

**A reinvestigation of the impact of Section 162(m) of the Internal Revenue Code: The peculiar case of CFOs**

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**Abstract.** Section 162(m) denies the tax deduction for non-performance based compensation in excess of \$1 million for highly paid public firm executives. However on June 5, 2007, the IRS specifically excluded CFOs from the constraints of §162(m). We take advantage of this natural experiment by empirically examining how CFO compensation changed with this exclusion, using a difference-in-difference design that includes CFOs unaffected by §162(m) and other executives as a benchmark. With CFOs excluded from §162(m), we predict that firms will increase their reliance on lower risk fixed salary for CFOs, which will reduce the compensation risk premium, reducing CFO total compensation relative to other executives. Our empirical results support our predictions. We thus extend prior literature by providing evidence that taxes can influence compensation design, that §162(m) continues to influence compensation design twenty years after becoming law, and that §162(m) influences non-CEO compensation design.

# **A reinvestigation of the impact of Section 162(m) of the Internal Revenue Code: The peculiar case of CFOs**

Steven Balsam, J. Harry Evans, and Amy J. N. Yurko

## **1. Introduction & Motivation**

Section 162(m) was ostensibly a response to excessive executive compensation, seemingly unrelated to performance (Balsam and Ryan 1996). Enacted as part of the Revenue Reconciliation Act of 1993, this code section limits the corporate tax deduction for non-performance based compensation to \$1 million per covered executive, where the covered executives were originally defined as the CEO and the next four highest paid executive officers.

Research finds some support for §162(m) having both intended and unintended consequences on the level and composition of executive compensation, but much of that research questions the extent of its impact. For example, Balsam and Ryan (1996) examined firms' initial responses in 1994, showing that firms most in need of executive compensation adjustments in the eyes of the Congress; i.e., those with weak relations between pay and performance, were the least likely to make the changes envisioned by the provisions of 162m. Further, approximately half of the firms in their sample chose not to qualify<sup>1</sup> their compensation arrangements, and many of those that did, expressly reserved the board's right to pay nonqualified compensation. Reitenga, Buchheit, Yin and Baker (2002) also observed that many firms elected not to qualify their compensation plans on the grounds that executive performance could not be evaluated using a fixed formula and that reserving the use of discretion in determining executive pay was

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<sup>1</sup>We define compensation as "qualified" or "compliant" if it is tax deductible under §162(m). Therefore, we define a firm as "qualifying" compensation when the firm designs the compensation arrangement to satisfy the requirements of §162(m) to preserve the federal corporate income tax deduction.

in the best interest of the firm. Contrary to the intent of §162(m), prior analytical research predicted that total compensation would increase as a consequence of §162(m) (Halperin, Kwon and Rhoades-Catanach 2001; Sansing, 2001). Consistent with that prediction, Perry and Zenner (2001) provide empirical evidence that all components of the compensation package increased after 1993. Harris and Livingstone (2002) examined “unaffected firms” whose CEOs earned less than \$1 million, and found §162m had the perverse effect of raising the compensation of those CEOs. Overall, critics suggest this tax code provision belongs in the “museum of unintended consequences” Cox (2006).

While research shows that §162(m) has not led to a reduction in executive compensation, there is some limited evidence that executive compensation has become more responsive to firm performance. By examining the sensitivity of executive pay to firm performance, Johnson, Porter and Shackell (1997), Perry and Zenner (2001), and Balsam and Ryan (2007) all found some evidence of an increased sensitivity of compensation to performance after 1993. While Johnson et al. (1997) did not attribute this increased sensitivity to §162(m), Perry and Zenner (2001) did, “especially for firms with million-dollar pay packages.” Similarly, Rose and Wolfram (2000, p. 201) initially provided some evidence that the §162(m) limit “has led firms near the \$1 million cap to restrain their salary increases and perhaps to increase the performance components of their pay packages.” However, Rose and Wolfram (2002, S138) later observed that, “There is little evidence that the policy significantly increased the performance sensitivity of chief executive officer (CEO) pay at affected firms. We conclude that corporate pay decisions have been relatively insulated from this policy intervention.” One possible explanation for these mixed findings, i.e., some studies find an impact of §162(m), others do not, is that it is costly to restructure compensation contracts. Thus from a cost/benefit analysis it might not be cost

effective to restructure compensation contracts for existing CEOs. Consistent with this theory, Balsam and Ryan (2007) focused on CEOs hired after §162(m), finding higher pay for performance sensitivity for this class of newly hired CEOs.

One consequence of noncompliance or limited compliance is that the firms pay higher taxes. Balsam and Yin (2005) found that almost 40 percent of their sample firms forfeited some tax deductions because of §162(m). Interestingly, they found that in 90 percent of the firm years in which a forfeiture occurred for at least one covered executive, the firm simultaneously had at least one performance-based incentive compensation plan that met the requirements of §162(m) for one or more of its executives. One interpretation of their results is that qualification of the plan was merely window dressing. An alternative interpretation is that whether it pays to qualify an executive's compensation can vary significantly across executives within a given firm. A more recent study, Yurko (2014), finds that in 2012 over 50 percent of her sample firms forfeit some deductions at a total cost in excess of \$9 billion.

To shed further light on the long-run impact of §162m, this paper focuses on chief financial officers (CFOs), a group of executives who are distinguished by now being excluded from the §162m limitations. In its 2006 proxy statement revisions, the Securities and Exchange Commission required firms to disclose compensation of the CEO, CFO and the next three highest paid named executive officers. However, incompatibility with §162(m)<sup>2</sup> led the Internal Revenue Service to exclude CFOs from the §162m limitations, such that CFOs are expressly no

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<sup>2</sup> Section 162(m) originally applied to the CEO and the four highest paid non-CEO executives. The code provision was tied to the then SEC requirement that firms disclose the compensation for these same five individuals in their proxy statements. For years ending on or after December 15, 2006, the SEC revised its requirements so that disclosure of compensation was required for the CEO, CFO and three highest paid non-CEO, non-CFO executives. Because the IRS interpreted this basis for disclosure inconsistent with §162(m), the IRS in notice 2007-49, agreed to limit §162(m)'s scope to the CEO and the three highest paid non-CEO, non-CFO executives, effectively excluding CFOs from §162(m)'s limitations.

longer “covered executives” for the purposes of §162m. To be precise, on June 5, 2007, the IRS issued notice 2007-49, which explicitly excludes CFOs from §162(m) for tax years ending on or after December 15, 2006. Consequently, from 2006 onward, CFO compensation is not constrained by §162(m) limitations, while the compensation of the CEO and the next three Hence, this generates the peculiar case of CFOs and how their compensation relates to that of other executives.

