26)**
Post Period s=3	0.034	-0.046	0.006
	(1.06)	(-1.24)	(0.14)
CEO Turnover	**0.894*****	**1.469*****	
	(18.17)	**(31.5)**	
CFO Turnover	**1.532*****		**1.466*****
	(35.19)		**(31.4)**
CAO Turnover		**1.532*****	**0.89*****
		(35.16)	**(18.29)**
Controls	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year
N	20,015	20,015	20,015
R-Squared	0.304	0.3386	0.3332

This table reports estimates from logistic regression analyses estimating equation (4a), which estimates executive turnover in the years around any restatement. T-values are in parentheses and calculated using standard errors clustered by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively.

Table 11. Turnover
Panel B - Restatements

Regression: Turnover = Restate Firm + Pre-period + Restate Period + Post Period + Controls

	Pooled Sample		
	CAO	CFO	CEO
Restatement Firm	-0.036	0.015	-0.003
	(-1.37)	(0.55)	(-0.12)
Pre-Restate t-3	0.069	0.591	-0.079
	(1.33)	(1.07)	(-1.26)
Pre-Restate t-2	**0.088***	0.074	-0.049
	(1.7)	(1.36)	(-0.83)
Pre-Restate t-1	0.078	**0.103****	0.046
	(1.54)	**(2.13)**	(0.91)
Restate Period t=0	0.063	0.070	**0.11****
	(1.48)	(1.64)	**(2.4)**
Restate Period t=1	-0.084	0.031	0.000
	(-0.96)	(0.034)	(0.00)
Restate Period t=2	0.052	-0.038	-0.004
	(0.82)	(-0.54)	(-0.06)
Post Period s=1	0.027	-0.008	-0.070
	(0.56)	(-0.16)	(-1.26)
Post Period s=2	-0.059	0.020	0.001
	(-1.27)	(0.41)	(0.03)
Post Period s=3	**0.084****	-0.059	-0.004
	(2.02)	(-1.28)	(-0.07)
CEO Turnover	**0.897*****	**1.471*****	
	(18.17)	**(31.67)**	
CFO Turnover	**1.533*****		**1.47*****
	(35.27)		**(31.71)**
CAO Turnover		**1.533*****	**0.898*****
		(35.21)	**(18.43)**
Controls	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year
N	20,015	20,015	20,015
R-Squared	0.3041	0.3387	0.3321

This table reports estimates from logistic regression analyses estimating equation (4a), which estimates executive turnover in the years around any restatement. T-values are in parentheses and calculated using standard errors clustered by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively.

Table 11. Turnover
Panel C - Internal Control Weaknesses

Regression: Turnover = ICW Firm + Pre-period + ICW Period + Post Period + Controls

	Pooled Sample		
	CAO	CFO	CEO
ICW Firm	0.046	-0.044	**0.074****
	(1.61)	(-1.42)	**(2.11)**
Pre-ICW t-3	0.024	0.009	-0.010
	(0.31)	(0.11)	(-0.1)
Pre-ICW t-2	-0.116	0.132	0.115
	(-1.6)	(1.55)	(1.52)
Pre-ICW t-1	**0.116***	**0.243*****	**0.144****
	(1.88)	**(3.9)**	**(2.29)**
ICW Period t=0	**1.22****	**0.232*****	**0.12****
	(2.53)	**(4.69)**	**(2.28)**
ICW Period t=1	0.219	**0.318****	-0.200
	(1.6)	**(2.26)**	(-1.36)
ICW Period t=2	-0.084	0.000	-0.109
	(-0.71)	(0)	(-0.97)
Post Period s=1	0.018	0.005	**-0.138*****
	(0.34)	(0.08)	**(-2.79)**
Post Period s=2	0.062	-0.019	**-0.135***
	(1)	(-0.3)	**(-1.89)**
Post Period s=3	-0.040	0.073	-0.072
	(-0.62)	(1.2)	(-1.08)
CEO Turnover	**0.776*****	**1.316*****	
	(15.16)	**(25.02)**	
CFO Turnover	**1.45*****		**1.314*****
	(31.72)		**(25.02)**
CAO Turnover		**1.449*****	**0.775*****
		(31.74)	**(15.33)**
Controls	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year
N	17,358	17,358	35,878
R-Squared	0.2435	0.2752	0.2614

This table reports estimates from logistic regression analyses estimating equation (4b), which estimates executive turnover in the years around an internal control weakness. T-values are in parentheses and calculated using standard errors clustered by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively.

