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Managing Earnings for My Boss? Financial Reporting and the Balance of Power between CEOs and CFOs

BY

Qinxi Wu

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree

Of

Doctor of Philosophy

In the Robinson College of Business

Of

Georgia State University

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Qinxi Wu

2017

#### ACCEPTANCE

This dissertation was prepared under the direction of the QINXI WU Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Business Administration in the J. Mack Robinson College of Business of Georgia State University.

Richard Phillips, Dean

#### DISSERTATION COMMITTEE

Dr. Mark A. Chen (Chair) Dr. Omesh Kini Dr. Harley E. Ryan, Jr. Dr. Conrad S. Ciccotello (External: Department of Risk Management and Insurance)

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I thank the Lord Jesus Christ for the will and strength to finish this dissertation and the PhD program. "The Lord is my strength and my shield; my heart trusts in him, and he helps me." (Psalm 28:7)

#### ABSTRACT

#### Managing Earnings for My Boss? Financial Reporting and the Balance of Power between CEOs and CFOs

#### BY

#### Qinxi Wu

#### MAY 3, 2017

Committee Chair: Dr. Mark A. Chen

Major Academic Unit: Finance

This paper investigates how the use of earnings management and aggressive financial reporting is related to the balance of power between chief executive officers (CEOs) and chief financial officers (CFOs). I use nationwide awards that recognize CFO excellence as exogenous shocks to the CFO job-market status. I find that, compared to their matched non-awardee counterparts, awardee CFOs experience a sharp increase in career opportunities, total compensation, and stock/option grants, as well as a substantial decrease in CEO power over them. Consistent with the view that shifts in bargaining power between the CEO and CFO matter in earnings management, I find that awardees' firms have a significantly smaller magnitude of discretionary accruals than both non-awardees and pre-award periods. In addition, winning the award has a substantially negative effect on positive accruals, while the positive effect on negative accruals is less significant. Moreover, the award effects on reducing the magnitude of discretionary accruals are significant only when CFOs face powerful CEOs. I also find evidence that earnings restatements among firms with awardees are less common and receive a less negative market reaction. Overall, my findings suggest that the balance of power between CEOs and CFOs plays an important role in the quality of financial reporting.

# Managing Earnings for My Boss? Financial Reporting and the Balance of Power between CEOs and CFOs\*

Qinxi Wu\*

# May 2017

#### ABSTRACT

This paper investigates how the use of earnings management and aggressive financial reporting is related to the balance of power between chief executive officers (CEOs) and chief financial officers (CFOs). I use nationwide awards that recognize CFO excellence as exogenous shocks to the CFO job-market status. I find that, compared to their matched non-awardee counterparts, awardee CFOs experience a sharp increase in career opportunities, total compensation, and stock/option grants, as well as a substantial decrease in CEO power over them. Consistent with the view that shifts in bargaining power between the CEO and CFO matter in earnings management, I find that awardees' firms have a significantly smaller magnitude of discretionary accruals than both non-awardees and pre-award periods. In addition, winning the award has a substantially negative effect on positive accruals, while the positive effect on negative accruals are significant only when CFOs face powerful CEOs. I also find evidence that earnings restatements among firms with awardees are less common and receive a less negative market reaction. Overall, my findings suggest that the balance of power between CEOs and CFOs plays an important role in the quality of financial reporting.

JEL classification: G30, G34, J33, M41

Keywords: Earnings management, discretionary accruals, CFO, CEO, balance of power, labor markets, equity incentives

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# 1. Introduction

Recent accounting scandals like Groupon's inflating earnings<sup>1</sup> and Green Mountain Coffee's aggressive financial reporting<sup>2</sup> have attracted much attention from the public and academia, retriggering a call for action on corporate governance reforms. An article in the Wall Street Journal by Francesco Guerrera (October 1, 2012) states that "it is an open secret" that companies use various types of accounting instruments to manipulate earnings.<sup>3</sup> According to a recent survey of 169 chief financial officers (CFOs) in public firms by Dichev, Graham, Harvey, and Rajgopal (2013), 20% of firms manages earnings to misrepresent performance, and the magnitude of the misrepresentation is around 10% of earnings per share in any given period. Mispresenting performance through earnings management represents a failure in sufficiently reflecting a firm's economic position and accurately communicating with external stakeholders (e.g., Healy and Wahlen, 1999); such activity implies, at least in part, that insiders extract private benefits at the expense of other stakeholders (e.g., Leuz, Nanda, and Wysocki, 2003). Therefore, it is of great practical importance to understand the underlying causes of earnings management and financial reporting bias. While numerous empirical studies have emphasized the effects of equity incentives on earnings manipulation and misreporting (e.g., Bergstresser and Phillippon, 2006; Burns and Kedia, 2006; Jiang, Petroni and Wang, 2010), the balance of power between the chief executive officer (CEO) and CFO has received much less attention.

In this paper, I focus on CEO power over CFOs and investigate the effects of shifts in bargaining power on financial reporting quality. I use a unique dataset of nationwide CFO awards

<sup>&</sup>lt;sup>1</sup> In March 2012, Groupon revised its 4th quarter earnings. According to the revision, the earnings were inflated by \$14.3 million. http://www.wsj.com/articles/SB10001424052702303816504577313983768173826

<sup>&</sup>lt;sup>2</sup> In November 2010, Green Mountain announced a total overstatement of \$10.1 million in pre-tax income. The company conceded material weaknesses in internal controls and restated its financial reports issued from 2007 to 2010 to correct its errors. http://whitecollarfraud.blogspot.com/2010/12/green-mountain-coffee-roasters-time-to.html <sup>3</sup> http://www.wsj.com/articles/SB10000872396390444138104578030353195160818

that recognize CFO excellence as exogenous shocks to awardees' career opportunities and bargaining power. Specifically, I employ the "America's Best CFOs" awards granted between 2004 and 2012 by Institutional Investor magazine, a well-known business magazine famous for providing research and rankings that "serve as respected industry benchmarks."<sup>4</sup> I find that, compared to a group of benchmark non-awardees, awardee CFOs experience a notable increase in career opportunities and a substantial decrease in CEO power over them. Consistent with the argument that the balance of bargaining power between the CEO and CFO benefits the quality of financial reporting, I find that, relative to both non-awardees and pre-award periods, awardees' firms have a significantly lower level of earnings management, as measured by the magnitude of discretionary accruals.

Why would the balance of power between CEOs and CFOs matter for financial reporting quality? Because CEOs have strong incentives to manage earnings, need cooperation from the CFO due to their job responsibilities, and are able to use their power to force the CFO to cooperate when he/she is reluctant to commit manipulation. Specifically, CEOs, whose compensation is largely based on equity, can greatly benefit from manipulating short-term stock prices (e.g., Cheng and Warfield, 2005; Bergstresser and Philippon, 2006). Since CEOs do not directly participate in the process of preparing financial reporting, they need cooperation from the CFO to initiate manipulation. However, the CFO, as the responsible person in financial reporting, may not always be willing to cooperate. Economic theory of crime (Becker, 1968) suggests that people commit crime when the expected outcome is greater than the expected costs of being detected and punished. On one hand, CFOs have a substantially lower portion of equity-based compensation than their

<sup>&</sup>lt;sup>4</sup> See Institutional Investor magazine website: http://www.institutionalinvestor.com/Institutional-Investor-Magazine.html#.VorILsYrLRY

CEOs, leading to smaller equity incentives to manage earnings. On the other hand, CFOs bear considerable costs after being detected in earnings manipulation, including potential job turnover (Hennes, Leone, and Miller, 2008), loss of reputation, and legal punishment (Feng, Ge, Luo, and Shevlin, 2011). Moreover, unlike their CEOs who may use the excuse of being less informed about transaction details and who may have the power to scapegoat their subordinates,<sup>5</sup> CFOs can hardly defend themselves for involvement in manipulations as they are directly in charge of preparing financial reports. Therefore, it is reasonable to believe that in some cases CFOs are reluctant to commit earnings management as the costs may exceed the private financial gains from doing so. In this context, CEOs may exert pressure on CFOs to flatter or depress earnings to satisfy their own desires. They can do so because they are CFOs' direct supervisors (McAnally, Weaver, and Srivastava, 2008) and have considerable influence on CFO retention decisions (Mian, 2001; Fee and Hadlock, 2004). This analysis is consistent with Friedman's (2014) theoretical model of CEO power and earnings bias, in which powerful CEOs are more likely to force their CFOs to commit an upward bias in financial reporting. It is also supported by a large body of evidence from the field. For instance, Dichev et al. (2013) document that 91% of surveyed CFOs faces inside pressure to influence stock prices. Another survey of 141 public firm CFOs by CFO magazine shows that 17% of the respondents has been pressured to misrepresent accounting results by their CEOs during the past five years.<sup>6</sup>

If CFOs have sufficient outside career opportunities, the bargaining power is expected to shift from CEOs to them. This is in the spirit of Rajan and Zingales' (1998) theoretical work about the access to critical resource and power, which suggests that agents exert ex ante efforts in

<sup>&</sup>lt;sup>5</sup> For instance, Leone and Liu (2010) find that CFOs are more likely to face turnover after accounting irregularities when the CEO is the founder. Burks (2010) finds that, after a financial restatement, CFOs are more frequently removed from their positions than CEOs.

<sup>&</sup>lt;sup>6</sup> Ronald Fink, 2002. The Fear of All Sums. http://ww2.cfo.com/risk-compliance/2002/08/the-fear-of-all-sums/

specializing their human capital, a critical resource for the organization, and gain ex post bargaining power from control over it. To CFOs, the knowledge of firm-specific information and associated financial experience are critical human capital and their withdrawal would reduce the economic rent of the company. Accordingly, CFOs with sufficient external opportunities are not only less concerned about losing their current job, but also gain the ability to withhold their human capital, leading to an increase in their bargaining power and their ability to mitigate the pressure from the CEO. If CEO power over the CFO is a cause of earnings management, one would expect the shifts of power between CEOs and CFOs to induce a lower level of earnings management.

An empirical challenge in exploring the effects of the balance of power is the difficulty of directly observing the CFO job-market status and the bargaining power between CEOs and CFOs. To address this issue, I use prestigious national CFO awards (the "America's Best CFOs" awards) to capture exogenous shocks to CFOs' career opportunities. My approach allows me to detect changes in awardee CFOs' labor market status and the consequent changes in their bargaining power relative to the CEOs, providing an experiment to explore how the balance of power affects earnings management.

I first validate whether the CFO awards affect awardees' job-market status. Since the career opportunities of an awardee had he/she not received the award cannot be observed, I use the propensity-score matching (PSM) approach, as in Rosenbaum and Rubin (1983), to construct a benchmark control group to mitigate potential selection bias. Specifically, I match each CFO awardee with a group of non-awardees who hold a CFO position as of the award month and have a similar propensity of winning the award. Then I compare the ex post career opportunities between awardees and matched non-awardees. Consistent with previous findings on award effects on CEO and director status (Malmendier and Tate, 2009; Chen, Wu, and Zhivotova, 2016), I document that

awardee CFOs, compared to matched non-awardee CFOs, are more likely to gain a higher paid position in another firm, to become the CEO of another firm, or to move to a more prestigious firm. I also find that awardees retained in their current firms are more likely to be promoted to executive director, chief operating officer (COO), president, or CEO. In addition, they experience a large jump in their total compensation, mainly attributed to a larger proportion of stock and option grants. These results suggest that not only does the external labor market provide better career opportunities to awardees, but current employers also attempt to retain these super stars by enhancing the chance of internal promotion, improving total compensation, and increasing the amount of equity grants. The increase in job opportunities in both external and internal labor markets substantially decreases awardees' career concerns. Given that the main power a CEO has over the CFO is to influence his/her compensation, promotion, and retention (Matejka, 2007), awardees who become less concerned about losing their current job have increasing ability to withhold their human capital and thus gain more bargaining power with their CEOs. In the spirit of previous literature (e.g., Adams, Almeida, and Ferrerira, 2005; Feng, Ge, Luo, and Shevlin, 2011; Heater, 2016), I develop a CEO power index to partially measure CEO power over CFOs. I find that awardees' firms have a considerably lower CEO power index than non-awardees and preaward periods. Since awardees receive considerably more stock and option grants, I also explore the changes in CEO equity incentives. I find a significant increase in awardees' delta (the dollar change in the wealth associated with a 1% change in the firm's stock price) and pay-forperformance sensitivity (PPS).

Having confirmed that CFO awards represent substantial shocks to awardees' labor market opportunities, compensation, and bargaining power, I then examine the consequent effects of the shifts in power between CEOs and CFOs on earnings management. On one hand, winning the award provides CFOs with better job opportunities, significantly enlarging their bargaining power relative to the CEO. On the other hand, awardee firms increase the portion of stock and option grants, leading to a substantial increase in the CFO's PPS. Previous literature suggests that equity incentives encourage CFOs to initiate earnings management. Unless the effects of equity incentives can be offset by the shifts in power between CEOs and CFOs, one would expect awardee firms to manipulate more than non-awardees. In other words, a decrease in earnings management in awardee firms would provide clear evidence of the effect of the balance of power.

Following prior studies (e.g., Bergstresser and Philippon, 2006; Jiang et al., 2010), I use the absolute value of discretionary accruals as a proxy for the magnitude of earnings management. As one component of earnings, accruals have no first-order effect on current cash flows and allow managers to use discretion in deciding its construction. Therefore, accruals management becomes a common way for managers to bias earnings. I estimate fixed effect models to investigate the effects of CFO awards on the magnitude of discretionary accruals. In addition to controlling for common firm and individual attributes that may influence accruals management, I also control for CFO and CEO PPS because prior work shows that equity incentives of both CEOs and CFOs are strongly associated with earnings management. Consistent with the view that the balance of power between CEOs and CFOs matters in earnings management, I find that awardees' firms have, on average, 47 basis points less in discretionary accruals relative to both non-awardees and pre-award periods, significant at the 1% level. Because the absolute value of discretionary accruals cannot completely capture the changes in the level of accruals management,<sup>7</sup> I also include signed discretionary accruals in my main tests. Consistent with Friedman's model in which powerful

<sup>&</sup>lt;sup>7</sup> For instance, changes in the absolute value cannot completely capture the changes in the sign of discretionary accruals.

CEOs are more likely to push earnings management upward, the balance of power (winning the award) has a significant and negative effect on signed accruals (37 basis points). Further dividing the sample into positive and negative accruals, I find that the award has a significant and negative effect on positive abnormal accruals and a less significant positive effect on negative accruals.

If the decrease in the CEO's relative bargaining power is the main channel of the reduction in discretionary accruals, one would expect a difference between firms with different levels of CEO bargaining power. When a firm has a less powerful CEO, winning the award may have a limited marginal effect on earnings management as the CEO already has weak influence over the CFO. Consistent with this prediction, I find that the award effects are significant only when CFOs face powerful CEOs. In the subsample of powerful CEOs, winning the award reduces the magnitude of discretionary accruals by 58 basis points, significant at the 1% level. In contrast, the award effect is smaller in magnitude and statistically insignificant in the less powerful CEO group. Similarly, I find a significant and negative effect of the award on the three year changes in the magnitude of abnormal accruals in the powerful CEO group, while the effect in the less powerful CEO group is insignificant both statistically and economically. In addition, I find weak evidence that, after awardees' departure, their successors engage in a higher level abnormal accruals. Firms that hire an awardee exhibit a smaller magnitude of discretionary accruals. These robustness-check results provide support for my main conclusion.

To further mitigate potential bias in my estimates arising from the possible endogeneity of the awards, I instrument the likelihood of a firm being in a post-award period as the number of analysts who included the firm in their buy/sell recommendations within a five-year window before a given year. I use the lagged two-year number to generate a time gap between recommendations and the year of interest. According to the award organizer, the award results are based on surveys that ask investment professionals to nominate candidates in their coverage universes. The instrument is relevant because it partially measures how many analysts know a company and its executives. Meanwhile, I argue the instrument is excludable. This is because (1) being mentioned by more analysts does not necessarily mean better performance as analysts have different opinions (e.g., buy, hold, and sell) and different focuses, (2) the number of recommendations is added up in a five-year window, a relatively long period during which analysts' views can vary from year to year, and (3) these recommendations represent analysts' points of view three to seven years ago, leaving a long time gap which can considerably impair the predictive power of these past recommendations on a firm's current level of discretionary accruals. A twostage least squares (2SLS) regression including fixed effects provides similar results, suggesting that the documented award effects on discretionary accruals are not driven by uncontrolled firm or individual attributes.

One concern is that awardees may become less involved in earnings management due to an increase in external pressure and/or internal monitoring. Intuitively, winning an award brings substantial fame and visibility to awardees, making the market expect high quality in their financial reporting and creating more surprise about disclosed earnings management by awardee firms. Therefore, awardee CFOs may be pressured to maintain high-quality financial reporting to prevent a loss of reputation. The board of directors, at the same time, may audit financial reports by awardees more intensively as they receive more stock and options and have higher equity incentives than before. It is possible that awardees, under monitoring by their board, reduce the level of accruals management for the post-award period to avoid punishment. To address these concerns, I first explore how the market reacts to earnings restatements by sample companies. moment of the announcement, the market must assess the detriment of the restatement based on current information. Since awardees have built a reputation as high-quality CFOs, the market is more likely to view their restatements as non-fraud related. In addition, the market may also expect award winners whose bargaining power considerably increases to be less concerned about disclosing previous mistakes and thus restate frequently given a certain volume of previous reporting errors. These expectations might help offset the surprise brought by the restatements of awardee firms, leading to a smaller market reaction. Consistent with this analysis, I find that, while non-awardees have considerably negative cumulative abnormal returns (CARs) for all the event windows, the market has a relatively weaker reaction to restatements by awardees' firms. As a next step, I examine the award effects on the number of non-reliance financial restatements. I find some evidence that awardee firms restate less than non-awardee firms and pre-award periods, suggesting that awardees are not audited more intensively by their board. An alternative explanation for this result is that awardees, as high-quality CFOs, make fewer errors in the first place. If so, we would observe awardee firms restating less when the error is made by the current CFO, but would not expect a significant difference between awardees and non-awardees when the error is attributable to the predecessors. Therefore, I separately look at restatements that are due to mistakes made by the current CFO and his/her predecessors. I find that firms of past awardees restate less when predecessors are accountable for the errors, while the results are insignificant when the current CFO is imputed. Overall, there is no evidence that my main results are driven by awardees being more intensively audited by their firms.

My study contributes to the literature in several respects. First, my work provides evidence of how the balance of power between CEOs and CFOs affects financial reporting quality. A large body of studies explores how managers' equity incentives affect financial fraud, earnings management, and financial misreporting. Johnson, Ryan, and Tian (2009) show that equity-based compensation, especially unrestricted stockholdings, provides managers with incentives to commit fraud. Bergstresser and Phillippon (2006) and Burns and Kedia (2006) focus on CEO equity incentives and find that such incentives are positively related to earnings management and misreporting. In contrast, Jiang et al. (2010) and Chava and Purnanaham (2010) suggest that accruals management is associated with the CFO's equity incentives rather than the CEO's. Some evidence suggests that CEO bargaining power also matters. Feng et al. (2011) document that firms with significant financial manipulations, as indicated by the Securities and Exchange Commission (SEC) Accounting and Auditing Enforcement Releases (AAERs) have similar CFO equity incentives but more powerful CEOs than matched counterparts. Friedman (2014) constructs a theoretical model of CEO power over the CFO in which firms with powerful CEOs are more likely to overestimate earnings. A challenge in empirically examining these propositions comes from potential endogeneity issues. For example, a powerful CEO may be able to intentionally increase the proportion of stock and options in the CFO's compensation package and make him/her willing to cooperate. My study employs an exogenous shock to CFO job-market status which impairs CEO power relative to the CFO while increasing CFO equity incentives, yielding clean tests on how the balance of power affects earnings management. Moreover, this paper links managerial labor markets to earnings management, providing evidence of the effects of CFO career opportunities in offsetting CEO bargaining power and reducing manipulation. To the best of my knowledge, this is the first work to study precisely the interaction of CFO career opportunities and the balance of power between CEOs and CFOs with financial reporting quality.

My work also sheds light on the channel through which CEOs can manipulate earnings. Existing literature documents a significant relation between CEO equity incentives and earnings management (e.g., Cheng and Warfield, 2005; Bergstresser and Phillippon, 2006). However, it is not clear how CEOs respond to such incentives and initiate manipulation. My results suggest that the influence of the CEO on subordinates' career opportunities may force CFOs to manipulate earnings in response to CEOs' desires. This finding has important implications for current corporate governance reform, suggesting that the balance of power between CEOs and CFOs is an important factor when considering financial reporting quality. Firms may benefit from increasing CFO independence, adding positions (e.g., chief audit officer) which can provide support for the CFO's independence, and balancing the CEO's power in subordinates' hiring, compensation, and turnover decisions.

