

Earnings Management and Equity Incentive Gap between CEOs and CFOs

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Abstract

Extant research findings on the relative role of Chief Executive Officers (CEOs) and chief financial officers (CFOs) in earnings management appear to be mixed (Jiang et al, 2010; Feng et al., 2011). This study re-examines this issue by refining the models used by previous studies. We use the difference in the equity incentive of CEOs and CFOs as a proxy for CEO incentive to engage in opportunistic reporting activities relative to CFOs. We find that both CFO equity incentive and the gap between CEO and CFO equity incentive are positively associated with discretionary accruals. More importantly, we examine and find that CEO power does not affect CFO equity incentive to manage earnings. Taken together, the finding of this study is consistent with Jiang et al. (2010) but inconsistent with Feng et al. (2012), indicating that CFOs play a separate (from CEOs) but important role in opportunistic reporting activities. While previous studies (e.g. Kini and William, 2012) find that a higher pay gap between CEOs and other executive managers may encourage CEOs engaging in riskier financing and operating strategies (i.e. tournament incentives), our study provides evidence that a higher gap between CEO and CFO equity incentive is associated with riskier reporting decision.

1. Introduction

This study is motivated by the mixed findings on the relative role of Chief Executive Officers (CEOs) and chief financial officers (CFOs) in earnings management literature. Jiang, Petroni, and Wang (2010) find that the equity incentive of CFOs¹ plays a more important role in earnings management than that of CEO. In contrast, Feng, Ge, Luo, and Shevlin (2011) argue that CEOs could use their power to coerce CFOs into accounting manipulations. Using a sample of firms with material accounting manipulations, Feng et al. (2011) provide evidence supporting their hypothesis that CFO involvement in accounting manipulations is due to the pressure from CEOs, and they do not obtain any personal benefits from material accounting manipulations. Although the above two studies use rather different samples, the inconsistent findings do not provide cohesive evidence regarding whether or not CFOs have played a separate role from CEOs in engaging in opportunistic reporting activities, such as earnings management. This is an important question for at least three reasons. First, it is widely believed that CFOs are more directly involved in financial reporting process than CEOs, but CEOs can set the overall tone for financial reporting and have a substantial influence in decisions regarding the welfare of CFOs. Hence, CEOs and CFOs may play a different role in opportunistic reporting activities. However, extant literature provides rather limited and mixed evidence regarding the relative role of CEOs and CFOs in earnings management. Second, according to Sarbanes-Oxley Act Section 302, both CEO and CFO need to certify that financial statements fairly present firms' financial position, results of operations, and cash flows and they are not misleading. Consequently, both CEOs and CFOs have the same level of financial oversight responsibility. Finally, CEOs and CFOs could

¹ Equity incentive of CFOs and CEOs is measured by the sensitivity of the value of CEOs and CFOs' equity portfolio to changes in the firm's stock prices.

have different equity incentives. Jiang et al. (2010) document that on average the CFO equity incentive is only 63.1% of CEO equity incentive for the S&P 1500 firms during the period from 1993 to 2006. The difference in CEO and CFO equity incentive may be due to their different responsibilities within the firm (Aggarwal and Samwick, 2003). This difference may also have important implication for the extra pressure from the CEO position or the incentive to engage in opportunistic reporting activities from CEOs. We are unaware of any study examining the extent to which the difference in the equity incentive between CEOs and CFOs affects their relative role in engaging in opportunistic reporting activities.

Following Bergstresser and Philippon (2006), we measure CEO or CFO equity-based incentives as the sensitivity of the value of their equity portfolio to changes in the firm's stock prices. Different from Jiang et al. (2010), we use the difference in equity incentive of CEOs and CFOs to separate CEO incentive to engage in opportunistic reporting activities (similar to tournament incentives) from CFO incentive.² Similar to Feng et al. (2011), this difference in equity incentive component can also be used as an additional proxy for CEO power over CFO in company's financing reporting. Consistent with Bergstresser and Philippon (2006), we find a positive association between discretionary accruals and CEO equity incentive. We also find that both CFO equity incentive and the difference in equity incentive between CEOs and CFOs are positively associated with discretionary accruals. More importantly, we find that the coefficient of CFO equity incentive is statistically greater than that of the incentive gap between CEOs and CFOs. Hence, our finding indicates that CFOs engage in earnings management due to their own equity interests in their companies after controlling for CEO equity incentive. In other words,

² Bergstresser and Philippon (2006) regress discretionary accruals by CEO equity incentive, which does not explain the relative role of CEOs and CFOs in earnings management.

CFOs do obtain personal benefits from earnings management. This is consistent with Jiang et al. (2010) that CFOs play a stronger role in earnings management relative to CEOs.

We further examine whether the association between discretionary accruals and CFO equity incentives vary with CEO power. We use three proxies for CEO power: the difference in the equity incentive between CEOs and CFOs, CEO pay-slice,³ and whether CEOs are also the Chairmen of the Board of Directors. We find that CEO power over CFO does not actually have a significant effect on the involvement of CFOs in earnings management. Hence, this study does not lend support to Feng et al. (2011) and provides consistent evidence indicating that CFOs have a separate and important role in earnings management relative to CEOs. In fact, we find that CFOs play a primary role in earnings management although the difference in equity incentive between CEOs and CFOs (i.e. tournament incentives or CEO power) appears to have an effect on opportunistic reporting activities.

This study contributes to the literature in several ways. First, we refine the methodology used in previous studies (Bergstresser and Philippon, 2006; Jiang et al., 2010; Feng et al., 2011) by considering the effect of the difference in equity incentive between CEOs and CFOs on earnings management. There are some benefits of adding this variable to the models used by previous studies. For example, it allows us to separate the effect of CFO incentive on earnings management from that of CEO incentive. Furthermore, this allows us to avoid the potential collinearity issue between CEO and CFO equity incentive as documented by Jiang et al. (2011). Most importantly, using the difference in CEO and CFO equity incentive fills the gap in literature. Kini and Williams (2012) test the effect of pay gap between CEO and the next layer of senior managers on senior managers' risk-taking behavior. Their results indicate that higher

³ Pay slice is defined as the fraction of the total compensation to the group of top five executives that is received by the CEO in this study.

tournament incentives will result in greater risk-taking by senior managers in order to increase their chance of promotion to the rank of CEOs. Moreover, Bushman et al. (2012) examine the effect of the dispersion in equity incentives across top executives on firm value, measured by Tobins' Q, and operating performance, measured by ROA, and find that the dispersion is negatively associated with firm value and operating performance. Our study shows that the difference in CEO and CFO equity incentive also has implication for CEOs' opportunistic reporting activities, such as earnings management.

Second, we introduce an additional proxy for CEO power, i.e. the difference in equity incentive between CEOs and CFOs. We find that the difference in CEOs and CFO equity incentive plays an important role in CEO incentive to engage in opportunistic reporting activities. Moreover, using this proxy and other two CEO power proxies used in prior studies, we find consistent and robust results that CEO power does not actually have a significant effect on the involvement of CFOs in earnings management, indicating that CFOs play a primary role in opportunistic reporting activities. In other words, our finding is generally consistent with Jiang et al. (2010) but is inconsistent with Feng et al. (2011), and therefore shed light on the role of CFO in firm's financial reporting behavior.

