

# CFO Compensation: Evidence from Australia

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## Abstract

We investigate the extent to which the incentive alignment theory and the managerial power theory explain the variability of CFO compensation in Australia. We find a positive relationship between the level of CFO compensation and measures of job complexity and firm stock market performance. However, we do not find the pay-for-performance link when performance is measured at CFO-specific level. CFOs actually receive higher non-cash compensation when reporting quality is lower, suggesting a sharp contrast to predictions of the incentive alignment approach. Conversely, we find that CFOs have more managerial power (that is, if the CFO is on the board of directors, or has a higher level of stock ownership, or stays longer in their position, or the board is bigger in size) receive significantly larger compensation. Overall our evidence is more consistent with the argument that managerial power is the primary driver of CFO remuneration.

**Keywords:** CFO Compensation, Job Complexity, Performance, Managerial Power.

**JEL classification:** G34, J33, M41

# 1 Introduction

Chief Financial Officers (CFOs) are financial stewards of companies and their main roles are to prepare financial statements and develop internal company policies.<sup>1</sup> Legislative and media attention has recently been directed toward CFOs and the role they play in creating and disseminating financial information. In the wake of financial frauds and subsequent collapses of several high-profile corporations, legislators and the business press have begun to blame for the scandalous reporting not only with the Chief Executive Officers (CEOs) who have final oversight authority for the company, but also with the CFOs. US Congress subsequently enacted the Sarbanes-Oxly Act (SOX) in 2002, and Section 302 of this Act requires that CEOs and CFOs need to certify the material accuracy and completeness of the financial information and disclosures released by the company. Similarly, Section 295A of the Corporations Act in Australia demands CEOs and CFOs of listed entities to sign off on their company annual accounts and to declare that the company's financial reports present "a true and fair view in accordance with relevant accounting standards". The legislative elevation of CFOs to the same level of financial oversight responsibility as CEOs has emphasized the important role of CFOs beyond that of other company executives.<sup>2</sup> Consequently, the US Securities and Exchange Commission (SEC) has required disclosure about CFO compensation since December 2002.<sup>3</sup> The Corporate Law and Economic Reform Program (Audit Reform and Corporate Disclosure) Act 2004 (also known as CLERP 9) has become law in Australia since 1 July 2004. CLERP 9 requires expanded disclosure of executive remuneration by introducing a remuneration report within the directors' report of company financial reports.

There are two competing views in the literature about rewarding company executives. One view (the managerial power or rent extraction approach) is that powerful executives influence the board of directors into paying them a high compensation with little or no strings attached (e.g. Core et al. 1999, Bebchuk et al. 2002). The other view (traditional or incentive alignment

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<sup>1</sup>Recent research indicate that CFOs not only perform their traditional role of preparing statutory accounts, but have also developed into a "number two" position in firm hierarchy when it comes to strategic planning (Zorn 2004, Heibl et al. 2013).

<sup>2</sup>There is evidence in the literature that CFOs possess superior information due to their roles in the firm's financial policy and financial reporting process (Geiger & North 2006, Jiang et al. 2010). Wang et al. (2012) find that CFOs' trades are more informative about future stock returns than CEOs' trades. Specifically, they document that CFOs earn significantly higher abnormal returns after their purchases of company shares than CEOs.

<sup>3</sup>Some recent US studies have provided empirical evidence to support SEC's new disclosure requirement on CFO compensation by showing that CFO's influence on company financial performance can be stronger than that of the CEO. For example, in a study of CEOs and CFOs influence on earnings management, Jiang et al. (2010) find that earnings management is significantly bigger with CFO equity incentives than CEO equity incentives. Similarly Chava & Purnanandam (2010) note that CFOs equity incentives have relatively stronger power in explaining company debt structure and accruals management than that of CEOs.

hypothesis) argues that executives are rewarded for skill, effort and performance (e.g. Jensen & Meckling 1976, Jensen & Murphy 1990). There are a number of research works that empirically test the explanatory power of each theory in relation to CEO compensation (e.g. Gristein & Hribar 2004, Chalmers et al. 2006, Coakley & Iliopoulou 2006, Bugeja et al. 2012). However, little academic research has been conducted to examine the relative effect of each hypothesis on CFO compensation. There are studies in the literature that examine the determinants of CFO compensation with reference to either of these views (e.g. Indjejikian & Matejka 2009, Balsam et al. 2012, Bedard et al. 2013), but no work has been done on assessing the relative power of each theory to CFO remuneration.

As the accountability of CFOs is tremendously growing, this study investigates the determinants of CFO compensation by addressing the following questions. First, to what extent is CFO compensation paid to align CFO incentives with value maximization? Second, to what extent do powerful CFOs extract rent through excessive pay? Our study contributes to the literature by testing the relatively explanatory power of the incentive alignment and managerial power theories on CFO compensation. By doing this, our study responds to the recommendation of CLERP 9 that executive remuneration should be continuously disclosed and monitored by relevant industries and professional bodies. Our analysis is conducted with a hand-collected dataset on CFO remuneration and corporate governance data, spanning over 5 years from 2006 to 2010.<sup>4</sup>

By considering the relative impact of these two theories on Australian CFO compensation, we contribute to the literature through comparing empirical evidences in Australia and the US. Although there are some similarities between Australia and the US in terms of regulatory framework (as outlined previously), distinctions are noticeable in the structure of corporate governance and CFO remuneration. It would be interesting to see if the US findings separately for each theory are also applicable to the Australian market when we consider both theories together. One observable difference is in the composition of the board of directors. The board structure of Australian firms differ markedly from that of their US counterparts with Australian boards more closely conforms to “best practice” (Kiel & Nicholson 2003). Specifically, Australian boards are, on average, smaller and have lower proportion of independent directors (Bugeja et al. 2012). However, our data shows a much higher proportion of CFOs who are board insiders than that reported in the US market. While approximately 43% of companies in our sample include its

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<sup>4</sup> *Capital IQ* database has CFO remuneration data, however, there are missing observations in some firms. Consequently, we have to physically double check CFO pay data from company annual reports. Additionally, corporate governance data of firms in our sample is manually extracted from company financial reports.

CFO as a member of the board of directors, this proportion is much lower in the US market, ranging from 8.6% (Bedard et al. 2013) to 15.1% (Balsam et al. 2012). Another remarkable difference is noted in the way CFOs are compensated. Similar to the case of CEO remuneration (e.g. Ferreira et al. 2013), our data shows that cash component (salary and bonus) paid to Australian CFOs account for a higher proportion, while the remuneration of the US counterparts is more heavily weighted towards non-cash component, i.e. shares and options (Balsam et al. 2012, Bedard et al. 2013).