Table 12. Interim CAOs

Regression: FRQ = CAO + Interim CAO + Controls

	Non-Severe Restatements	Severe Restatements	Absolute DD Accruals*	Meet or Beat	IC Weakness
CAO Indicator	0.023	-0.152***	-0.025	-0.05***	-0.106***
Odds-ratio	1.048	0.738	N/A	0.905	0.809
T-Value	(1.01)	(-4.49)	(-0.9)	(-3.16)	(-3.34)
Interim CAO	-0.038	**0.348***	-0.080	-0.095	0.234
Odds-ratio	0.928	**2.005**	N/A	0.827	1.596
T-Value	(-0.25)	**(1.93)**	(-0.56)	(-0.95)	(1.28)
Controls	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
N	46,150	46,150	38,745	30,503	39,511
R-Squared	0.028	0.029	0.1052	0.079	0.1032

This table reports the outcome of the regression of financial reporting quality indicators on interim CAOs. Following previous regressions, regressions on binary dependent variables (non-severe restatements, severe restatements, meet-or-beat, and ICW) were estimated using a logistic regression, while the continuous dependent variable was estimated using a standard OLS regression. T-values are in parentheses and calculated using standard errors clustered one-way by industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

Table 13. Tenure Sample Descriptive Statistics
Panel A – Distribution Descriptive Statistics

	N	Mean	Std Dev	P25	Median	P75
Year	4572	2012	2.59	2010	2012	2014
Absolute Dechow-Dichev Accruals	4288	0.015	0.019	0.003	0.008	0.018
Restatement	4572	0.11	0.31	0	0	0
Severe Restatement	4572	0.02	0.14	0	0	0
Just Meet or Beat	3276	0.33	0.47	0	0	1
ICW	4327	0.04	0.20	0	0	0
Total Assets	4572	26168	131491	960	3631	12071
NI Volatility	4566	424.7	1763	24.8	72.2	240.3
Leverage	4558	0.671	0.642	0.497	0.650	0.795
Asset Growth	4570	1.12	2.91	0.96	1.03	1.10
ROA	4570	0.01	0.18	0.002	0.03	0.06
MTB	3984	3.10	14.72	1.07	1.75	2.97
Abs Accruals	4572	861.4	3808.6	41.5	161.2	512.4
Current Ratio	4572	0.39	0.25	0.15	0.37	0.58
File Lag	4572	63	34	53	58	63
Loss	4572	0.24	0.43	0	0	0
Number of Business Segments	4572	2.73	2.10	1	2	4

This table presents simple descriptive statistics on the dependent and control variables for the sample of firm-years that have a CAO, CFO, and CEO with a measurable tenure in the data.

Table 13. Tenure Sample Descriptive Statistics
Panel B - Correlations, Pearson Below Diagonal, Spearman Above

	CAO>CFO Tenure	CAO>CEO Tenure	CAO-CFO Tenure Difference	CAO-CEO Tenure Difference
CAO>CFO Tenure	1	**0.371**	**0.794**	**0.355**
CAO>CEO Tenure	**0.371**	1	**0.403**	**0.822**
CAO-CFO Difference	**0.700**	**0.413**	1	**0.490**
CAO-CEO Difference	**0.349**	**0.729**	**0.526**	1

This table reports the correlations of relative tenure for the CAO, CFO, and CEO. CAO>CFO Tenure is an indicator variable equal to 1 if the CAO is more tenured than the CFO. Similarly, CAO>CEO Tenure is an indicator variable equal to 1 if the CAO is more tenured than the CEO. CAO-CFO Difference is a variable equal to the difference in CAO and CFO tenure, and again CAO-CEO Difference is a variable equal to the difference in CAO and CEO tenure. Bold numbers indicate correlations significant at the 1% level. Pearson correlations are displayed below the diagonal, Spearman above.