The finding of this study also has several implications for CFO compensation scheme. There has been a debate on how CFOs should be paid. When testifying before the Senate Finance Committee, a former IRS commissioner argued that CFOs, who are virtually responsible for "minding the cookie jar", should get "generous but fixed compensation" (Katz [2006]) instead of incentive-based compensation. Indjejikian and Matejka (2009) suggest that firms should deemphasize self-reported financial performance in CFO compensation to mitigate misreporting practices. Our result also suggests that when determining whether to reduce the

percentage of CFOs' equity compensation, compensation committee may also need to consider the incentive gap that captures CEO incentive to engage in opportunistic reporting activities.

The remainder of the paper is organized as follows. Section 2 discusses the related literature and develops hypotheses. Section 3 presents the model. Section 4 discusses the data and results. The final section presents the conclusions.

2. Literature Review and Hypothesis Development

CEOs are the key decision maker and generally regarded as the most powerful organizational leader. The extant literature has typically focused on how the incentives of CEOs affect financial reporting quality. For example, prior research finds that CEO equity incentive is associated with accruals management (Bergstresser and Philippon, 2006) and the likelihood of beating analyst forecasts (Cheng and Warfield, 2005). Both studies, however, do not examine the relative role of CEOs and CFOs in engaging in earnings management activities.

Other studies suggest that CFOs typically oversee the firms' financial reporting process and therefore have the most direct impact on their firm's accounting related decisions, such as choosing accounting methods and making accounting adjustments. For example, Geiger and North (2006) show that discretionary accruals decrease significantly surrounding the appointment of a new CFO, indicating that CFOs have significant and independent influence on firms' financial reporting quality beyond CEOs. Chava and Purnanandam (2010) find that CFOs' risk-taking incentives lead to riskier debt maturity choices and lesser accrual management. Ge et al. (2010) provide evidence that accounting choices are influenced by CFOs' individual characteristics such as their dispositions, personal situations and prior experiences. Moreover,

Jiang et al. (2010) find that CFO equity incentive plays a role in earnings management after controlling for CEO effect.

The impact of CEO power on CFOs has been widely documented in the literature. Prior Research indicates that CEOs have the power to replace CFOs who do not follow their preferences. Specifically, Mian (2001) documents that the arrival of a new CEO limits the opportunities of the old CFO in terms of future promotion to the top position. As a result, the CFO is more likely to leave the company. Similarly, Fee and Hadlock (2004) find that the removal of the CEO has a significant effect on CFO dismissals. Feng et al. (2011) find that CFO turnover is significantly higher within three years prior to the occurrences of material accounting manipulations for manipulation firms than control firms, suggesting that CFOs lose jobs for saying no to CEOs. Moreover, CEOs, as CFOs' superior, can use their influence over various decisions including CFOs' future career opportunities and compensation schemes. Prior studies (e.g., Finkelstein, 1992; Adams et al., 2005) find that powerful CEOs exercise their influence over corporate decisions, including those related to CFOs. Also, CEOs could create a corporate culture that overemphasizes the importance of meeting short-term accounting targets. CFOs are therefore likely to lose financial benefits, or even their jobs, if they do not follow powerful CEOs by providing earnings that CEOs demand (Hennes et al., 2008).

Prior research also examines the extent to which CEOs could exercise their influence over CFOs in financial and reporting decision. Feng et al. (2011) examine whether or not CEO power affects CFOs involvement in material accounting manipulations. Using CEO pay-slice, dual role of CEO and Chairman, and CEO founder as proxies for CEO power, Feng et al. (2011) find that CFO equity incentive is associated with material accounting manipulations only for firms with powerful CEOs. In other words, CEOs play a primary role in opportunistic reporting

activities, which is different from Jiang et al. (2010) that CFOs engage in opportunistic reporting activities due to their own equity interests in their companies after controlling for CEO equity incentive. In fact, Jiang et al. (2010) find that the coefficient of CFO equity incentive is nearly three times as large as that of CEO equity incentive, indicating that it is CFOs that play a primary role in earnings management.

Taken together, prior literature shows that both CEOs and CFOs have incentives to manipulate earnings when they are rewarded with option-like payoff. However, what is inconsistent in the literature is whether CEOs or CFOs play a primary role in engaging in opportunistic reporting activities. The different findings documented by Jiang et al. (2010) and Feng et al. (2011) could be caused by the following factors. First, both studies use rather different sample firms for empirical tests. Feng et al. (2011) only include firms with material accounting manipulations whereas Jiang et al. (2010) include all the firms with equity incentive data available in ExecuComp database. Second, since both studies include CEO and CFO equity incentives in the OLS model, the correlation between both measures may affect their individual statistical significance. For example, CFO equity incentive is not associated with material accounting manipulation in Feng et al. (2011) when the correlation coefficient between CEO and CFO equity incentives is 0.585. On the other hand, Jiang et al. (2010) find that CFO equity incentive is positively associated with discretionary accruals when the correlation coefficient between CEO and CFO equity incentives is 0.50. Jiang et al. (2010) acknowledge that there may be a collinearity issue between CEO and CFO equity incentives.

In the spirit of Kini and William (2012) that use the difference in pay between CEOs and next highest paid executive, this study uses the difference in CEO and CFO equity incentives to proxy for CEO incentive to engage in opportunistic reporting activities relative to CFOs. In

doing so, we are not only able to differentiate the incentive difference between CEOs and CFOs but are also able to avoid potential collinearity issue between CEO and CFO equity incentive. To be consistent with Feng et al. (2011), we also use the difference in CEO and CFO equity incentive as an additional proxy for CEO power. We examine two research questions in this study. First, does CFO equity incentive play a primary role in earnings management? If yes, we should observe a positive and significant association between discretionary accruals and CFO equity incentive after controlling for the differences in CFO and CEO equity incentive. Second, does CEO power, measured by the difference in CEO and CFO equity incentive, CEO pay-slice, and dual role of CEO and Chairman, subsume CFOs engaging in opportunistic reporting activities? If yes, we should observe a positive association between discretionary accruals the interaction between CFO equity incentives and CEO power. We expect to observe an insignificant association between discretionary accruals and the interaction between CFO equity incentive and CEO power if CEO incentive to manage earnings does not affect CFO incentive to manage earnings. The following section discusses the sample selection and data.

3. Variable Constructions and Empirical Design

3.1 Equity Incentive and Incentive Gap between CEO and CFO

We calculate equity incentives by following the method described by Bergstresser and Philippon (2006). We first calculate ONEPCT as the total change in value of the executive's stock and stock option portfolio in response to a one percent change in the stock price.

$$\text{ONEPCT} = 1\% * \text{Price} * (\# \text{ of Shares} + \# \text{ of Options} * \text{Option Delta}), \quad (1)$$

where Price is the company share price, Option delta is estimated using Core and Guay (2002) "one-year approximation" (OA) method, which use data from a single corporate proxy statement

to estimate the sums of the value of newly granted options, unexercisable options, and exercisable options. To remove size consideration, we then divide ONEPCT by total annual compensation,

$$\text{Equity Incentive} = \text{ONEPCT}/(\text{ONEPCT}+\text{Salary}+\text{Bonus}). \quad (2)$$

We separately calculate equity incentive for CEO (Incentive_CEO) and CFO (Incentive_CFO). The incentive gap (Incentive_GAP) is measured as the difference between Incentive_CEO and Incentive_CFO.