We begin our analysis with a sample of 563 firm-year observations over the period from 2006 to 2010 to investigate which theory (incentive alignment or managerial power) best explain the variation in Australian CFO compensation. We find these two theories are not mutually exclusive, both have some explanatory power on CFO compensation. Consistent with the incentive alignment view, it is found that measures of job complexity and firm stock market performance are positively related to the level of CFO compensation, indicating that CFOs are paid for their skill, effort and firm overall performance. However, a measure of CFO-specific performance, i.e. discretionary accruals, does not explain the cross-sectional variation in the compensation. In fact, it is positively associated to the non-cash component of CFO compensation, suggesting an inconsistent evidence to the traditional view. CFOs actually receive higher non-cash remuneration for delivering lower reporting quality. On the other hands, we find no inconsistent results to the rent extraction theory. All measures of managerial power add significantly to the explanatory power of the variation in the level of CFO compensation. CFOs who have more power are likely to extract higher rent through compensation. Comparatively, our findings offer more support to the managerial power approach rather than the incentive alignment view with respect to CFO compensation.

The remainder of this paper proceeds as follows. Section 2 reviews the literature on CFO compensation with reference to the two theories, and states research questions for this study. Section 3 describes the regression model and the data sampling process. The empirical results are presented and discussed in Section 4. Finally, it is concluded with a summary of findings in Section 5.

## 2 Literature review

The traditional view (or the incentive alignment perspective) argues that the board should offer its executives ideal compensation packages that maximise shareholder value (Jensen & Meckling 1976, Haugen & Senbet 1981). The incentive alignment theory assumes that optimal compensation packages can mitigate agency problems (Jensen & Meckling 1976, Jensen & Murphy 1990). It also acknowledges that executive compensation is a function of the supply and demand for manager's skills, effort and performance. Opposing the traditional view is the managerial power approach (or rent extraction theory). As defined by Finkelstein (1992), managerial power is the ability of managers to influence or exert their will on the remuneration decisions made by the board of directors. Under this approach, managerial power creates the ability for management to obtain compensation packages that are sub-optimal and consequently reduce shareholder wealth (Core et al. 1999, Bebchuk et al. 2002).

There is evidence in the literature that the traditional view is subject to a moral hazard problem. For example, Mirrlees (1976) and Grossman & Hart (1983) show that managers do not necessarily maximise shareholder wealth as their actions are unobservable to investors and they have incentives to maximise their personal benefits. Therefore, the board needs to design a compensation package that aligns managerial incentives with observable measures that maximise value such as company stock returns or profitability ratios. Empirical studies support the CEO pay-for-performance link in the US (McConnell & Servaes 1990, Jensen & Murphy 1990), in UK (Ozkan 2011) and in Australian market (Chalmers et al. 2006, Schultz et al. 2013). In a study of Australian CEO compensation following mergers and acquisitions, Bugeja et al. (2012) not only find a positive association between CEO compensation and firm performance, but also document a positive correlation between CEO compensation and some measures of CEO effort and skill in completing the deal, providing support to the incentive alignment theory.

Consistent with the traditional view, there are numerous studies in the literature to evidence that CFOs are also rewarded for their skill, effort and performance. Zamora (2009) finds that CFOs being classified as superior forecasters receive higher bonus and equity pay. Gore et al. (2011) examine the effect of corporate governance on CFO incentive compensation, finding that firms with more financial expertise use fewer incentives in compensating their CFOs. Loyeung et al. (2011) document that Australian CFOs have received higher compensation for their accounting talent, measured as accounting errors when mandatory adoption of International Financial Reporting Standards (IFRS). Likewise, Balsam, Gordon & Li (2013) notice an increase in executive

compensation following the mandatory adoption of IFRS. This increase is found to be related to increased responsibility and is greater for CFOs than CEOs. Those findings provide support to the incentive alignment approach that firms offer higher compensation to attract talented CFOs.

Similarly, it is found a positive association between CFO compensation and financial reporting quality in the forms of internal control and accounting restatements. Wang (2010) finds that CFOs of companies with strong internal controls receive higher compensation. Hoitash et al. (2012) document that changes in CFO compensation are significantly related to internal control material weakness (ICMW) disclosures. They also reveal no significant association between ICMW disclosures and changes in CEO compensation measure though CEOs are mainly responsible for certifying internal control reports. The result from Balsam, Jiang & Lu (2013)'s study is also consistent with the incentive alignment view that equity-based compensation increases management's incentives to maintain higher internal control quality, and CFO incentives are more important than CEO incentives. In addition, Collins et al. (2008) and Bedard et al. (2013) document the negative relationship between accounting restatements and CFO bonus/ total cash compensation.

Lastly, various studies document a pay-for-performance link for CFOs. Indjejikian & Matejka (2009) find that annual bonuses are the most common incentive component of CFO compensation plans with approximately 50% of CFO bonuses being based on accounting financial performance. Bedard et al. (2013) show a significantly positive association between company stock market returns and CFO compensation. Balsam et al. (2012) notice that CFOs are not only rewarded based on the traditional firm performance (accounting and stock returns measures), but are also compensated based on other factors measuring job complexity and CFO-specific performance. Specifically, they document job complexity and overall firm performance positively affect both CFO salary and bonus, while CFO individual performance affects CFO bonus only.

Although executive compensation is set against a list of market factors, these factors are not strong enough to compel optimal contracting outcomes, and executives can still use their power to influence their compensation arrangements and to extract rents (Bebchuk & Fried 2003). As argued in Bebchuk et al. (2002), a zero level of rent extraction is unlikely due to monitoring and incentive aligning devices being very costly. Bebchuk & Fried (2004), hence, contend that the managerial power hypothesis provides a more satisfying explanation of executive remuneration arrangements than the traditional view of optimal contracting. Morse et al. (2011) argue

that the structure of the incentive contract can be manipulated by powerful CEOs even though the measures of performance may be appropriate. In their model, the incentive pay contract may be rigged by powerful CEOs as the powerful CEOs undertake intentional manipulation to shift weights on performance measure toward the better performing measures. Similarly, Adams et al. (2005) empirically show that firms having powerful CEOs experience more variability in performance. Under the managerial power approach, executive compensation will be higher for managers in corporations where they have relatively more power. Empirical research on CEO compensation in the US (Core et al. 1999, Bebchuk et al. 2002, Gristein & Hribar 2004), UK (Coakley & Iliopoulou 2006) and Australia (Chalmers et al. 2006) all give strong support for the managerial power hypothesis that there is a direct relationship between CEO power and their higher compensation.

Consistent with the managerial power approach, the literature has evidenced that powerful CFOs can potentially extract rent through excessive pay.<sup>5</sup> Balsam et al. (2012) and Bedard et al. (2013) show evidence that CFOs who have a seat on the board of directors can have significant influence on their compensation. They both document that CFOs who are board insiders earn higher cash compensation and total compensation. Bedard et al. (2013) argue that the situation of CFOs sitting on the board is analogous to that of CEO chairing the board as those CFOs also vote on many important issues including ratifying director pay, creating the issue of interdependency. It has been popularly used in the CEO compensation literature that a proxy for CEO power is when CEO also being the chairman of the board (e.g. Bebchuk et al. 2002, Gristein & Hribar 2004, Adams et al. 2005).