This particular regulatory experience provides a natural experiment that is useful in assessing the effect of §162m on the compensation of CFOs and other non-CEO named executive officers (hereafter NEOs). In particular, we analyze the change in compensation of “affected CFOs” whose compensation was subject to the provisions of §162(m) before the 2006 change, but not after it. We also compare their compensation to the compensation of NEOs who were subject to the §162m provisions both before and after the 2006 change.<sup>3</sup> The resulting difference-in-difference design controls for the unique stewardship characteristics of the CFO position by analyzing changes in CFO compensation before versus after the 2006 change. At the same time, we use the corresponding changes in compensation for NEOs in the same firm, who were affected by §162m both before and after the 2006 change, as a benchmark against which to compare the changes in CFO compensation. The NEO benchmark group provides a control for the effect of changes in other factors in the same firm over time that would influence executive compensation.

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<sup>3</sup> Even though these CFOs are no longer subject to §162(m) post 2006, we continue to refer to them as affected to distinguish them from CFOs who earned less than \$1 million and were hence unaffected by §162(m). We define any non-CEO executive as *affected* or *covered* by §162(m) if his or her total annual compensation exceeds \$1 million and he or she is one of the firm’s top-four highest paid non-CEO executives.

The resulting analysis based on this unique design enables us to make three contributions to the study of executive compensation in general and of §162(m) in particular. First, unlike most prior studies, we analyze the effect of §162m on the compensation of non-CEO executives, a group likely to exert significant influence on firm performance in most cases. Second, in contrast to most prior literature on the impact of §162m, which used the mid to late 1990's as their sample period, we document that §162(m) continues to affect executive compensation in a more recent time period. Finally, we contribute to the broader executive compensation literature by providing empirical evidence that taxes, as proxied by §162(m), significantly impact compensation contract design.

The study continues with section two which develops our hypotheses. Section three discusses our research methods and section four presents our empirical results. Section five contains some additional analyses. We conclude in section six.

## **2. Hypothesis Development**

IRS notice 2007-49, which removed CFOs from the §162(m) tax deductibility constraints, provides an exogenous shock around which to examine the influence of §162(m) on executive compensation design. If §162(m) is not a consideration in non-CEO executive compensation contract design, then CFO compensation should not change following the 2006 IRS change. However, if §162(m) does affect non-CEO executive compensation, for example by moving compensation contract design from an unconstrained to a constrained optimum, firms have an incentive to alter their CFO compensation after the 2006 IRS change. At the same time, firms could potentially elect not to change CFO compensation to maintain some degree of conformity with NEOs. For the exclusion of CFOs from §162m to motivate firms to modify their CFO compensation arrangements, the benefit of changing CFO compensation must exceed

the sum of transaction costs associated with compensation contract redesign, e.g., rewriting contracts, plus any costs arising from internal equity issues within the executive suite.

By limiting the tax deduction for nonperformance-based compensation, §162m increased the firm's cost of such compensation, which should cause a shift towards a higher proportion of performance-based compensation for affected firms/executives. Performance-based compensation, especially in the form of equity in the firm, aligns the interests of managers and shareholders (Jensen and Meckling 1976). However, because it imposes risk on executives, performance-based compensation also increases managers' reservation utility. In turn, Halperin et al. (2001) establish conditions under which §162m leads to higher total compensation. In equilibrium, firms tradeoff the benefits of incentive alignment against the risk premium associated with riskier compensation.

If §162(m) influenced compensation contract design by increasing the reliance on performance-based pay, removing the tax penalty should generate a reversal, i.e., a shift away from performance-based compensation. Specifically, this would take the form of an increase in nonperformance-based compensation in response to its decreased after-tax cost. Assuming this increase in non-performance-based compensation also generates a corresponding decrease in performance-based compensation, the risk profile of the CFO compensation package will be reduced. As a result, a CFO facing less risky compensation would accept a lower risk premium and we would observe lower total CFO compensation.

At the same time, there is tension with respect to preceding expectation because transactions costs, such as renegotiating contracts, will operate against observing such effects. Thus, as in Balsam and Ryan (2007), such an effect may only be significant following the appointment of a new CFO, and even in such cases the firm may not modify the CFO contract to

avoid creating the perception of inequity within the executive suite. Despite these reservations, we assume that at least some firms modify their CFO contract, leading to our hypotheses::

**H1:** The use of fixed compensation increased for affected CFOs after 2006.

**H2:** The level of total compensation for affected CFOs decreased after 2006.

### **3. Research Method**

We hypothesize that the §162(m) deductibility limits discouraged (encouraged) fixed (performance-based) compensation, so its removal should lead to more (less) fixed (performance-based) compensation after 2006. Because other factors influence changes in compensation over time, we use a difference-in-difference design whereby we examine compensation before and after the 2006 change for both CFOs and NEOs. By including affected and unaffected CFOs before and after the 2006 change, we control for the unique characteristics of the CFO position, which potentially impacts compensation design. By including NEOs in the same firm, we implicitly control for the other factors which can influence changes in compensation over the same time period.

The IRS issued notice 2007-49 to exclude CFOs from §162m for tax years ending on or after December 31, 2006. Therefore, we define an observation as prior to the exclusion if its fiscal year ended on November 30, 2006 or earlier. However, because the IRS did not issue notice 2007-49 until June 5, 2007, the notice created an extended transition period, including several months during which CFO compensation was exempted without firms being aware of this change. To allow firms time to adjust given that compensation policies are typically established at the start of each year, we define an observation as occurring after the 2006 change for fiscal years beginning after June 2007, the month that the notice was announced.



We estimate Equations (1) and (2) below for both a two-year and a four-year event window. The shorter two-year window focuses on the immediate changes to compensation design from the exogenous shock of the 2006 exclusion of CFOs from §162m. The longer four-year window extends the sample period to both allow for a longer time for firms to respond to the exclusion and to examine if the changes to compensation design extend beyond an initial one-year impact. The two-year (four-year) event window includes one (two) fiscal year(s) ending before the change was effective on December 15, 2006 and one (two) fiscal year(s) beginning after the IRS release in June 2007.

We estimate Equation (1) to test Hypothesis I.

$$\begin{aligned}
Salary\ PCT_{i,e,t} = & \beta_0 + \beta_1 CFO + \beta_2 POST + \beta_3 CFO * POST + \beta_4 AFF \\
& + \beta_5 CFO * AFF + \beta_6 POST * AFF + \beta_7 CFO * POST * AFF \\
& + \beta_8 LEVERAGE_{i,t-1} + \beta_9 \sigma(ROA)_{i,t} + \beta_{10} \sigma(RET)_{i,t} + \beta_{11} SIZE_{i,t} + \beta_{12} FCF_{i,t-1} \\
& + \beta_{13} BTM_{i,t} + \beta_{14} AGE_{i,e,t} + \beta_{15} ROA_{i,t} + \beta_{16} \Delta ROA_{i,t} + \beta_{17} RET_{i,t} + \beta_{18} \Delta RET_{i,t} \\
& + \beta_{19} \Delta SALES_{i,t} + \beta_{20} MTR_{i,t} + \beta_{21} Salary\ PCT_{i,e,t-1} + \sum_{i=1}^n FIRM + \epsilon \quad (1)
\end{aligned}$$

Variable Definitions:

*Salary PCT* = executive *e*'s salary as a percentage of total compensation<sup>4</sup>

*CFO* = indicator variable taking the value of 1 if the individual is CFO, 0 otherwise

*POST* = indicator variable taking the value of 1 for fiscal years beginning after the I.R.S. release on June 5, 2007, 0 otherwise

*AFF* = indicator variables taking the value of 1 if the executive is affected by §162(m), 0 otherwise. We define an executive as affected if he or she is a non-CEO named executive officer covered by §162(m) and receives total compensation in excess of \$1 million. For purposes of testing our hypotheses, we continue to code the CFO as affected post June 5, 2007 if his/her compensation is \$1 million or more.