3.2 Total Accruals and Discretionary Accruals

We follow Dechow et al. (1995) to measure total accruals as

$$TA_t = (\Delta CA_t - \Delta CL_t - \Delta Cash_t + \Delta STD_t - Dep_t) / (A_{t-1}) \quad (3a)$$

Where

ΔCA_t	=	change in current assets;
ΔCL_t	=	change in current liabilities;
$\Delta Cash_t$	=	change in cash and cash equivalents;
ΔSTD_t	=	change in debt included in current liabilities;
Dep_t	=	depreciation and amortization expense; and
A_{t-1}	=	total assets at t-1.

We use modified Jones Model to measure discretionary accruals. Specifically, we first estimated the following model cross-sectionally by two-digit SIC industry and by year. We require 10 observations for each year-industry combinations.

$$TA_t = \alpha_1(1/A_{t-1}) + \alpha_2(\Delta REV_t - \Delta REC_t) + \alpha_3(PPE_t) + \varepsilon_t \quad (3b)$$

Where

ΔREV_t	=	revenues in year t less revenues in year $t-1$ scaled by total assets at $t-1$;
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ΔREC_t = net receivables in year t less net receivables in year $t-1$ scaled by total assets at $t-1$;
 PPE_t = gross property plant and equipment in year t scaled by total assets at $t-1$;
 A_{t-1} = total assets at $t-1$.

Nondiscretionary accruals for each firm year observation are calculated by applying industry and year-specific parameters α_1 , α_2 , and α_3 to the following equation:

$$NDA_t = \alpha_1(1/A_{t-1}) + \alpha_2(\Delta REV_t - \Delta REC_t) + \alpha_3(PPE_t) \quad (4)$$

Discretionary accruals are then estimated by subtracting the predicted level of nondiscretionary accruals (NDA) from total accruals (TA) as

$$\text{Discretionary accruals}_t = TA_t - NDA_t \quad (5)$$

3.3 Regression Models

To test the relative role of equity incentive of CFOs and CEOs in firm's earnings management, we run the following regression

$$\begin{aligned}
 |\text{Discretionary Accruals}| = & \beta_0 + \beta_1 \text{Incentive_GAP} + \beta_2 \text{Incentive_CFO} + \beta_3 \text{StdCashFlow} + \\
 & \beta_4 \text{StdRev} + \beta_5 \text{Size} + \beta_6 \text{Oldfirm} + \beta_7 \text{StdSalesGrowth} + \beta_8 \text{Leverage} + \\
 & \beta_9 \text{MarketToBookDecile} + \text{Year} + \text{Exchange} + \text{Industry} + \varepsilon \quad (6)
 \end{aligned}$$

Where:

$|\text{Discretionary Accrual}|$ is the absolute value of discretionary accruals;

Incentive_GAP is the difference between CEO and CFO Incentive ($\text{Incentive_CEO} - \text{Incentive_CFO}$);

Incentive_CEO is the CEO equity incentive ratio per Bergstresser and Philippon(2006);

Incentive_CFO is the CFO equity incentive ratio per Bergstresser and Philippon(2006);

StdCashFlow is the standard deviation of cash flows from operations deflated by total assets over the current and previous four years;

StdRev is the standard deviation of sales (DATA12) deflated by total assets over the current and previous four years;

Size is the natural logarithm of lagged total assets (DATA6 adjusted to the 1996 dollar);

Oldfirm equals one if a firm is listed on Compustat for more than 20 years, and zero otherwise;

StdSalesGrowth is the standard deviation of sales growth over the current and previous four years;

Leverage is total liabilities (DATA181) deflated by total assets (DATA6);

MarketToBookDecile is the deciles of market-to-book ratio represents deciles of market value of assets (DATA6+DATA199*DATA25-DATA60-DATA74) divided by the book value of assets (DATA6) ranked within each year;

Year represents year indicators;

Exchange represents exchange indicators;

Industry represents the Fama and French industry indicators.

A powerful CEO who owns a lion share of equity compensation paid to executives should have more incentives to manage earnings, raising a concern regarding whether CEO power has a significant effect on CFO equity incentive to engage in opportunistic reporting activities. Feng et al. (2011) show CEOs of firms with material accounting manipulations are more powerful, i.e. have higher CEP pay-slice, more likely to be the Chairmen of the Board, and more likely to be the founders of their firms), than those of matched non-manipulating firms. This study examines whether CFO incentive to manage earnings is independent from CEO's incentive or CEO power using the following regression model.

$$|\text{Discretionary Accruals}| = \beta_0 + \beta_1 \text{Incentive_GAP} + \beta_2 \text{Incentive_CFO} + \beta_3 \text{High_Power} + \beta_4 \text{High_Power} \times \text{Incentive_CFO} + \beta_5 \text{StdCashFlow} + \beta_6 \text{StdRev} + \beta_7 \text{Size} + \beta_8 \text{Oldfirm} + \beta_9 \text{StdSalesGrowth} + \beta_{10} \text{Leverage} + \beta_{11} \text{MarketToBookDecile} + \text{Year} + \text{Exchange} + \text{Industry} + \varepsilon \quad (7)$$

Where *High_Power* is the proxy for CEO power over CFO. We measure *High_Power* in three ways. It is equal to 1 if Incentive_GAP is above industry-year median, 0 otherwise, or if CEO's

pay-slice is above industry-year median, 0 otherwise, or if CEO is also the Chairman of the Board of Directors, 0 otherwise.

4. Data and Results

The initial sample consists of all ExecuComp firms during the period 1993–2006, which is consistent with Jiang et al. (2010). Although ExecuComp data became available from year 1992, we exclude this year because of incomplete coverage (Aggarwal and Samwick, 2003). We then identify CEOs using the ExecuComp’s data item CEOANN=CEO. We also identify CFOs using managers’ titles in ExecuComp (data item “titleann”) that include any of the following phrases: CFO, chief financial officer, chief finance officer, chief accounting officer, treasurer, controller, finance, and vice president-finance. There are a total of 17,670 firm-years with compensation data available for both CEOs and CFOs during the test period. We delete 5,656 observations with missing Compustat financial data when calculating discretionary accruals. The final sample consists of 12,014 firm-year observations.

Table 1 presents descriptive statistics of CEO and CFO compensation metrics. Except for ratios, all the variables are measured in millions. Incentive is the equity incentive ratio per Bergstresser and Philippon (2006); Cashpay is the sum of salary and bonus; Totalpay is the sum of cash pay, stock option grants, restricted stock grants, long-term incentive plan payouts, and other annual compensation (data item “TDC1”). Equityhld reports managers’ stock and stock option holdings.

Panel A shows that on average CEO Cashpay is 1.34 times more than CFO Cashpay. The gap is wider for Totalpay, which is 1.90 times more than CFO Totalpay. The mean CEO equity holdings are roughly 10 times as large as the mean CFO equity holdings. When company’s stock price increase by 1%, the value of the firm’s shares and share options held by a CFO will

increase by 10.4% while the value of equity portfolio held by a CEO will increase by 23.6%. The mean difference between CEO and CFO equity incentive is 10.7%, which is economically significant.