In summary, there are a number of studies in the US literature showing evidences that CFO compensation can be explained by the incentive alignment theory or the managerial power theory separately. Loyeung et al. (2011) provide Australian evidence supporting the traditional view that CFOs are rewarded for their accounting talent. However, unlike the CEO literature (e.g. Gristein & Hribar 2004, Chalmers et al. 2006, Bugeja et al. 2012), none of the studies gives a direct test on the determinants of CFO compensation with reference to both of these two theories. In this study, we attempt to fill this gap in the literature by investigating the extent to which CFO effort, skill, performance and power can determine their level of compensation. Although we recognise that these two theories are not mutually exclusive, our objective is to learn the extent to which each of these theories can explain the variation in CFO compensa-

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<sup>5</sup>There is also evidence of the impact of CFO power in other areas. For example, Ge et al. (2011) show that CFO style is more reflected in accounting choices when the level of CFOs' discretion is high.

tion. Specifically, two research questions are addressed in this paper. Firstly, to what extent is CFO compensation tied to their effort and performance? Secondly, are powerful CFOs more entrenched as measured by compensation? According to the traditional view, CFO remuneration is positively related to measures of their effort and performance. Under the managerial power approach, there should be a positive correlation between the level of CFO compensation and the level of their managerial power in the firm; CFO skill and performance should play a secondary role in explaining CFO compensation.

### 3 Methodology and data collection

#### 3.1 Research method

The following model is estimated to examine the extent to which CFO compensation is consistent with either the traditional view or managerial power theory:

$$CFOCompensation = \alpha + \beta_i(JobComplexity)_i + \gamma_j(Performance)_j + \delta_k(CFOPower)_k + \theta_n(ControlVariables)_n + [YearDummies] + [IndustryDummies] + \epsilon \quad (1)$$

The dependent variable in equation (1) is the compensation paid to CFOs during the year. We examine five types of CFO compensation: bonus only, salary only, total cash compensation (the sum of salary, bonus and other cash compensation), total non-cash compensation (the sum of restricted stock rewards and stock option awards granted to CFOs), and total compensation (the sum of total cash and non-cash compensation). As there are two components of CFO compensation that have zero values, i.e. bonus and total non-cash compensation, we separate CFO compensation into two sub samples for regression analysis: one with compensation figures in dollar value (full sample) and the other with compensation figures measured in logarithmic scale (sample without zero-value compensation). OLS regression analysis is run for the both samples, and tobit regression is additionally conducted for the sample with zero-value compensation.

There are three main sets of independent variables in the regression (1). The first set of variables are intended to proxy for the level of job complexity of CFOs. The second set of variables measure performance at both firm and CFO-specific level. The last set of variables are to capture CFO managerial power. We also control for company financial characteristics that are associated with executive compensation.

#### Proxies for job complexity



According to the incentive alignment view, CFOs should be compensated more if they need to exert more effort and skill in doing their jobs. It is expected that larger firms with more complex operations will demand higher quality managers with higher compensation. We use *Firm Size*, measured as the natural logarithm of company total assets in the previous year, as our first proxy for CFO job complexity. Smith & Watts (1992) find that larger firms pay their executives more than smaller firms due to greater complexity and responsibility. We add another variable, *Bus. Segments* which is measured as the log of the number of business segments the firm operates in, to proxy for CFO job complexity. Rose & Shepard (1997) find that firms pay CEOs a diversification premium as a result of the added responsibility that associates to manage additional business segments. Balsam et al. (2012) also document a positive relationship between diversity and the level of CFO compensation. As the number of business segments increases, so does the number of managers that the CFO has to communicate with and entities whose results they have to integrate. Under the incentive alignment approach, it is expected that both variables that proxy for CFO job complexity are positively associated with CFO compensation.

### **Measures of performance**

We also include measures of performance as direct measures of effort are unobservable, contracting on performance can help mitigate the moral hazard problem. We measure performance at both the firm and CFO-specific level. Previous research (e.g. Balsam et al. 2012, Bedard et al. 2013) has consistently shown that CFO pay is a function of firm performance. We control for firm performance using both an accounting and market performance measure. The market measure is a company's annual common stock return (*Stock Returns*) and the accounting measure is return on assets (*ROA*). As CFOs are responsible for reporting company financial results, we also include discretionary accruals as one performance measure that is specifically attributed to CFOs. Dejong & Ling (2013) find CFOs tend to have a larger influence on abnormal accruals than CEOs after controlling for firm policy decisions. Geiger & North (2006) document that a firm's discretionary accruals are significantly reduced surrounding the appointment of a new CFO. The proxy for accruals-based earnings quality is the absolute value of forward-looking discretionary accruals from the modified Jones (1991) model (*Discret. Accruals*), developed by Dechow et al. (2003). The incentive alignment approach predicts that firms with higher overall performance and better accruals quality (i.e. lower accruals management) will reward their CFOs more. In the other words, CFO compensation will be positively related to *Stock Returns* and *ROA* variables, while it is negatively associated with *Discret. Accruals* variable under the traditional view.

### Measures of CFO power

Following the literature on CEO power (e.g. Denis et al. 1997, Bebchuk & Fried 2003, Gristein & Hribar 2004, Adams et al. 2005), we use the following variables to measure CFO managerial power. The first measure is a binary variable equal to one if the CFO is a member of the company board of directors (*CFO Board*). Our second measure is the percentage of company shares owned by the CFO (*CFO Ownership*). The third measure is *CFO Tenure*, a number of years since the CFO was appointed. CFOs that have a longer tenure with the firm, or have greater ownership, or have a seat on the board of directors are expected to exert greater influence over the board. Consequently, they are likely to extract more rent through remuneration. The final measure of CFO managerial power is to control for structures of company board of directors. We use the number of directors on the board (*Board Size*) and the percentage of executive directors on the board (*Insider Ratio*) as measures of board governance characteristics. As evidenced in Rosenstein & Wyatt (1990) and Yermack (1996), smaller boards and boards with higher proportions of outside directors are more effective and they may act to constrain executive compensation. We expect that larger number of board members and higher proportion of insiders would be indicative of greater CFO managerial power. Under the managerial power approach, it is, therefore, expected to see a positive relationship between all CFO power variables and the level of CFO compensation.