Moreover, my study adds to the existing literature on managerial labor markets. Fama (1980) argues that pressure from the outside labor market provides discipline to managers, motivating them to build a good reputation of working hard in the interest of their shareholders. Existing literature on managerial/director labor markets provides support for the labor market discipline arguments (e.g., Desai, Hogan, and Wilkins, 2003; Fee and Hadlock, 2004; Fich and Shivdasani, 2007; Chen et al., 2016). In contrast, my findings suggest that CFOs' career concerns may drive them to please CEOs rather than to benefit shareholders in the context of the interfirm hierarchy. In addition, my findings provide evidence of the use of compensation contracting to retain managerial talent. Based on group compensation and firm performance, previous literature reports mixed evidence of the effects of "golden handcuffs" in locking superior managers into their current employers (e.g., Mehran and Yermack, 1997; Fee and Hadlock, 2003). My study, in comparison, employs an exogenous shock to individual reputation and suggests that current employers tend to grant more stock and options to outstanding managers.

The remainder of the paper is organized as follows. Section 2 develops hypotheses for empirical tests. Section 3 describes my data set and provides details on sample construction and key variables. Section 4 presents my empirical results and discusses treatment of endogeneity issues. Section 5 concludes.

### 2. Hypotheses Development

I start by analyzing the impacts of winning the award on awardees' career opportunities. As Frey and Neckermann (2010) show, awards in recognition of excellence function as signals of unobservable individual dedication and ability. As long as the award results are not perfectly predictable, the award conveys new information to the market about an awardee's individual characteristics, such as effort and talent. Given the existence of an active external labor market, awardees are viewed as highly favored job candidates. In other words, if an award received represents a substantial shock to reputation capital, the award brings more outside career opportunities to awardees. To examine this proposition, an ideal test would compare the awardee's career opportunities to the opportunities of the same person had he/she not received the award. Since the counterfactual cannot be observed, I use a propensity-score matching (PSM) approach proposed by Rosenbaum and Rubin (1983) to match each awardee with a group of non-awardees who hold a CFO position as of the award month and have a similar predicted possibility of winning the award. Then I compare the ex post career opportunities between awardees and matched nonawardees. The analysis and empirical strategy lead to the following hypothesis:

H1: Compared to matched non-awardees, awardees experience an ex post increase in outside job opportunities.

Despite an increase in potential outside offers, an awardee does not have to join another firm as long as his/her compensation and promotion opportunity in the current company increase to an equivalent level. In some cases, awardees' current employers are willing to provide the reward because the specialized human capital of these job-market stars are in precious and its withdrawal could lead to a decrease in economic rent. Accordingly, an awardee who is retained in the current company is expected to experience a significant increase in internal promotion and total compensation caused by the increase in external job opportunities. In addition, current employers may appropriately redesign the compensation package of an awardee, increasing the proportion of options and restricted stocks ("golden handcuffs") in the total compensation to "lock" him/her into the current position (e.g., Jackson and Lazear, 1991; Scholes, 1991; Mehran and Yermack, 1997; Fee and Hadlock, 2003; Oyer, 2004). Therefore, I expect an awardee to face a significant increase in internal promotion likelihood, total compensation, and stock/option grants in his/her compensation package.

H2A: Compared to matched non-awardees, awardees experience an increase in the likelihood of being promoted to a higher level position inside the firm.

H2B: Compared to their matched counterparts, awardees who stay in the current firm experience an increase in total compensation and in stock and option grants.

According to Rajan and Zingales' (1998) framework, employees gain bargaining power over employers through the ability to withhold their human capital inputs. Though the CEO has critical influence over the CFO's compensation and retention (Matejka, 2007), awardee CFOs who experience a notable increase in external job opportunities might gain bargaining power from the improved ability to withdraw their specialized human capital (e.g., experience and knowledge associated with firm-specific information) from the current firm. In other words, awardees who become less concerned about losing their current jobs have increasing bargaining power relative to their CEOs. While we cannot directly observe CEO power over CFOs, we can indirectly measure it through factors that may influence their relationship. In the spirit of previous studies (e.g., Adams et al., 2005; Feng et al., 2011; Heater, 2016), I construct a CEO power index (CEO PI) which includes relative age, directorship, number of titles, founder status, and stock ownership. This index partially reflects how powerful the CEO is in relation to the CFO and is expected to be lower for awardees than for non-awardees. I formalize this hypothesis as follows:

H3: When a CFO wins the award, the CEO's power relative to the CFO becomes smaller and the CEO PI decreases.

Next, I develop hypotheses about how changes in CFO bargaining power influence earnings management. If CEO power is a cause of earnings management, one would expect to observe a lower level of earnings management in awardees' firms since awardees have gained larger bargaining power relative to their CEOs. In the spirit of previous literature (e.g., Bergstresser and Phillipon, 2006), I use the magnitude of discretionary accruals to measure the level of earnings management. I expect awardees' firms to have less discretionary accruals than non-awardees and pre-award periods. Moreover, if the shift in power between CEOs and CFOs is the channel for the decrease in earnings management, the award effect should differ among firms with different levels of CEO bargaining power. For firms with powerful CEOs, the award effect is expected to be significant because the decrease in CEO power reduces the CEO's influence over the CFO to fiddle with earnings. In contrast, winning the award may not significantly affect firms with less powerful CEOs, as these CEOs already have weak influence over their CFOs and the marginal effect of further reducing their power is limited. The above analyses lead to the following hypotheses:

H4A: The magnitude of discretionary accruals decreases in awardees' firms.

H4B: Award effects are weaker for firms with less powerful CEOs.

# 3. Data Sources and Variable Construction

#### 3.1 CFO Awards and Sample Construction

The core of my data is a hand-collected honoree list of the "America's Best CFOs" award granted by Institutional Investor magazine between 2004 and 2012.<sup>8</sup> The purpose of the award is to "identify and acknowledge the work of the most noteworthy financial executives."<sup>9</sup> Recipients are determined based on surveys that ask buy-side analysts, money managers, and sell-side researchers to name the best CFOs in their coverage universes. Though Institutional Investor does not provide formal criteria for the selection process, the organizer highlights that survey respondents vote for CFOs who "keep clean books and effectively communicate with the market about their companies' performance" and who hold responsibility for improving operations and revenues.<sup>10</sup> To ensure a fair result, Institutional Investor keeps confidential the identities of the survey respondents and has its own research operations group to review the votes. The magazine may also employ an independent auditor to inspect the final results. More detailed information about the awards is presented in Appendix 1.

I choose this award for the following reasons. First, it is national in scope and open to any CFO in the United States. Second, it is granted by a prestigious organization and thus may affect the awardee's subsequent status in the labor market. Moreover, the award honors the CFO excellence and thus is a suitable measure for a positive reputational shock to awardees.

<sup>&</sup>lt;sup>8</sup> In 2010, Institutional Investor magazine terminated the "America's Best CFOs" list and published "The All-America Executive Team" list, which separates CEOs, CFOs and companies. My awardee list of CFOs from 2010 to 2012 is collected from the CFO category of "The All-America Executive Team" award.

<sup>&</sup>lt;sup>9</sup> "The Best CFOs in America", Institutional Investor, 2004,

http://www.institutionalinvestor.com/article/1026650/the-best-cfos-in-america.html#.WOAgZFUrJtQ <sup>10</sup> "America's Best CFOs", Institutional Investor, 2006,

http://www.institutionalinvestor.com/article/1019611/americas-best-cfos.html#.WOAePFXyttQ

My sample is constructed mainly relying on the ExecuComp database. I define the sample period as the time window between award month 2001 and award month 2014. From 2004 to 2012, the award month is defined as the month when the award is announced. For 2001, 2002 and 2003, when the award was not granted, the award month is set as February, which is, respectively, 36 months, 24 months, and 12 months before the award month in 2004. For 2013 and 2014, the award month is set as January, which is 12 months and 24 months after the award month in 2012. I include in my sample ExecuComp CFOs whose firms have a fiscal year-end falling within the time window from February 2001 to January 2014.

I hand-collect the list of "America's Best CFOs" using press releases and the digital version of Institutional Investor magazine. Various analyses in this paper require detailed compensation data and individual attributes of CFOs. Therefore, I only include awardees who are covered in the ExecuComp database, filtering out those from small firms and private firms. For each individual on the awardee list, I manually search for his/her name in the ExecuComp database to obtain the ID number of the executive/company combination (co\_per\_rol). As a result, I obtain a list that consists of 697 awardees. Since I use discretionary accruals to measure earnings management, I require awardees' firms included in the sample for main tests to have detailed information on the components of accruals reported in the Compustat database. Figure 1 illustrates by year the number of all awardees, ExecuComp awardees, and awardees whose company has accruals information available. The number of awardees varies from year to year because the award organization makes award decisions based on responses to surveys and requires award winners to garner a minimum number of votes.

[Insert Figure 1 Here]

In Figure 2, I report the number of awardees by the Fama-French 12 industries, split into ExecuComp awardees and awardees whose company has accruals information. Note that most awardees from financial firms are omitted from the accruals sample, the sample for the main tests that requires information to be available to construct the accruals variable.<sup>11</sup>

# [Insert Figure 2 Here]

The control group is constructed based on all the non-awardee CFOs covered by the ExecuComp universe during the sample period. For the post-2005 period, an ExecuComp executive is identified as a CFO if the CFOANN code provided by the database equals "CFO." For the rest of the sample period when the CFOANN code is not provided, I identify CFOs using supplementary information from the ExecuComp "titleann" code, BoardEx database, and handcollected executive profiles from Bloomberg, Equilar, and proxy statements. Although ExecuComp provides the most data on individual attributes and compensation details, it misses data on CFO age for 29.6% of the observations in my sample. It also does not directly provide data on a CFO's tenure. Part of the missing data is supplemented using BoardEx. I manually collect the rest from Bloomberg, Equilar, and proxy statements.<sup>12</sup> Data on firm characteristics and stock performance are drawn from the CRSP/Compustat merged database. The board of directors and other corporate governance characteristics are obtained from BoardEx and RiskMetrics. In the main tests, I also require control firms to have detailed information on the components of accruals. This, again, rules out most financial firms from the final sample for main tests. I obtain data of non-reliance financial restatements from Audit Analytics for ExecuComp firms during my sample period. Audit Analytics also provides the disclosure date and the information on restatement

<sup>&</sup>lt;sup>11</sup> In untabulated robustness tests, I further restrict my sample to nonfinancial firms and my main results are robust.

<sup>&</sup>lt;sup>12</sup> After filling in the missing data, 547 observations are still without information on age.

categories (e.g., financial fraud, board's involvement, material accounting, and clerical application errors). Data on analyst recommendations are obtained from the I/B/E/S Recommendations database.

Starting from 2006, ExecuComp significantly changed its reporting in response to FAS 123R. One important adjustment is the method of estimating option grants. Instead of using the previous method based on Black-Scholes value, ExecuComp reports the fair value of option grants estimated by firms for the post-2005 period. To assure the computation of option grants and TDC1 is comparable between the pre- and post-2005 period, I recalculate the two based on the methodology discussed in Coles, Daniel, and Naveen (2014). A detailed description of the recalculation procedure is reported in Appendix 3.

Overall, my sample for the main tests consists of 13,465 CFO-year observations, including 1,077 past-awardee observations, 899 future awardee observations, and 11,489 "never-win" observations. A past awardee in a given year is defined as a CFO who received the award before a given year. A future awardee in a given year is defined as a CFO who received the award in or after that year. A "never-win" CFO is defined as a sample CFO who did not receive an award during the sample period. Selected summary statistics for my sample are reported in Table 1.

# [Insert Table 1 Here]

It is clear from Panel A of Table 1 that past awardees and future awardees noticeably differ from the "never-win" group along many dimensions. Compared to "never-win" CFOs, past awardees and future awardees are older, are more likely to serve as an executive director in their own firm, and have substantially higher total compensation. In particular, past awardees and future awardees have considerably higher PPS than their counterparts.<sup>13</sup> In addition, discretionary accruals in awardees' firms are substantially smaller in magnitude.<sup>14</sup> These firms are also larger in size and have better accounting performance. I also capture significant differences when comparing past awardees and future awardees in Panel B. Firms of past awardees have lower level accruals management, less powerful CEOs, a larger size, and less cash volatility. Moreover, past awardees have higher PPS, earn higher total compensation, and are more likely to serve on the board of their own firm. Overall, Table 1 suggests that it is critical to consider individual attributes and firm characteristics in analyses to avoid results driven by selection bias. I consider various econometric approaches to address this issue. Details are provided in section 4.

#### 3.2 CEO PI

In the spirit of previous literature (Adams et al., 2005; Feng et al., 2011; Heater, 2016), I construct a CEO power index (CEO PI) to measure CEO power over CFOs. The index consists of five factors that are likely to influence a CEO's relative bargaining power: (1) relative age indicator equal to 1 if the CEO is not younger than the CFO and 0 otherwise,<sup>15</sup> (2) relative number of titles, which is set as 1 if the CEO holds more Execucomp titles than the CFO for a given fiscal year, (3) relative directorship indicator equal to 1 if the CEO is an executive director but the CFO is not for a given fiscal year, (4) founder indicator equal to 1 if the CEO is a founder of the firm, and (5) relative stock computed as the difference between the CEO's stock and the CFO's stock divided by the sum of the two. The CEO PI is then defined as the sum of the five factors. Specifically,

<sup>&</sup>lt;sup>13</sup> The methodology for constructing PPS and CEO PI measures is described in sections 4.1.4 and 3.2, respectively.

<sup>&</sup>lt;sup>14</sup> The methodology for estimating discretionary accruals is described in section 3.3.

<sup>&</sup>lt;sup>15</sup> In the robustness tests, I replace the relative age indicator with a relative tenure indicator which is equal to 1 if the CEO's tenure is longer than the CFO's. My results are robust, as shown in TableA6.

 $CEO PI_{i,t} = Relative Age_{i,t} + Relative Num. of Title_{i,t} + Relative Directorship_{i,t}$  $+ Founder_{i,t} + Relative Stock_{i,t}, \qquad (1)$ 

# 3.3 Discretionary Accruals

To estimate discretionary accruals, I first define total accruals. Following previous literature (e.g., Dechow et al., 1995; Kothari et al., 2005; Bergstresser and Phillipon, 2006), total accruals are defined as the disparity between earnings and cash flows from operations, scaled by lagged total assets. Specifically, total accruals is computed as:

$$TA_{i,t} = (\Delta CA_{i,t} - \Delta CL_{i,t} - \Delta Cash_{i,t} + \Delta CLTD_{i,t} - Dep_{i,t})/Ass_{i,t-1}, \qquad (2)$$

for firm i in year t,  $TA_{i,t}$  is the total accruals,  $\Delta CA_{i,t}$  is the change in current assets (Compustat item 4),  $\Delta CL_{i,t}$  is the change in current liabilities (Compustat item 5),  $\Delta Cash_{i,t}$  is the change in cash (Compustat item 1),  $\Delta CLTD_{i,t}$  is the change in long-term debt in current liabilities (Compustat item 34),  $Dep_{i,t}$  is the depreciation expenses (Compustat item 14), and  $Ass_{i,t-1}$  is the lagged total assets (Compustat item 6).

I use two approaches to estimate discretionary accruals. The first model (Model I), in the spirit of Kothari et al. (2005), includes  $ROA_{i,t-1}$  in the Jones (1991) regression when estimating normal accruals. Including  $ROA_{i,t-1}$  considers effects of accounting performance and thus may enhance the reliability of the estimation. Specifically, I run the following regression for each Fama-French 48-industry group:

Model I:  

$$TA_{i,t} = \alpha + \beta_1 \times (1/Ass_{i,t-1}) + \beta_2 \times (\Delta SALE_{i,t}) + \beta_2 \times (PPE_{i,t}) + ROA_{i,t-1} + \varepsilon_{i,t}, \quad (3)$$

where  $\Delta SALE_{i,t}$  is the change in sales (Compustat item 12) for firm i in year t and  $PPE_{i,t}$  is the gross property and equipment (Compustat item 7). Both of the variables are scaled by lagged total assets.  $ROA_{i,t-1}$  is the lagged return on assets for firm i in year t. I estimate equation (3) on the entire Compustat sample back to 1976. This yields coefficients that can be applied to current observations to construct a measure of normal accruals, defined as the predicted value from the regression. Discretionary accruals is then defined as the difference between the total accruals and the estimated normal accruals:

$$DA_{i,t}^1 = TA_{i,t} - NormalA_{i,t}^1, \quad (4)$$

where  $DA_{i,t}^1$  and  $NormalA_{i,t}^1$  are, respectively, the estimated discretionary accruals and normal accruals computed using Model I.

For robustness, I also employ the version of the original Jones (1991) model (Model II) where normal accruals are estimated as the predicted value from the following regression:

Model II:

$$TA_{i,t} = \alpha + \beta_1 \times (1/Ass_{i,t-1}) + \beta_2 \times (\Delta SALE_{i,t}) + \beta_2 \times (PPE_{i,t}) + \varepsilon_{i,t}, (5)$$

where  $\Delta SALE_{i,t}$  is the change in sales for firm i in year t and  $PPE_{i,t}$  is the gross property and equipment. Both of the variables are scaled by lagged total assets.

The discretionary accruals is then identified as:

$$DA_{i,t}^2 = TA_{i,t} - NormalA_{i,t}^2, \quad (6)$$

where  $DA_{i,t}^2$  and  $NormalA_{i,t}^2$  are, respectively, the discretionary accruals and normal accruals computed using Model II.

### 4. Empirical Results

#### 4.1 Award Effects on CFO Career Opportunities and Bargaining Power

## 4.1.1 Market Reaction to Award Announcements

In section 4.1, I validate that the CFO awards have important effects on awardees' job market status and relative bargaining power. Before examining my hypotheses, I study the cumulative abnormal returns (CARs) of awardee firms around the announcement of award events to confirm the eligibility of using the awards as positive shocks to award recipients. If the market cannot perfectly predict awardees, the announcement of the winner list will lead to a positive market reaction based on updated information about awardees and their firms. I employ various sources to obtain the announcement date of the award, including press releases, archived websites, and the digital version of the Institutional Investor magazine. The event date is set as the earliest date that the awardee list appears in any of these sources. Event dates on non-trading days are transferred to the next trading day. CARs are calculated using market adjusted returns with CRSP value-weighted index as the proxy for market returns.  $\alpha$  and  $\beta$  are estimated using a 250-date period which ends 60 days before the event date. At least 60 days of return data is required for estimation.

Results of the event study are presented in Table A4, Appendix 4. I report CARs of awardee firms for three event windows: (-3, +3), (-1, +1), and (0, 0), where day 0 denotes the event day. On average, the announcement of the award leads to a significant and positive market reaction to awardee firms in the event day, generating an abnormal return of 0.11%. For event windows (-3, +3) and (-1, +1), the average CAR is 0.46% and 0.23%, respectively, both significant at the 5% level. Overall, the results suggest that the announcement of awards conveys new information to the market, causing investors to positively re-evaluate awardee firms perhaps based on their beliefs that awardee firms can benefit from their CFOs' ability and experience.

# 4.1.2 Career Opportunities after Awards

Next, I examine whether the CFO awards have significant effects on awardees' career opportunities outside and inside the firm. I define external promotion as that a CFO experiences one of the following out comes: (1) gains a position with higher pay in another firm, (2) becomes a CEO in another firm, and (3) moves to a more prestigious firm. Given recent work by Masulis and Mobbs (2014) suggesting that directors devote more effort to directorships at relatively large firms, I measure firm prestige by market capitalization as of the beginning of the latest fiscal year before the award month. The internal promotion is defined as that the CFO is promoted to an executive director or a higher-ranked executive position inside the firm, including COO, president, and CEO. I label the calendar year in which an award occurs as year t. For each CFO, I identify his or her job-market status for which the fiscal year ends before the award month of year t and after the award month of year t-1. This job market status is designated as year t-1 status, which is the basis for my analysis in this section. The changes in internal and external job opportunities are measured from the base year (year t-1) to two years later (year t+1).