Panel B displays the time-series variation of average Incentive_GAP. The equity incentive gap between CEOs and CFOs gradually increase from 11.7% in 1993 to 14.2% in 2001 ensued by a general decline to 11.7% in 2005. The potential reasons for the decline since 2002 are the enactment of SOX and investors sentiments against equity compensations to CEOs due to some high profile accounting scandals such as Enron and Worldcom.

Panel C displays the cross-sectional variation of average Incentive_GAP across industries. We use the Fama-French 48 industry classification, and sort the data by the magnitude of industry average equity incentives. We find a big variation across industries. Candy and soda industry has the highest average Incentive_GAP of 29% while business supplies industry has the lowest average Incentive_GAP of 1.3%.

[Insert Table 1]

Panel A of Table 2 reports the descriptive statistics of main variables used in the regression models. Panel B reports the Pearson correlations. We find that CFO and CEO equity incentive ratio is highly correlated with a coefficient of 0.52. It is similar to the correlation coefficient of 0.50 as documented in Jiang et al. (2010). Moreover, Incentive_GAP is only moderately correlated with Incentive_CFO with a coefficient of 0.05. However, Incentive_GAP and Incentive_CEO are highly correlated with a correlation coefficient of 0.87. Taken together, the correlations among Incentive_CEO, Incentive_CFO, and Incentive_GAP suggesting that Incentive_GAP serves as a good proxy for CEO's equity incentive, but overcomes the potential collinearity issue between CEO's and CFO's equity incentives. We also observe that

|Discretionary Accruals| is positively correlated with Incentive_CEO, Incentive_CFO, and Incentive_GAP, providing univariate evidence that both CEO and CFO equity incentives are associated with firm's earnings management. We next turn to multivariate analysis.

[Insert Table 2]

Table 3, reports the regression results between absolute discretionary accruals and equity incentive gap between CEOs and CFOs. The first column reports the results using Incentive_CEO. The coefficient on Incentive_CEO is significantly positive, consistent with Bergstresser and Philippon (2006). In the second column, we include Incentive_CFO as additional interest variable. The coefficient on Incentive_CFO (0.017) is significantly positive while the coefficient on Incentive_CEO (0.010) remains to be significantly positive. The coefficient on Incentive_CFO is not statistically different from the coefficient on Incentive_CEO at the conventional levels. The third column reports the results using Incentive_GAP. The coefficient on Incentive_GAP is significantly positive, indicating that the equity incentive gap between CEO and CFO (i.e. tournament incentives of CEOs) are associated with accruals management. Similar to Kini and Willaim (2012) that find that pay gap between CEOs and other corporate executives leads to riskier financing and operating strategies, we find that incentive gap between CEOs and CFOs leads to opportunistic reporting activities such as earnings management. This finding is new in the literature. The fourth column reports the results when we include Incentive_CFO along with Incentive_GAP. Both the coefficients on Incentive_CFO (0.028) and Incentive_GAP (0.010) are positive and significant at the 5% level. More importantly, the coefficient on Incentive_CFO is nearly three times as large as the coefficient on Incentive_GAP. CFO incentive appears to have played an independent and a primary role in

earnings management after controlling for the incentive effects from CEOs. The coefficients on other control variables are all in the predicted directions.

As shown in the panel B of Table 1, the equity incentive gap between CEOs and CFOs changed since the enactment of SOX. Therefore, we partition our sample and repeat the main tests separately for the pre- and post-SOX periods. The subsample results are presented in Panel B of Table 3. We find that *Incentive_GAP* is only statistically significant in the pre-SOX period, while *Incentive_CFO* is consistently significant in both periods. This finding indicates that the dominant role of CFOs in earnings management increases after the introduction of SOX even though SOX requires CFOs to take the same responsibility of financial reporting as CEOs.

[Insert Table 3]

Table 4 presents the results of testing whether the relation between equity incentive of CFOs and firm's earnings management vary with CEO incentive or power. To be comparable with previous studies (e.g. Jiang et al. 2010; Feng et al. 2011), Panel A reports the results using the *Incentive_CEO*. Columns (1), (2), and (3) present the results using three proxies of CEO incentive/power respectively based on the industry-year median of *Incentive_GAP*, the industry-year median of CEO pay-slice, and whether CEOs are also the Chairmen of the Board of Directors. Our main interest of variable is the interaction term of *High_Power*Incentive_CFO*. In all three columns, we find that the coefficients on *High_Power*Incentive_CFO* are consistently insignificant, suggesting that CFO incentive to manage earnings is independent from CEO's incentive/power. Panel B reports the results using the refined CEO equity incentive as measured by *Incentive_GAP*. The results are qualitatively similar to the results reported in Panel A.

Overall, Table 4 shows inconsistent finding with Feng et al. (2011) that CFOs involve in material accounting manipulations due to the pressure from CEOs. Rather, our findings are consistent with previous studies (e.g. Geiger and North 2006, Ge et al. 2010, Jiang et al. 2010) that CFOs play an independent and a primary role in opportunistic reporting activities due to their own equity interests in their firms. This finding also echoes the debate regarding whether CFOs should be granted option-like payoff.

[Insert Table 4]

To further evaluate the robustness of our empirical results, we repeat our previous tests using total accruals, i.e. $|Total\ Accruals|$, as a proxy for earnings manipulation.⁴ The results are presented in Table 5. Panel A of Table 5 shows that consistent with our previous results, we find a significantly positive relation between $|Total\ Accruals|$ and $Incentive_CFO$, though the coefficients on $Incentive_CEO$ and $Incentive_GAP$ are no longer significant. Panel B of Table 5 shows that the coefficients on $High_Power*Incentive_CFO$ are consistently insignificant, indicating that CEO incentive and power do not affect CFO incentive to manage earnings. The coefficient on $Incentive_CFO$, however, remains to be significantly positive. This finding confirms our previous finding regarding the association between earnings manipulation and the equity incentive of CFOs and the separate effect of CEO incentive/power on earnings management.

[Insert Table 5]

⁴ We use the absolute values of total accruals as a robustness test to be consistent with Bergstresser and Philippon (2006) and Jiang et al. (2010). Hribar and Collins (2002) suggest that using successive-year balance sheet variables to measure earnings management creates potential problems around “non-articulation” dates, such as mergers and acquisitions. To avoid non-articulation problem, they measure earnings management as (reported earnings before extraordinary items and discontinued operations - operating cash flows from continuing operations)/ lagged assets.

5. Conclusion

This study re-investigates the relative role of CEOs and CFOs in earnings management using a sample of US firms during 1993-2006. Different from previous studies, we use the differences in CEO and CFO equity incentives to proxy for CEO incentive to engage in opportunistic reporting activities relative to CFOs. This research design also allows us to separate the effects of CEO and CFO incentive on earnings management. We also use this difference to proxy for CEO power and to investigate whether CEO power has any effect on CFO incentive to manage earnings. We find that a significantly positive association between discretionary accruals and CFO equity incentive and between discretionary accruals and the difference in CEO and CFO equity incentive. This finding is consistent with Jiang et al. (2010) that CFOs play an independent and important role in earnings management due to their equity interests in their firms. We also find that the gap of equity incentive between CEOs and CFOs is associated with the CEO incentive to engage in opportunistic reporting activities, which is generally consistent with tournament incentives as documented by previous studies (e.g. Kini and William, 2012).