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<sup>4</sup> Total compensation is measured as Execucomp variable TDC1. Execucomp extracts data from proxy statements and modifies what was initially included in TDC1 to reflect the changing SEC reporting requirements at the end of 2006. However, we do not expect these changes to affect our conclusions because they affect CFOs and non-CFOs alike, and therefore are controlled for in our difference-in-difference design.

*LEVERAGE* = book value of firm *i*'s total liabilities scaled by firm's market value of common equity

$\sigma(ROA)$  = the standard deviation of firm *i*'s annual ROA for the prior five years

$\sigma(RET)$  = standard deviation of firm *i*'s annual market returns for the prior five years

*SIZE* = natural log of firm *i*'s total assets

*FCF* = ratio of firm *i*'s free cash flow measured as common plus preferred dividends less cash flow from operating and investing activities, deflated by total assets

*BTM* = ratio of firm *i*'s book value of total assets to total market value of equity plus total liabilities

*AGE* = natural log of the executive *e*'s age in years

*ROA* = net income before extraordinary items and discontinued operations scaled by average total assets of firm *i* in year *t*

$\Delta ROA$  = the change in firm *i*'s return on assets, *ROA*, in year *t* from year *t-1*.

*RET* = firm *i*'s buy and hold market returns in year *t*

$\Delta RET$  = the change in firm *i*'s buy and hold market returns, *RET*, in year *t* from year *t-1*

$\Delta SALES$  = the change in firm *i*'s natural log of sales in year *t* from year *t-1*

*MTR* = simulated marginal tax rate from Compustat's MTR database, calculated in accordance with the method presented in Blouin, Core, and Guay (2010)

*FIRM* = indicator variable for each firm, taking the value of 1 for each firm *i*'s unique *gvkey*, 0 otherwise, i.e., firm fixed effects.

Where subscripts *i*, *e* and *t* represent firm, executive, and year, respectively.

We predict that following the 2006 IRS change, firms will increase their reliance on salary as a component in their CFO compensation arrangement.<sup>5</sup> Therefore, the dependent variable is *Salary PCT*, salary divided by total annual compensation, to measure the degree to

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<sup>5</sup> We use salary as our proxy for §162(m) non-performance based compensation. While in practice other forms of compensation would not qualify under §162(m), for example bonuses not paid under a qualifying plan or time-based restricted stock, we are unable to definitively determine whether these payments are performance-based given public disclosures. Thus, we measure §162(m) non-performance-based (performance-based) compensation with error, which should add noise to our analysis and operate against our finding the hypothesized relationships.

which the executive's total compensation takes the form of fixed salary. Because the dependent variable is a percentage with a value censored between 0 and 1, we estimate a tobit regression.

Our sample includes observations before and after the 2006 change for both NEOs and CFOs, and includes both executives affected by §162(m) and those who are not affected.<sup>6</sup> We include indicator and interaction variables to isolate how the *Salary PCT* of §162(m)-affected CFOs changed following the exclusion. We include a CFO indicator, *CFO*, to control for differences between CFO and NEO compensation; a post-2006 indicator, *POST*, to control for differences in compensation pre and post 2006; a §162(m) affected indicator, *AFF*, to control for the impact of being affected by §162(m) on compensation; and a series of interactions of these variables. The coefficient of primary interest is on the three-way interaction variable, *CFO\*POST\*AFF*, which isolates the impact of excluding affected CFOs from §162(m). Hypothesis I predicts that the coefficient on *CFO\*POST\*AFF* will be positive, which would be consistent with an increasing reliance on salary for §162(m)-affected CFOs relative to unaffected CFOs and NEOs.

We include control variables that prior literature suggests are likely to influence the compensation mix. These variables proxy for *risk*, *cash constraints*, *growth*, *employment horizon*, *performance*, and *tax expense*. The optimal compensation mix is a function of firm risk (Holmstrom, 1979). Following prior literature (Yermack, 1995; Core, Holthausen and Larcker, 1999; Bryan, Hwang, and Lilien, 2000), as proxies for firm risk we include *LEVERAGE*, the volatility of income,  $\sigma(ROA)$ , and the volatility of stock returns,  $\sigma(RET)$ . Prior literature

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<sup>6</sup> We do not require that the same executive holds a position in both the before and after period to be included in our sample. However, restricting our analysis to those observations with the same executives in both periods yields results comparable to those reported below.

documents that cash constraints influence compensation design (Dechow, Hutton, and Sloan, 1996; Core and Guay, 1999). Following Balsam and Ryan (2008), we include a measure of free cash flow, *FCF*, to proxy for firms' cash constraints. Prior literature also shows investment opportunities affect compensation; for example, growth firms generally rely more on incentive compensation. We use the ratio of book to market value, *BTM*, to control for firm investment opportunities (Core, Holthausen and Larcker, 1999; Carter, Lynch and Tuna, 2007; Balsam, Boone, Liu, and Yin, 2015). Because the executive's employment horizon influences the use of long-term incentive based compensation, we include the natural log of the executive's age, *AGE* (Gray and Cannella, 1997; Balsam, Boone, Liu, and Yin, 2015).

While firm performance will generally not directly affect an executive's salary in that same year, it will affect total compensation as we expect to see increases in the performance-based components of compensation, e.g., non-equity incentive plan compensation. Hence, the ratio of salary to total compensation will decrease with performance. To control for the impact of performance on the compensation mix we include accounting performance, *ROA*, the change in accounting performance,  $\Delta ROA$ , market performance, *RET*, the change in market performance,  $\Delta RET$ , and the change in annual sales,  $\Delta SALES$ . Because we expect that firms with high marginal tax rates prefer tax deductible performance-based compensation (Balsam, Boone, Liu, and Yin, 2015), we include each firm's simulated marginal corporate income tax rate, *MTR*, to control for the influence of corporate income taxes. We include firm size as a general control variable. For example, firm size is a common proxy for firm risk, as firm risk decreases with firm size (Fama and French, 2002). Further, firm size may also influence the fixed/variable allocation because as firm size increases, it may be more difficult to directly monitor a manager's actions, which gives the firm incentive to rely on performance-based compensation (Carter, Lynch, and Tuna, 2007).