Statistics from Table 1 suggest that awardees differ from non-awardees along many dimensions. In other words, it is highly possible that the treatment group is not being randomly assigned, suggesting that a simple difference-in-difference test using the full set of non-awardees as the control sample is not valid. I employ the propensity score matching approach proposed by Rosenbaum and Rubin (1983) to match each awardee with multiple non-awardees with a similar propensity of winning the award. Specifically, I use a subsample from year 2004 to 2012 and estimate a logit regression to explore determinants of winning the award. The regression includes all of the 697 awardees and 12,255 non-awardees. Dependent variable in the logit regression is an indicator equal to 1 if a CFO receives an award in year t. Independent variables are individual

attributes and firm characteristics which may simultaneously influence the probability of winning the award and subsequent career status, including firm size, industry adjusted ROA, industry adjusted stock returns, stock volatility, book-to-market ratio (BTM), sales growth, CFO compensation, tenure, age, executive director indicator, and board independence. I use the number of analysts who included the firm in their buy/sell recommendations in the past three years to partially measure a CFO's visibility. Since the award is aimed at recognizing CFO excellence, I also include leverage which are highly related to corporate financial decisions (Chava and Purnanandam, 2010). Event year and industry dummies are included, too.

Results of the logit regression are presented in Panel A of Table A5, Appendix 5. As expected, CFOs are more likely to win the award if they are from firms that are larger in size, have lower stock volatility, experience greater sales growth, or receive more analysts' recommendation during the past three years. Individual characteristics also significantly affect the propensity of winning the award. Younger CFOs, CFOs with longer tenures, highly-paid CFOs, and CFOs serving as an executive director are more likely to receive the award. In an additional test, I also control for the magnitude of discretionary accruals in the regression and report the results in Panel C of Table A5, Appendix 5. I do not find significant effect of discretionary accruals on the likelihood of winning the award nor an improvement in the R-squared. To avoid a considerable shrink in the sample size, I exclude discretionary accruals from the matching process.

I adopt a nearest-neighbor matching estimator with replacement to implement matching. Each awardee is matched with four non-awardees, leading to a matched sample of 639 awardees and 2,556 non-awardees (3,195 overall observations).<sup>16</sup> According to previous studies on

<sup>&</sup>lt;sup>16</sup> The number of awardees is slightly smaller after conducting the logit regression because some awardees or their firms do not have data for at least one control variable, making it impossible to calculate the propensity score for these awardees.

propensity-score matching, more matches help to decrease variance in estimating treatment effects but also increase unbalance of covariates (Rubin and Thomas, 2000). I choose the 1-to-4 ratio instead of a regular 1-to-1 ratio because it makes the best balance between variance and bias. In untabulated robustness tests, I obtain similar results in awardee status analyses using 1-to-1, 1-to-3 and 1-to-5 matching ratios. I conduct multiple tests to check the after-matching balance of covariates. Panel B of Table A5 presents the results of standardized-difference checking, t-tests and re-estimating the logit regression on the matched sample. All the covariates are well balanced after matching. In particular, though not controlling for discretionary accruals in the logit regression, this covariate has no significant difference between awardees and matched nonawardees.

I first compare overall outcomes for awardees and matched non-awardees on a univariate basis. Panel A of Table 2 reports the changes in the percentage of external and internal promotion from year t-1 to year t+1, categorized by awardees and matched non-awardees. Within the 2-year time window, 0.31% of awardees become the CEO of another firm, while 0.04% of their matched counterparts gain such an external position. In addition, 1.56% of awardees move to a higher-paid position and 1.56% to a larger firm, significantly higher than the proportion of non-awardees (0.78% and 0.70%). In all, 1.72% of awardees experience at least one type of external promotion within the time window, slightly more than the percentage of matched non-awardees (1.21%). But the difference is not statistically significant.

# [Insert Table 2 Here]

The external promotion is not able to illustrate the complete picture of awardees' updated career status, because an awardee with potential outside offers does not have to move to another firm as long as his/her promotion opportunity and compensation in the current company increase

to an equivalent level. Therefore, I also track internal promotion of award winners. Results in Panel A of Table 2 suggest a significantly higher chance for awardees to be promoted in their own firm. 6.64% of awardees gain a board seat in their own firm from year t-1 to year t+1, 4.33% are promoted to COO, and 5.05% become a president. These proportions are substantially higher than those of matched non-awardees (1.37%, 0.12% and 0.32%, respectively).<sup>17</sup> The percentage of promotion to CEO is 1.56% for awardees versus 0.63% of non-awardees. 12.05% of awardees experience at least one type of internal promotion from year t-1 to year t+1, significantly higher than the proportion of matched non-awardees (2.42%). The percentage of awardees experiencing either internal promotion or external promotion is 13.77%, whereas the percentage for non-awardees is 3.64%. The difference is highly statistically significant (p-value < 1%). Overall, my results in Panel A support the view that awardees experience an improved status in the form of having more external and internal opportunities.

Then I turn to multivariate regression analyses to more carefully examine the changes in external and internal promotion opportunities. I carry out logit analyses to examine the changes in the likelihood of internal/external promotion from year t-1 to year t+1. Although the propensity-score matching procedure has significantly weakened the effects of firm and individual characteristics on predicting the award results, these variables may still have explanatory power on the subsequent status of CFOs. Therefore, I include all the matching-stage controls in the regressions. Panel B of Table 2 presents the results from the logit regressions explaining the likelihood of external promotion. Column (1) to (3) investigate the likelihood of gaining an external position with higher pay, moving to a larger firm, and experiencing any type of external

<sup>&</sup>lt;sup>17</sup> When investigating promotions to board director, COO, and president, I employ a subsample which only includes individuals who do not hold such position in year t-1.

promotion, respectively. In each column, the dependent variable is an indicator equal to 1 if the CFO experiences the given outcome. In line with H1, coefficients on the awardee indicator are all significant and positive, suggesting that awardees face a substantial increase in outside career opportunities. Panel C presents the results of logit regressions explaining that a sample CFO experiences one of the following interfirm outcomes: (1) becomes an executive director, (2) becomes the COO and/or the president, (3) experiences internal promotion of any type, including CEO, COO, president, and executive director, and (4) experiences internal or external promotion of any type. Consistent with H2A, coefficients on the awardee indicator in Column (1) to (3) are all positive, significant at the 1% level. In addition, Column (4) suggests that, compared to their matched counterparts, awardees have noticeably higher chances of being promoted either inside or outside the firm.

#### 4.1.3 Changes in Compensation

Results in 4.1.2 suggest that awardees are more favored candidates than their competitors in the CFO labor market and experience a substantial increase in external job opportunities. Since these "super star" CFOs own specialized human capital which is a critical resource for the company, current employers might be willing to provide not only promotion opportunities but also higher compensation to retain them. Besides, employers may also use restricted stock and options ("golden handcuffs") to lock these awardees into the current position. Therefore, I expect a significant increase in the total compensation and stock and option grants for awardee CFOs who stay in the current firm (H2B). To examine this proposition, I estimate ordinary least squares (OLS) regressions where the independent variables are the dollar value of the changes in total compensation, stock and option grants, and salary of sample CFOs, respectively. The changes are all measured from year t-1 to year t+1. These regressions are based on a subsample which only includes awardees and matched non-awardees who are retained in the current firm at year t+1.

#### [Insert Table 3 Here]

Table 3 reports the estimation results. As expected, results in Column (1) and (2) reveal a sizable increase in awardees' total compensation and equity grants, both significant at 1% level. Awardees, on average, experience an increase of \$798,132 in their total compensation from year t-1 to year t+1, including a \$430,441 increase in stock and option grants. Column (3) shows that the increase in salary (\$18,080), though statistically significant, is much smaller in magnitude than stock and option grants and total compensation. These findings are in line with the implication of H2B that firms tend to provide a higher compensation for awardees, and the increase in compensation is mainly attributed to the increase in stock and option grants. One may argue that the increase in equity grants indeed impairs an awardee's bargaining power since he/she would no longer be a credible threat to leave. To address this concern, I also examine the changes in an awardee's compensation package when he/she moves to a new firm. Untabulated tests show that awardees, when joining a new firm, receive significantly higher total compensation and initial hiring grants than matched counterparts. This suggests that awardees who leave the current firm would not worry too much about forfeiting equity holdings since they can be compensated by the compensation package provided by the new employers.

# 4.1.4 Changes in CEO Power

Since awardee CFOs experience a substantial increase in internal and external career opportunities, they become less concerned about losing their current jobs and gain the ability to withhold their human capital, leading to an increase in their bargaining power. To examine this proposition, I estimate fixed effect models on the full sample which includes all the S&P 1500 CFOs with available data between 2002 and 2014. Propensity-score matching approach fits better when explaining a nonlinear relationship between the probability and the log odds. It also helps to reduce possible estimation bias when the number of observations is very small relative to the full sample. Therefore, it is proper to use this approach when investigating the changes in promotion likelihood. However, it also brings the concern that unobservable firm characteristics may drive both the likelihood of winning the award and the subsequent changes in awardees' status. In contrast, the use of a fixed effect model enables to control for time-invariant unobservable firm characteristics. Therefore, I estimate the following regression:

$$CEO PI_{it} = \alpha + \beta Post Award_{it} + X_{it-1}\gamma + \eta_t + \eta_i + \varepsilon_{it}, \qquad (7)$$

where *CEO PI*<sub>*it*</sub> is the CEO power index of firm i in year t; *PostAward*<sub>*it*</sub> indicates a three-year time window after the incumbent CFO of company i receives the award for the first time;  $X_{it-1}$  is the vector of firm and individual controls for which the fiscal year-end falls within the time window between the award month of year t-1 and the award month of year t;  $\eta_t$  are year fixed effects, and  $\eta_i$  are firm fixed effects.

To further capture the changes in the CEO power index over time, I also estimate the following regression:

$$CEO PI_{it} = \alpha + \sum_{\tau=1}^{2} \beta_{\tau}^{1} PreAward_{it-\tau} + Award Year + \sum_{\tau=1}^{3} \beta_{\tau}^{2} Post Award_{it+\tau} + X_{it-1}\gamma + \eta_{t}$$
$$+\eta_{i} + \varepsilon_{it}, \qquad (8)$$

where *CEO*  $PI_{it}$  is the CEO power index of firm i in year t;  $PreAward_{it-\tau}$  indicates year  $\tau$  before the incumbent CFO of company i receives the award for the first time; *Award Year* indicates the year when the incumbent CFO of company i is granted the award for the first time;  $PostAward_{it+\tau}$ indicates year  $\tau$  after the incumbent CFO of company i receives the award for the first time;  $X_{it-1}$  is the vector of firm and individual characteristics for which the fiscal year-end falls within the time window between the award month of year t-1 and the award month of year t;  $\eta_t$  are year fixed effects, and  $\eta_i$  are firm fixed effects.

### [Insert Table 4 Here]

Results of estimating the two regressions are reported in Panel A of Table 4. The coefficient on the post-award indicator in Column (1) suggests that, on average, CEO power index in awardee firms is 0.11 lower than their counterparts during the three-year window after the award. Consistent with the findings in Column (1), Column (2) indicates that the CEO power index in awardee firms, on average, is 0.09, 0.13, and 0.15 lower than their counterparts in the first, second, and third year after the award, respectively. These results are in line with the proposition that awardees face lower CEO power after receiving the award (H3).

Previous literature suggests that earnings management is associated with CFO equity incentives (Jiang et al., 2010; Chava and Purnanaham, 2010). Since CEO power and CFO equity incentives can be endogenous, I also track the changes in CFO equity incentives surrounding awards and control for it in later analyses. Results in section 4.1.3 suggest that awardee CFOs receive noticeably more stock and options grants after the award. Therefore, I expect a rise in awardees' equity incentives. I calculate delta, the dollar change in wealth associated with a 1% change in the firm's stock price, based on the methodology in Core and Guay (2002) and Coles, Daniel, and Naveen (2006). Following Bergstresser and Phillipon (2006), I compute the incentive ratio to measure pay-for-performance sensitivity (PPS):

$$PPS_{i,t} = Delta_{i,t} / (Delta_{i,t} + Salary_{i,t} + Bonus_{i,t}),$$
 (9)

Then I estimate the following regressions to examine the award effects on CFO PPS:

$$CFO \ PPS_{i,t} = \alpha + \beta Post \ Award_{it} + X_{it-1}\gamma + \eta_t + \eta_i + \varepsilon_{it}, \qquad (10)$$

where *CFO PPS*<sub>*i*,*t*</sub> is the CFO pay-for-performance sensitivity of firm i in year t; *PostAward*<sub>*it*</sub> indicates a three-year time window after the incumbent CFO of company i receives the award for the first time;  $X_{it-1}$  is the vector of firm and individual attributes for which the fiscal year-end falls within the time window between the award month of year t-1 and the award month of year t;  $\eta_t$  are year fixed effects, and  $\eta_i$  are firm fixed effects.

$$CFO \ PPS_{i,t} = \alpha + \sum_{\tau=1}^{2} \beta_{\tau}^{1} PreAward_{it-\tau} + Award \ Year + \sum_{\tau=1}^{3} \beta_{\tau}^{2} Post \ Award_{it+\tau} + X_{it-1}\gamma + \eta_{t}$$
$$+\eta_{i} + \varepsilon_{it}, \qquad (11)$$

where *CFO PPS*<sub>it</sub> is the CFO pay-for-performance sensitivity of firm i in year t; *PreAward*<sub>it- $\tau$ </sub> indicates year  $\tau$  before the incumbent CFO of company i receives the award for the first time; *Award Year* indicates the year when the incumbent CFO of company i is granted the award for the first time; *PostAward*<sub>it+ $\tau$ </sub> indicates year  $\tau$  after the incumbent CFO of company i receives the award for the first time; *X*<sub>it-1</sub> is the vector of firm and individual attributes for which the fiscal year-end falls within the time window between the award month of year t-1 and the award month of year t;  $\eta_t$  are year fixed effects, and  $\eta_i$  are firm fixed effects.

Panel B of Table 4 presents the results. Column (1) in Panel B shows that, on average, a 1% change in the firm's stock price will increase an awardees' wealth \$30,500 more than their counterparts during the three-year window after awards. Coefficients in Column (2) are consistent with the findings in Column (1), though the significant increase in delta starts in the second year after the award, suggesting a delay of the award effect. Similarly, Column (3) and (4) show that awardees have a substantially larger PPS (0.02) three years after awards, and the significant increase in awardees' equity

incentives after the award.<sup>18</sup> Since winning the award affects CEO power and CFO equity incentives in opposite directions, it yields clean tests to differentiate the effects of the two on earnings management.

### 4.2 Award Effects on Earnings Management

#### 4.2.1 Discretionary Accruals and CFO Awards

In this section, I examine how the shift in bargaining power between CEOs and CFOs affects financial reporting quality. Following prior studies (e.g., Bergstresser and Philippon, 2006; Jiang et al., 2010), I use the absolute value of discretionary accruals to measure the magnitude of earnings management. If the balance of power between the CEO and CFO matters for financial reporting quality, a lower level of discretionary accruals will be found in awardees' firms. I again use the panel data from year 2002 to 2014 and estimate the following fixed effect models:

$$|DA_{it}| = \alpha + \beta Post Award_{it} + X_{it-1}\gamma + \eta_t + \eta_i + \varepsilon_{it}, \quad (12)$$

where  $|DA_{it}|$  is the absolute value of discretionary accruals of firm i in year t; *PostAward*<sub>it</sub> indicates a three-year time window after the incumbent CFO of company i receives the award for the first time;  $X_{it-1}$  is the vector of firm and individual characteristics for which the fiscal year-end falls within the time window between the award month of year t-1 and the award month of year t;  $\eta_t$  are year fixed effects, and  $\eta_i$  are firm fixed effects.

$$|DA_{it}| = \alpha + \sum_{\tau=1}^{2} \beta_{\tau}^{1} PreAward_{it-\tau} + Award Year + \sum_{\tau=1}^{3} \beta_{\tau}^{2} Post Award_{it+\tau} + X_{it-1}\gamma + \eta_{t}$$

 $+\eta_i + \varepsilon_{it},$  (13)

<sup>&</sup>lt;sup>18</sup> Johnson, Ryan, and Tian (2009) suggests that unrestricted stocks and options provide stronger incentives for managers to commit fraud than restricted equities. For robustness, I also construct alternative delta and PPS based on unrestricted stocks and options. The results are consistent, as reported in Table A6 in Appendix 6.

where  $|DA_{it}|$  is the absolute value of discretionary accruals of firm i in year t; *PreAward*<sub>it- $\tau$ </sub> indicates year  $\tau$  before the incumbent CFO of company i receives the award for the first time; *Award Year* indicates the year when the incumbent CFO of company i is granted the award for the first time; *PostAward*<sub>it+ $\tau$ </sub> indicates year  $\tau$  after the incumbent CFO of company i receives the award for the first time; *X*<sub>it-1</sub> is the vector of firm and individual characteristics for which the fiscal year-end falls within the time window between the award month of year t;  $\eta_t$  are year fixed effects, and  $\eta_i$  are firm fixed effects.

## [Insert Table 5 Here]

Panel A of Table 5 reports the results. The dependent variable in Column (1) and (2) is the absolute value of discretionary accruals estimated using Model I (|DA1|). The coefficient on the post-award indicator in Column (1) shows that awardee firms have, on average, 47 basis points less in discretionary accruals relative to both non-awardees and pre-award periods, significant at the 1% level. Column (2) tracks the magnitude of discretionary accruals over time. Before and in the award year, I find no significant difference in discretionary accruals between awardee firms and their counterparts. In contrast, awardee firms have a noticeably lower level of discretionary accruals (69 basis points) than non-awardees and pre-award period in the first year after the award. The difference increases to 72 basis points in the second year, significant at the 1% level. Awardee firms still have significantly smaller accruals in the third year, though the difference drops to 39 basis points. For robustness, I estimate discretionary accruals using Model II (|DA2|) and find similar results as shown in Column (3) and (4). The coefficient on the post-award indicator in Column (3) is significantly negative and the magnitude is similar to that in Column (1). In line with Column (2), Column (4) indicates that awardee firms hold a significantly lower level of discretionary accruals in each of the three years after awards, while there is no significant

difference between the two groups before and in the award year. Overall, the results suggest a considerably lower level of accruals management in awardee firms than both non-awardees and pre-award period.

Because the absolute value of discretionary accruals cannot completely capture the changes in accruals management, I also investigate signed discretionary accruals in my main tests. In Panel B of Table 5, I replace the dependent variable with signed accruals. Column (1) suggests that winning the award significantly reduces signed accruals (DA1) by 37 basis points, while Column (2) shows that the negative effect of winning the award is significant only in the first two years after the award. Column (3) and Column (4) employ DA2 and find similar results. The slightly weaker award effects on signed accruals are perhaps due to the opposite effects of the award on positive accruals and negative accruals (i.e., a negative effect on positive accruals and a positive effect on negative accruals). Therefore, I further divide the sample into positive and negative accruals and report the results in Panel C and Panel D. I find that winning the award has a significant and negative effect on positive abnormal accruals as shown in Panel C. The coefficient on the post-award indicator in Column (1) is significantly negative and large in magnitude (53 basis points, significant at the 1% level). Results in Column (2) suggest the negative effect of the award is significant for the award year and each year in the first three years after the first award. Replacing DA1+ with DA2+ generates similar results as shown in Column (3) and (4), except for that the award effect is weak for the second year after the award (t=1.526). Panel D employs only negative accruals and provides weak evidence that winning the award has a positive effect on negative discretionary accruals. In Column (1) and Column (2) where the dependent variable is DA1-, the coefficients on the post-award indicators are positive but insignificant. After replacing DA1- with DA2-, the positive coefficient becomes significant for the post-award indicator and the

indicator for the second and third year after the award. Overall, results in Panel B, Panel C, and Panel D are consistent with Panel A, suggesting that winning the award has a significant effect on smoothing discretionary accruals in awardees' firms. In addition, the negative effect on positive accruals is more significant than the positive effect on negative accruals. This finding is in line with survey evidence and Friedman's model where powerful CEOs are more likely to push earnings upward.

### 4.2.2 CEO-Power Subsample Comparison

If the decrease in the CEO's relative bargaining power is the main channel of the reduction in discretionary accruals, one would expect a difference between firms with different levels of CEO bargaining power. While the CFO award is expected to significantly affect firms with powerful CEOs, it might have limited marginal effects on earnings management in firms with less powerful CEOs as these CEOs already have weak influence over their CFOs. Therefore, I dived the full sample into two subsamples based on lagged CEO PI to further confirm that the balance of power between CEOs and CFOs is the main channel.