We also re-examine the finding of Feng et al. (2011) using the difference in CEO and CFO equity incentive as an additional proxy for CEO power. We find there is no significant association between the interaction between the gap of CEO and CFO incentives and CFO equity incentive, indicating that CEO power does not actually have an effect on CFOs' incentive to engage in earnings management activities. This finding is robust even after using CEO pay-slice and dual role of CEO and Chairman as proxies for CEO power. Our finding is generally consistent with Jiang et al. (2010) but inconsistent with Feng et al. (2011) that CFOs play a primary and an independent role in earnings management. Our findings also provide some

important implications for CFO compensation schemes. It's argued that CFO compensation should be more incentive-based to further align with CEO compensation because CFOs play an increasingly important role in firms' overall decision-making and in representing their companies to communicate with analysts and investors. Our finding indicates that granting CFOs equity shares may encourage opportunistic reporting activities. Our finding also suggests that a large incentive gap between CEOs and CFOs may provide CEOs incentives for earnings management. Our findings may interest accounting regulators, compensation committees, and accounting practitioners.

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Table 1 : Descriptive statistics of CEO and CFO Compensation from 1993 to 2006

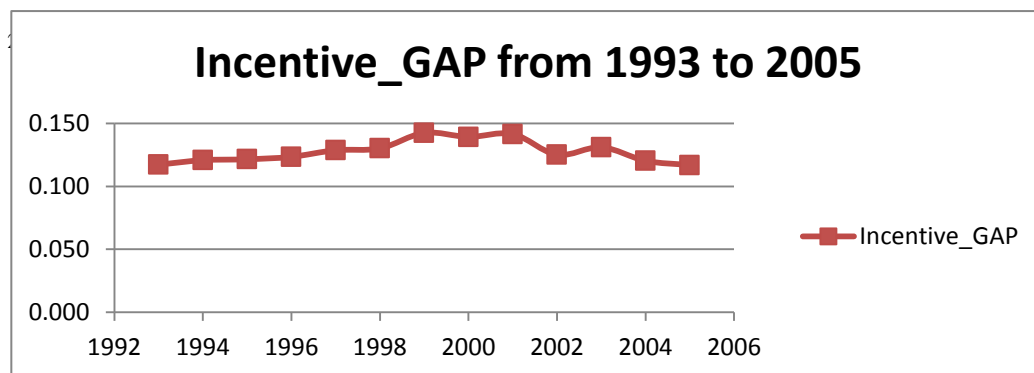
Incentive is the equity incentive ratio per Bergstresser and Philippon (2006) calculated as $ONEPCT/(ONEPCT+CashPay)$. *ONEPCT* is the dollar increase in manager's wealth for a 1% increase in stock price; *Cashpay* is the sum of salary and bonus; *Totalpay* is the sum of cashpay, stock option grants, restricted stock grants, long-term incentive plan payouts, and other annual compensation ($TDC1_{perExecucomp}$); *Equityhld* is the value of stocks and stock options owned by the manager ($shrown_excl_opts \times prcfcf + opt_unex_exer_est_val + opt_unex_unexer_est_val$, per Execucomp). All continuous variables are winsorized at 1% and 99% and all compensation variables are expressed in 1996 dollars using the consumer price index.

Panel A : Comparison of CEO and CFO compensation (1993-2006)

Variables	N	Mean	Median	Std. Dev.	Lower Quartile	Upper Quartile
Incentive_GAP	12,014	0.129	0.060	0.187	0.014	0.172
Incentive_CFO	12,014	0.107	0.074	0.105	0.036	0.139
Incentive_CEO	12,014	0.236	0.158	0.223	0.077	0.316
Totalpay_GAP	12,014	2.190	1.015	3.506	0.411	2.411
Totalpay_CFO	12,014	1.153	0.727	1.296	0.416	1.345
Totalpay_CEO	12,014	3.347	1.810	4.424	0.925	3.805
Cashpay_GAP	12,014	0.575	0.402	0.586	0.211	0.741
Cashpay_CFO	12,014	0.430	0.347	0.279	0.244	0.523
Cashpay_CEO	12,014	1.006	0.762	0.797	0.481	1.248
Equityhld_GAP	12,014	37.294	6.572	106.033	1.538	23.823
Equityhld_CFO	12,014	3.746	1.314	7.151	0.368	3.713
Equityhld_CEO	12,014	41.520	9.109	110.317	2.677	28.832

Panel B: Average CEO CFO compensation and equity incentive gap from 1993 to2006

Fiscal Year	N	Incentive_GAP	Totalpay_GAP	Cashpay_GAP	Equityhld_GAP
1993	482	0.117	1.195	0.524	36.771
1994	747	0.121	1.282	0.493	26.003
1995	789	0.121	1.307	0.500	29.040
1996	823	0.123	1.591	0.521	27.958
1997	839	0.129	1.911	0.565	37.769
1998	831	0.130	2.117	0.569	44.300
1999	841	0.142	2.583	0.581	52.287
2000	843	0.139	2.966	0.613	52.981
2001	857	0.142	2.926	0.560	42.444
2002	981	0.125	2.369	0.570	29.000
2003	1053	0.131	2.123	0.631	35.772
2004	1056	0.120	2.319	0.697	35.317
2005	1058	0.117	2.508	0.716	36.451



Panel C: Mean Incentive_GAP of different industries

Industry	N	Mean Incentive_GAP
Candy and Soda	28	0.290
Real Estate	85	0.232
Trading	170	0.209
Shipping Containers	395	0.190
Personal Services	1227	0.185
Agriculture	24	0.183
Wholesale	901	0.178
Retail	295	0.170
Food Products	216	0.167
Shipbuilding, Railroad	45	0.161
Utilities	327	0.161
Telecommunications	115	0.158
Electrical Equipment	177	0.157
Business Services	452	0.155
Computers	805	0.146
Banking	146	0.141
Medical Equipment	359	0.139
Alcoholic Beverages	53	0.136
Apparel	210	0.135
Electronic Equipment	283	0.133
Pharmaceutical Products	497	0.129
Entertainment	158	0.125
Healthcare	244	0.120
Miscellaneous	226	0.117
Printing and Publishing	135	0.110
Transportation	387	0.108
Nonmetallic Mines	15	0.105
Coal	582	0.103
Rubber and Plastic Products	83	0.098
Textiles	94	0.097
Recreational Products	73	0.095
Machinery	501	0.092
Consumer Goods	232	0.082
Construction Materials	266	0.076
Measuring and Control Equip	258	0.073
Fabricated Products	23	0.071
Chemicals	398	0.070
Steel Works, Etc.	293	0.069
Construction	65	0.067
Automobiles and Trucks	82	0.062
Precious Metals	59	0.046
Petroleum and Natural Gas	913	0.043
Aircraft	18	0.042
Defense	46	0.030
Business Supplies	46	0.013

In our sample, restaurant, hotel, and motel industry, tobacco products industry, and insurance industry include less than 10 firms, so We delete from the list.

Table 2 Analysis of the relation between accruals management and CEO CFO equity incentive gap.