Table 14. Executive Tenure and FRQ

Regression: FRQI = CAO Tenure + CFO Tenure + CEO Tenure + Controls

	Non-Severe Restatements	Severe Restatements	DD Accruals*	Meet-or-Beat	IC Weakness
CAO Tenure	0.015	**-0.181****	**-0.033*****	**-0.04***	**-0.227*****
	1.02	0.84	N/A	0.96	0.80
T Value	(0.61)	(-2.46)	(-2.82)	(-1.94)	(-3.29)
CFO Tenure	**-0.082*****	0.088	0.00005	0.023	**-0.166****
T Value	(-2.96)	(1.28)	(0.37)	(1.08)	(-2.33)
CEO Tenure	-0.006	0.028	0.00001	**0.032***	-0.002
T Value	(-0.28)	(0.44)	(0.05)	(1.81)	(-0.04)
Controls	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
Specification	Logit	Logit	OLS	Logit	Logit
N	3,972	3,972	3,729	3,262	3,778
R-Squared	0.0533	0.04	0.1828	0.1023	0.0876

This table reports estimates from logistic regression analyses (OLS regression for DD Accruals) estimating equation (5), which estimates the effect of executive tenure on financial reporting quality. T-values are in parentheses and calculated using two-way clustered standard errors by firm and industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

Table 15. Relative Executive Tenure by Indicators

Regression: FRQI = CAO > Executive + Controls

	Non-Severe Restatements		Severe Restatements		Absolute DD Accruals*		Meet-or-Beat		IC Weakness	
CAO > CFO Tenure	**0.110***		**-0.5631*****		**-0.108***		**-0.104****		0.086	
Odds Ratio	1.245		0.324		N/A		0.813		1.187	
T Value	(1.85)		(-2.88)		(-1.68)		(-2.20)		(0.69)	
CAO > CEO Tenure		**0.113***		**-0.279***		-0.072		-0.067		-0.158
Odds Ratio		1.255		0.572		N/A		0.875		0.729
T Value		(1.95)		(-1.96)		(-1.13)		(-1.5)		(-1.24)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
Specification	Logit	Logit	Logit	Logit	OLS	OLS	Logit	Logit	Logit	Logit
N	3,972	3,972	3,972	3,972	3,729	3,729	3,262	3,262	3,102	3,102
R-Squared	0.0517	0.0519	0.0409	0.0390	0.1820	0.1817	0.1015	0.1007	0.0602	0.0605

This table reports estimates from logistic regression analyses (OLS regression for DD Accruals) estimating the effect of relative executive tenure on financial reporting quality. The independent variable CAO>CFO Tenure is an indicator equal to 1 when the CAO is more tenured than the CFO. Similarly, the CAO>CEO Tenure is 1 when the CAO is more tenured than the CEO. T-values are in parentheses and calculated using two-way clustered standard errors by firm and industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

Table 16. Difference in Executive Tenure

Regression: FRQI = CAO - Executive Difference + Controls

	Non-Severe Restatements		Severe Restatements		Absolute DD Accruals*		Meet-or-Beat		IC Weakness	
CAO - CFO Difference	**0.046****		**-0.1284*****		**-0.02****		**-0.034****		-0.004	
Odds Ratio	1.047		0.88		N/A		0.967		0.996	
T Value	(2.19)		(-2.68)		(-2.03)		(-2.16)		(-0.10)	
CAO - CEO Difference		0.007		**-0.09****		-0.017		**-0.035****		**-0.077****
Odds Ratio		1.007		0.914		N/A		0.966		0.926
T Value		(0.39)		(-2.27)		(-0.92)		(-2.51)		(-2.20)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year	Ind, Year
Specification	Logit	Logit	Logit	Logit	OLS	OLS	Logit	Logit	Logit	Logit
N	3,972	3,972	3,972	3,972	3,729	3,729	3,262	3,262	3,102	3,102
R-Squared	0.0521	0.0509	0.0396	0.0391	0.1821	0.1821	0.1014	0.1019	0.0600	0.0612

This table reports estimates from logistic regression analyses (OLS regression for DD Accruals) estimating the effect of relative executive tenure on financial reporting quality. The independent variable CAO-CFO Tenure is the difference in tenure between the CAO and the CFO, measured in years. Similarly, the CAO-CEO Tenure is the difference in years in the tenure of the CAO and CEO. T-values are in parentheses and calculated using two-way clustered standard errors by firm and industry-year. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively. Severe restatements are those that have an 8-K filing associated with the restatement, while non-severe restatements do not. Meet-or-beat is an indicator equal to 1 if the firm eps is above analyst forecast consensus by $0.00 to $0.05. To improve readability, Dechow-Dichev accruals are normalized by increasing the parameter estimates by a factor of 100.

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