To control for each executive's prior compensation and various omitted variables, we include lagged *Salary PCT* and individual firm fixed effects. Finally, all dollar amounts are CPI adjusted, and all variables are winsorized at the 1 and 99 percentiles.

We estimate Equation (2) to test Hypothesis II.

$$\begin{aligned}
TCOMP_{i,e,t} = & \beta_0 + \beta_1 CFO + \beta_2 POST + \beta_3 CFO * POST + \beta_4 AFF \\
& + \beta_5 CFO * AFF + \beta_6 POST * AFF + \beta_7 CFO * POST * AFF \\
& + \beta_8 SIZE_{i,t} + \beta_9 ROA_{i,t} + \beta_{10} \Delta ROA_{i,t} + \beta_{11} RET_{i,t} + \beta_{12} \Delta RET_{i,t} + \beta_{13} \sigma(ROA)_{i,t} \\
& + \beta_{14} \sigma(RET)_{i,t} + \beta_{15} BTM_{i,t} + \beta_{16} AGE_{i,e,t} + \beta_{17} COMP_{i,e,t-1} + \sum_{i=1}^n FIRM + \epsilon \quad (2)
\end{aligned}$$

Variable Definitions:

*TCOMP* = the natural log of executive *e*'s total compensation from firm *i*, and all other variables are defined above.

In Equation (2), the dependent variable is the natural log of the executive's total compensation, which we label *TCOMP*. We include the same indicators, *CFO*, *POST*, and *AFF*, and interaction variables for the reasons detailed above. The coefficient of primary interest is the three-way interaction variable, *CFO\*POST\*AFF*, which measures how total compensation, *TCOMP*, changes for §162(m) affected CFOs relative to unaffected CFOs and NEOs.

We include control variables that are expected to influence total compensation, starting with the standard economic determinants of compensation levels, *SIZE*, *ROA*, *RET*,  $\sigma(ROA)$ ,  $\sigma(RET)$ , and *BTM* (Core, Holthausen, and Larcker, 1999; Balsam and Yin, 2005; Balsam, Irani and Yin, 2012). We also include  $\Delta ROA$  and  $\Delta RET$  to control for the change of performance. Because compensation design is affected by the executive's employment horizon (Mehran, 1995; Leone, Wu and Zimmerman, 2006), we also include the natural log of the executive's age, *AGE*. To control for various omitted variables, we also include prior year total compensation. For

Equation (2), we estimate OLS regressions with individual firm fixed effects. As in equation (1), all dollar amounts are CPI adjusted, and all variables are winsorized at the 1 and 99 percentiles.

### **Sample Selection and Descriptive Statistics**

We obtain our data from the following Compustat databases: Execucomp, North America Fundamentals Annual, and Marginal Tax Rate. We include all non-CEO, non-financial firm executives reported in Execucomp. Because the CFO exclusion was effective for all tax years ending on or after December 15, 2006, the pre-change observations include fiscal years ending from December 2004 through November 2006. Because the IRS released notice 2007-49 on June 5, 2007, the post-change observations include fiscal years beginning after June 2007, or fiscal years ending from June 2008 through May 2010. After excluding observations with missing information and outside of our sample's four-year event window, Table 1 has a final data set of 19,155 observations. There are a total of 1,739 unique firms and 8,852 unique executives.

[Insert Table 1 here]

Table 2 presents the descriptive statistics for the executives included in our sample. As shown in Panel A of Table 2, CFOs comprise 4,441 of the 19,155 observations (23 percent). Approximately one-half of our observations (48 percent) are classified as affected by §162(m), i.e, the individual is one of the firm's top-four most highly paid non-CEO named executive officers and receives total compensation in excess of \$1 million. CFOs are frequently affected because 54 percent of our sample CFOs receive total compensation in excess of \$1 million.

Panel B presents some descriptive statistics on the compensation of our executives. Mean (median) total annual compensation equals \$1.6 (1.0) million. For all executives in our

sample, the mean (median) percentage of total compensation in the form of fixed salary is 39% (34%), with a mean (median) salary of \$384,656 (\$338,462). Mean (median) CFO total annual compensation is \$1.7 (1.1) million, with mean salary of \$394,101 (\$357,110). For NEOs, mean (median) total compensation during our sample period is comparable to CFOs at \$1.6 (1.0) million, with \$381,805 (331,154) in annual salary. Panel C presents CPI-adjusted, winsorized mean (median) total and fixed compensation and salary percentage for the entire sample and before and after the 2006 exclusion. Comparing the means (medians) of CFOs and NEOs using t-tests and Wilcoxon Z's, we find that CFOs had higher total compensation pre-exclusion, but a lower salary percentage. While CFOs do earn a higher salary, the t-test is not significant different between the two groups. Post-exclusion the results are very comparable, except that the mean difference in salary is now statistically significant. Panel D presents the before and after comparison tests for CFOs and NEOs, separately. Comparing the means (medians) from before to after the exclusion, we see that for CFOs total compensation, but not salary, decreased significantly. We also see that the salary percentage increased. For NEOs we see that total compensation and salary both decreased significantly, and the salary percentage increased. Of most interest is the change in change results, i.e., was the change in total compensation, salary, and salary percentage for CFOs from before to after exclusion significantly different from that for NEOs. Finally to get an insight into our hypotheses we do this univariate comparison on a difference-in-difference basis. That is, we compare the change from pre to post-exclusion period for CFOs to that for NEOs, with the latter effectively serving as a control for time-based changes in compensation, as shown in Panel E of Table 2. The differences for total compensation, salary and salary percentage are all in the direction predicted by our hypotheses, although only the difference for salary is statistically significant.

[Insert Table 2 Here]

Table 3 presents the descriptive statistics for the independent variables in Equations (1) and (2). Mean (median) *SIZE* is 7.055 (6.968), comparable to the corresponding statistics of 7.396 (7.228) reported for the sample firms in Carter, Lynch and Tuna (2007). Our *BTM* mean (median) of 0.507 (0.468) values are also comparable to the values of 0.470 (0.391) reported for the Carter et al. (2007) sample. Mean (median) firm *LEVERAGE* of 0.354 (0.318) is comparable to the 0.4 (0.4) values for the sample of firms included in the Bryan et al. (2000) study. Mean (median) accounting performance, *ROA*, of our sample is 0.035 (0.049) and market performance or annual buy-and-hold market return, *RET*, is 0.112 (0.037). Firms pay a mean (median) marginal tax rate of 28.3 (33.3%).