### Control variables

Consistent with prior theory and empirical work on executive compensation, we include firm leverage, growth opportunity and firm risk as financial control variables. Firm leverage is calculated by total debts divided by the market value of equity. The firm growth opportunity is captured by their market-to-book equity ratio (*M/B ratio*), and is winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles in order to control for big outliers in the data. Murphy (1985) finds that CEO compensation is higher for companies with greater investment/growth opportunities. To control for firm risk, we use the standard deviation of return on assets (*Std dev (ROA)*) and the standard deviation of sales scaled by total assets (*Std dev (Sales/TA)*), both measured over the preceding 5 years. Core et al. (1999) find a negative association between firm risk and CEO compensation.

We also control for industry and time fixed effects due to the differences in CFO compensation across industries<sup>6</sup> and over time. For example, Murphy (1999) has found that executives in

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<sup>6</sup>Firms are sorted according to their 2-digit Global Industry Classification System (GICS) codes.

electric utilities earn significantly lower levels of compensation than their counterparts in other industries, while executives in financial services companies earn higher pay. Agarwal (1981) also argues that managers may demand for higher compensation as managerial talent is relatively scarce in some industries and market periods.

### 3.2 Sample construction

The sample is initially constructed from the Top 500 firms listed on the Australian Securities Exchange (ASX), based on market capitalisation for each of the years from 2006 to 2010. Data on CFO compensation, CFO characteristics and corporate governance for each company are extracted from S&P Capital IQ database. Firms' annual reports are also manually checked if the information is missed from Capital IQ. Company accounting and financial data are obtained from Aspect FinAnalysis database. We exclude from the sample all companies with a change in CFO in any year. Our final sample consists of 563 firm-year observations. Table 1 provides a summary of definitions of all variables used in our study together with data sources.

*[Insert Table 1]*

### 3.3 Descriptive statistics

Table 2 presents descriptive data with CFO compensation in Panel A, firm financial data in Panel B, board governance structure and CFO information in Panel C. As can be seen from Panel A of Table 2, Australian CFOs receive an average of \$1.16 million for their total compensation. This figure is nearly halved when comparing to the total compensation paid to Australian CEOs (\$1.89 million) in Chalmers et al. 2006's study of Australian Top 200 firms over the period 1999-2002. The situation of CEOs earning double their finance chief counterparts is also reported in the *Capital* 2012 salaries survey published on the *Australian Financial Review* newspaper.<sup>7</sup> In this survey, it is revealed that the 10 highest-paid CEOs received around \$8.8 million in the financial year 2011-2012 compared with \$4.39 million for the 10 highest-paid CFOs. Although CFOs is substantially paid less than CEOs for the total compensation, they are both, on average, awarded similar bonus for doing their good jobs. Our data shows that the average bonus paid to CFOs is roughly \$281 million while this figure to CEOs is around \$299 million in Chalmers et al. (2006)'s study. Similar to the company chief executive counterparts, Australian CFOs are rewarded mainly in form of cash compensation with the average figure

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<sup>7</sup> "Top CFOs' pay rises 10pc" by S. Durummond and E. Tadros, *Australian Financial Review* newspaper, 10 December 2012.

for their total cash compensation and non-cash compensation being approximately \$896 million and \$259 million, respectively.

*[Insert Table 2]*

Panel B of Table 2 describes the financial characteristics of firms in our sample. The average size of firms in our sample is nearly \$21 billion, while its median figure is \$662 million. Smaller median figure together with a high standard deviation of \$84 billion indicate that the distribution of firm size is highly skewed. The average number of business segments of firms in our sample is four, while the average financial leverage (debt-to-equity ratio) and M/B ratio are 1.04 and 3.44, respectively. The majority of firms perform quite well with the median ROA of 6.62% and the median stock returns of 8.89%. More than 50% of firms have non-zero accruals with the absolute value of forward-looking discretionary accruals being 0.07. Over the last 5 years, the average of standard deviation of ROA is 11.42%, while this figure for standard deviation of sales scaled by total assets is 21.74%.

Australian CFOs have similar tenure compared with the US counterparts. Indjejikian & Matejka (2009) report the mean (and median) tenure of American CFOs is 5.91 years (and 4 years) for publicly listed companies. These figures are 5.22 years (and 4.08 years) in our sample (Panel C of Table 2). However, our data shows a much higher proportion of CFOs who have a seat on company board of directors than that reported in the US market. While approximately 43% of companies in our sample include its CFO as a member of the board of directors, this proportion is much lower in the US market with only 8.6% in Bedard et al. (2013)'s study or 15.1% in Balsam et al. (2012)'s work. Australian CFOs, on average, hold 0.19% of company shares, a much lower level of stock ownership compared with Australian CEOs of 4.48% (Bugeja et al. 2012). The average Australian board size is approximately eight, and the majority of Australian board members are non-executives with the average board having roughly 40% of executive directors.

## **4 CFO compensation - Empirical analysis**

In this section, we investigate the extend to which the incentive alignment theory and the managerial power theory can explain the level of CFO compensation. Table 3 presents the regression results for different types of CFO compensation when compensation data is expressed in dollar value. We show the results of the first group (*Salary*, *Total cash comp*, and *Total comp*) in Panel A, separately from the second group (*Bonus* and *Total non-cash comp*) in Panel B as

tobit regression is additionally performed on the second group that contains some zero-value observations.

*[Insert Table 3]*

Overall, the results in Table 3 are very similar across all compensation specifications. In both panels of Table 3, the coefficient of the *Firm Size* variable is significantly positive across all compensation components, implying that larger firms tend to pay higher compensation to their CFOs. Our result is consistent with previous research on CEO compensation and similar with recent US studies on CFO compensation (Indjejikian & Matejka 2009, Bedard et al. 2013) that bigger firms demand higher quality CFOs and pay for such quality. Similar to Balsam et al. (2012), the *Bus. Segments* variable is positive and significantly associated with two types of compensation: *Bonus* and *Total cash comp*, reflecting that the business complexity only affects the cash compensation component. Our results suggest that there is quite strong evidence supporting the traditional view that CFO compensation are linked to the level of job complexity.

As mentioned earlier in Section 3.1, observable measures of firm's profitability are needed to take into account when designing executive remuneration package in order to align their incentives to shareholders' benefits. From the two firm performance proxies (*ROA* and *Stock Returns*), only *Stock Returns* variable is found to be positively significant with all CFO compensation types, except for *Salary*. Our finding of positive association between CFO compensation and stock performance measure is also evident in US studies (Balsam et al. 2012, Hoitash et al. 2012, Bedard et al. 2013). It is also consistent with previous empirical research on CEO compensation (e.g. Core et al. 1999, Bugeja et al. 2012) that executive remuneration is aligned with firm stock market performance. However, when turning to the measure of CFO-specific performance, i.e. *Discret. Accruals* variable, we do not find the pay-for-performance link as the coefficient of this variable is insignificant across all types of CFO compensation. This suggests that Australian CFO compensation is not related to the performance measure of accruals quality that is specifically attributed to CFOs. To sum up, we find supporting evidence to the traditional view when performance is measured at firm-overall level, but do not support that view when performance is measured at CFO-specific level.