Panel A: Descriptive statistics of main variables						
Variables	N	Mean	Median	Std. Dev.	Lower Quartile	Upper Quartile
Discretionary Accruals	12,014	0.056	0.035	0.063	0.016	0.072
Size	12,014	6.898	6.750	1.529	5.793	7.902
Oldfirm	12,014	0.500	0.000	0.500	0.000	1.000
StdSalesGrowth	12,014	0.248	0.141	0.351	0.074	0.279
Leverage	12,014	0.518	0.530	0.218	0.362	0.664
StdRev	12,014	0.160	0.115	0.147	0.066	0.203
StdCashFlow	12,014	0.054	0.040	0.047	0.024	0.065

Panel B: Pearson correlations (correlations significant at the 5% level or less appear in bold)

Variables	Discretionary Accruals	Incentive_CEO	Incentive_CFO	Incentive_GAP	size	StdCashFlow	StdRev	StdSalesGrowth	oldfirm	Leverage	MarketToBook
Discretionary Accruals	1										
Incentive_CEO	0.08	1									
Incentive_CFO	0.05	0.52	1								
Incentive_GAP	0.06	0.87	0.05	1							
Size	-0.22	0.00	0.14	-0.07	1						
StdCashFlow	0.29	0.04	0.00	0.04	-0.43	1					
StdRev	0.23	0.04	-0.01	0.05	-0.23	0.4	1				
StdSalesGrowth	0.16	0.10	0.07	0.07	-0.15	0.4	0.22	1			
Oldfirm	-0.16	-0.21	-0.12	-0.17	0.41	-0.3	-0.17	-0	1		
Leverage	-0.03	-0.24	-0.18	-0.18	0.42	-0.1	-0.02	-0	0.26	1	
MarketToBook	0.13	0.39	0.41	0.22	-0.24	0.2	0.06	0	-0.23	-0.3	1

Variable Definitions:

Discretionary Accruals	=	absolute value of abnormal accruals estimated by using a cross-sectional version of the Modified Jones Model;
Incentive_CEO	=	CEO equity incentive ratio per Bergstresser and Philippon(2006)
Incentive_CFO	=	CFO equity incentive ratio per Bergstresser and Philippon(2006)
Incentive_GAP	=	difference between CEO and CFO equity incentive (Incentive_CEO - Incentive_CFO);
Size	=	the natural logarithm of lagged total assets;
OldFirm	=	one if a firm is listed on Compustat for more than 20 years, and zero otherwise;
StdSalesGrowth	=	the standard deviation of sales growth over the current and previous four years;
Leverage	=	total liabilities deflated by total assets
StdRev	=	standard deviation of sales deflated by total assets over the current and previous four years;
StdCashFlow	=	the standard deviation of sales growth over the current and previous four years;
MarketToBookDecile	=	deciles of market value of assets divided by the book value of assets ranked within each year;

Table 3 Panel A Regression analysis of absolute discretionary accruals on CEO CFO equity incentive gap

Variables	(1)	(2)	(3)	(4)
Intercept	0.058 (0.00)	0.059 (0.00)	0.057 (0.00)	0.059 (0.00)
Incentive_CEO	0.014 (0.00)	0.011 (0.00)		
Incentive_CFO		0.017 (0.01)		0.028 (0.00)
Incentive_GAP			0.010 (0.00)	0.010 (0.00)
Size	-0.005 (0.00)	-0.005 (0.00)	-0.004 (0.00)	-0.005 (0.00)
StdCashFlow	0.191 (0.00)	0.191 (0.00)	0.190 (0.00)	0.192 (0.00)
StdRev	0.044 (0.00)	0.044 (0.00)	0.044 (0.00)	0.044 (0.00)
StdSalesGrowth	0.009 (0.00)	0.009 (0.00)	0.010 (0.00)	0.009 (0.00)
Oldfirm	-0.003 (0.03)	-0.003 (0.04)	-0.003 (0.01)	-0.003 (0.04)
Leverage	0.022 (0.00)	0.022 (0.00)	0.020 (0.00)	0.022 (0.00)
MarketToBookDecile	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)
Adj. R2	15.27%	15.31%	15.16%	15.30%
No. of Observations	12,014	12,014	12,014	12,014

The table presents OLS regressions results of the following equation:

$$|\text{Discretionary Accrual}| = \beta_0 + \beta_1 \text{Incentive_GAP} + \beta_2 \text{Incentive_CFO} + \beta_3 \text{StdCashFlow} + \beta_4 \text{StdRev} + \beta_5 \text{Size} + \beta_6 \text{Oldfirm} + \beta_7 \text{StdSalesGrowth} + \beta_8 \text{Leverage} + \beta_9 \text{MarketToBookDecile} + \text{Year} + \text{Exchange} + \text{Industry} + \varepsilon \quad (6)$$

Variable Definitions:

\text{Discretionary Accruals}	=	absolute value of abnormal accruals estimated by using a cross-sectional version of the Modified Jones Model;
Incentive_GAP	=	difference between CEO and CFO equity incentive (Incentive_CEO - Incentive_CFO);
Incentive_CEO	=	CEO equity incentive ratio per Bergstresser and Philippon(2006);
Incentive_CFO	=	CFO equity incentive ratio per Bergstresser and Philippon(2006);
Size	=	the natural logarithm of lagged total assets;
OldFirm	=	one if a firm is listed on Compustat for more than 20 years, and zero otherwise;
StdSalesGrowth	=	the standard deviation of sales growth over the current and previous four years;
Leverage	=	total liabilities deflated by total assets;
StdRev	=	standard deviation of sales deflated by total assets over the current and previous four years;
StdCashFlow	=	the standard deviation of sales growth over the current and previous four years;
MarketToBookDecile	=	deciles of market value of assets divided by the book value of assets ranked within each year;
Year	=	year indicators;
Exchange	=	exchange indicators;
Industry	=	the Fama and French industry indicators.

For the sake of brevity, we do not report coefficient estimates for year indicators, exchange indicators, and the Fama and French industry indicators.

Table 3 Panel B Comparison between Pre-Sox and Post-Sox

Variables	Pre-Sox		Post-Sox	
	(1)	(2)	(3)	(4)
Intercept	0.055 (0.00)	0.053 (0.00)	0.064 (0.00)	0.062 (0.00)
Incentive_CFO	0.025 (0.00)		0.019 (0.035)	
Incentive_GAP	0.012 (0.01)	0.010 (0.02)	0.005 (0.26)	0.003 (0.42)
Size	-0.006 (0.00)	-0.005 (0.00)	-0.004 (0.00)	-0.004 (0.00)
StdCashFlow	0.210 (0.00)	0.210 (0.00)	0.183 (0.00)	0.180 (0.00)
StdRev	0.051 (0.00)	0.052 (0.00)	0.028 (0.00)	0.027 (0.00)
StdSalesGrowth	0.010 (0.00)	0.011 (0.00)	0.006 (0.03)	0.006 (0.02)
Oldfirm	-0.003 (0.07)	-0.004 (0.03)	-0.002 (0.31)	-0.002 (0.25)
Leverage	0.026 (0.00)	0.025 (0.00)	0.020 (0.00)	0.016 (0.00)
MarketToBookDecile	0.001 (0.03)	0.001 (0.00)	0.001 (0.16)	0.001 (0.02)
Adj. R2	17.94%	17.84%	11.99%	11.93%
No. of Observations	7,052	7,052	4,962	4,962