[Insert Table 3 Here]

#### **4. Results**

Table 4 presents the results of estimating Equation (1) to test H1, which predicts that firms will rely more on fixed compensation for affected CFOs after the 2006 exclusion of CFOs from §162(m) coverage. The coefficient of primary interest is the three-way interaction variable, *CFO\*POST\*AFF*. Consistent with our predictions, the coefficient is positive and statistically significant in both the two and four-year windows, providing evidence that the reliance on salary as a component in the executive's total compensation package increased for §162(m)-affected CFOs relative to unaffected CFOs and NEOs immediately following the IRS exclusion of CFOs from §162(m). The results provide evidence supporting H1. Other significant coefficients include the positive coefficient on *POST* for the two-year window, which is consistent with a decrease in incentive compensation in the post period which coincided with the financial crisis;



and the positive coefficient on *CFO*, again only for the two-year window, which is consistent with less reliance on incentive compensation in the CFO compensation package as opposed to that of NEOs. A more robust result, i.e., one that we find in both the two and four-year windows, is the negative coefficient on *AFF*, which is consistent with higher paid, §162(m)-affected executives receiving more of their total compensation in the form of incentives. Similarly, we find a negative coefficient on *CFO\*POST*, which indicates a decrease in the salary ratio for non-affected CFOs in the post period. We also find negative coefficients on the *CFO\*AFF* and *POST\*AFF* variables in the two-year window, but not in the four-year window. In fact, we find the coefficient on *POST\*AFF* to be positive and significant in the four-year window. We attribute the lack of stability of these coefficients to the fact that our sample period includes the financial crisis, which impacted the payment of performance-based compensation. To be more precise, it is probable that incentive compensation decreased more than salary during the financial crisis, leading to a higher salary percentage unrelated to §162(m) or the CFO exclusion.

The positive coefficient on leverage is consistent with the theory in John and John (1993) that pay for performance sensitivity should decrease as leverage increases. We also observe positive coefficients on  $\sigma(ROA)$ , but not  $\sigma(RET)$ . The positive coefficient on executive age is consistent with the findings of Balsam et al. (2015) that the incentive proportion of compensation decreases with age, implying that the salary proportion should increase with age. The negative coefficients on *ROA*, *RET* and  $\Delta SALES$  are consistent with the incentive components of total compensation increasing faster than salary with firm performance. The positive coefficients on  $\Delta ROA$  and  $\Delta RET$  are unexpected. However, the collinearity tests suggest that the associations of *ROA* with  $\Delta ROA$  and *RET* with  $\Delta RET$  may affect these coefficients. While the Variance

Inflation Factors are all below 7, suggesting that multicollinearity does not significantly influence the parameter estimates, the Proportion of Variance Tests, indicate that ROA and  $\Delta$ ROA (RET and  $\Delta$ RET) contribute to the same principal component, suggesting that these particular variables may be associated in a manner that influences their coefficients to some degree. The positive coefficient on *MTR* (two-year window only) is consistent with firms with high marginal tax rates preferring the current tax deduction associated with salary, which would encourage firms to pay more compensation as fixed salary. Finally, the positive coefficient on lagged salary to total compensation is consistent with the ratio being persistent over time.

[Insert Table 4 Here]

Table 5 presents the results of using equation (2) to test H2. For both windows, the coefficient of interest, *CFO\*POST\*AFF*, is negative and statistically significant, consistent with the H2 prediction that the level of total compensation for affected CFOs would decrease after 2006. Taken in conjunction with the results from Table 4 that these CFOs saw an increase in their relative fixed compensation, these findings support the theory that a reduction in CFO compensation risk lead to a simultaneous reduction in total CFO compensation, reflecting a reduction in the CFO's risk premium.<sup>7</sup>

The coefficient on *POST* is negative and significant in both the two and four-year windows, consistent with an overall reduction in total compensation in the post-exclusion period. This again may reflect the post period corresponding to the financial crisis years. However, we note that this coefficient is negative and significant even after controlling for firm performance,

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<sup>7</sup> In untabulated analyses we incorporate the salary percentage, i.e., dependent variable from equation (1) as an additional independent variable in equation (2). As expected we find a negative and significant coefficient on this variable. However we also continue to find a negative and significant coefficient on the three way interaction *CFO\*POST\*AFF*.

which also was adversely affected by the financial crisis. We also find a positive and significant coefficient on *AFF*, which indicates that total compensation is higher for affected executives, even after controlling for the economic determinants of executive compensation. Similarly the positive coefficient on *CFO*, albeit only in the four-year window, is consistent with CFOs earning higher total compensation than the other non-CEO named executive officers. Total compensation is even greater for CFOs in the post period, i.e., *CFO\*POST* is positive and significant. However we do find some evidence that affected CFOs earn less, i.e., the coefficient on *CFO\*AFF* is negative and significant in the four-year window. As in equation (1) we find mixed results on the *POST\*AFF* interaction, a positive and significant coefficient in the two-year window, and a negative and significant coefficient in the four-year window.

As expected we find *SIZE* and performance, i.e., *ROA* and *RET* positively associated with total compensation. We find that the  $\Delta RET$  is negatively associated with total compensation, contrary to expectations, but potentially a result of the collinearity with *RET*. That is, analogous to our discussion above with respect to Equation (1), the untabulated Proportion of Variance Tests<sup>8</sup> for Equation (2) suggests an association between *RET* and  $\Delta RET$  (and *ROA* and  $\Delta ROA$ ), such that both significantly contribute to the same principal component, which may affect their estimated coefficients. We also find prior year total compensation positively associated with current total compensation. In the four-year window we also find some evidence that, counter to our expectations, total compensation decreases with firm risk, i.e., the coefficients on  $\sigma(ROA)$  and  $\sigma(RET)$  are negative and significant.

[Insert Table 5 Here]

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<sup>8</sup> Results not included for brevity, but available upon request.

## 5. Additional Analyses

Our hypotheses follow from the notion that §162(m)'s deduction limitation increases the tax costs of nonperformance-based compensation, and caused firms to shift their executive compensation package away from the previously unconstrained optimum. Here we extend the analysis by focusing on a subset of firms that we expect to be most likely to have modified their compensation packages in response to §162(m). To do so, we partition all sample firms into those with above, versus below, the median salary to total compensation ratio in the pre-exclusion period. We expect that firms with above average use of incentives, and hence with less reliance on salary, are more likely to have moved away from their unconstrained optimum. Our results support this expectation.

In Table 6, when we estimate equation (1) on the two partitioned subsamples, we continue to find a positive and significant coefficient on the three-way interaction  $CFO*POST*AFF$  for the high incentive group, i.e., the group more likely to have moved away from its unconstrained optimum. In contrast, for the lower incentive subsample, the estimated coefficient on the three-way interaction is not significantly different from zero. Thus, the firms in the subsample with a lower pre-exclusion ratio of salary to total compensation were more likely to increase the ratio post-exclusion. However, this is not merely reversion to the mean, as we do not find a corresponding effect for low incentive firms, i.e., the three-way interaction is insignificantly different from zero for that subsample.

Similarly, in Table 7 we estimate equation (2) on the partitioned subsample, continuing to find a negative and significant coefficient on the three-way interaction  $CFO*POST*AFF$  for the high incentive group, but not for the low incentive group.