Consistent with the predictions of the rent extraction theory, four out of our five managerial power variables (*CFO Board*, *CFO Ownership*, *CFO Tenure* and *Board Size*) are positive and significantly related to CFO compensation. *Insider Ratio* is the only managerial power variable

that is found insignificant at conventionally statistical levels. The lack of significant relationship between the *Insider Ratio* variable and CFO compensation is also evident in some of previous research on CEO compensation in both the US and Australian markets (Core et al. 1999, Grinstein & Hribar 2004, Chalmers et al. 2006, Bugeja et al. 2012, Guthrie et al. 2012).

Among the four significant managerial power proxies, the *CFO Board* variable has the most impact on Australian CFO remuneration with its *t*-statistics ranging from 1.97 to 7.05 for all compensation types, except for the insignificance of *Bonus* component. This indicates that CFOs who sit on the company board of directors are rewarded more than other CFOs in all forms of compensation, except for *Bonus*. The highly significance of the *CFO Board* variable is also reported in recent US research on CFO compensation (Balsam et al. 2012, Bedard et al. 2013). To further understand our finding of the *CFO Board* variable, we separate the original sample into two sub-samples: the first contains 242 observations in which the CFO is a member of the company board, and the second consists of 321 observations in which the CFO does not have a seat on the board. Table 4 presents descriptive statistics for each compensation component of the two sub-samples and test statistics for examining difference in the mean and median of those sub-samples. The upshot from Table 4 is that CFOs who serve on their own company board significantly earn more than other CFOs for all types of compensation. For example, CFOs who have a seat on company board of directors are, on average, rewarded for total compensation of approximately \$1.4 million, while this figure is around \$969,000 for CFOs who do not have board membership. An additional analysis<sup>8</sup> reveals that the difference in compensation of firms in the two sub-samples is not affected by company size as firms in these sub-samples are similar in size, measured as company book assets in prior year. The test statistics for the difference in mean and median of company book assets of the two sub-samples are statistically insignificant at the conventional levels.

[Insert Table 4]

Similar to the *CFO Board* variable, the significantly positive sign on the coefficients of the *CFO Ownership*, *CFO Tenure* and *Board Size* variables (see Table 3) strongly supports the predictions of the managerial power approach. Finkelstein & Hambrick (1989) argues that substantial stock ownership gives CEOs more control over their pay and increases the possibility of entrenchment. We analogously find that CFOs with higher level of company stock ownership are rewarded more in all types of compensation, except for *Bonus*. In addition, Hermalin & Weisbach (1998)

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<sup>8</sup>For brevity, the analysis on the difference in company size between the two sub-samples is not reported. Results are available upon request.

and Ryan & Wiggins (2004) claim that CEOs will become more entrenched and gain greater managerial power over the board of directors as their tenure increases. Our result similarly shows that the longer the CFOs are in power, the more entrenched they are, resulting in higher remuneration in *Bonus* and *Total cash comp.* This is consistent with Indjejikian & Matejka (2009)'s finding of a positive relationship between CFO tenure and CFO bonus. Relatedly, the *Board Size* variable is significantly positive with three types of CFO compensation: *Salary*, *Total non-cash comp* and *Total comp.* This finding is consistent with previous research on CEO compensation (Yermack 1996, Core et al. 1999, Bugeja et al. 2012) that smaller boards are more effective and monitoring difficulties increases with board size. In short, it is found that powerful CFOs are more likely entrenched as measured by compensation.

For economic control variables, firm leverage (*Leverage*) is found to be negatively significant with *Salary* and *Total cash comp* components, suggesting the impact of lender monitoring. Lenders are expected to monitor highly levered firms more closely, and it may be more sensitive to have excessive executive remuneration when company leverage is high. This finding is consistent with the lender monitoring expectation that higher company leverage is associated with lower CFO compensation. With the *M/B Ratio* variable, it shows a highly positive relationship with all compensation components, indicating that high growth firms tend to award higher compensation to their CFOs. For the firm risk attribute, it is positively associated with CFO compensation only in the case of *Std dev (ROA)* variable. The relationship is significant for *total cash comp* and *total comp.* This implies that riskier firms are inclined to reward their CFOs more, but not with the non-cash compensation component.

Overall, the results indicate that the most statistically significant factors that determine Australian CFO compensation appear to be measures of job complexity, firm stock market performance and measures of managerial power. The findings are consistent with both the incentive alignment and rent extraction approach. However, the insignificance of the CFO-specific performance measure (i.e. *Discret. Accruals* variable) does not provide supporting evidence for the incentive alignment approach.

As the above analysis presented in Table 3 contains some variables are extremely right skewed, i.e. all CFO compensation and *CFO Ownership* variables (see statistics in Table 2), we perform additional analysis in order to overcome the skewness problem. Table 5 displays the results of analysing CFO compensation when skewed variables in Table 3 (i.e. CFO compensation and

*CFO Ownership*) are expressed in logarithmic scales. The results in Table 5 are very much similar to those in Table 3 with stronger finding for the *CFO Board* variable. The positive association between CFO compensation and *CFO Board* variable is statistically significant across all types of CFO compensation, suggesting a strong support for the rent extraction theory. However, the *Discret. Accruals* variable now provides a contrast evidence to the incentive alignment approach as it is positively significant under the category of *Total non-cash comp*. This implies that CFOs with lower firm reporting quality are compensated more with stocks and options. For economic control variables, *M/B Ratio* is only significantly positive in the case of *Total non-cash comp* component. This finding may suggest that high growth opportunity firms have less liquidity relative to lower growth opportunity firms and are more inclined to use shares to compensate their CFOs.

[Insert Table 5]

In summary, our analysis shows that both the incentive alignment theory and the managerial power theory have explanatory power in determining Australian CFO compensation. The significantly positive association between measures of job complexity (*Firm Size* and *Bus. Segment* variables) and CFO compensation provides support for the incentive alignment hypothesis. In addition, it is also found that CFO compensation is influenced by company stock market performance, a prediction that is consistent with the alignment incentive view. However, contrast to the predictions of the incentive alignment approach, we find no evidence on the relationship between CFO compensation and measure of performance that is specifically linked to CFOs. The coefficient of the *Discret. Accruals* variable is not significant when compensation is measured in dollar value, and positively significant under the *Total non-cash comp* type when compensation is in logarithmic scale. This finding indicates that CFOs in lower reporting quality firms are rewarded with more stocks and options, a contrary evidence to the traditional view approach. Consistent with the managerial approach, all coefficients of managerial power variables (i.e. *CFO Board*, *CFO Ownership*, *CFO Tenure* and *Board Size*) are significantly positive in some forms of compensation, except for the insignificance of *Insider Ratio* variable. This provides strong support for the argument that managerial power enables the extraction of rent by powerful CFOs. On a relative balance, it can be concluded that Australian CFO compensation is determined more by the level of CFO managerial power as there is no contrasting evidence to the rent extraction theory.