### [Insert Table 6 Here]

Panel A of Table 6 presents the results. Column (1) employs a subsample where the lagged CEO PI is above the median. The results indicate that awardee firms hold significantly less discretionary accruals than their counterparties (58 basis points). In contrast, the coefficient in the low CEO PI group (CEO PI is below the median) is statistically insignificant and 1.8 times smaller than that in the high CEO PI group. To further check whether the award has different effects in the two different subsamples, I conduct a new test where the dependent variable is the changes in the magnitude of discretionary accruals ( $\Delta$ |DA1|) from three years ago to the year of interest. As shown in Panel B of Table 6, there is a notable difference in the award effects on  $\Delta$ |DA1| between the two

CEO power groups. While the high CEO power group exhibits a significant negative award effect on reducing accruals (82 basis points), there is no significant difference between awardee firms and their counterparts in the low CEO PI group. In all, my results in 4.2.2 are in line with H4B and provide support for the argument that the smaller magnitude of accruals in awardee firms is due to the decrease in CEO power over the CFO.

#### 4.2.3 Instrumental Variable Estimation

Employing CFO awards to measure exogenous shocks to awardee status mitigates the concern that there is a loop of causality between post-award accruals management and the probability of winning the award. However, it is still possible that some uncontrolled firm and individual characteristics cause both of them. To adjust for the potential endogeneity, I treat the post-award indicator as endogenous and conduct 2SLS regressions. Specifically, I use the number of analysts who include a CFO's company in their buy/sell recommendations within the past five years to instrument the CFO's likelihood of being in the three-year window after awards. I use the lagged two-year number of analysts to generate a relatively long time gap between recommendations and the year of interest. According to the award organizer, the award results are based on surveys that ask both the buy-side and sell-side professionals to nominate candidates in their coverage universes. My instrument is relevant because it partially measures the number of analysts who know a company and its executives. After all, a CFO who is known by very few investment professionals is hardly to be nominated in the first place. On the other hand, being mentioned by more analysts does not necessarily mean a better performance since analysts have different opinions and different focuses. Besides, the number of recommendations is added up in a relatively long period (5 years) during which analysts' opinions can vary. More importantly, these recommendations represent analysts' points of view three to seven years ago. It is arguable that being mentioned by analysts a few years ago is hardly to have strong predictive power on a firm's current accruals management. In other words, the instrument affects the second-stage dependent variable only through its effects on the endogenous variable. I obtain all the analyst recommendations between 1995 and 2013 from I/B/E/S Recommendations database and merge the data with sample firms. In all, 9,298 firm-year observations in the main-test sample have at least one analyst recommendation within the lagged five-year window.

### [Insert Table 7 Here]

Table 7 presents results from estimating the 2SLS model. Column (1) shows estimates from the OLS regression that predicts the *Post Award* indicator. As expected, the coefficient on the instrument is positive and significant at the 1% level, suggesting that the IV is highly relevant to the endogenous variable. Column (2) and (3) report the results from the second-stage. In Column (2), the predicted likelihood of being in a post-award period has a negative effect on the absolute value of discretionary accruals (|DA1|), significant at the 10% level. Column (3) shows similar results when replacing |DA1| with |DA2|. Overall, the findings from the 2SLS regressions confirm the main results in Table 5 that awardee firms have a significantly smaller magnitude of discretionary accruals.

## 4.2.4 Pre-Award Period and CFO Moving

A natural question concerns whether award winners would have kept a small magnitude of discretionary accruals even without receiving the award. Though previous tests which track the over-time changes in accruals management help to address this concern, I further confirm my results by separately examining the effects of having a past-awardee CFO in the firm versus having

a future awardee<sup>19</sup>. I first employs a subsample which only includes CFOs who have already received the award (past awardees) and CFOs who never win the award during the sample period ("never-win" CFOs). The results reported in Column (1) of Table 8 indicate that firms of past awardees have 57 basis points less in |DA1| than "never-win" CFOs. Next, I turn to a subsample which only includes future awardees and "never-win" CFOs. As shown in Column, although the coefficient on the future-awardee indicator has a negative sign, it is insignificant both economically and statistically. This result suggests no significant difference in the magnitude of discretionary accruals between future awardees and "never-win" CFOs. This robustness check supports that my results are not due to awardee's time-invariant style in accruals management.

## [Insert Table 8 Here]

Next, I use two subsample tests to investigate the effect of an awardee's departure and the effect of hiring a past awardee on a firm's accruals management. The first subsample includes firms that have a past awardee CFO who leaves the firm during the sample period. Because successors generally have less job-market opportunities than their awardee predecessors, they are expected to have smaller bargaining power and are more likely to succumb the pressure from their CEOs to engage earnings management. Results in Column (3) provides weak evidence for this argument. The coefficient on the awardee-leaving indicator is positive and fairly large in magnitude, though it is statistically insignificant. The other subsample includes firms that hire an awardee during the sample period. As job market super stars, awardees are likely to have larger bargaining power than their predecessors in the new firm and are expected to keep a lower level

<sup>&</sup>lt;sup>19</sup> A past awardee and a future awardee are defined as described in section 3.1.

of abnormal accruals. Results in Column (4) are consistent with this prediction. After hiring a past awardee, firms hold 78 basis points less accruals than before, significant at the 5% level.

### 4.2.5 Financial Restatements

Jiang et al. (2010) find no evidence that CFO incentives are associated with discretionary accruals for the post-SOX period. One possibility is that SOX might have changed earnings management behavior. For instance, the market may penalize revealed earnings management more severely if it is engaged by CFOs with high level PPS. The board of directors may also audit financial reports more intensively if the CFO has high equity incentives. This may drive CFOs with high equity incentives to voluntarily reduce the magnitude of abnormal accruals. Since my sample mainly covers the post-SOX period, it is possible that awardees, whose PPS sharply increases, intentionally reduce accruals management to avoid being punished. To mitigate the concern, I first investigate how the market reacts to non-reliance earnings restatements by sample companies. I focus on the post-SOX period (2003 to 2014) and include sample firms of which the fiscal year end locates in this time window. I obtain 1,235 non-reliance financial restatements from Audit Analytics for these firms. I use the disclosure date (file date) provided by Audit Analytics as the event date. All event dates on non-trading dates are treated as occurring on the next trading day. To calculate CARs, I use market adjusted returns and employ the CRSP value-weighted index as a proxy for market returns. Normal returns are computed over a 250-day estimation window ending 60 days prior to the event date. At least 60 days of return data is required for estimation.

# [Insert Table 9 Here]

Table 9 reports the results, split into past awardees firms and non-awardee firms (including both future awardees and "never win" CFOs). Column (1) and Column (2) suggest that the market negatively reacts to restatements issued by both awardee firms and their counterparts. However,

the negative reactions are noticeably smaller for awardee firms. The average CAR for event windows (-3, +3), (-2, +2) and (-2, +1) is, respectively, -0.40%, -0.57% and -0.24% for awardees. In contrast, the average CAR for non-awardee firms is -1.02%, -1.03%, and -1.15% for the three event windows, respectively. These results perhaps reflect that the market views restatements of awardee firms less likely to be fraud related because of awardees' reputation as high-quality CFOs. After all, the market does not know whether an earnings restatement is fraud related or not at the moment of the announcement and has to assess the detriment of the restatement based on current information. Furthermore, the market may also expect that awardees concern less about disclosing previous mistakes and restate frequently since their bargaining power considerably increases.

Next, I examine whether awardees are audited more intensively by their firms after winning the award. I use the number of restatements in a given year to measure the intensity of auditing and estimate the following fixed effect model:

$$Res_{it} = \alpha + \beta PostAward_{it} + X_{it-1}\gamma + \eta_t + \eta_i + \varepsilon_{it}, \quad (11)$$

where  $Res_{it}$  is the number of non-reliance restatements of firm i in year t;  $PostAward_{it}$  indicates a three-year time window after the incumbent CFO of firm i receives the award for the first time;  $X_{it-1}$  is the vector of firm characteristics for which the fiscal year-end falls within the time window between the award month of year t-1 and the award month of year t;  $\eta_t$  are year fixed effects, and  $\eta_i$  are firm fixed effects.

### [Insert Table 10 Here]

Table 10 reports the results. Dependent variable in model (1) to (3) is, respectively, the number of non-reliance restatements, the number of restatements due to errors made by the current CFO, and the number of restatements due to errors made by predecessors. Following previous

work (e.g., Doyle, Ge, and McVay, 2007; Guo, Hunag, Zhang and Zhou, 2016), I control for a vector of firm characteristics which reflect the firm's economic position and governance quality. I include firm size, firm experience (measured by the logarithm of firm age), complexity (measured by the logarithm of the number of business segments), and board independence. To address the influence of firm performance and growth, I also control for accounting and stock performance, BTM, sales growth, an indicator for negative income before extraordinary items (IBE), and an indicator for acquisition activities. I construct an indicator for firm restructuring because a firm's existing control system may not be sufficiently adjusted to match the new organizational structure. Besides, I control for the changes in accounts receivable and the changes in inventory, two tools firms might use to inflate sales growth and gross margin.

Results in Column (1) indicate that awardee firms, on average, have fewer restatements than their counterparts after the award, significant at 10%. Since restatements could only be observed when errors have been made in previous financial reports, this result may imply that past awardees make fewer errors instead of that they are less intensively audited. To address this concern, I separate restatements that are due to mistakes made by the current CFO and their predecessors. If the results in Column (1) are mainly due to the high quality of financial reporting provided by awardees, one would observe awardee firms restate less when the error was made by the current CFO. On the other hand, one would not expect a significant difference between awardees and non-awardees when the mistake was made by predecessors. As shown in Column (2), the coefficient on the post-award indicator is negative but statistically insignificant when the errors are made by the current CFO. In contrast, awardee firms restate less when the errors are made by predecessors as shown in Column (3). Overall, the results in this section suggest *no evidence* that awardee firms are more intensively audited during the post-award period. A possible

reason is that the audit committee in awardee firms is confident with the role played by their CFOs in overseeing current and past financial reporting, offsetting the concern on the increase in awardees' equity incentives.

### 4.2.6 Other Robustness Tests

For robustness, I replace the full sample with a matched sample and replicate the main tests in Table 5. Specifically, I implement the PSM approach as described in sector 4.1.2. This process generates a matched sample of 639 awardees and 2,556 non-awardees. As a next step, I exclude CFOs whose company has no accruals information available and draw yearly data on firm and individual attributes for each of the rest CFOs in the matched sample. Doing so generates a panel which consists of 4,287 CFO-year observations. I replicate Panel A to Panel D in Table 5 using the matched sample and report the results in Table A8 in Appendix 8. Similar to pervious findings, Panel A and Panel C in Table A8 show that the award has a negative effect on the absolute accruals and positive accruals, both statistically and economically significant. In addition, Panel D shows a positive effect on negative accruals which is less significant but large in magnitude. However, I do not find significant effect of the award on signed accruals, as shown in Panel B. This is perhaps because the negative effect on positive accruals is noised by the positive effect on negative accruals. Nevertheless, the results support for the argument that winning the award helps reduce the magnitude of earnings management.

## 5. Conclusion

To conclude, my study provides new evidence on how the balance of power between CEOs and CFOs affects earnings management. I employ a unique dataset of the "Best American CFOs" awards to measure exogenous shocks to CFO job-market status. I document that awardees face a significant increase in career opportunities inside and outside the firm, and experience a substantial decrease in CEO power over them. Consistent with the view that the shifts in power between CEOs and CFOs reduce earnings management, I find that awardee firms have significantly smaller magnitude of discretionary accruals, relative to both non-awardee firms and pre-award periods. The award effects are only significant when the CEO is powerful. I find no evidence that these results are driven by awardees being more intensively audited by their firms.

My study contributes to understanding causes of earnings management and has important implications for corporate governance reforms. Researchers and regulators have generally expressed the view that restricting CFO equity incentives may contribute to financial reporting quality. The SEC, for instance, amended disclosure requirements on CFO compensation after SOX. In contrast, my study provides evidence that balancing the power between CEOs and CFOs could also help reduce earnings management. Firms may benefit from providing more support for the CFO's independence and balancing the CEO's power in decisions regarding subordinates' hiring, compensation, and turnover.

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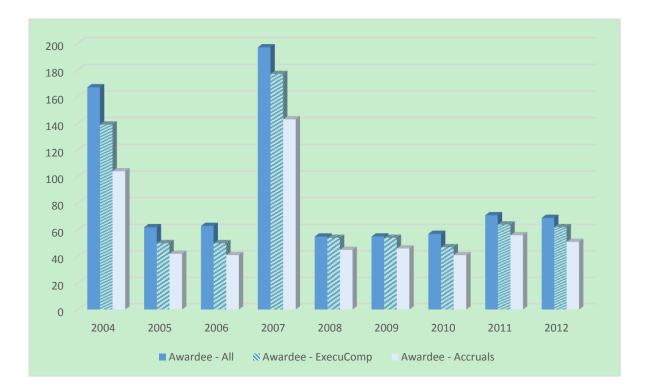
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# Figure 1

# Number of Awardees by Year

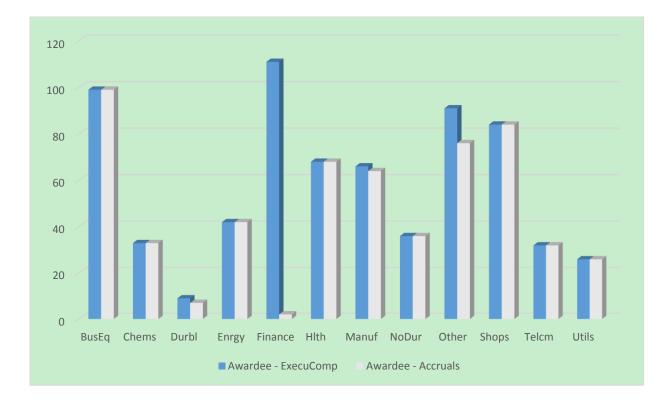
This figure displays the number of recipients of "the America's Best CFO" award from 2004 to 2012. "Awardees - All" is the number of all awardees. "Awardee - ExecuComp" is the number of awardees who are covered in ExecuComp. "Awardee - Accruals" is the number of awardees whose company has accruals information available in Compustat.



## Figure 2

## Number of Awardees by Industry

This graph presents the number of awardees by industry. The 12 industries are classified using the Fama-French classification scheme. "BusEq" represents the business equipment industry. "Chems" is the chemical industry. "Durbl" is the consumer durables industry, including cars, TV's, furniture, and household appliances. "Energy" is the energy industry, including oils, gas, and coal extraction and products. "Finance" is the financial industry. "Hlth" includes healthcare, medical equipment, and drugs. "Manuf" is the manufacturing industry. "NoDur" is the consumer non-durables industry, including food, tobacco, textiles, apparel, leather, and toys. "Other" includes mines, construction, construction materials, transportation, hotels, business service, and entertainment. "Shops" includes wholesale, retail, and some services (e.g., laundries and repair shops). "Telcm" includes telephone and television transmission. "Utils" is the utilities industry. "Awardees - All" is the number of all awardees. "Awardee - ExecuComp" is the number of awardees who are covered in ExecuComp. "Awardee - Accruals" is the number of awardees whose company has accruals information available in Compustat.



# Table 1Summary Statistics

This table provides selected summary statistics. Panel A reports descriptive statistics for two groups of CFOs: CFOs who win the award at least once (past awardees and future awardees) and CFOs who never win the award during the sample period. The sample includes S&P 1500 CFOs who are covered in the ExecuComp database and whose company has accruals and other data available. Panel B focuses on a subsample of CFOs who win the award at least once during the sample period, split into past awardees and future awardees. Accounting variables, except for *Firm Size* and *BTM*, are estimated as of the end of the fiscal year preceding an award month. *Firm Size* and *BTM* are measured as of the beginning of the fiscal year. All the variables are defined as described in Appendix 2. P values are reported in parentheses.

		Past A	Awardee &	c Future A	wardee				Never Win				
	Mean	S.D.	P1	Med.	P99	N	Mean	S.D.	P1	Med.	P99	N	Dif
DA1	0.038	0.037	0.001	0.032	0.162	1,976	0.050	0.053	0.001	0.038	0.247	11,489	-0.01
42	0.034	0.036	0.001	0.026	0.162	1,976	0.046	0.053	0.001	0.033	0.247	11,489	-0.01
TO PPS	0.204	0.152	0.000	0.170	0.691	1,976	0.096	0.097	0.000	0.068	0.468	11,489	0.109
EO PPS	0.361	0.231	0.014	0.318	1	1,976	0.235	0.216	0.000	0.165	0.971	11,489	0.125
EO PI	3.168	0.847	0.932	3.488	4.968	1,976	3.139	0.888	0.721	3.383	4.979	11,489	0.033
FO TDC1 (\$000)	4,051	4,103	386	3,075	19,133	1,976	1,438	1,508	180	1,035	7,086	11,489	2,627
O Age	51	6.002	38	51	64	1,976	50	6.483	36	50	64	11,489	1.047
O Tenure	8	4.797	2	7	24	1,976	7	4.879	1	6	24	11,489	0.889
e. Director	0.158	0.365	0	0	1	1,976	0.071	0.256	0	0	1	11,489	0.091
m Size	9.405	1.336	6.139	9.389	12.286	1,976	7.048	1.441	3.598	6.969	10.664	11,489	2.363
u. Adj. ROA	0.061	0.114	-0.190	0.039	0.443	1,976	0.008	0.157	-0.570	0.014	0.396	11,489	0.052
u. Adj. Stock	0.076	0.279	-0.570	0.086	0.714	1,976	0.075	0.287	-0.588	0.095	0.746	11,489	0.002
М	0.364	0.289	-0.065	0.303	1.238	1,976	0.539	0.628	-0.403	0.466	2.363	11,489	-0.176

#### Panel A. Past Awardees and Future Awardees versus "Never-Win" CFOs

Table 1, Continued													
Cash Vol. 3yr	0.023	0.023	0.001	0.017	0.108	1,976	0.036	0.043	0.002	0.025	0.201	11,489	-0.013 (<0.01)
Sales growth	0.109	0.220	-0.365	0.081	0.915	1,976	0.090	0.386	-0.525	0.062	1.009	11,489	0.019 (0.032)
Leverage	0.230	0.171	0.000	0.213	0.689	1,976	0.212	0.210	0.000	0.191	0.802	11,489	0.020 (<0.01)
CEO is Chair	0.715	0.452	0	1	1	1,976	0.592	0.492	0	1	1	11,489	0.121 (<0.01)

# Table 1, Continued

# Panel B. Past Awardees versus Future Awardees

			Past A	wardee					Future A	Awardee			
	Mean	S.D.	P1	Med.	P99	N	Mean	S.D.	P1	Med.	P99	Ν	Difference
DA1	0.037	0.037	0.000	0.031	0.159	1,077	0.040	0.037	0.001	0.035	0.194	899	-0.004 (0.03)
DA2	0.031	0.035	0.001	0.023	0.152	1,077	0.037	0.036	0.001	0.029	0.203	899	-0.005 (<0.01)
CFO PPS	0.237	0.161	0.000	0.207	0.741	1,077	0.164	0.129	0.000	0.136	0.581	899	0.073 (<0.01)
CEO PPS	0.376	0.220	0.023	0.346	0.978	1,077	0.342	0.242	0.000	0.275	1.000	899	0.034 (<0.01)
CEO PI	3.064	0.866	0.822	3.382	4.962	1,077	3.293	0.807	1.013	3.579	4.979	899	-0.229 (<0.01)
CFO TDC1 (\$000)	4,690	4,318	395	3,646	23,170	1,077	3,286	3,688	327	2,432	16,725	899	1,404 (<0.01)
CFO Age	53	5.631	40	53	65	1,077	49	5.813	37	49	61	899	3.692 (<0.01)
CFO Tenure	10	4.734	2	9	25	1,077	6	4.235	1	5	22	899	3.265 (<0.01)
Exe. Director	0.204	0.403	0	0	1	1,077	0.102	0.303	0	0	1	899	0.102 (<0.01)
Firm Size	9.655	1.214	7.032	9.657	12.286	1,077	9.106	1.411	5.609	9.002	12.431	899	0.549 (<0.01)
Indu Adj. ROA	0.063	0.113	-0.160	0.036	0.440	1,077	0.059	0.116	-0.220	0.041	0.444	899	0.004 (0.43)
Indu Adj. Stock Return	0.068	0.265	-0.561	0.095	0.671	1,077	0.085	0.296	-0.594	0.076	0.795	899	-0.018 (0.17)
BTM	0.373	0.258	-0.017	0.317	1.254	1,077	0.353	0.322	-0.166	0.287	1.172	899	0.020 (0.14)
Cash Vol. 3yr	0.021	0.018	0.001	0.015	0.097	1,077	0.027	0.027	0.001	0.019	0.122	899	-0.006 (<0.01)
Sales growth	0.090	0.187	-0.338	0.071	0.722	1,077	0.133	0.253	-0.439	0.092	1.155	899	-0.043 (<0.01)
Leverage	0.233	0.167	0.000	0.208	0.713	1,077	0.228	0.175	0.000	0.216	0.683	899	0.005 (0.539)
CEO is Chair	0.712	0.453	0	1	1	1,077	0.717	0.450	0	1	1	899	-0.005 (0.80)