## 6. Conclusion

In this paper we utilize what can only be explained as an unintended regulatory consequence, the exclusion of CFOs from Internal Revenue Code §162(m)'s deduction limitation, to infer the continuing impact of §162(m) on non-CEO named executive officers. Our finding that after the exclusion, the fixed non-performance based component of CFO compensation increased relative to that of unaffected CFOs, and affected and unaffected non-CEO non-CFO named executive officers, is consistent with the expectation that §162(m) caused firms to modify their compensation away from an unconstrained optimum by increasing the after-tax cost of non-performance based compensation. One consequence of the increased use of performance-based compensation under §162(m) is that the riskiness of the compensation package increases, and in equilibrium this will increase compensation (Halperin et al. 2001). While we do not test this prediction directly, we do find that post exclusion when CFO compensation packages became less risky, CFO total compensation decreased, again relative to that of unaffected CFOs, and affected and unaffected non-CEO non-CFO named executive officers.

We make three contributions to the study of §162(m) and the broader executive compensation literature. First, in contrast to most prior literature which analyzes the impact of §162(m) on CEO compensation, we analyze the effect of §162(m) on the compensation of non-CEO executives, inferring that §162(m) had an effect on CFO compensation, both its

composition and level. Second, in contrast to most prior literature, which used the mid to late 1990's as their sample period, we document that §162(m) continues to affect executive compensation in the 21<sup>st</sup> century. Finally, we contribute to the broader executive compensation literature by providing empirical evidence that taxes, as proxied for by §162(m), impact compensation contract design.

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Table 1: Sample Selection

	Firm-Year Observations
All non-CEO Executives on Execucomp, at non-financial firms included in our four-year event window defined in Section 3	27,789
Deletions:	
Firms years where two individuals are identified as the CFO	(440)
Observations missing Equation (1) or (2) variables	(8,194)
Final Sample	19,155

Table 2: Sample Descriptive Statistics

Panel A: Sample Distribution					
AFFECTED BY §162(m):			AFFECTED	NON-AFFECTED	TOTAL
			9,185 48%	9,970 52%	19,155
BEFORE/AFTER THE CFO EXCLUSION FROM §162(m):			BEFORE	AFTER	TOTAL
			8,586 45%	10,569 55%	19,155
SAMPLE DISTRIBUTION BY EXECUTIVE TYPE:			CFOS	NEOS	TOTAL
			4,441 23%	14,714 77%	19,155
Affected by §162(m)			2,419 54%	6,766 46%	9,185 48%
Non-Affected by §162(m)			2,022 46%	7,948 54%	9,970 52%
Panel B: Non-CPI Adjusted Descriptive Statistics					
Variable	n	mean	lower quartile	median	upper quartile
ALL EXECUTIVES					
Total Compensation	19155	1,618,980	567,670	1,007,090	1,871,310
Salary	19155	384,656	259,231	338,462	457,404
Salary Percentage	19155	39%	22%	34%	51%
CFOs					
Total Annual Compensation	4441	1,668,480	650,737	1,124,800	1,994,730
Salary	4441	394,101	279,340	357,110	470,243
Salary Percentage	4441	37%	22%	32%	48%
NEOs					
Total Annual Compensation	14714	1,604,040	547,209	971,678	1,826,790
Salary	14714	381,805	252,000	331,154	453,449
Salary Percentage	14714	39%	22%	34%	52%

<b>Panel C: Comparison of CFO to NEO Compensation</b>						
	CFOs		NEOs		T-Stat	Wilcoxon Z
	Mean	Median	Mean	Median	(p value)	(p value)
ALL YEARS	n=4,441		n=14,714			
Total Compensation	1,178,000	813,773	1,111,600	703,061	-3.25 (p=0.001)	8.393 (p<.001)
Salary	281,800	257,292	272,500	240,916	-4.57 (p<.001)	8.831 (p<.001)
Salary Percentage	37%	(32%)	39%	(34%)	6.2 (p<.001)	-5.719 (p<.001)
PRE-EXCLUSION:	n=1,843		n=6,743			
Total Compensation	1,261,740	853,676	1,176,140	731,884	-2.52 (p=0.012)	5.727 (p<.001)
Salary	280,612	254,433	277,154	243,208	-1.11 (p=0.268)	3.961 (p<.001)
Salary Percentage	35%	30%	38%	34%	5.34 (p<.001)	-5.434 (p<.001)
POST-EXCLUSION	n=2,598		n=7,971			
Total Compensation	1,118,570	777,173	1,057,030	678,274	-2.43 (p=0.015)	6.530 (p<.001)
Salary	282,607	258,344	268,579	238,421	-5.26 (p<.001)	8.359 (p<.001)
Salary Percentage	38%	33%	40%	35%	3.94 (p<.001)	-3.246 (p<.001)
<b>Panel D: Comparison of Compensation - BEFORE to AFTER 2006 Exclusion</b>						
CFOS:	BEFORE (n=1,843)		AFTER ( n=2,598)			
Total Compensation	1,261,740	853,676	1,118,570	777,173	3.89 (p<.001)	3.760 (p<.001)
Salary	280,612	254,433	282,607	258,344	-0.57 (p=0.566)	-0.917 (p=.359)
Salary Percentage	35%	30%	38%	33%	-4.69 (p<.001)	-5.450 (p<.001)
NEOs	BEFORE (n=6,743)		AFTER ( n=7,971)			
Total Compensation	1,176,140	731,884	1,057,030	678,274	5.81 (p<.001)	6.300 (p<.001)
Salary	277,154	243,208	268,579	238,421	3.93 (p<.001)	3.570 (p<.001)
Salary Percentage	38%	34%	40%	35%	-5.22 (p<.001)	-5.118 (p<.001)

**Panel E: Comparison of the Mean Change of Total Compensation, Salary, and Salary Percentage from the Pre Exclusion Period to the Post Exclusion Period for CFOs to NEOs\***

	CFOs	NEOs	T-Stat (p value)	Wilcoxon Z (p value)
Number of Executives	n=473	n=1,608		
Mean Change of Total Compensation	97,046	98,135	0.02 (p=0.981)	0.583 (p=0.560)
Mean Change of Salary	33,158	22,533	-4.06 (p<.001)	4.433 (p<.001)
Mean Change of Salary Percentage	0.7%	-0.03%	-0.8 (p=0.422)	0.767 (p=0.443)

\*Limited to Only CFOs and NEOs in both the Pre and Post Exclusion Periods

For Panels C, D and E: Compensation measures cpi adjusted and winsorized at 1/99

Table 3: Descriptive Statistics of the Equation (1) and (2) Independent Variables

variable	n	mean	standard deviation	lower quartile	median	upper quartile
<i>LEVERAGE</i>	19155	0.354	0.225	0.169	0.318	0.506
$\sigma(\text{ROA})$	19155	0.057	0.072	0.016	0.031	0.067
$\sigma(\text{RET})$	19155	0.552	0.639	0.240	0.375	0.599
<i>SIZE</i>	19155	7.055	1.556	5.973	6.968	8.092
<i>FCF</i>	19155	-0.017	0.118	-0.074	-0.024	0.029
<i>BTM</i>	19155	0.507	0.898	0.287	0.468	0.709
<i>AGE</i>	19155	3.925	0.139	3.829	3.932	4.025
<i>ROA</i>	19155	0.035	0.115	0.011	0.049	0.092
$\Delta\text{ROA}$	19155	-0.007	0.103	-0.030	0.000	0.020
<i>RET</i>	19155	0.112	0.608	-0.251	0.037	0.326
$\Delta\text{RET}$	19155	-0.004	0.876	-0.433	-0.081	0.348
$\Delta\text{SALES}$	19155	0.008	0.242	-0.078	0.031	0.121
<i>MTR</i>	19155	0.283	0.098	0.264	0.333	0.346