## 4.1 Robustness

In this section, we use a two-stage instrumental variables approach as our robustness test to the OLS regression analysis (1). This is a common way of addressing the potential issue of endogeneity between corporate governance structures which are developed through choice (like CFO board insider) and other company characteristics. The instrument variable that we use is *Insider Ratio*, the percentage of executive directors on the board. We believe that this variable satisfies the necessary conditions for being a valid instrument for three reasons. First, there is a strong association between the CFO's presence on the board and the proportion of executive directors on the board. Univariate tests show that the percentage of executive directors on the board is significantly higher for firms when their CFOs are also on the board of directors with the value of  $t$ -statistic and Mann-Whitney statistic being 8.08 and 7.67, respectively. The logistic regression of CFO board membership<sup>9</sup> against a list of factors that can be associated with the CFO's presence on the board also confirms this finding. Second, there is evidence in the literature that the proportion of executive directors on the board is often not found to be significantly associated with executive compensation (Core et al. 1999, Gristein & Hribar 2004, Chalmers et al. 2006, Bugeja et al. 2012, Guthrie et al. 2012). Third, when validating the economic appropriateness of our instrument using post estimation test for weak instruments, i.e. the Cragg-Donald Wald F test, it is found that our instrument, *Insider Ratio*, appears to be valid. We then replicate the regressions of Table 3 and Table 5 using a two-stage-least-square (2SLS) procedure with *Insider Ratio* as the instrumental variable. Overall, the 2SLS regression model produces coefficient estimates of the same sign, similar magnitudes and significance levels.

## 5 Conclusion

In this paper, we provide insights to the determinants of CFO compensation in Australia by investigating the explanatory power of the incentive alignment and managerial power theory. We conduct our analysis based on the sample of 563 exchange-listed firms on the ASX from 2006 to 2010. We find that measures of job complexity and firm-overall performance are positively related to the level of CFO compensation. However, we do not find the significant association between CFO remuneration and a measure of CFO-specific performance, i.e. the absolute value of total discretionary accruals. Actually, the coefficient of the discretionary accruals variable is significantly positive for the non-cash component of CFO remuneration, indicating a divergence

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<sup>9</sup>For brevity, we omit the result of logistic regression for CFO board membership. It is available from authors upon request.

from the traditional view. CFOs are able to extract rent through higher non-cash remuneration when they deliver a lower level of reporting quality.

We find that none of the managerial power variables gives inconsistent results to the predictions of the rent extraction theory. Four measures of our managerial power, i.e. *CFO Board*, *CFO Ownership*, *CFO Tenure* and *Board Size*, play a significant role in determining CFO compensation, suggesting a strong support to the managerial power approach. The managerial power variables appear to explain more variation in CFO remuneration than measures of job complexity and performance. Relatively, our results support the managerial power theory more and CFO power is a significant driver of CFO compensation.

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Table 1: Variable definitions

Variables	Definition	Sources of data
<b>CFO compensation</b>		
<i>Salary</i>	The sum of salary and superannuation paid to the CFO during the year	Capital <i>IQ</i>
<i>Bonus</i>	Bonus paid to the CFO in the year	Capital <i>IQ</i>
<i>Total cash comp</i>	The sum of salary, bonus and other cash compensation paid to the CFO	Capital <i>IQ</i>
<i>Total non-cash comp</i>	Total value of restricted stock rewards and stock options awards granted to the CFO as part of their remuneration package	Capital <i>IQ</i>
<i>Total comp</i>	The CFO total compensation, calculated as the sum of cash and non-cash compensation	Capital <i>IQ</i>
<b>Financial characteristics</b>		
<i>Firm Size</i>	The book value of total assets in the prior year	FinAnalysis
<i>Bus. Segments</i>	The number of business segments of firm	FinAnalysis and Capital <i>IQ</i>
<i>M/B Ratio</i>	The market value of equity divided by the book value of equity	FinAnalysis
<i>ROA</i>	Earnings before tax divided by total assets	FinAnalysis
<i>Stock Returns</i>	The raw return on company's shares during the year, calculated as the current year share price divided by the previous year share price, expressed in natural logarithm	FinAnalysis
<i>Discret. Accruals</i>	The absolute value of forward-looking discretionary accruals from the modified Jones (1991) model, developed by Dechow et al. (2003)	FinAnalysis
<i>Std dev (ROA)</i>	Standard deviation of ROA over the last 5 years	FinAnalysis
<i>Std dev (Sales/TA)</i>	Standard deviation of the ratio of sales divided by total assets over the last 5 years	FinAnalysis
<b>Governance and CFO characteristics</b>		
<i>CFO Board</i>	A binary variable coded as one if the CFO is on the company board of directors, zero otherwise	Capital <i>IQ</i> database,
<i>CFO Ownership</i>	The percentage of company shares owned by the CFO	Boardroom
<i>CFO Tenure</i>	The number of years since the CFO was appointed	database and
<i>Board Size</i>	The number of directors on the board of directors	company
<i>Insider Ratio</i>	The percentage of executive directors on the board	annual reports

Table 2: Descriptive statistics

	Mean	Median	Standard deviation
<b>Panel A: CFO compensation (\$)</b>			
Salary	473,877	371,255	300,533
Bonus	281,164	100,000	460,228
Total cash comp	896,489	540,410	966,429
Total non-cash comp	259,373	82,879	555,875
Total comp	1,155,862	691,293	1,309,042
<b>Panel B: Financial characteristics</b>			
Firm Size (\$mil)	20,815	662	84,031
Bus. Segment	3.99	4.00	2.47
Leverage	1.04	0.44	2.15
M/B Ratio	3.44	2.29	4.50
ROA	4.16%	6.62%	18.20%
Stock Returns	7.93%	8.89%	58.77%
Discret. Accruals	0.60	0.07	5.09
Std dev (ROA)	11.42%	3.00%	45.38%
Std dev (Sales/TA)	21.74%	12.53%	49.32%
<b>Panel C: Governance and CFO characteristics</b>			
CFO Board	42.98%		
CFO Ownership	0.19%	0.03%	0.62%
CFO Tenure (years)	5.22	4.08	3.82
Board Size	7.79	8	2.59
Insider Ratio	39.53%	37.50%	15.72%