The table presents OLS regressions results of the following equation:

$$|\text{Discretionary Accrual}| = \beta_0 + \beta_1 \text{Incentive_GAP} + \beta_2 \text{Incentive_CFO} + \beta_3 \text{StdCashFlow} + \beta_4 \text{StdRev} + \beta_5 \text{Size} + \beta_6 \text{Oldfirm} + \beta_7 \text{StdSalesGrowth} + \beta_8 \text{Leverage} + \beta_9 \text{MarketToBookDecile} + \text{Year} + \text{Exchange} + \text{Industry} + \varepsilon \quad (6)$$

Variable Definitions:

\text{Discretionary Accruals}	=	absolute value of abnormal accruals estimated by using a cross-sectional version of the Modified Jones Model;
Incentive_GAP	=	difference between CEO and CFO equity incentive (Incentive_CEO - Incentive_CFO);
Incentive_CEO	=	CEO equity incentive ratio per Bergstresser and Philippon(2006);
Incentive_CFO	=	CFO equity incentive ratio per Bergstresser and Philippon(2006);
Size	=	the natural logarithm of lagged total assets;
OldFirm	=	one if a firm is listed on Compustat for more than 20 years, and zero otherwise;
StdSalesGrowth	=	the standard deviation of sales growth over the current and previous four years;
Leverage	=	total liabilities deflated by total assets;
StdRev	=	standard deviation of sales deflated by total assets over the current and previous four years;
StdCashFlow	=	the standard deviation of sales growth over the current and previous four years;
MarketToBookDecile	=	deciles of market value of assets divided by the book value of assets ranked within each year;
Year	=	year indicators;
Exchange	=	exchange indicators;
Industry	=	the Fama and French industry indicators.

For the sake of brevity, we do not report coefficient estimates for year indicators, exchange indicators, and the Fama and French industry indicators.

Table 4 Panel A. Regression analysis of absolute discretionary accruals on the interaction of three CEO power measures and CFO equity incentives

Variables	(1)Incentive_GAP	(2)CEO_Payslice	(3)CEO_Chair
Incentive_CEO	0.012 (0.00)	0.012 (0.00)	0.010 (0.00)
Incentive_CFO	0.018 (0.04)	0.025 (0.00)	0.029 (0.00)
High_Power×Incentive_CFO	0.008 (0.47)	-0.009 (0.40)	-0.009 (0.41)
High_Power	-0.001 (0.64)	0.002 (0.27)	0.005 (0.00)
Size	-0.006 (0.00)	-0.006 (0.00)	-0.006 (0.00)
StdCashFlow	0.183 (0.00)	0.205 (0.00)	0.183 (0.00)
StdRev	0.045 (0.00)	0.043 (0.00)	0.045 (0.00)
StdSalesGrowth	0.009 (0.00)	0.008 (0.00)	0.010 (0.00)
Oldfirm	-0.003 (0.06)	-0.003 (0.06)	-0.002 (0.04)
Leverage	0.025 (0.00)	0.026 (0.00)	0.024 (0.00)
MarketToBookDecile	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)
Adj. R2	14.12%	14.34%	14.22%
No. of Observations	12,014	10,904	12,012

The table presents OLS regressions results of the following equation:

$$|\text{Discretionary Accrual}| = \beta_0 + \beta_1 \text{Incentive_GAP} + \beta_2 \text{Incentive_CFO} + \beta_3 \text{High_Power} + \beta_4 \text{High_Power} * \text{Incentive_CFO} + \beta_5 \text{StdCashFlow} + \beta_6 \text{StdRev} + \beta_7 \text{Size} + \beta_8 \text{Oldfirm} + \beta_9 \text{StdSalesGrowth} + \beta_{10} \text{Leverage} + \beta_{11} \text{MarketToBookDecile} + \text{Year} + \text{Exchange} + \text{Industry} + \varepsilon \quad (7)$$

Where High_Power is measured by (1) Incentive_GAP is above the mean; (2) CEO_Payslice is above the mean; (3)CEO is the Chairman of the Board.

Variable Definitions:

Discretionary Accruals	=	absolute value of abnormal accruals estimated by using a cross-sectional version of the Modified Jones Model;
Incentive_CEO	=	CEO equity incentive ratio per Bergstresser and Philippon(2006);
Incentive_CFO	=	CFO equity incentive ratio per Bergstresser and Philippon(2006);
Size	=	the natural logarithm of lagged total assets;
OldFirm	=	one if a firm is listed on Compustat for more than 20 years, and zero otherwise;
StdSalesGrowth	=	the standard deviation of sales growth over the current and previous four years;
Leverage	=	total liabilities deflated by total assets;
StdRev	=	standard deviation of sales deflated by total assets over the current and previous four years;
StdCashFlow	=	the standard deviation of sales growth over the current and previous four years;
MarketToBookDecile	=	deciles of market value of assets divided by the book value of assets ranked within each year;
Year	=	year indicators;
Exchange	=	exchange indicators;
Industry	=	the Fama and French industry indicators.

For the sake of brevity, we do not report coefficient estimates for year indicators, exchange indicators, and the Fama and French industry indicators.

TABLE 4. Panel B. Regression analysis of discretionary accruals on the interaction of CEO power and CFO equity incentives using Incentive_GAP to measure CEO equity incentive.

Variables	(1)Incentive_GAP	(2)CEO_Payslice	(3)CEO_Chair
Intercept	0.059 (0.00)	0.051 (0.00)	0.059 (0.00)
Incentive_CFO	0.028 (0.00)	0.031 (0.00)	0.032 (0.00)
Incentive_GAP	0.010 (0.01)	0.010 (0.00)	0.009 (0.01)
High_Power×Incentive_CFO	0.001 (0.95)	-0.008 (0.44)	-0.007 (0.53)
High_Power	0.000 (0.85)	0.001 (0.36)	0.004 (0.01)
Size	-0.005 (0.00)	-0.005 (0.00)	-0.005 (0.00)
StdCashFlow	0.191 (0.00)	0.211 (0.00)	0.192 (0.00)
StdRev	0.044 (0.00)	0.042 (0.00)	0.044 (0.00)
StdSalesGrowth	0.010 (0.00)	0.008 (0.00)	0.009 (0.00)
Oldfirm	-0.003 (0.04)	-0.003 (0.04)	-0.003 (0.03)
Leverage	0.022 (0.00)	0.023 (0.00)	0.022 (0.00)
MarketToBookDecile	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)
Adj. R2	15.28%	15.56%	15.36%
No. of Observations	12,014	10,904	12,012

The table presents OLS regressions results of the following equation:

$$|\text{Discretionary Accrual}| = \beta_0 + \beta_1 \text{Incentive_GAP} + \beta_2 \text{Incentive_CFO} + \beta_3 \text{High_Power} + \beta_4 \text{High_Power} * \text{Incentive_CFO} + \beta_5 \text{StdCashFlow} + \beta_6 \text{StdRev} + \beta_7 \text{Size} + \beta_8 \text{Oldfirm} + \beta_9 \text{StdSalesGrowth} + \beta_{10} \text{Leverage} + \beta_{11} \text{MarketToBookDecile} + \text{Year} + \text{Exchange} + \text{Industry} + \varepsilon \quad (7)$$

where High_Power is measured based on whether (1) Incentive_GAP is above the mean; (2) CEO_Payslice is above the mean; (3) CEO is the Chairman of the Board.