*LEVERAGE* = book value of firm *i*'s total liabilities scaled by firm's total market value, which we define as the sum of the market value of equity and book value of total liabilities

$\sigma(\text{ROA})$  = the standard deviation of firm *i*'s annual ROA for the prior five years

$\sigma(\text{RET})$  = standard deviation of firm *i*'s annual market returns for the prior five years

*SIZE* = natural logarithm of firm *i*'s total assets at the end of year *t*

*FCF* = ratio of firm *i*'s free cash flow measured as common plus preferred dividends less cash flow from operating and investing activities, scaled by total assets

*BTM* = ratio of firm *i*'s book value of total assets to total market value of equity plus total liabilities at the end of year *t*

*AGE* = natural logarithm of the executive *e*'s age in years

*ROA* = net income before extraordinary items and discontinued operations scaled by average total assets

$\Delta\text{ROA}$  = the change in firm *i*'s return on assets, *ROA*, in year *t* from year *t-1*.

*RET* = firm *i*'s buy and hold annual market returns in year *t*

$\Delta\text{RET}$  = the change in firm *i*'s buy and hold market returns, *RET*, in year *t* from year *t-1*

$\Delta\text{SALES}$  = the change of the natural logarithm of firm *i*'s total annual sales in year *t* from year *t-1*

*MTR* = simulated marginal tax rate from Compustat's Marginal Tax Rate database, calculated in accordance with the method presented in Blouin, Core, and Guay (2010)

Table 4: Results of Equation (1) estimating how the salary percentage of \$162(m) affected CFOs changed following the 2006 exclusion

DEPENDENT VARIABLE: <i>SALARY PCT</i>		
	Two Year Window	Four Year Window
<i>Intercept</i>	-2.061 *** ( $<.001$ )	-1.635 *** ( $<.001$ )
<i>CFO</i>	0.035 ** (0.016)	-0.003 (0.776)
<i>POST</i>	0.041 *** (0.001)	-0.014 (0.129)
<i>CFO* POST</i>	-0.081 *** ( $<.001$ )	-0.036 ** (0.017)
<i>AFF</i>	-0.504 *** ( $<.001$ )	-0.627 *** ( $<.001$ )
<i>CFO* AFF</i>	-0.035 * (0.079)	0.002 (0.922)
<i>POST*AFF</i>	-0.044 *** (0.002)	0.025 ** (0.024)
<u>Coefficient of Interest:</u>		
<i>CFO*POST*AFF</i>	0.116 *** ( $<.001$ )	0.064 *** (0.002)
<i>LEVERAGE</i>	0.202 *** (0.001)	0.185 *** ( $<.001$ )
$\sigma(ROA)$	0.236 * (0.055)	0.136 * (0.078)
$\sigma(RET)$	0.008 (0.554)	0.010 (0.151)
<i>SIZE</i>	0.017 (0.369)	0.006 (0.615)
<i>FCF</i>	-0.122 (0.010)	-0.116 *** ( $<.001$ )
<i>BTM</i>	0.001 (0.808)	0.002 (0.578)
<i>AGE</i>	0.209 *** ( $<.001$ )	0.181 *** ( $<.001$ )
<i>ROA</i>	-0.629 *** ( $<.001$ )	-0.330 *** ( $<.001$ )
$\Delta ROA$	0.269 *** (0.001)	0.080 * (0.066)
<i>RET</i>	-0.077 *** ( $<.001$ )	-0.075 *** ( $<.001$ )
$\Delta RET$	0.051 *** ( $<.001$ )	0.021 *** ( $<.001$ )
$\Delta SALES$	-0.201 *** ( $<.001$ )	-0.179 *** ( $<.001$ )
<i>MTR</i>	0.442 *** (0.001)	-0.107 * (0.068)
<i>SALARY PCT, <math>t-1</math></i>	0.368 *** ( $<.001$ )	0.238 *** ( $<.001$ )
n	9,511	19,155

Tobit regressions with individual fixed firm effects, coefficients not presented for brevity

2 (4) Year Window: 1 (2) year before the 2006 change became effective on December 15, 2006 and 1(2) years following the IRS notice on June 5, 2007

all continuous variables are winsorized at 1/99, p values in parentheses

Collinearity tests indicate that the Condition Index is less than 10, the VIF is less than 7 for all independent variables and no variable contributes more than 50% to two principal components.

\*\*\*, \*\*, and \* indicate that statistical significance is demonstrated at the .01, .05, and .10 levels, respectively



Table 5: Results of Equations (2) estimating how total compensation of \$162(m) affected CFOs changed following the 2006 exclusion

DEPENDENT VARIABLE: $\ln(\text{Total Compensation}) - TCOMP$		
	Two Year Window	Four Year Window
<i>Intercept</i>	3.896 *** ( $<.001$ )	3.942 *** ( $<.001$ )
<i>CFO</i>	0.013 (0.436)	0.053 *** ( $<.001$ )
<i>POST</i>	-0.076 *** ( $<.001$ )	-0.052 *** ( $<.001$ )
<i>CFO* POST</i>	0.096 *** ( $<.001$ )	0.042 ** (0.018)
<i>AFF</i>	0.704 *** ( $<.001$ )	0.795 *** ( $<.001$ )
<i>CFO* AFF</i>	-0.037 (0.138)	-0.066 *** (0.001)
<i>POST*AFF</i>	0.037 * (0.051)	-0.031 ** (0.023)
<u>Coefficient of Interest:</u>		
<i>CFO*POST*AFF</i>	-0.117 *** ( $<.001$ )	-0.058 ** (0.023)
<i>SIZE</i>	0.100 *** ( $<.001$ )	0.116 *** ( $<.001$ )
<i>ROA</i>	0.448 *** ( $<.001$ )	0.368 *** (0.001)
$\Delta ROA$	-0.153 (0.157)	-0.077 (0.155)
<i>RET</i>	0.112 *** ( $<.001$ )	0.106 *** ( $<.001$ )
$\Delta RET$	-0.070 *** ( $<.001$ )	-0.057 *** ( $<.001$ )
$\sigma(ROA)$	-0.231 (0.192)	-0.184 * (0.061)
$\sigma(RET)$	-0.007 (0.692)	-0.018 ** (0.038)
<i>BTM</i>	0.004 (0.680)	0.004 (0.499)
<i>AGE</i>	-0.043 (0.190)	0.025 (0.292)
<i>TCOMP<sub>t-1</sub></i>	0.277 *** ( $<.001$ )	0.224 *** ( $<.001$ )
n	9511	19155
R-square	0.8735	0.8403

OLS regressions with individual fixed firm effects, coefficients not presented for brevity

2 (4) Year Window: 1 (2) year before the 2006 change became effective on December 15, 2006 and 1(2) years following the IRS notice on June 5, 2007

all continuous variables are winsorized at 1/99, p values in parentheses

Collinearity tests indicate that the Condition Index is less than 10, the VIF is less than 7 for all independent variables and no variable contributes more than 50% to two principal components.