This table presents summary statistics of 563 firm-year observations in our sample from 2006 to 2010. CFO compensation is shown separately for *Bonus*, *Salary*, *Total cash compensation*, *Total non-cash compensation* and *Total compensation*. *Firm Size* is book value of total assets in the prior year, expressed in natural logarithm. *Bus. Segments* is the number of firm's business segments, expressed in logarithmic scale. *Leverage* is firm financial leverage, calculated as total debts divided by market value of equity. *M/B Ratio* is market value of equity divided by the book value of equity. *ROA* is return on assets, calculated as earnings before tax divided by total assets. *Stock Returns* is raw return on company's shares during the year, calculated as the current year share price divided by the previous year share price, expressed in natural logarithm. *Discret. Accruals* is the absolute value of forward-looking discretionary accruals from the modified Jones (1991) model, developed by Dechow et al. (2003). *Std dev (ROA)* is standard deviation of ROA over the last 5 years. *Std dev (Sales/TA)* is standard deviation of the ratio of sales divided by total assets. *CFO Board* is a binary variable coded as one if the CFO is on the company board of directors, zero otherwise. *CFO Ownership* is the percentage of company shares owned by the CFO. *CFO Tenure* is the number of years since the CFO was appointed, expressed in natural logarithm. *Board Size* is the number of directors on the board of directors. *Insider Ratio* is the percentage of executive directors on the board.

Table 3: Regressions of CFO compensation - when compensation in dollar value (\$'000)

Panel A: Salary, Total cash compensation, and Total compensation (\$'000) - OLS regression

	Salary	Total cash compensation	Total compensation
	OLS	OLS	OLS
Firm $Size_{t-1}$ (ln)	<b>109.73***</b> [17.74]	<b>249.56***</b> [7.24]	<b>348.63***</b> [9.01]
Bus. Segments (ln)	10.78 [1.11]	<b>58.17**</b> [2.03]	56.30 [1.30]
ROA	-1.73 [-0.05]	-112.97 [-0.91]	-178.24 [-1.01]
Stock Returns	3.55 [0.29]	<b>131.72***</b> [3.12]	<b>221.20***</b> [3.66]
Discret. Accruals	0.34 [0.40]	2.46 [1.39]	2.65 [0.85]
CFO Board	<b>143.42***</b> [7.05]	<b>209.44***</b> [3.09]	<b>323.59***</b> [3.35]
CFO Ownership	<b>37.58**</b> [2.56]	<b>79.06**</b> [2.52]	<b>135.97***</b> [2.77]
CFO Tenure (ln)	-9.81 [-1.02]	<b>74.40*</b> [1.78]	43.81 [0.80]
Board Size	<b>12.18**</b> [2.01]	52.88 [1.40]	<b>100.18**</b> [2.16]
Insider Ratio	-78.69 [-1.32]	63.66 [0.30]	249.93 [0.85]
Leverage	<b>-30.86***</b> [-7.47]	<b>-39.83*</b> [-1.78]	-18.89 [-0.61]
M/B Ratio	<b>4.55***</b> [2.60]	<b>14.58*</b> [1.95]	<b>27.13***</b> [2.92]
Std dev (ROA)	23.71 [1.05]	<b>84.81**</b> [2.08]	<b>117.80*</b> [1.82]
Std dev (Sales/TA)	-2.19 [-0.21]	7.57 [0.22]	4.86 [0.10]
Include fixed effects? (Industry & Year)	Yes	Yes	Yes
Adjusted $R^2$	74.04%	47.21%	53.91%
Total observations	563	563	563

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**Panel B: Bonus and Total non-cash compensation (\$'000) - OLS and Tobit regression**

	Bonus		Total non-cash compensation	
	OLS	Tobit	OLS	Tobit
Firm $Size_{t-1}$ (ln)	<b>108.12***</b> [7.00]	<b>135.53***</b> [8.47]	<b>99.07***</b> [7.42]	<b>119.88***</b> [6.22]
Bus. Segments (ln)	<b>42.14**</b> [2.56]	28.96 [0.87]	-1.88 [-0.08]	-25.59 [-0.64]
ROA	-110.23 [-1.45]	38.95 [0.30]	-65.27 [-0.78]	33.10 [0.23]
Stock Returns	<b>87.51***</b> [3.88]	<b>145.68***</b> [3.64]	<b>89.48***</b> [2.69]	<b>107.09**</b> [2.32]
Discret. Accruals	1.20 [1.53]	0.83 [0.20]	0.19 [0.12]	-0.75 [-0.15]
CFO Board	58.09 [1.47]	79.14 [1.56]	<b>114.16**</b> [2.05]	<b>119.03**</b> [1.97]
CFO Ownership	22.48 [1.39]	-4.71 [-0.11]	<b>56.91**</b> [2.28]	60.61 [1.28]
CFO Tenure (ln)	<b>37.42*</b> [1.67]	35.19 [1.26]	-30.60 [-1.05]	-44.20 [-1.30]
Board Size	-1.07 [-0.09]	-0.82 [0.07]	<b>47.30*</b> [1.72]	<b>54.80***</b> [4.01]
Insider Ratio	76.45 [0.66]	-76.17 [-0.45]	186.27 [1.19]	67.80 [0.34]
Leverage	13.75 [0.70]	3.81 [0.31]	20.95 [1.07]	15.97 [1.09]
M/B Ratio	<b>5.73*</b> [1.76]	3.80 [0.59]	<b>12.54***</b> [3.01]	<b>15.28**</b> [2.04]
Std dev (ROA)	28.80 [1.13]	32.85 [0.56]	32.99 [0.99]	11.46 [0.16]
Std dev (Sales/TA)	17.52 [1.02]	39.20 [0.99]	-2.71 [-0.12]	5.40 [0.11]
Include fixed effects? (Industry & Year)	Yes	Yes	Yes	Yes
Adjusted $R^2$	39.10%		30.29%	
No. of zero obs		146		125
No. of non-zero obs		417		438
Total obs	563	563	563	563

This table presents the regression results on CFO compensation which is expressed in dollar value (\$'000), separately for *Bonus*, *Salary*, *Total cash compensation*, *Total non-cash compensation* and *Total compensation*. The sample of 563 observations is from 2006 to 2010. *Firm Size* is book value of total assets in the prior year, expressed in natural logarithm. *Bus. Segments* is the number of firm's business segments, expressed in logarithmic scale. *Leverage* is firm financial leverage, calculated as total debts divided by market value of equity. *M/B Ratio* is market value of equity divided by the book value of equity. *ROA* is return on assets, calculated as earnings before tax divided by total assets. *Stock Returns* is raw return on company's shares during the year, calculated as the current year share price divided by the previous year share price, expressed in natural logarithm. *Discret. Accruals* is the absolute value of forward-looking discretionary accruals from the modified Jones (1991) model, developed by Dechow et al. (2003). *Std dev (ROA)* is standard deviation of ROA over the last 5 years. *Std dev (Sales/TA)* is standard deviation of the ratio of sales divided by total assets. *CFO Board* is a binary variable coded as one if the CFO is on the company board of directors, zero otherwise. *CFO Ownership* is the percentage of company shares owned by the CFO. *CFO Tenure* is the number of years since the CFO was appointed, expressed in natural logarithm. *Board Size* is the number of directors on the board of directors. *Insider Ratio* is the percentage of executive directors on the board. Each regression uses White (1980) heteroskedasticity consistent covariance estimates. It also includes industry-specific and year-specific fixed effects to control for systematic differences in compensation across industries and over time. Figures in square brackets are  $t$ -statistics. Emboldened figures indicate statistical significance at 10% level or better with \*, \*\*, \*\*\* indicating statistically significant at the 10%, 5% or 1% level.