Variable Definitions:

Discretionary Accruals	= absolute value of abnormal accruals estimated by using a cross-sectional version of the Modified Jones Model;
Incentive_GAP	= difference between CEO and CFO equity incentive (Incentive_CEO - Incentive_CFO);
Incentive_CFO	= CFO equity incentive ratio per Bergstresser and Philippon(2006);
Size	= the natural logarithm of lagged total assets;
OldFirm	= one if a firm is listed on Compustat for more than 20 years, and zero otherwise;
StdSalesGrowth	= the standard deviation of sales growth over the current and previous four years;
Leverage	= total liabilities deflated by total assets;
StdRev	= standard deviation of sales deflated by total assets over the current and previous four years;
StdCashFlow	= the standard deviation of sales growth over the current and previous four years;
MarketToBookDecile	= deciles of market value of assets divided by the book value of assets ranked within each year;
Year	= year indicators;
Exchange	= exchange indicators;
Industry	= the Fama and French industry indicators.

For the sake of brevity, we do not report coefficient estimates for year indicators, exchange indicators, and the Fama and French industry indicators.

Table 5 Panel A. Regression analysis of absolute total accruals on CEO CFO equity incentive gap

Variables	(1)	(2)	(3)
Intercept	0.038 (0.00)	0.004 (0.00)	0.004 (0.00)
Incentive_CEO	0.000 (0.60)		
Incentive_CFO	0.029 (0.00)		0.031 (0.00)
Incentive_GAP		-0.000 (0.91)	0.001 (0.72)
Size	-0.003 (0.00)	-0.002 (0.00)	-0.003 (0.00)
StdCashFlow	0.410 (0.00)	0.408 (0.00)	0.410 (0.00)
StdRev	-0.008 (0.10)	-0.008 (0.11)	-0.008 (0.10)
StdSalesGrowth	0.016 (0.00)	0.016 (0.00)	0.016 (0.00)
Oldfirm	-0.009 (0.00)	-0.010 (0.00)	-0.009 (0.00)
Leverage	0.047 (0.00)	0.045 (0.00)	0.047 (0.00)
MarketToBookDecile	0.001 (0.02)	0.001 (0.00)	0.001 (0.02)
Adj. R2	19.07%	19.18%	19.18%
No. of Observations	12,001	12,001	12,001

The table presents OLS regressions results of the following equation:

$$|\text{Total Accruals}| = \beta_0 + \beta_1 \text{Incentive_GAP} + \beta_2 \text{Incentive_CFO} + \beta_3 \text{StdCashFlow} + \beta_4 \text{StdRev} + \beta_5 \text{Size} + \beta_6 \text{Oldfirm} + \beta_7 \text{StdSalesGrowth} + \beta_8 \text{Leverage} + \beta_9 \text{MarketToBookDecile} + \text{Year} + \text{Exchange} + \text{Industry} + \varepsilon \quad (6)$$

Variable Definitions:

\text{Total Accruals}	=	(earnings before extraordinary items and discontinued operations - operating cash flows from continuing operations)/lagged total asset per Hribar and Collins(2002);
Incentive_GAP	=	difference between CEO and CFO equity incentive (Incentive_CEO - Incentive_CFO);
Incentive_CFO	=	CFO equity incentive ratio per Bergstresser and Philippon(2006);
Size	=	the natural logarithm of lagged total assets;
OldFirm	=	one if a firm is listed on Compustat for more than 20 years, and zero otherwise;
StdSalesGrowth	=	the standard deviation of sales growth over the current and previous four years;
Leverage	=	total liabilities deflated by total assets;
StdRev	=	standard deviation of sales deflated by total assets over the current and previous four years;
StdCashFlow	=	the standard deviation of sales growth over the current and previous four years;
MarketToBookDecile	=	deciles of market value of assets divided by the book value of assets ranked within each year;
Year	=	year indicators;
Exchange	=	exchange indicators;
Industry	=	the Fama and French industry indicators.

For the sake of brevity, we do not report coefficient estimates for year indicators, exchange indicators, and the Fama and French industry indicators.

Table 5. Panel B. Regression analysis of absolute total accruals on the interaction of three CEO power measures and CFO equity incentives

Variables	(1)Incentive_GAP	(2)CEO_Payslice	(3)CEO_Chair
Incentive_CEO	0.002 (0.63)	-0.001 (0.78)	0.002 (0.53)
Incentive_CFO	0.021 (0.04)	0.037 (0.00)	0.018 (0.11)
High_Power×Incentive_CFO	0.014 (0.25)	-0.002 (0.86)	0.017 (0.19)
High_Power	-0.002 (0.36)	-0.003 (0.08)	-0.003 (0.19)
Size	-0.003 (0.00)	-0.003 (0.00)	-0.004 (0.00)
StdCashFlow	0.410 (0.00)	0.404 (0.00)	0.411 (0.00)
StdRev	-0.008 (0.10)	-0.008 (0.12)	-0.009 (0.10)
StdSalesGrowth	0.016 (0.00)	0.017 (0.00)	0.016 (0.00)
Oldfirm	-0.009 (0.00)	-0.010 (0.00)	-0.009 (0.00)
Leverage	0.047 (0.00)	0.046 (0.00)	0.048 (0.00)
MarketToBookDecile	0.001 (0.01)	0.001 (0.00)	0.001 (0.02)
Adj. R2	19.17%	19.28%	19.18%
No. of Observations	12,001	10,891	11,999

The table presents OLS regressions results of the following equation:

$$|Total\ Accruals| = \beta_0 + \beta_1 Incentive_GAP + \beta_2 Incentive_CFO + \beta_3 High_Power + \beta_4 High_Power * Incentive_CFO + \beta_5 StdCashFlow + \beta_6 StdRev + \beta_7 Size + \beta_8 Oldfirm + \beta_9 StdSalesGrowth + \beta_{10} Leverage + \beta_{11} MarketToBookDecile + Year + Exchange + Industry + \varepsilon \quad (7)$$

where High_Power is measured by (1) Incentive_GAP is above the mean; (2) CEO_Payslice is above the mean; (3) CEO is the Chairman of the Board.

Variable Definitions:

Total Accruals	= (earnings before extraordinary items and discontinued operations - operating cash flows from continuing operations)/lagged total asset per Hribar and Collins(2002);
Incentive_GAP	= difference between CEO and CFO equity incentive (Incentive_CEO - Incentive_CFO);
Incentive_CFO	= CFO equity incentive ratio per Bergstresser and Philippon(2006);
Size	= the natural logarithm of lagged total assets;
OldFirm	= one if a firm is listed on Compustat for more than 20 years, and zero otherwise;
StdSalesGrowth	= the standard deviation of sales growth over the current and previous four years;
Leverage	= total liabilities deflated by total assets;
StdRev	= standard deviation of sales deflated by total assets over the current and previous four years;
StdCashFlow	= the standard deviation of sales growth over the current and previous four years;
MarketToBookDecile	= deciles of market value of assets divided by the book value of assets ranked within each year;
Year	= year indicators;
Exchange	= exchange indicators;
Industry	= the Fama and French industry indicators.

For the sake of brevity, we do not report coefficient estimates for year indicators, exchange indicators, and the Fama and French industry indicators.