# Table 2 External Promotion and Internal Promotion after CFO Awards

The sample consists of 639 awardees and 2,556 propensity-score-matched non-awardees, identified as described in the text. Panel A tracks the ex post external/internal promotion of awardees and non-awardees within a two-year interval (year t-1, year t+1), where year t-1 is the latest fiscal year prior to the award announcement and year t+1 is the latest fiscal year prior to the 2nd anniversary of the award. Analysis of internal promotion to a certain position employs a subsample which only includes individuals who do not hold such a position in year t-1. Panel B reports the results of logit regressions explaining the likelihood that a CFO experiences one of the following outcomes in the *external* labor market from year t-1 to year t+1: (1) moves to a position with higher total compensation in another firm; (2) moves to a larger firm; and (3) experiences an external promotion of any type. Panel C reports the results of logit regressions explaining the likelihood that a CFO experiences one of the following interfirm outcomes from year t-1 to year t+1: (1) becomes an executive director of the firm; (2) becomes the COO and/or president of the firm; (3) experiences an internal promotion of any type; and (4) experiences a promotion (internal or external) of any type. Awardee is an indicator equal to 1 if the CFO receives the award at year t. Other variables are defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup> percent level. All multivariate regressions include indicators for event years and Fama French 48 industries (not reported). Values of z-statistics are reported in parentheses, and are based on robust standard errors. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	Aw	ardees	Matel Non-Aw		Difference
	Ν	Mean	Ν	Mean	Difference
External Promotion					
Promoted to CEO in another firm	639	0.31%	2,556	0.04%	0.27%**
Moving to a higher-paid position	639	1.56%	2,556	0.78%	0.78%*
Moving to a larger firm	639	1.56%	2,556	0.70%	0.86% **
External promotion - Any	639	1.72%	2,556	1.21%	0.51%
Internal Promotion					
Promoted to CEO	639	1.56%	2,556	0.63%	0.94% **
Promoted to executive director	527	6.64%	2,124	1.37%	5.28% ***
Promoted to COO	623	4.33%	2,540	0.12%	4.22% ***
Promoted to president	614	5.05%	2,533	0.32%	4.73% ***
Internal promotion - Any	639	12.05%	2,556	2.42%	9.62% ***
Internal/External Promotion					
Promotion - Any	639	13.77%	2,556	3.64%	10.13% ***

#### **Panel A: Univariate Analysis**

# Table 2, Continued

	Higher-Paid Position (1)	Larger Firm (2)	External Promotion Any (3)
Main Variable			
Awardee	1.1084***	1.0941**	0.7020*
Control Variables	(2.582)	(2.460)	(1.774)
Firm size	-0.4848***	-0.5533**	-0.4924***
	(2.630)	(2.225)	(2.894)
Indu. ROA	2.1968	-3.2513	0.2430
	(0.747)	(1.350)	(0.099)
Indu Stock return	-0.2116	-2.1415***	-0.7984
	(0.350)	(2.874)	(1.470)
Stock vol12mon	-0.0185	-0.7293	0.1067
	(0.011)	(0.361)	(0.069)
BTM	0.8839	-0.1558	0.9234*
	(1.538)	(0.193)	(1.711)
Sales growth	-3.7135***	-2.5081**	-2.4318***
2002 8 0 0 0	(3.754)	(2.274)	(2.802)
Leverage	1.6520	2.2806*	2.6458***
	(1.366)	(1.673)	(2.621)
Log (Compensation)	-0.3040	-0.1550	-0.3193
	(0.763)	(0.407)	(1.055)
Log (Tenure)	-1.2971***	-1.6289***	-1.1371***
	(3.005)	(4.329)	(3.465)
Log (Age)	-3.5188*	-0.6317	-3.1466*
	(1.833)	(0.306)	(1.898)
Executive director	0.3977	0.4033	0.1853
	(0.474)	(0.577)	(0.243)
Board Independence	0.5298	-2.2645	1.9849
1	(0.226)	(1.091)	(1.007)
Num. of Analysts-3yr	0.0102	-0.0151	-0.0092
5 5 5	(0.550)	(0.737)	(0.486)
Constant	13.5474*	5.7650	11.3862*
	(1.857)	(0.762)	(1.809)
Pseudo $R^2$	0.32	0.30	0.29
Observations	3,195	3,195	3,195

# Panel B: Multivariate Analysis – External Promotion

# Table 2, Continued

	Exe. Director	COO/President	Internal Promotion Any	In./Ex. Promotion Any
	(1)	(2)	(3)	(4)
Main Variable				
Awardee	2.0015*** (6.771)	2.8436***	1.9268***	1.5653*** (9.482)
Control Variables	(0.771)	(8.174)	(9.942)	(9.462)
Firm size	-0.0404	-0.4635**	-0.0610	-0.1624*
	(0.332)	(2.202)	(0.487)	(1.662)
Indu. ROA	-3.8895	-2.5064	-3.2364**	-0.6661
	(1.292)	(1.031)	(1.970)	(0.389)
Indu Stock return	2.1207***	-0.0315	0.5730*	0.2557
	(4.377)	(0.052)	(1.694)	(0.873)
Stock vol12mon	-5.1924***	-0.5750	-2.8592**	-1.3677
	(3.041)	(0.323)	(2.553)	(1.526)
BTM	0.7580	-0.5172	0.4980	0.9330**
	(1.127)	(0.574)	(1.073)	(2.512)
Sales growth	-0.4399	1.7266**	1.4474***	0.5751
C	(0.640)	(2.527)	(3.663)	(1.558)
Leverage	-0.4282	1.5389	-3.0989***	-0.7421
0	(0.275)	(1.186)	(3.291)	(0.770)
Log (Compensation)	0.0324	0.5946*	0.3713**	0.2006
	(0.151)	(1.724)	(1.977)	(1.330)
Log (Tenure)	1.6188***	-0.6915	0.6798***	0.1334
•	(4.491)	(1.561)	(2.679)	(0.665)
Log (Age)	-2.2323	-7.1085***	-4.3734***	-3.8386***
	(1.346)	(3.061)	(3.821)	(4.065)
Executive director	•	1.9168***	1.3061***	1.0778***
		(4.101)	(4.667)	(4.258)
Board Independence	1.1683	1.5154	2.9123**	2.6196**
-	(0.701)	(0.830)	(2.529)	(2.495)
Num. of Analysts-3yr	-0.0263	0.0283	-0.0190	-0.0209*
	(1.316)	(1.428)	(1.394)	(1.915)
Constant	0.2491	19.1009**	4.6788	6.5773*
	(0.038)	(2.265)	(1.079)	(1.871)
Pseudo $R^2$	0.30	0.37	0.29	0.21
Observations	2,651	3,123	3,195	3,195

Panel C: Multivariate Analysis – Internal Promotion

# Table 3 Changes in the Compensation Package of Retained CFOs

This table reports the results of OLS analyses explaining the changes in the compensation package around award events for retained CFOs. The sample only includes awardees and matched non-awardees who are retained in the current firm at year t+1. The changes are measured from year t-1 to year t+1. In Column (1) to (3), the dependent variable is the changes in the dollar value of total compensation, stock and option grants, and salary, respectively. *Awardee* is an indicator equal to 1 if the CFO receives the award at year t. Other variables are defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup> percent level. All regressions include indicators for event years and Fama French 48 industries (not reported). Absolute values of t-statistics are reported in parentheses, and are based on robust standard errors. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	Total Compensation	Stock/Option Grants	Salary
	(1)	(2)	(3)
Main Variable			
Awardee	798.1323***	430.4111***	18.0797***
	(3.544)	(4.599)	(2.810)
Control Variables			
Firm size	520.3763***	142.3835***	8.1309***
	(7.245)	(4.019)	(2.920)
Indu. ROA	847.1993	259.3333	60.9711*
	(1.021)	(0.370)	(1.845)
Indu Stock return	877.0912***	834.2487***	10.1897
	(4.049)	(4.801)	(0.803)
Stock vol12mon	1,562.5812***	-146.2207	-49.7942*
_	(2.618)	(0.414)	(1.818)
BTM	1,145.5164***	392.8906**	18.6652
	(4.244)	(2.445)	(1.184)
Sales growth	531.5556	249.9977	49.9481***
0	(0.975)	(1.099)	(3.658)
Leverage	-818.7912	-280.3214	40.7266*
0	(1.569)	(1.061)	(1.863)
Log (CFO Compensation)	-878.1500***	-52.1316	-18.5886***
	(7.315)	(0.779)	(4.537)
Log (Tenure )	527.3192***	172.1064**	-34.5346***
	(3.998)	(2.490)	(6.110)
Log (Age)	-3,329.0542***	574.9352	-101.3215***
	(4.440)	(1.570)	(3.883)
Executive director	450.0264*	-203.7362*	10.1206
	(1.877)	(1.939)	(0.974)
Board Independence	3,394.8621***	1,267.8966***	21.9325
1	(6.088)	(3.995)	(0.901)
Num. of Analysts-3yr	18.6064*	14.4785***	1.0548***
5 5 5 7 5	(1.769)	(3.294)	(3.508)
Constant	9,393.7227***	-3,434.4907**	542.8450***
	(3.935)	(2.446)	(5.104)
Pseudo $R^2$	0.13	0.17	0.16
Observations	2,720	2,720	2,720

# Table 4CEO Power and CFO Incentives after Awards

Panel A presents the effects of CFO awards on CEO PI. I report estimates of the following regressions:  $Y_{it} = \alpha + \beta PostAward_{it} + X_{it-1}\gamma + \eta_t + \eta_i + \varepsilon_{it}$  (Column (1)), and  $Y_{it} = \alpha + \beta PostAward_{it} + X_{it-1}\gamma + \eta_t + \eta_t + \varepsilon_{it}$  $\sum_{\tau=1}^{2} \beta_{\tau}^{1} PreAward_{it-\tau} + Award Year + \sum_{\tau=1}^{3} \beta_{\tau}^{2} Post Award_{it+\tau} + X_{it-1}\gamma + \eta_{t} + \eta_{i} + \varepsilon_{it}$ (Column (2)), where  $Y_{it}$  is the CEO PI of company i in year t, PostAward<sub>it</sub> indicates three years after the incumbent CFO of company i wins the award for the first time,  $PreAward_{it-\tau}$  indicates year  $\tau$  before the incumbent CFO of company i wins the award for the first time, Award Year indicates the year when the CFO of company i is granted the award,  $PostAward_{it+\tau}$  indicates year  $\tau$  after the award,  $X_{it-1}$  is the vector of firm and individual controls at year t-1,  $\eta_t$  are year fixed effects, and  $\eta_i$  are firm fixed effects. Panel B reports the effects of CFO awards on CFO delta and CFO PPS. The two regressions are estimated as described above. In Column (1) and (2),  $Y_{it}$  is the CFO delta of company i in year t, while in Column (3) and (4) Yit is the CFO PPS. CEO PI, CFO delta, and CFO PPS are defended as described in the text. Other variables are all defined as described in Appendix 2. All the controls, except for Firm Size and BTM, are measured as of the end of fiscal year preceding an award month. Firm Size and BTM are measured as of the beginning of t-1. All continuous variables are winsorized at 1st and 99th of the distribution. Absolute values of t-statistics are reported in the parentheses. Standard errors are clustered by firm. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	CEO PI	CEO PI
	(1)	(2)
Post Award $(t+1)$ to $(t+3)$	-0.1098*** (2.682)	
Pre Award (t-2)		0.0216 (0.380)
Pre Award (t-1)		-0.0519 (0.998)
Award Year		-0.0418
Post Award (t+1)		(0.801) -0.0884* (1.672)
Post Award (t+2)		(1.678) -0.1299**
Post Award (t+3)		(2.252) -0.1546***
Firm Size	0.0456***	(2.616) 0.0460***
Indu. Adj. ROA	(3.034) 0.1340*	(3.052) 0.1349*
Indu. Adj. Stock return	(1.658) 0.0317	(1.669) 0.0330
BTM	(1.100) 0.0123	(1.151) 0.0123 (2.222)
CF vol3yr	(0.902) -0.6844**	(0.903) -0.6853**
Sales growth	(2.496) 0.0038 (0.157)	(2.500) 0.0038 (0.156)

#### Panel A: CEO PI after Awards

# Table 4, Continued

Leverage	0.1663	0.1650
C	(1.582)	(1.573)
Log (Tenure)	-0.3122***	-0.3118***
	(17.743)	(17.711)
CEO is Chair	0.2209***	0.2209***
	(8.926)	(8.925)
Constant	3.2371***	3.2332***
	(22.704)	(22.634)
Year FE	Yes	Yes
Firm FE	Yes	Yes
Pseudo $R^2$	0.09	0.09
Observations	14,824	14,824

# Table 4, Continued

	CFO Delta	CFO Delta	CFO PPS	CFO PPS
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	30.5001*** (3.530)		0.0164*** (2.936)	
Pre-Award (t-2)		-22.5536* (1.806)		-0.0137 (1.476)
Pre-Award (t-1)		(1.000) -1.5402 (0.105)		-0.0089 (0.901)
Award Year		-1.2444		-0.0087
Post-Award (t+1)		(0.093) 10.7902 (0.824)		(0.973) 0.0015 (0.167)
Post-Award (t+2)		(0.824) 31.0426** (2.422)		(0.167) 0.0094 (1.072)
Post-Award (t+3)		(2.423) 47.6473*** (2.051)		(1.073) 0.0319*** (2.044)
Firm Size	14.3864***	(3.951) 14.2057*** (7.607)	0.0188***	(3.944) 0.0187*** (10.752)
Indu. Adj. ROA	(7.753) 5.0113 (0.564)	(7.697) 4.1368 (0.464)	(10.778) 0.0204** (2.068)	(10.753) 0.0198** (2.000)
Indu. Adj. Stock return	(0.564) 3.9319 (1.105)	(0.464) 3.8281 (1.167)	(2.068) 0.0028 (0.002)	(2.009) 0.0029 (0.025)
BTM	(1.195) -0.0842 (0.072)	(1.167) -0.2376	(0.902) -0.0006	(0.925) -0.0008
Sales growth	(0.073) 9.1747** (2.281)	(0.209) 9.5436** (2.400)	(0.565) 0.0170*** (5.008)	(0.694) 0.0173***
Leverage	(2.381) -14.2071	(2.499) -14.7263	(5.008) -0.0112	(5.121) -0.0119
Log (Age)	(1.425) 37.5791***	(1.480) 37.0072***	(0.934) 0.0243* (1.895)	(0.994) 0.0236*
Log (Tenure)	(2.719) 42.4207***	(2.655) 42.2381***	(1.806) 0.0421***	(1.748) 0.0420***
Executive Director	(16.339) 69.5743***	(16.290) 68.8757***	(19.047) 0.0358***	(19.016) 0.0352***
CEO is Chair	(6.011) 1.2942	(5.982) 1.0881	(5.293) 0.0033	(5.228) 0.0031
Board Independence	(0.486) -11.7050	(0.410) -12.3304	(1.433) -0.0088	(1.333) -0.0091
Constant	(1.055) -235.4107***	(1.112) -229.4174***	(0.794) -0.1940***	(0.830) -0.1893***
Year FE	(4.289) Yes	(4.157) Yes	(3.771) Yes	(3.658) Yes
Firm FE	Yes	Yes	Yes	Yes
Pseudo $R^2$	0.16	0.17	0.18	0.18
Observations	15,250	15,250	15,250	15,250

# Panel B: CFO Delta and PPS after Awards

# Table 5 Discretionary Accruals and CFO Awards

This table presents the effects of CFO awards on discretionary accruals. Two regressions are estimated as described in the text. *PostAward*<sub>it</sub>, *PreAward*<sub>it- $\tau$ </sub>, *Award Year*, and *PostAward*<sub>it+ $\tau$ </sub> are defined as described in Table 4. Panel A presents the award effects on the absolute value of discretionary accruals. The dependent variable */DA1/* is the absolute value of discretionary accruals estimated using Model I, while *|DA2/* is computed using Model II. Panel B reports the effects of CFO awards on signed accruals. *DA1* and *DA2* are signed discretionary accruals estimated using Model II, respectively. Panel C employs a subsample where firms hold positive discretionary accruals. *DA1* is positive accruals estimated using Model I, while *DA2+* is computed using Model II. Panel D uses a subsample where firms hold negative discretionary accruals are all defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup>. Absolute values of t-statistics are reported in the parentheses. Standard errors are clustered by firm. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	DA1	DA1	DA2	DA2
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	-0.0047***		-0.0043***	
	(3.417)		(3.141)	
Pre-Award (t-2)		-0.0043		-0.0036
		(1.621)		(1.377)
Pre-Award (t-1)		-0.0031		-0.0031
		(1.433)		(1.460)
Award Year		-0.0038		-0.0033
		(1.554)		(1.381)
Post-Award $(t+1)$		-0.0069***		-0.0059***
		(3.099)		(2.674)
Post-Award $(t+2)$		-0.0072***		-0.0053**
		(3.013)		(2.286)
Post-Award $(t+3)$		-0.0039*		-0.0055**
		(1.751)		(2.518)
CFO PPS	0.0183***	0.0179***	0.0172***	0.0169***
	(2.962)	(2.894)	(2.823)	(2.764)
CEO PPS	0.0050	0.0050	0.0045	0.0045
	(1.556)	(1.541)	(1.432)	(1.419)
CEO PI	-0.0006	-0.0006	-0.0007	-0.0007
	(0.948)	(0.927)	(1.120)	(1.106)
Firm Size	-0.0017*	-0.0018*	-0.0021**	-0.0021**
	(1.800)	(1.821)	(2.178)	(2.197)
Indu. Adj. ROA	-0.0072	-0.0073	-0.0080	-0.0080
	(1.018)	(1.031)	(1.110)	(1.119)
Indu. Adj. Stock return	-0.0003	-0.0002	-0.0014	-0.0013
	(0.149)	(0.099)	(0.677)	(0.629)
BTM	-0.0020*	-0.0021*	-0.0016	-0.0016
	(1.708)	(1.734)	(1.316)	(1.337)
CF vol3yr	0.0243	0.0241	0.0295	0.0292
	(0.998)	(0.987)	(1.196)	(1.184)

Panel A: Magnitude of Accruals and CFO Awards

# Table 5, Continued

Sales growth	0.0010	0.0011	0.0008	0.0010
-	(0.418)	(0.472)	(0.351)	(0.395)
Leverage	-0.0239***	-0.0242***	-0.0238***	-0.0241***
	(4.153)	(4.206)	(4.223)	(4.268)
Log (CFO Age)	-0.0029	-0.0031	-0.0042	-0.0044
	(0.555)	(0.599)	(0.854)	(0.894)
Log (CFO Tenure)	-0.0011	-0.0011	-0.0009	-0.0009
	(1.130)	(1.138)	(0.920)	(0.923)
CEO is Chair	-0.0020*	-0.0021*	-0.0018	-0.0018
	(1.760)	(1.801)	(1.542)	(1.562)
Constant	0.0787***	0.0803***	0.0867***	0.0881***
	(3.598)	(3.668)	(4.090)	(4.149)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.01	0.01	0.01	0.01
Observations	13,465	13,465	13,465	13,465