\*\*\*, \*\*, and \* indicate that statistical significance is demonstrated at the .01, .05, and .10 levels, respectively

Table 6: Results of estimating Equation (1) for HIGH and LOW incentive firms, separately, to examine how firms' pre-exclusion reliance on incentive compensation influenced how they changed their CFO salary percentage following the 2006 exclusion.

DEPENDENT VARIABLE: <i>SALARY PCT</i>		
FIRM INCENTIVE TYPE:	HIGH Incentive	LOW Incentive
<i>Intercept</i>	-2.307 *** ( $<.001$ )	-1.376 *** ( $<.001$ )
<i>CFO</i>	0.113 *** ( $<.001$ )	-0.002 (0.916)
<i>POST</i>	0.167 *** ( $<.001$ )	-0.009 (0.518)
<i>CFO* POST</i>	-0.183 *** ( $<.001$ )	-0.037 * (0.085)
<i>AFF</i>	-0.461 *** ( $<.001$ )	-0.458 *** ( $<.001$ )
<i>CFO* AFF</i>	-0.121 *** ( $<.001$ )	0.037 * (0.249)
<i>POST*AFF</i>	-0.157 *** ( $<.001$ )	-0.047 ** (0.035)
<u>Coefficient of Interest:</u>		
<i>CFO*POST*AFF</i>	0.228 *** ( $<.001$ )	0.028 (0.489)
<i>LEVERAGE</i>	0.169 * (0.058)	0.260 *** (0.001)
$\sigma(ROA)$	0.170 (0.346)	0.159 (0.331)
$\sigma(RET)$	0.028 (0.164)	-0.019 (0.326)
<i>SIZE</i>	0.023 (0.414)	-0.002 (0.942)
<i>FCF</i>	-0.271 ** ( $<.001$ )	0.107 (0.101)
<i>BTM</i>	0.018 ** (0.042)	-0.010 (0.120)
<i>AGE</i>	0.266 *** ( $<.001$ )	0.158 *** ( $<.001$ )
<i>ROA</i>	-0.679 *** ( $<.001$ )	-0.396 *** (0.003)
$\Delta ROA$	0.270 ** (0.016)	0.057 (0.640)
<i>RET</i>	-0.073 *** (0.007)	-0.063 *** (0.005)
$\Delta RET$	0.069 *** ( $<.001$ )	0.019 (0.238)
$\Delta SALES$	-0.260 *** ( $<.001$ )	-0.091 *** (0.026)
<i>MTR</i>	0.184 (0.363)	0.691 ( $<.001$ )
<i>SALARY PCT, t-1</i>	0.494 *** ( $<.001$ )	0.235 *** ( $<.001$ )

n	4690	3849
Tobit regressions with individual fixed firm effects, coefficients not presented for brevity		
2 Year Window: 1 before the 2006 change became effective on December 15, 2006 and 1 year following the IRS notice on June 5, 2007		
We define a firm as <i>HIGH</i> ( <i>LOW</i> ) incentive if its pre-exclusion mean executive salary percentage is equal to or less than (greater than) our sample's median pre-exclusion mean executive salary percentage of 38.8%		
all continuous variables are winsorized at 1/99, p values in parentheses		
Collinearity tests indicate that the Condition Index is less than 10, the VIF is less than 7 for all independent variables and no variable contributes more than 50% to two principal components.		
***, **, and * indicate that statistical significance is demonstrated at the .01, .05, and .10 levels, respectively		

Table 7: Results of estimating Equation (2) for HIGH and LOW incentive firms, separately, to examine how firms' pre-exclusion reliance on incentive compensation influenced how they changed their CFO total compensation following the 2006 exclusion.

DEPENDENT VARIABLE: $\ln(\text{Total Compensation}) - TCOMP$		
FIRM INCENTIVE TYPE:	HIGH Incentive	LOW Incentive
<i>Intercept</i>	3.996 *** ( $<.001$ )	3.951 *** ( $<.001$ )
<i>CFO</i>	-0.037 (0.285)	0.040 ** (0.032)
<i>POST</i>	-0.173 *** ( $<.001$ )	-0.025 (0.160)
<i>CFO* POST</i>	0.140 *** (0.007)	0.072 ** (0.011)
<i>AFF</i>	0.635 *** ( $<.001$ )	0.728 *** ( $<.001$ )
<i>CFO* AFF</i>	0.025 (0.528)	-0.116 ** (0.012)
<i>POST*AFF</i>	0.136 *** ( $<.001$ )	0.009 (0.771)
<u>Coefficient of Interest:</u>		
<i>CFO*POST*AFF</i>	-0.161 *** (0.006)	-0.056 (0.332)
<i>SIZE</i>	0.090 *** (0.005)	0.099 *** (0.003)
<i>ROA</i>	0.579 *** ( $<.001$ )	0.218 (0.196)
$\Delta ROA$	-0.057 (0.676)	-0.141 (0.382)
<i>RET</i>	0.143 *** (0.001)	0.090 * (0.013)
$\Delta RET$	-0.108 *** ( $<.001$ )	-0.027 (0.214)
$\sigma(ROA)$	-0.153 (0.489)	-0.183 (0.511)
$\sigma(RET)$	-0.057 ** (0.022)	0.049 * (0.058)
<i>BTM</i>	-0.010 (0.444)	0.015 * (0.082)
<i>AGE</i>	-0.057 (0.287)	-0.023 (0.627)
<i>TCOMPt-1</i>	0.282 *** ( $<.001$ )	0.248 *** ( $<.001$ )
<i>n</i>	4690	3839
<i>R-square</i>	0.8319	0.8280

OLS regressions with individual fixed firm effects, coefficients not presented for brevity

2 Year Window: 1 before the 2006 change became effective on December 15, 2006 and 1 year following the IRS notice on June 5, 2007

We define a firm as *HIGH* (*LOW*) incentive if its pre-exclusion mean executive salary percentage is equal to or less than (greater than) our sample's median pre-exclusion mean executive salary percentage of 40.5%

all continuous variables are winsorized at 1/99, p values in parentheses

Collinearity tests indicate that the Condition Index is less than 10, the VIF is less than 7 for all independent variables and no variable contributes more than 50% to two principal components.

\*\*\*, \*\*, and \* indicate that statistical significance is demonstrated at the .01, .05, and .10 levels, respectively