Table 4: CFO compensation, separately by CFO on board firms

	CFO on Board firms N = 242			CFO not on Board firms N = 321			Difference in mean/median	
	Mean	Median	Std dev	Mean	Median	Std dev	<i>t</i> -stat.	Mann-Whitney stat.
Salary	546,773	447,654	350,178	418,922	336,870	243,384	<b>5.11***</b>	<b>4.04***</b>
Bonus	337,145	137,381	478,370	238,961	83,433	442,144	<b>2.52**</b>	<b>2.37**</b>
Total cash comp	1,085,430	719,261	1,209,364	754,048	477,626	701,049	<b>4.08***</b>	<b>3.79***</b>
Total non-cash comp	318,970	82,504	701,338	214,443	82,879	409,295	<b>2.22**</b>	0.62
Total comp	1,404,400	821,867	1,590,370	968,491	589,867	1,011,268	<b>3.96***</b>	<b>3.47***</b>

This table presents compensation summary statistics of firms in our sample from 2006 to 2010. It is reported separately for firms that have CFOs in their board of directors (242 observations) and firms that do not have the presence of CFOs on the board (321 observations). Tests for difference in mean and median of each compensation component in the two sub-samples are displayed in the table. Bold figures show that there is a significant difference (at the significance level of 10% or better) between the two sub-samples with \*, \*\*, \*\*\* indicating statistically significant at the 10%, 5% or 1% level.

Table 5: Regressions of CFO compensation - when compensation in natural logarithm

	Salary	Total cash compensation	Total compensation	Bonus	Total non-cash compensation
Firm $Size_{t-1}$ (ln)	<b>0.26***</b> [14.07]	<b>0.31***</b> [16.09]	<b>0.34***</b> [16.50]	<b>0.49***</b> [10.02]	<b>0.53***</b> [8.77]
Bus. Segments (ln)	<b>0.05*</b> [1.73]	<b>0.06*</b> [1.85]	0.03 [0.85]	<b>0.16*</b> [1.85]	0.12 [1.15]
ROA	0.16 [1.07]	0.23 [1.26]	0.05 [0.22]	0.07 [0.24]	-0.89 [-1.27]
Stock Returns	-0.11 [-1.08]	0.08 [1.57]	<b>0.11*</b> [1.78]	<b>0.34***</b> [2.68]	0.03 [0.26]
Discret. Accruals	-0.0002 [-0.13]	-0.001 [-0.34]	-0.001 [-0.13]	0.003 [0.63]	<b>0.01*</b> [1.70]
CFO Board	<b>0.22***</b> [3.26]	<b>0.24***</b> [3.48]	<b>0.24***</b> [3.74]	<b>0.28***</b> [2.65]	<b>0.29**</b> [2.11]
CFO Ownership (ln)	<b>0.04**</b> [2.35]	<b>0.04***</b> [2.71]	<b>0.04**</b> [2.58]	0.04 [1.29]	<b>0.12***</b> [2.74]
CFO Tenure (ln)	-0.02 [-0.46]	0.04 [1.04]	0.01 [0.24]	0.03 [0.45]	-0.09 [-0.97]
Board Size	0.001 [0.08]	0.01 [0.75]	0.02 [1.12]	0.01 [0.39]	0.003 [0.06]
Insider Ratio	-0.21 [-0.98]	-0.25 [-1.17]	-0.18 [-0.88]	-0.16 [-0.34]	0.63 [1.06]
Leverage	<b>-0.08***</b> [-7.72]	<b>-0.07***</b> [-4.02]	<b>-0.07***</b> [-3.63]	<b>-0.08**</b> [-2.13]	<b>-0.07*</b> [-1.77]
M/B Ratio	0.002 [0.43]	-0.01 [-0.96]	0.003 [0.50]	-0.01 [-0.85]	<b>0.04**</b> [2.06]
Std dev (ROA)	<b>0.15**</b> [2.39]	<b>0.18***</b> [4.09]	<b>0.23***</b> [3.75]	<b>0.27***</b> [2.77]	<b>0.56***</b> [3.48]
Std dev (Sales/TA)	-0.17 [-1.62]	-0.13 [-1.27]	<b>-0.24*</b> [-1.84]	0.32 [1.41]	<b>-0.75**</b> [-2.31]
Include fixed effects? (Industry & Year)	Yes	Yes	Yes	Yes	Yes
Adjusted $R^2$	70.85%	74.72%	73.25%	64.14%	48.17%
Total observations	479	479	479	371	381

This table presents the regression results on CFO compensation which is expressed in natural logarithm, separately for *Bonus*, *Salary*, *Total cash compensation*, *Total non-cash compensation* and *Total compensation*. The sample is from 2006 to 2010. *Firm Size* is book value of total assets in the prior year, expressed in natural logarithm. *Bus. Segments* is the number of firm's business segments, expressed in logarithmic scale. *Leverage* is firm financial leverage, calculated as total debts divided by market value of equity. *M/B Ratio* is market value of equity divided by the book value of equity. *ROA* is return on assets, calculated as earnings before tax divided by total assets. *Stock Returns* is raw return on company's shares during the year, calculated as the current year share price divided by the previous year share price, expressed in natural logarithm. *Discret. Accruals* is the absolute value of forward-looking discretionary accruals from the modified Jones (1991) model, developed by Dechow et al. (2003). *Std dev (ROA)* is standard deviation of ROA over the last 5 years. *Std dev (Sales/TA)* is standard deviation of the ratio of sales divided by total assets. *CFO Board* is a binary variable coded as one if the CFO is on the company board of directors, zero otherwise. *CFO Ownership* is the percentage of company shares owned by the CFO, expressed in natural logarithm. *CFO Tenure* is the number of years since the CFO was appointed, expressed in natural logarithm. *Board Size* is the number of directors on the board of directors. *Insider Ratio* is the percentage of executive directors on the board. Each regression uses White (1980) heteroskedasticity consistent covariance estimates. It also includes industry-specific and year-specific fixed effects to control for systematic differences in compensation across industries and over time. Figures in square brackets are  $t$ -statistics. Emboldened figures indicate statistical significance at 10% level or better with \*, \*\*, \*\*\* indicating statistically significant at the 10%, 5% or 1% level.