Table 5, Continued

	DA1	DA1	DA2	DA2
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	-0.0037*		-0.0038**	
	(1.961)	0.0000	(2.030)	0.000
Pre-Award (t-2)		-0.0032		-0.0030
		(0.896)		(0.843)
Pre-Award (t-1)		-0.0024		-0.0022
		(0.746)		(0.686)
Award Year		-0.0035		-0.0034
-		(1.218)		(1.188)
Post-Award $(t+1)$		-0.0084***		-0.0085***
		(3.105)		(3.119)
Post-Award $(t+2)$		-0.0069**		-0.0070**
		(2.438)		(2.473)
Post-Award $(t+3)$		0.0028		0.0027
<b>270 PP4</b>	0.0000	(1.035)	0.000 -	(1.004)
CFO PPS	-0.0009	-0.0014	-0.0006	-0.0011
	(0.127)	(0.191)	(0.083)	(0.144)
CEO PPS	0.0005	0.0005	0.0003	0.0003
	(0.119)	(0.106)	(0.080)	(0.067)
CEO PI	-0.0011	-0.0010	-0.0010	-0.0010
	(1.292)	(1.239)	(1.228)	(1.175)
Firm Size	0.0002	0.0002	0.0003	0.0003
	(0.184)	(0.179)	(0.247)	(0.243)
Indu. Adj. ROA	0.0110	0.0108	0.0258***	0.0257***
	(1.301)	(1.279)	(3.044)	(3.020)
Indu. Adj. Stock return	0.0075***	0.0076***	0.0086***	0.0086***
	(2.731)	(2.738)	(3.120)	(3.126)
BTM	-0.0033**	-0.0034**	-0.0033**	-0.0034**
	(2.348)	(2.380)	(2.348)	(2.380)
CF vol3yr	-0.0093	-0.0094	-0.0117	-0.0118
	(0.330)	(0.333)	(0.414)	(0.416)
Sales growth	0.0008	0.0010	0.0014	0.0016
_	(0.247)	(0.295)	(0.441)	(0.487)
Leverage	-0.0206***	-0.0209***	-0.0205***	-0.0207***
	(3.164)	(3.200)	(3.145)	(3.179)
Log (CFO Age)	-0.0022	-0.0023	-0.0021	-0.0022
	(0.328)	(0.351)	(0.311)	(0.333)
Log (CFO Tenure)	-0.0013	-0.0013	-0.0012	-0.0013
	(1.039)	(1.046)	(1.033)	(1.040)
CEO is Chair	-0.0008	-0.0009	-0.0008	-0.0009
	(0.545)	(0.619)	(0.563)	(0.636)
Constant	0.0201	0.0212	0.0071	0.0081
	(0.729)	(0.766)	(0.257)	(0.292)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.03	0.03	0.03	0.03
Observations	13,465	13,465	13,465	13,465

Panel B: Signed Accruals and CFO Awards

Table 5, Continued

	DA1+	DA1+	DA2+	DA2+
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	-0.0053***		-0.0046***	
	(3.304)		(2.809)	
Pre-Award (t-2)	. ,	-0.0045	. ,	-0.0048
		(1.381)		(1.476)
Pre-Award (t-1)		-0.0037		-0.0043*
		(1.506)		(1.704)
Award Year		-0.0054**		-0.0043
		(2.060)		(1.468)
Post-Award (t+1)		-0.0097***		-0.0083***
		(3.688)		(3.051)
Post-Award (t+2)		-0.0062**		-0.0042
i ost $i$ invaria $(i + 2)$		(2.410)		(1.526)
Post-Award (t+3)		-0.0045*		-0.0057**
$i \cup si^{-} A wara (i \top J)$		(1.857)		(2.248)
CFO PPS	0.0091	0.0084	0.0132**	0.0126**
CFOFFS	(1.452)	(1.347)	(2.053)	(1.962)
CEO DDS	· · · ·	· · · ·	· · · ·	· · · ·
CEO PPS	0.0032	0.0031	0.0026	0.0025
	(0.917)	(0.864)	(0.689)	(0.655)
CEO PI	-0.0012*	-0.0012*	-0.0008	-0.0008
<b>F</b> : <b>G</b>	(1.756)	(1.712)	(1.144)	(1.124)
Firm Size	-0.0022**	-0.0022**	-0.0022**	-0.0022**
	(2.177)	(2.147)	(2.056)	(2.029)
Indu. Adj. ROA	-0.0021	-0.0023	-0.0036	-0.0038
	(0.279)	(0.297)	(0.423)	(0.443)
Indu. Adj. Stock return	0.0033	0.0034	0.0039	0.0039
	(1.405)	(1.442)	(1.562)	(1.588)
BTM	-0.0034**	-0.0034**	-0.0037**	-0.0038**
	(2.498)	(2.555)	(2.377)	(2.421)
CF vol3yr	0.0237	0.0237	0.0081	0.0082
	(0.983)	(0.983)	(0.317)	(0.318)
Sales growth	0.0009	0.0011	0.0010	0.0013
	(0.350)	(0.447)	(0.386)	(0.476)
Leverage	-0.0299***	-0.0302***	-0.0318***	-0.0321***
	(5.204)	(5.277)	(5.217)	(5.270)
Log (CFO Age)	-0.0050	-0.0053	-0.0054	-0.0057
	(0.942)	(0.995)	(0.985)	(1.042)
Log (CFO Tenure)	-0.0012	-0.0012	-0.0011	-0.0011
	(1.220)	(1.205)	(1.006)	(1.002)
CEO is Chair	-0.0019	-0.0020	-0.0013	-0.0013
	(1.551)	(1.591)	(0.958)	(0.978)
Constant	0.0923***	0.0938***	0.0910***	0.0928***
	(4.136)	(4.201)	(3.919)	(3.986)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.02	0.02	0.02	0.02
	0.04	0.01	0.01	J. J _

Panel C: Signed Accruals and CFO Awards – Positive Accruals

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Post-Award $(t+1)$ to $(t+3)$ 0.00400.0051** $(1.438)$ $(2.031)$ Pre-Award $(t-2)$ $-0.0011$ $(0.225)$ $(0.427)$ Pre-Award $(t-1)$ $0.0003$ $(0.057)$ $(0.292)$
Post-Award $(t+1)$ to $(t+3)$ 0.00400.0051** $(1.438)$ $(2.031)$ Pre-Award $(t-2)$ $-0.0011$ $-0.0019$ $(0.225)$ $(0.427)$ Pre-Award $(t-1)$ $0.0003$ $-0.0011$ $(0.057)$ $(0.292)$
$\begin{array}{cccc} (1.438) & (2.031) \\ Pre-Award (t-2) & -0.0011 & -0.0019 \\ (0.225) & (0.427) \\ Pre-Award (t-1) & 0.0003 & -0.0011 \\ (0.057) & (0.292) \end{array}$
$\begin{array}{cccc} Pre-Award (t-2) & -0.0011 & -0.0019 \\ (0.225) & (0.427) \\ Pre-Award (t-1) & 0.0003 & -0.0011 \\ (0.057) & (0.292) \end{array}$
$\begin{array}{ccc} (0.225) & (0.427) \\ pre-Award (t-1) & 0.0003 & -0.0011 \\ (0.057) & (0.292) \end{array}$
Pre-Award (t-1)         0.0003         -0.0011           (0.057)         (0.292)
(0.057) (0.292)
<i>Awara rear</i> -0.0028 0.0018
(0.511) (0.440)
$\begin{array}{c} (0.511) \\ 0.0002 \\ 0.0005 \end{array}$
Post-Award $(t+1)$ 0.0003       0.0005         (0.027)       (0.124)
(0.067) $(0.134)$
<i>Post-Award</i> ( <i>t</i> +2) 0.0058 0.0067*
(1.126) (1.707)
<i>Post-Award</i> ( <i>t</i> +3) 0.0055 0.0107**
(1.044) (2.246)
<i>CFO PPS</i> -0.0339*** -0.0339*** -0.0266*** -0.0268***
(2.856) (2.841) (2.719) (2.740)
<i>CEO PPS</i> -0.0008 -0.0007 -0.0027 -0.0026
(0.139)  (0.128)  (0.536)  (0.504)
<i>CEO PI</i> -0.0027** -0.0027** -0.0014 -0.0014
(2.165) (2.156) (1.283) (1.264)
<i>Firm Size</i> 0.0029* 0.0029* 0.0017 0.0016
(1.742) (1.698) (1.140) (1.092)
Indu. Adj. ROA 0.0095 0.0096 0.0017 0.0017
(0.955) $(0.956)$ $(0.197)$ $(0.195)$
Indu. Adj. Stock return 0.0079* 0.0079* 0.0090** 0.0089**
$(1.849) \qquad (1.829) \qquad (2.447) \qquad (2.411)$
<i>BTM</i> 0.0001 0.0001 -0.0012 -0.0012
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$CF vol.\_3yr -0.0418 -0.0426 -0.0699* -0.0702*$
= 5
(1.121) (1.140) (1.906) (1.911)
Sales growth -0.0008 -0.0008 0.0021 0.0021 (0.541)
(0.202) (0.193) (0.530) (0.541)
Leverage 0.0092 0.0091 0.0060 0.0059
$(0.830) \qquad (0.827) \qquad (0.637) \qquad (0.632)$
Log (CFO Age) -0.0189* -0.0187* -0.0104 -0.0104
(1.830)  (1.807)  (1.149)  (1.146)
<i>Log (CFO Tenure)</i> 0.0010 0.0010 0.0009
(0.457)  (0.433)  (0.523)  (0.492)
CEO is Chair 0.0038 0.0037 0.0051*** 0.0050**
(1.589)  (1.570)  (2.579)  (2.540)
Constant 0.0061 0.0059 -0.0207 -0.0202
(0.149)  (0.142)  (0.554)  (0.540)
Firm & Year FE Yes Yes Yes Yes
<i>Pseudo</i> $R^2$ 0.05 0.04 0.04
<i>Observations</i> 3,692 3,692 4,822 4,822

Table 5, Continued

Panel D: Signed Accruals and CFO Awards – Negative Accruals

# Table 6 Discretionary Accruals and CFO Awards - CEO PI Subsample Comparison

This table presents the effects of CFO awards in CEO PI subsamples. Panel A reports the award effects on the magnitude of discretionary accruals of company i in year t. The dependent variable |DA1| is defined as described in Table 5. Column (1) employs the subsample where the CEO PI is above the sample median, while Column (2) employs the subsample where CEO PI is below the sample median. Panel B presents the award effects on the changes of discretionary accruals. The dependent variable  $\Delta |DA1|$  is the three-year changes in the magnitude of discretionary accruals of company i. Column (1) employs the subsample where the CEO PI is above the sample median, while Column (2) employs the subsample where the CEO PI is above the sample median, while Column (2) employs the subsample where CEO PI is below the sample median. Other variables are all defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup>. Absolute values of t-statistics are reported in the parentheses. Standard errors are clustered by firm. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

<b>1 1</b>	bsample Comparison- the Magnitude of Accruals  DA1   DA1		
	(High CEO PI)	(Low CEO PI)	
	(1) (1)	(2)	
Post-Award $(t+1)$ to $(t+3)$	-0.0058***	-0.0032	
1 05t 11wara (t+1) to (t+5)	(3.029)	(1.257)	
CFO PPS	0.0119	0.0210**	
	(1.259)	(2.212)	
CEO PPS	0.0064	-0.0009	
020112	(1.259)	(0.192)	
Firm Size	-0.0029*	-0.0013	
	(1.874)	(0.936)	
Indu. Adj. ROA	0.0019	-0.0106	
	(0.183)	(1.162)	
Indu. Adj. Stock return	0.0059**	-0.0033	
5	(1.994)	(1.008)	
BTM	-0.0001	-0.0057***	
	(0.073)	(2.877)	
CF vol3yr	0.0196	0.0048	
	(0.544)	(0.123)	
Sales growth	-0.0073*	0.0062**	
	(1.924)	(2.085)	
Leverage	-0.0159*	-0.0434***	
	(1.790)	(4.852)	
Log (CFO Age)	0.0017	-0.0088	
	(0.217)	(1.136)	
Log (CFO Tenure)	-0.0005	-0.0003	
	(0.317)	(0.234)	
CEO is Chair	-0.0034**	0.0000	
	(1.993)	(0.010)	
Constant	0.0662**	0.1039***	
	(2.025)	(3.340)	
Firm & Year FE	Yes	Yes	
Pseudo R <sup>2</sup>	0.02	0.02	
Observations	6,735	6,730	

Table 6, Continued

	$\Delta$  DA1	$\Delta$  DA1	
	(High CEO PI)	(Low CEO PI)	
	(1)	(2)	
Post-Award $(t+1)$ to $(t+3)$	-0.0082**	0.0005	
	(2.441)	(0.110)	
CFO PPS	0.0138	-0.0148	
	(0.782)	(1.066)	
CEO PPS	-0.0023	-0.0041	
	(0.304)	(0.560)	
Firm Size	-0.0052**	-0.0039*	
	(2.082)	(1.817)	
Indu. Adj. ROA	-0.0079	-0.0156	
-	(0.455)	(1.065)	
Indu. Adj. Stock return	0.0108**	0.0023	
-	(2.297)	(0.484)	
BTM	-0.0010	-0.0055*	
	(0.399)	(1.774)	
CF vol3yr	-0.3211***	-0.2480***	
-	(5.182)	(4.190)	
Sales growth	0.0011	0.0103**	
	(0.190)	(1.982)	
Leverage	-0.0210	-0.0613***	
	(1.425)	(4.366)	
Log (CFO Age)	0.0087	-0.0074	
	(0.616)	(0.596)	
Log (CFO Tenure)	-0.0027	0.0040*	
	(1.074)	(1.768)	
CEO is Chair	-0.0032	-0.0029	
	(0.978)	(1.090)	
Constant	0.0061	0.0582	
	(0.108)	(1.191)	
Firm & Year FE	Yes	Yes	
Pseudo R <sup>2</sup>	0.03	0.03	
Observations	6,676	6,653	

Panel B: Subsample Comparison-the Changes in Accruals

# Table 7 Accruals and CFO Awards: 2SLS Analysis

This table presents the results of estimating 2SLS regressions. Column (1) reports the results from the first stage, while Column (2) and (3) presents the second stage. *Num. of Analysts-5yr* is the number of analysts who recommended (buy or sell) the firm's stock in a five year window before the year of interest, lagged by two years. *PostAward*<sub>it</sub> is defined as described in Table 4. |DA1| and |DA2| are defined as described in Table 5. Other variables are all defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup> percent level. Absolute values of t-statistics are reported in the parentheses. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	First Stage	Second Stage	
	Post-Award (t+1) to (t+3) (1)	DA1  (2)	DA2  (3)
Endogenous Variables			
Post-Award $(t+1)$ to $(t+3)$		-0.1297* (1.705)	-0.1422* (1.840)
Instrumental Variables		(1.703)	(1.040)
Num. of Analysts-5yr	0.0011*** (3.13)		
Control Variables	× ,		
CFO PPS	0.0037 (0.11)	0.0104 (1.252)	0.0094 (1.113)
CEO PPS	-0.0041 (0.24)	0.0042 (1.026)	0.0040 (0.957)
CEO PI	-0.0087** (2.41)	-0.0006 (0.573)	-0.0007 (0.638)
Firm Size	0.0146*** (3.12)	0.0005 (0.277)	0.0000 (0.025)
Indu. ROA	0.0452* (1.81)	0.0029 (0.434)	0.0040 (0.574)
Indu. Stock return	-0.0029 (0.27)	0.0013 (0.511)	0.0002 (0.070)
BTM	0.0032 (0.7)	-0.0004 (0.360)	-0.0002 (0.213)
CF vol3yr	0.0454	0.0077	0.0130 (0.633)
Sales growth	(0.54) -0.0108 (1.19)	(0.380) -0.0026 (1.085)	-0.0033
Leverage	(1.18) -0.0353	(1.085) -0.0312***	(1.354) -0.0299***
Log (Age)	(1.46) -0.1228 (0.5)	(4.905) -0.1047* (1.783)	(4.634) -0.1132* (1.896)

## Table 7, Continued

Log (Tenure)	0.1120***	0.0114	0.0129
	(9.29)	(1.271)	(1.419)
CEO is Chair	-0.0111*	-0.0047***	-0.0047***
	(1.77)	(2.730)	(2.646)
Constant	0.1556	0.4443*	0.4725**
	(0.16)	(1.911)	(2.000)
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Partial $R^2$	0.06		
Observations	13,465	13,465	13,465
Cragg-Donald Wald F-statistic		9.83***	9.83***
Anderson–Rubin F-statistic		4.03**	5.03**

## Table 8 Pre-Award Period and Awardee Moving

This table presents the results of conducting four subsample tests. Column (1) employs a subsample that only includes past awardees and non-awardees. Column (2) uses a subsample that only includes future awardees and non-awardees. Column (3) employs a subsample where a past awardee leaves the firm during the sample period. Column (4) employs a subsample where a firm hires a past awardee during the sample period. *Past Awardee* indicates that the incumbent CFO wins the award before a given year. *Future Awardee* indicates that the incumbent CFO who receives the award in or after a given year. *Awardee-Leaving* indicates the period after a past awardee's departure. *Hiring-Awardee* indicates the period after hiring a past awardee. Other variables are all defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup> of the distribution. Absolute values of t-statistics are reported in the parentheses. Standard errors are clustered by firm. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	DA1	DA1	DA1	DA1
	(1)	(2)	(3)	(4)
Past Awardee	-0.0057*** (2.752)			
Future Awardee		-0.0006 (0.251)		
Awardee-Leaving			0.0037 (1.401)	
Hiring- Awardee				-0.0078** (2.282)
PPS	0.0218*** (3.079)	0.0187*** (2.583)	0.0318*** (2.689)	0.0336** (2.020)
CEO_PPS	0.0054 (1.531)	0.0054 (1.538)	0.0028 (0.385)	0.0040 (0.255)
CEO PI	-0.0008 (1.118)	-0.0007 (0.973)	0.0004 (0.269)	0.0020 (1.280)
Firm Size	-0.0015 (1.425)	-0.0016 (1.552)	-0.0020 (0.569)	-0.0096* (1.812)
Indu. ROA	-0.0091 (1.264)	-0.0083 (1.129)	-0.0201 (1.008)	-0.0002 (0.010)
Indu. Stock return	0.0002 (0.079)	0.0002 (0.102)	-0.0014 (0.231)	-0.0042 (0.457)
BTM	-0.0019 (1.567)	-0.0019 (1.598)	-0.0006 (0.442)	-0.0046 (1.087)
CF vol3yr	0.0156 (0.618)	0.0221 (0.874)	-0.0180 (0.208)	-0.0490 (0.524)
Sales growth	0.0008 (0.309)	0.0011 (0.428)	-0.0019 (0.256)	(0.0021) (0.0092) (0.990)
Leverage	-0.0265*** (4.469)	-0.0266*** (4.420)	-0.0124 (0.509)	0.0025 (0.076)
Log (CFO Age)	-0.0042 (0.789)	-0.0040 (0.743)	-0.0013 (0.109)	0.0229 (1.372)
Log (CFO Tenure)	-0.0007 (0.661)	-0.0010 (0.986)	-0.0039 (1.451)	-0.0049 (1.484)
CEO is Chair	-0.0026** (2.152)	-0.0019 (1.529)	-0.0005 (0.149)	-0.0063* (1.701)

## Table 8, Continued

Constant	0.0833*** (3.691)	0.0835*** (3.664)	0.0631 (1.003)	0.0355 (0.373)
Year FE	Yes	(3.004) Yes	Yes	(0.373) Yes
Firm FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.01	0.01	0.02	0.09
Observations	12,566	12,388	1,465	520

#### Table 9

#### **Cumulative Abnormal Returns Surrounding Non-Reliance Restatements**

This table presents cumulative abnormal returns (CARs) surrounding non-reliance restatements of affiliated firms covered in my sample, separated by awardee firms and non-awardee firms. The sample includes all the non-reliance restatements reported by Audit Analytics which are made by sample firms. Column (1) presents CARs for all affiliated firms where a past awardee is serving as the CFO, while Column (2) for other affiliated firms. CARs are calculated using market adjusted returns with CRSP value-weighted index as the proxy for market returns. Event windows are in trading days. Event dates on non-trading days are transferred to the next trading day.  $\alpha$  and  $\beta$  are estimated using a 250-date period which ends 60 days before the event date. At least 60 days of return data is required for estimation. Patell z statistics are presented in parentheses. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

Event Window	Past Awardees (1)	Other Companies (2)
(-3,+3)	-0.40%*	-1.02%***
	(1.41)	(5.92)
(-2,+2)	-0.57%**	-1.03%***
	(1.70)	(6.73)
(-2,+1)	-0.24%*	-1.15%***
	(1.29)	(8.42)
Observations	72	1163

## Table 10 Non-Reliance Restatements and CFO Awards

This table presents the effects of CFO awards on the number of non-reliance restatements. I employ a fixed effect model estimated as described in the text. The dependent variable in Column (1) to (3) is, respectively, the number of all the non-reliance restatements announced by firm i at year t, the number of restatements which are due to errors made by the current CFO, and the number of restatements due to errors made by predecessors of the current CFO.  $\Delta$  *Accounts Receivable* and  $\Delta$  *Inventory* are the changes measured from year t-1 to year t. Other controls are lagged by one year. Variables are defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup> of the distribution. Absolute values of t-statistics are reported in the parentheses. Standard errors are clustered by firm. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	Res-All	Res-Current CFO	Res- Predecessor
	(1)	(2)	(3)
<i>Post-Award</i> $(t+1)$ <i>to</i> $(t+3)$	-0.0095*	-0.0029	-0.0066**
	(0.07)	(0.48)	(0.03)
Firm Size	0.0024	0.0008	0.0016
	(0.26)	(0.58)	(0.30)
Log (Firm Age)	0.0198**	0.0105	0.0094
	(0.04)	(0.12)	(0.19)
Log (Num. of Segments)	0.0085	0.0100*	-0.0014
	(0.38)	(0.07)	(0.86)
Indu. Adj. ROA	0.0063	0.0047	0.0015
	(0.72)	(0.69)	(0.90)
Indu. Adj. Stock return	-0.0018	-0.0037	0.0019
	(0.76)	(0.38)	(0.62)
BTM	0.0014	0.0012	0.0001
	(0.51)	(0.39)	(0.93)
Sales growth	0.0007	0.0030	-0.0022
	(0.89)	(0.44)	(0.54)
Loss	0.0110**	0.0048	0.0062*
	(0.02)	(0.16)	(0.09)
Restructure	-0.0033	-0.0045*	0.0012
	(0.30)	(0.05)	(0.60)
Acquisition	-0.0000	-0.0000	-0.0000
	(0.37)	(0.26)	(0.71)
$\Delta$ Accounts Receivable	-0.0006	0.0011	-0.0017
	(0.87)	(0.61)	(0.54)
$\Delta$ Inventory	-0.1259**	-0.1111**	-0.0149
	(0.02)	(0.02)	(0.59)
Board Independence	-0.0485***	-0.0243*	-0.0243**
-	(0.01)	(0.06)	(0.05)
Constant	-0.0599*	-0.0299	-0.0300
	(0.09)	(0.17)	(0.29)
Firm & Year FE	Yes	Yes	Yes
Pseudo $R^2$	0.01	0.01	0.01
Observations	14,572	14,572	14,572

#### Appendix 1: The "America's Best CFOs" Award

With a circulation of 130,000, Institutional Investor is a monthly periodical magazine published by Euromoney Institutional Investor, one of the Europe's largest business and financial magazine publishers. The magazine is well-known for providing global research and rankings that often serve as industry benchmarks. Each year from 2004 through 2009, Institutional Investor published an annual list of "America's Best CFOs" which recognizes excellence of top finance executives in the nation. In 2010, the magazine published the list of "The All-America Executive Team" and terminated to provide the "America's Best CFOs" list. "The All-America Executive Team" award separately honors CEOs, CFOs and companies.

To determine the recipients of the "America's Best CFOs", each year Institutional Investor sends surveys to investment professionals (e.g., fund managers, securities analysts, and researchers) in both the buy-side and the sell-side, asking them to name the best CFOs in their coverage universe. All the voters must meet eligibility requirements. To ensure continuing cooperation form survey respondents, the magazine keeps confidential the identities of them. According to the magazine, the number of responses ranges from hundreds to more than one thousand. In 2015, for instance, more than 1,250 buy-side analysts and money managers in 660 firms responded the survey for "The All-America Executive Team". All the votes are subject to the review by the magazine's own research operations group. Winners must achieve a minimum number of votes. According to the award organizer, final results may be inspected by an independent auditor.

Each year, the award list was released in the Institutional Investor website and in the magazine. I obtained the list from archived internet websites, press releases, and the digital version of the magazine. These sources also provide the access to the information of the announcement dates of the award. I set the announcement date as the earliest date that the awardee list appears in any of these sources.

## Appendix 2: Data Sources and Variable Definitions

Variable	Source	Definition
Acquisition	Compustat	An indicator equal to 1 if the firm engages in
		acquisitions in a given fiscal year.
Board independence	BoardEx,	Percentage of directors on the board who are
	RiskMetrics	deemed independent according to the applicable
		NYSE or Nasdaq regulatory definitions.
BTM	Compustat	Book to market ratio measured as of the
		beginning of the fiscal year.
Cash holding	Compustat	The ratio of cash and short-term investments to
		the book value of total assets.
CF vol3yr	Compustat	The standard deviation of cash flows from
		operations deflated by total assets over the
		current year and the past two years.
CEO is Chair	BoardEx,	A dummy variable which is 1 if a senior
	RiskMetrics	executive is also the chairman on the board and
		0 otherwise.
CEO PI	Execucomp	The sum of six factors indicating CEO's
		relative power over CFO. These factors include
		relative age, relative directorship, relative
		number of titles, founder indicator, relative
		stock, and relative option. Detailed information
		is described in the text.
Δ Accounts Receivable	Compustat	Changes in accounts receivable in a given fiscal
	_	year.
$\Delta$ Inventory	Compustat	Changes in inventory scaled by the average of
•		total assets and lagged total assets.
DA1	Compustat	Discretionary accruals estimated based on
		Model I. The estimation process is described in
		the text.
DA2	Compustat	Discretionary accruals estimated based on
		Model II. The estimation process is described in
		the text.
Delta		The dollar change in wealth associated with a
		1% change in the firm's stock price.
Debt maturity	Compustat	The ratio of long term debt that matures in more
		3 years to total debt.
Executive director	ExecuComp	A dummy variable which is one if an executive
		is also an inside director on the board of the
		firm.
Firm Size	Compustat	Logarithm of market cap as measured as of the
		beginning of the fiscal year.
Firm Age	Compustat	The number of years since the firm has been
		included in Compustat
Indu. ROA	Compustat	Firm ROA minus median industry ROA where
		industry is identified using Fama French 48-

		industry code based on the Compustat universe of firms.
Indu. Stock return	CRSP	Total compounded return over 12 months prior to the month of interest, adjusted by median industry stock return. Industry is identified using Fama French 48-industry code based on the Compustat universe of firms.
Leverage	Compustat	(Long term debt + debt in current liability)/ (long term debt + debt in current liability + market value of equity).
Loss	Compustat	An indicator equal to 1 if the firm's income before extraordinary items is negative in a given fiscal year.
Major City	Compustat	An indicator equal to 1 if the firm locates in one of the top 12 major cities ranked by 2014 real GDP.
Num. of Analysts-3yr	Audit Analytics	The number of analysts who include the company in their buy/sell recommendations within the past three years.
Num. of Analysts-5yr	Audit Analytics	The number of analysts who include the company in their buy/sell recommendations within the past five years. The 2SLS analysis employ a 2-year lagged variable.
Num. of Segments	Compustat	The number of business segments in a given fiscal year.
Past awardee		An indicator equal to 1 if the CFO is a past awardee who received the award before this event year.
PPS	Execucomp	Delta over the sum of delta, salary and bonus.
Restructure	Compustat	An indicator equal to 1 if the firm has a non- zero value for any of the Comustat restructuring items in a given fiscal year. The restructuring items include RCA, RCD, RCEPS, and RCP.
Sales growth	Compustat	One year sales growth.
Stock volatility_12mon	CRSP	The standard deviation of monthly stock returns over the 12 months prior to the fiscal year end.
TDC1	Execucomp	Total annual executive compensation, recalculated based on the methodology in Coles et al. (2014). Detailed information is provided in the text.
Tenure	Execucomp, BoardEx, Bloomberg, Equilar, proxies	The period that one executive holds the current position in the given firm, measured in years.

#### **Appendix 3: Adjusting annual total compensation (TDC1)**

Starting from 2006, ExecuComp made significant adjustment in their data reporting in response to the passage of FAS 123R in December 2004. Specifically, ExecuComp reports the Black-Scholes value of stock option grants for the pre-FAS 123R period and reports firms' own calculated fair value after2005. Since firms valuating options using their own models, TDC1 reported by ExecuComp is not comparable across firms nor across pre- and post-FAS 123R periods.

I adjust TDC1 in order to make it comparable throughout my sample period based on the methodology developed by Coles et al. (2014). I follow the ExecuComp Black- Scholes assumptions to re-calculate values for each stock option grant from 2006 to 2009. The ExecuComp assumptions are as follows:

- (1) I assume options are granted on July 1st.
- (2) I assume the strike price as the market price at the grant day.
- (3) I assume executives to hold the option for 70% of the actual term until maturity.
- (4) The risk-free rate is set as the return of 7-year Treasury bond.
- (5) Stock volatility is the standard deviation of monthly stock returns over 60 months prior to date. The number is winsorized at the 5<sup>th</sup> and 95<sup>th</sup> percentiles. If the 60 months of returns are not available, the actual number of monthly returns (at least 12 months) is used. If the available trading months are less than 12, the average volatility for the S&P 1500 firms is used.
- (6) The dividend yield is computed as the average of the last three years, winsorized at the 5<sup>th</sup> and 95<sup>th</sup> percentiles. I recalculate the Black-Scholes value of stock option grants based on the estimation of these inputs. The post-FAS 123R TDC1 is then calculated as:

TDC1 = SALARY + BONUS + NONEQ\_INCENT + OTHCOMP + STOCK\_AWARDS\_FV + estimated Black-Scholes value of option grants + DEFER RPT AS COMP TOT

### **Appendix 4: Market Reactions to CFO Awards**

## Table A4 Cumulative Abnormal Returns Surrounding Award Events

This table presents cumulative abnormal returns (CARs) surrounding award events for awardee firms. CARs are calculated using market adjusted returns with CRSP value-weighted index as the proxy for market returns.  $\alpha$  and  $\beta$  are estimated using a 250-date period which ends 60 days before the event date. At least 60 days of return data is required for estimation. Event windows are in trading days. Event dates on non-trading days are transferred to the next trading day. Patell z statistics are presented in parentheses. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

Event Window	Awardee Firms
(-3, +3)	0.46%**
	(2.13)
(-1, +1)	0.23%**
	(2.28)
(0,0)	0.11%*
	(1.51)
Observations	680

#### **Appendix 5: Propensity Score Matching**

#### **Table A5: Determinants of CFO Awards**

Panel A reports the results of estimating a logit regression predicting the probability that a CFO wins the award in a given year. The sample period is from 2004 to 2012. The dependent variable is an indicator equal to one if the CFO wins the award in a given year. All independent variables are defined as described in Appendix 2. Except for *Firm size* and *BTM*, independent variables are all measured as of the end of the latest fiscal year prior to an award month. *Firm size* and *BTM* are measured as of the beginning of the fiscal year. Panel B reports the results of standardized difference and t tests examining whether the covariates are well balanced after the 1-to-4 nearest neighbor matching. Column (1) and (2) report the mean of covariates of the awardee group (treated) and the matched non-awardee group (control), respectively. Standardized differences of means are reported in Column (3). Column (4) and (5) presents the t-statistics and p-value of the t tests, respectively. Pseudo  $R^2$  from logit regression on matched sample is reported at the bottom. Panel C reports the replication of Panel A by including |*DA1*/ in the regression. |*DA1*/ is the absolute value of discretionary accruals estimated using Model I. Values of z-statistics are reported in parentheses, and are calculated based on robust standard errors. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	Award-winning
Firm size	1.0858***
1 1111 5120	(18.339)
Indu. Adj. ROA	0.7478
nouvi naj, nom	(0.841)
Indu. Adj. Stock return	-0.0629
	(0.181)
Stock volatility_12mon	-1.5999***
<i>y</i>	(2.906)
BTM	-0.2586
	(1.020)
Sales growth	0.9932***
	(3.859)
Leverage	0.1457
	(0.381)
Log (CFO Compensation)	0.8742***
	(9.440)
Log (Tenure)	0.7769***
	(7.624)
Log (Age)	-1.5829***
	(3.110)
Executive director	1.2180***
	(6.868)
Board Independence	-0.1398
	(0.262)
Num. of Analysts-3yr	0.0483***
	(6.792)

Panel A: Logit model predicting the probability of winning the award

## Table A5, Continued

Constant	-12.5648*** (5.359)
Industry dummies	Yes
Pseudo R2	0.49
Observations	10,824

## Table A5, Continued

Panel B: Covariate Balance	within Matched Sample

		Mean		t-test	
	Treated	Control	% bias	t	p >  t
Covariate	(1)	(2)	(3)	(4)	(5)
Firm size	9.69	9.71	-1.5	-0.33	0.739
Indu. ROA	0.06	0.06	-2.9	-0.63	0.527
Indu Stock return	0.12	0.12	0.1	0.01	0.99
Stock volatility_12mon	0.25	0.25	-4.2	-0.95	0.344
BTM	0.38	0.39	-3.9	-0.9	0.367
Sales growth	0.15	0.14	1	0.22	0.824
DA1	0.04	0.04	-6.2	-1.24	0.216
Leverage	0.23	0.22	3.4	0.79	0.429
Log (Compensation)	8.11	8.09	3	0.68	0.497
Log (Tenure )	1.95	1.91	6.5	1.4	0.162
Log (Age)	3.92	3.93	-3.4	-0.76	0.449
Executive director	0.18	0.17	1.7	0.38	0.707
Board Independence	0.79	0.79	3.2	0.7	0.487
Num. of Analysts-3yr	11.07	10.56	5.5	1.21	0.226
Pseudo $R^2$ from logit regression on matched sample	0.01				

	Award-winning
Firm size	1.1129***
T tim size	(16.589)
Indu. ROA	0.7363
muu. Kom	(0.788)
Indu Stock return	0.1806
	(0.500)
Stock volatility_12mon	-1.6481***
	(2.683)
BTM	-0.3367
	(1.100)
Sales growth	1.1509***
C C	(3.978)
Discretionary Accruals	-0.3986
	(0.268)
Leverage	-0.2254
	(0.484)
Log (CFO Compensation)	0.8913***
	(8.434)
Log (Tenure)	0.8309***
	(7.271)
Log (Age)	-2.1467***
	(3.743)
Executive director	0.9174***
	(4.657)
Board Independence	0.0682
	(0.112)
Num. of Analysts-3yr	0.0441***
	(5.841)
Constant	-11.3521***
	(5.144)
Event year dummies	Yes
Industry dummies	Yes
Pseudo R2	0.49
Observations	9,314

Panel C: Logit model predicting the probability of winning the award – Including DA1

#### Appendix 6: Robustness – Alternative CFO Delta and PPS

# Table A6 CFO Incentives after Awards - Alternative CFO Delta and PPS

This table presents the replication of Panel B in Table 4 by using new CFO delta and CFO PPS calculated based on unrestricted stocks and options. In Column (1) and (2), the dependent variable is the new CFO delta of company i in year t, while in Column (3) and (4) the dependent variable is the new CFO PPS. Other variables are all defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup> of the distribution. Absolute values of t-statistics are reported in the parentheses. Standard errors are clustered by firm. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	CFO Delta	CFO Delta	CFO PPS	CFO PPS
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	15.1389*** (3.246)		0.0077* (1.753)	
Pre-Award (t-2)		-8.5787	. ,	-0.0070
		(1.373)		(1.075)
Pre-Award (t-1)		3.6936		-0.0022
		(0.520)		(0.322)
Award Year		4.7789		-0.0018
		(0.756)		(0.285)
Post-Award (t+1)		8.5395		-0.0005
		(1.275)		(0.072)
Post-Award $(t+2)$		18.4291***		0.0050
		(2.713)		(0.775)
Post-Award (t+3)		21.5605***		0.0179***
		(3.364)		(2.802)
Firm Size	5.7250***	5.6273***	0.0090***	0.0090***
	(5.591)	(5.554)	(7.034)	(7.024)
Indu. Adj. ROA	-0.5665	-0.9621	0.0012	0.0008
	(0.125)	(0.211)	(0.159)	(0.103)
Indu. Adj. Stock return	3.0359	2.9111	0.0032	0.0032
	(1.519)	(1.464)	(1.352)	(1.348)
BTM	-1.6212	-1.7471	-0.0047**	-0.0049**
	(0.769)	(0.836)	(2.185)	(2.290)
Sales growth	5.4539***	5.5256***	0.0094***	0.0096***
_	(2.615)	(2.666)	(3.849)	(3.922)
Leverage	-8.6273	-8.6840	-0.0057	-0.0059
	(1.369)	(1.376)	(0.662)	(0.698)
Log (Age)	34.6687***	34.6461***	0.0393***	0.0390***
	(4.213)	(4.190)	(3.882)	(3.840)
Log (Tenure)	22.6325***	22.5411***	0.0305***	0.0304***
	(15.623)	(15.606)	(18.632)	(18.625)
Executive Director	38.3660***	38.1498***	0.0302***	0.0299***
	(6.356)	(6.334)	(5.550)	(5.502)
CEO is Chair	0.7626	0.7204	0.0020	0.0019
	(0.499)	(0.472)	(1.129)	(1.061)
Board Independence	-0.3333	-0.6080	-0.0002	-0.0005
	(0.059)	(0.108)	(0.031)	(0.062)

## Table A6, Continued

Constant	-179.0781***	-177.3278***	-0.2170***	-0.2147***
Year FE	(5.491) Yes	(5.425) Yes	(5.669) Yes	(5.590) Yes
Firm FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.16	0.16	0.17	0.17
Observations	15,250	15,250	15,250	15,250

### Appendix 7: Robustness - Alternative CEO PI

# Table A7 Accruals and CFO Awards- Alternative CEO PI

This table presents the replication of Panel A to Panel D in Table 5 by replacing the relative age indicator with relative tenure in CEO PI. Relative tenure is an indicator equal to 1 if the CEO's tenure is longer than the CFO. Panel A presents the award effects on the absolute value of discretionary accruals. Panel B report the effects of CFO awards on signed accruals. Panel C employs a subsample where firms hold positive discretionary accruals. Panel D uses a subsample where firms hold negative discretionary accruals. |DA1|, |DA2|, DA1+, DA2+, DA1-, and DA2- are defined as described in Table 5. Other variables are defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup> of the distribution. Absolute values of t-statistics are reported in the parentheses. Standard errors are clustered by firm. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	DA1	DA1	DA2	DA2
	(1)	(2)	(3)	(4)
<i>Post-Award</i> $(t+1)$ <i>to</i> $(t+3)$	-0.0048***		-0.0044***	
	(3.433)		(3.159)	
Pre-Award (t-2)		-0.0043		-0.0036
		(1.613)		(1.369)
Pre-Award (t-1)		-0.0031		-0.0031
		(1.428)		(1.455)
Award Year		-0.0038		-0.0033
		(1.551)		(1.377)
<i>Post-Award</i> ( <i>t</i> +1)		-0.0068***		-0.0059***
		(3.097)		(2.674)
Post-Award (t+2)		-0.0072***		-0.0053**
		(3.024)		(2.298)
<i>Post-Award</i> ( <i>t</i> +3)		-0.0039*		-0.0055**
		(1.767)		(2.532)
CFO PPS	0.0179***	0.0175***	0.0169***	0.0165***
	(2.902)	(2.835)	(2.776)	(2.718)
CEO PPS	0.0056*	0.0056*	0.0051	0.0051
	(1.718)	(1.701)	(1.600)	(1.586)
CEO PI	-0.0009	-0.0009	-0.0010	-0.0009
	(1.421)	(1.398)	(1.568)	(1.553)
Firm Size	-0.0017*	-0.0017*	-0.0021**	-0.0021**
	(1.792)	(1.813)	(2.169)	(2.189)
Indu. Adj. ROA	-0.0072	-0.0073	-0.0080	-0.0081
	(1.021)	(1.035)	(1.114)	(1.123)
Indu. Adj. Stock return	-0.0003	-0.0002	-0.0014	-0.0013
	(0.159)	(0.109)	(0.686)	(0.639)
BTM	-0.0020*	-0.0020*	-0.0016	-0.0016
	(1.692)	(1.719)	(1.301)	(1.322)
CF vol3yr	0.0242	0.0239	0.0293	0.0290
	(0.991)	(0.980)	(1.190)	(1.178)

### Panel A: Magnitude of Accruals and CFO Awards

## Table A7, Continued

Sales growth	0.0010	0.0011	0.0009	0.0010
-	(0.420)	(0.473)	(0.353)	(0.397)
Leverage	-0.0239***	-0.0241***	-0.0238***	-0.0240***
	(4.139)	(4.191)	(4.209)	(4.253)
Log (CFO Age)	-0.0026	-0.0028	-0.0039	-0.0041
	(0.508)	(0.555)	(0.794)	(0.835)
Log (CFO Tenure)	-0.0012	-0.0012	-0.0010	-0.0010
	(1.247)	(1.252)	(1.047)	(1.048)
CEO is Chair	-0.0019	-0.0019*	-0.0016	-0.0017
	(1.622)	(1.663)	(1.405)	(1.425)
Constant	0.0780***	0.0796***	0.0855***	0.0869***
	(3.707)	(3.782)	(4.200)	(4.263)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.01	0.01	0.01	0.01
<b>Observations</b>	13,465	13,465	13,465	13,465

Table A7, Continued

Panel B: Signed	Accruals and	<b>CFO Awards</b>

	DA1	DA1	DA2	DA2
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	-0.0037**		-0.0038**	
	(1.983)		(2.051)	
Pre-Award (t-2)		-0.0032		-0.0030
		(0.887)		(0.835)
Pre-Award (t-1)		-0.0024		-0.0022
		(0.738)		(0.677)
Award Year		-0.0035		-0.0034
		(1.213)		(1.182)
Post-Award (t+1)		-0.0084***		-0.0085***
		(3.095)		(3.109)
Post-Award (t+2)		-0.0070**		-0.0071**
		(2.457)		(2.492)
Post-Award (t+3)		0.0027		0.0026
		(1.003)		(0.973)
CFO PPS	-0.0019	-0.0023	-0.0015	-0.0019
	(0.249)	(0.312)	(0.200)	(0.261)
CEO PPS	0.0018	0.0017	0.0015	0.0015
	(0.404)	(0.390)	(0.353)	(0.338)
CEO PI	-0.0016**	-0.0016**	-0.0016**	-0.0015**
	(2.129)	(2.081)	(2.020)	(1.973)
Firm Size	0.0002	0.0002	0.0003	0.0003
	(0.203)	(0.198)	(0.265)	(0.261)
Indu. Adj. ROA	0.0110	0.0108	0.0258***	0.0257***
	(1.300)	(1.278)	(3.042)	(3.018)
Indu. Adj. Stock return	0.0075***	0.0075***	0.0086***	0.0086***
	(2.716)	(2.723)	(3.105)	(3.111)
BTM	-0.0033**	-0.0033**	-0.0033**	-0.0034**
	(2.325)	(2.358)	(2.327)	(2.358)
CF vol3yr	-0.0097	-0.0097	-0.0121	-0.0121
	(0.342)	(0.345)	(0.425)	(0.428)
Sales growth	0.0008	0.0010	0.0014	0.0016
	(0.249)	(0.297)	(0.443)	(0.489)
Leverage	-0.0205***	-0.0207***	-0.0204***	-0.0206***
	(3.147)	(3.182)	(3.128)	(3.162)
Log (CFO Age)	-0.0018	-0.0020	-0.0017	-0.0019
	(0.269)	(0.298)	(0.255)	(0.282)
Log (CFO Tenure)	-0.0015	-0.0015	-0.0015	-0.0015
	(1.221)	(1.224)	(1.206)	(1.209)
CEO is Chair	-0.0005	-0.0006	-0.0005	-0.0006
	(0.333)	(0.408)	(0.360)	(0.434)
Constant	0.0196	0.0208	0.0066	0.0077
	(0.735)	(0.778)	(0.247)	(0.288)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.03	0.03	0.03	0.03
<i>Observations</i>	13,465	13,465	13,465	13,465

Table A7, Continued

	DA1+	DA1+	DA2+	DA2+
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	-0.0053***		-0.0047***	
	(3.325)		(2.839)	
Pre-Award (t-2)		-0.0045		-0.0049
		(1.383)		(1.500)
Pre-Award (t-1)		-0.0037		-0.0044*
		(1.513)		(1.723)
Award Year		-0.0054**		-0.0042
		(2.042)		(1.463)
Post-Award (t+1)		-0.0097***		-0.0082***
		(3.688)		(3.049)
Post-Award (t+2)		-0.0062**		-0.0043
		(2.416)		(1.549)
Post-Award $(t+3)$		-0.0046*		-0.0058**
		(1.895)		(2.311)
CFO PPS	0.0085	0.0078	0.0121*	0.0115*
	(1.357)	(1.252)	(1.892)	(1.799)
CEO PPS	0.0042	0.0040	0.0039	0.0038
	(1.170)	(1.115)	(1.014)	(0.983)
CEO PI	-0.0016**	-0.0016**	-0.0015**	-0.0015**
	(2.470)	(2.427)	(2.189)	(2.183)
Firm Size	-0.0022**	-0.0021**	-0.0022**	-0.0022**
	(2.158)	(2.128)	(2.031)	(2.004)
Indu. Adj. ROA	-0.0022	-0.0023	-0.0037	-0.0039
	(0.285)	(0.303)	(0.435)	(0.455)
Indu. Adj. Stock return	0.0033	0.0034	0.0038	0.0039
	(1.388)	(1.424)	(1.534)	(1.561)
BTM	-0.0033**	-0.0034**	-0.0037**	-0.0037**
	(2.462)	(2.519)	(2.341)	(2.384)
CF vol3yr	0.0233	0.0232	0.0078	0.0078
	(0.963)	(0.962)	(0.305)	(0.305)
Sales growth	0.0009	0.0011	0.0011	0.0013
	(0.360)	(0.457)	(0.400)	(0.489)
Leverage	-0.0299***	-0.0302***	-0.0317***	-0.0320***
	(5.199)	(5.272)	(5.213)	(5.265)
Log (CFO Age)	-0.0044	-0.0047	-0.0052	-0.0055
	(0.827)	(0.885)	(0.955)	(1.016)
Log (CFO Tenure)	-0.0015	-0.0015	-0.0013	-0.0013
	(1.430)	(1.411)	(1.189)	(1.185)
CEO is Chair	-0.0016	-0.0017	-0.0009	-0.0010
	(1.318)	(1.360)	(0.706)	(0.723)
Constant	0.0904***	0.0921***	0.0916***	0.0935***
	(4.134)	(4.204)	(4.034)	(4.108)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.02	0.02	0.02	0.02
Observations	9,773	9,773	8,643	8,643

Panel C: Signed Accruals and CFO Awards – Positive Accruals

Table A7, Continued

Panel D: Signed Accruals and CFO Awards – Negative Accruals
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	DA1-	DA1-	DA2-	DA2-
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	0.0039		0.0050**	
	(1.418)		(2.018)	
Pre-Award (t-2)		-0.0011		-0.0017
		(0.216)		(0.401)
Pre-Award (t-1)		0.0004		-0.0010
		(0.078)		(0.252)
Award Year		-0.0029		0.0018
		(0.532)		(0.441)
Post-Award (t+1)		0.0002		0.0005
		(0.051)		(0.131)
Post-Award $(t+2)$		0.0055		0.0067*
		(1.082)		(1.697)
Post-Award (t+3)		0.0057		0.0108**
· /		(1.118)		(2.278)
CFO PPS	-0.0342***	-0.0342***	-0.0269***	-0.0272***
	(2.868)	(2.852)	(2.753)	(2.774)
CEO PPS	-0.0001	-0.0001	-0.0019	-0.0018
	(0.019)	(0.011)	(0.373)	(0.342)
CEO PI	-0.0025**	-0.0025**	-0.0015	-0.0015
	(2.280)	(2.277)	(1.607)	(1.593)
Firm Size	0.0030*	0.0030*	0.0017	0.0017
	(1.803)	(1.760)	(1.158)	(1.111)
Indu. Adj. ROA	0.0096	0.0096	0.0018	0.0018
	(0.957)	(0.957)	(0.207)	(0.205)
Indu. Adj. Stock return	0.0077*	0.0077*	0.0090**	0.0089**
	(1.800)	(1.780)	(2.439)	(2.401)
BTM	0.0001	0.0001	-0.0011	-0.0012
	(0.034)	(0.036)	(0.591)	(0.605)
CF vol3yr	-0.0417	-0.0425	-0.0704*	-0.0706*
01 /0109/	(1.118)	(1.138)	(1.919)	(1.923)
Sales growth	-0.0009	-0.0009	0.0021	0.0021
	(0.216)	(0.207)	(0.531)	(0.541)
Leverage	0.0092	0.0092	0.0061	0.0060
	(0.835)	(0.832)	(0.647)	(0.643)
Log (CFO Age)	-0.0166*	-0.0165	-0.0095	-0.0095
	(1.653)	(1.630)	(1.074)	(1.074)
Log (CFO Tenure)	0.0007	0.0007	0.0008	0.0008
	(0.320)	(0.297)	(0.422)	(0.393)
CEO is Chair	0.0039	0.0038	0.0053***	0.0052***
	(1.630)	(1.611)	(2.638)	(2.599)
Constant	-0.0043	-0.0045	-0.0253	-0.0247
Constant	(0.109)	(0.114)	(0.717)	(0.696)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.04	0.04	0.04	0.04
Observations				4,822
Observations	3,692	3,692	4,822	4,822

### **Appendix 8: Robustness – Matched Sample**

# Table A8Accruals and CFO Awards- Matched Sample

This table presents the replication of Table 5 by employing the matched sample. The matching process and the construction of the matched sample are described in the text. The fixed effect regressions and the dependent variables are described in Table 5. Other variables are defined as described in Appendix 2. All continuous variables are winsorized at 1<sup>st</sup> and 99<sup>th</sup> of the distribution. Absolute values of t-statistics are reported in the parentheses. Standard errors are clustered by firm. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	DA1	DA1	DA2	DA2
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	-0.0038***		-0.0036**	
	(2.727)		(2.541)	
Pre-Award (t-2)		-0.0052*		-0.0048
		(1.692)		(1.579)
Pre-Award (t-1)		-0.0022		-0.0022
		(0.889)		(0.879)
Award Year		-0.0033		-0.0025
		(1.246)		(0.944)
Post-Award (t+1)		-0.0052**		-0.0046*
		(2.211)		(1.919)
Post-Award (t+2)		-0.0061**		-0.0045*
		(2.440)		(1.828)
Post-Award (t+3)		-0.0047*		-0.0058**
		(1.928)		(2.427)
CFO PPS	0.0203***	0.0196***	0.0161**	0.0155**
	(2.705)	(2.610)	(2.151)	(2.074)
CEO PPS	0.0021	0.0023	0.0032	0.0034
	(0.476)	(0.521)	(0.719)	(0.769)
CEO PI	0.0008	0.0008	0.0006	0.0005
	(0.982)	(0.907)	(0.687)	(0.610)
Firm Size	-0.0032*	-0.0032*	-0.0031*	-0.0031*
	(1.882)	(1.883)	(1.794)	(1.811)
Indu. Adj. ROA	0.0078	0.0079	0.0090	0.0090
	(0.626)	(0.633)	(0.711)	(0.716)
Indu. Adj. Stock return	-0.0033	-0.0030	-0.0045	-0.0043
-	(1.006)	(0.927)	(1.383)	(1.317)
BTM	-0.0081***	-0.0081***	-0.0077***	-0.0077***
	(3.070)	(3.061)	(2.904)	(2.900)
CF vol3yr	0.0622	0.0607	0.0718	0.0704
	(1.321)	(1.295)	(1.578)	(1.550)
Sales growth	0.0008	0.0011	-0.0001	0.0001
	(0.257)	(0.340)	(0.033)	(0.026)
Leverage	-0.0103	-0.0106	-0.0090	-0.0093
	(0.935)	(0.965)	(0.832)	(0.860)
Log (CFO Age)	-0.0179*	-0.0183*	-0.0188*	-0.0192**
	(1.762)	(1.808)	(1.935)	(1.978)

## Table A8, Continued

Log (CFO Tenure)	-0.0023 (1.467)	-0.0023 (1.437)	-0.0023 (1.519)	-0.0023 (1.503)
CEO is Chair	-0.0010	-0.0011	-0.0011	-0.0011
	(0.585)	(0.631)	(0.663)	(0.676)
Constant	0.1373***	0.1411***	0.1407***	0.1444***
	(3.425)	(3.528)	(3.616)	(3.714)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.02	0.02	0.02	0.02
Observations	4,287	4,287	4,287	4,287

Table A8, Continued

Panel B: Signed	Accruals and	<b>CFO Awards</b>

	DA1	DA1	DA2	DA2
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	-0.0018		-0.0019	
	(0.956)	0.0044	(0.987)	0.0040
Pre-Award (t-2)		-0.0044		-0.0043
		(1.137)		(1.105)
Pre-Award (t-1)		-0.0041		-0.0040
		(1.154)		(1.129)
Award Year		-0.0043		-0.0042
		(1.430)		(1.404)
Post-Award (t+1)		-0.0064**		-0.0064**
		(2.308)		(2.302)
Post-Award (t+2)		-0.0058**		-0.0059**
		(1.999)		(2.017)
Post-Award (t+3)		0.0025		0.0024
<b>GEO DE</b> G		(0.778)		(0.767)
CFO PPS	0.0201**	0.0189**	0.0202**	0.0190**
<b>GEO DE</b> G	(2.394)	(2.257)	(2.391)	(2.258)
CEO PPS	-0.0122**	-0.0122**	-0.0123**	-0.0123**
	(2.208)	(2.206)	(2.211)	(2.209)
CEO PI	0.0012	0.0012	0.0012	0.0013
	(1.046)	(1.078)	(1.094)	(1.125)
Firm Size	-0.0033	-0.0032	-0.0032	-0.0031
	(1.637)	(1.584)	(1.592)	(1.540)
Indu. Adj. ROA	0.0036	0.0036	0.0160	0.0160
	(0.211)	(0.209)	(0.932)	(0.928)
Indu. Adj. Stock return	0.0009	0.0012	0.0019	0.0021
	(0.216)	(0.263)	(0.430)	(0.476)
BTM	-0.0068**	-0.0069**	-0.0069**	-0.0070**
	(2.121)	(2.133)	(2.148)	(2.160)
CF vol3yr	-0.0181	-0.0193	-0.0197	-0.0209
	(0.331)	(0.355)	(0.356)	(0.379)
Sales growth	0.0079*	0.0084**	0.0084**	0.0089**
	(1.945)	(2.044)	(2.074)	(2.170)
Leverage	-0.0202	-0.0207	-0.0203	-0.0207
	(1.444)	(1.480)	(1.443)	(1.478)
Log (CFO Age)	-0.0143	-0.0144	-0.0151	-0.0152
	(1.055)	(1.056)	(1.104)	(1.105)
Log (CFO Tenure)	0.0001	0.0002	0.0001	0.0002
	(0.059)	(0.103)	(0.054)	(0.097)
CEO is Chair	-0.0016	-0.0019	-0.0016	-0.0019
<b>C</b> ( )	(0.734)	(0.860)	(0.732)	(0.856)
Constant	0.0897	0.0910	0.0802	0.0814
	(1.624)	(1.640)	(1.440)	(1.457)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo $R^2$	0.03	0.03	0.03	0.03
Observations	4,287	4,287	4,287	4,287

Table A8, Continued

Firm & Year FE

Pseudo R<sup>2</sup>

**Observations** 

	DA1+	DA1+	DA2+	DA2+
	(1)	(2)	(3)	(4)
Post-Award $(t+1)$ to $(t+3)$	-0.0043***		-0.0035**	
	(2.711)		(2.119)	
Pre-Award (t-2)		-0.0065*		-0.0064*
		(1.707)		(1.653)
Pre-Award (t-1)		-0.0038		-0.0052*
		(1.351)		(1.799)
Award Year		-0.0051*		-0.0034
		(1.822)		(1.088)
Post-Award (t+1)		-0.0086***		-0.0071**
		(3.187)		(2.451)
Post-Award (t+2)		-0.0058**		-0.0039
		(2.145)		(1.382)
Post-Award (t+3)		-0.0045*		-0.0050*
		(1.788)		(1.881)
CFO PPS	0.0134	0.0119	0.0182**	0.0170*
	(1.583)	(1.415)	(2.001)	(1.879)
CEO PPS	-0.0029	-0.0029	-0.0051	-0.0052
	(0.595)	(0.595)	(0.974)	(0.980)
CEO PI	0.0016*	0.0016*	0.0014	0.0014
	(1.853)	(1.849)	(1.380)	(1.335)
Firm Size	-0.0033*	-0.0032*	-0.0044**	-0.0042**
	(1.886)	(1.798)	(2.311)	(2.206)
Indu. Adj. ROA	-0.0072	-0.0068	-0.0075	-0.0074
, i i i i i i i i i i i i i i i i i i i	(0.469)	(0.440)	(0.429)	(0.423)
Indu. Adj. Stock return	-0.0049	-0.0047	-0.0038	-0.0037
, i i i i i i i i i i i i i i i i i i i	(1.299)	(1.238)	(0.961)	(0.937)
BTM	-0.0077***	-0.0078***	-0.0111***	-0.0109**
	(2.886)	(2.856)	(3.150)	(3.119)
CF vol3yr	0.0253	0.0258	0.0110	0.0114
	(0.500)	(0.513)	(0.217)	(0.227)
Sales growth	0.0051	0.0058*	0.0050	0.0056
5	(1.494)	(1.667)	(1.331)	(1.468)
Leverage	-0.0230**	-0.0234**	-0.0273***	-0.0277***
	(2.385)	(2.435)	(2.664)	(2.701)
Log (CFO Age)	-0.0278***	-0.0284***	-0.0279**	-0.0282**
	(2.652)	(2.705)	(2.532)	(2.552)
Log (CFO Tenure)	0.0002	0.0004	-0.0001	-0.0000
	(0.130)	(0.228)	(0.049)	(0.007)
CEO is Chair	-0.0027	-0.0029	-0.0022	-0.0023
	(1.451)	(1.525)	(1.068)	(1.122)
Constant	0.1766***	0.1801***	0.1861***	0.1887***
	(4.104)	(4.196)	(4.111)	(4.168)
Firm & Voar FF	(	(	()	(

Yes

0.03

3,220

Yes

0.03

3,220

Yes

0.03

2,834

Yes

0.03

2,834

	Panel C: Signed Accruals and CFO Awards – Positive Accruals
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Table A8, Continued

	nd CFO Award DA1-	DA2-		
	(1)	DA1- (2)	DA2- (3)	(4)
Post-Award $(t+1)$ to $(t+3)$	0.0050	(-)	0.0055*	( )
(1 + 1) = (1 + 2)	(1.608)		(1.964)	
Pre-Award (t-2)	(1.000)	-0.0012	(1.904)	-0.0026
I $I$ $I$ $I$ $I$ $I$ $I$ $I$ $I$ $I$		(0.201)		(0.498)
Pre-Award (t-1)		-0.0029		-0.0046
1 re-Awara (1-1)		(0.562)		(1.100)
Award Year		-0.0019		0.0009
Awara Tear		(0.302)		(0.198)
Post-Award (t+1)		0.0010		0.0014
I OSI-AWAIA (l+1)		(0.208)		(0.329)
$Post Award(t \mid 2)$		0.0027		0.0041
Post-Award (t+2)		(0.484)		
$\mathbf{D}_{\text{out}} \mathbf{A}_{\text{out}} $		0.0125**		(0.893)
Post-Award (t+3)		(2.367)		0.0133***
CFO PPS	-0.0435***	(2.367) -0.0425***	-0.0257**	(2.610) -0.0255**
Crurrs				
CEO DDS	(3.129)	(3.049)	(2.080)	(2.094)
CEO PPS	-0.0107	-0.0112	-0.0123	-0.0124
CEO DI	(1.158)	(1.211)	(1.498)	(1.526)
CEO PI	-0.0012	-0.0010	0.0006	0.0008
F: C:	(0.529)	(0.457)	(0.347)	(0.413)
Firm Size	0.0048*	0.0048*	0.0023	0.0021
	(1.797)	(1.743)	(0.859)	(0.788)
Indu. Adj. ROA	-0.0316**	-0.0323**	-0.0228*	-0.0225*
	(2.175)	(2.206)	(1.688)	(1.693)
Indu. Adj. Stock return	0.0000	0.0004	0.0013	0.0010
	(0.003)	(0.052)	(0.217)	(0.167)
BTM	0.0095	0.0096	0.0045	0.0044
	(1.340)	(1.387)	(1.367)	(1.360)
CF vol3yr	-0.0502	-0.0528	-0.0849	-0.0857
	(0.707)	(0.745)	(1.364)	(1.377)
Sales growth	0.0118*	0.0121*	0.0075	0.0078
<b>T</b>	(1.848)	(1.902)	(1.283)	(1.326)
Leverage	0.0075	0.0078	0.0016	0.0017
	(0.273)	(0.286)	(0.070)	(0.072)
Log (CFO Age)	-0.0304	-0.0290	-0.0166	-0.0152
	(1.238)	(1.165)	(0.879)	(0.811)
Log (CFO Tenure)	0.0110***	0.0108***	0.0085***	0.0082***
	(3.216)	(3.146)	(2.952)	(2.826)
CEO is Chair	0.0016	0.0011	0.0016	0.0012
	(0.377)	(0.255)	(0.539)	(0.387)
Constant	0.0188	0.0143	-0.0143	-0.0171
	(0.210)	(0.160)	(0.195)	(0.235)
Firm & Year FE	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.05	0.05	0.05	0.05
Observations	1,067	1,067	1,453	1,453

Panel D: Signed Accruals and CFO Awards – Negative Accruals