# BOSTON COLLEGE

CARROLL SCHOOL OF MANAGEMENT
Accounting Department
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
617.552.2144
maryellen.carter@bc.edu

**Mary Ellen Carter**
Associate Professor

September 15, 2009

Elizabeth M. Murphy
Secretary
Securities and Exchange Commission
100 F Street, NE.
Washington, DC 20549–1090

Re: S7–13–09

Ladies and Gentlemen:

I appreciate this opportunity to provide comments to the Securities and Exchange Commission regarding the proposed rule "Proxy Disclosure and Solicitation Enhancements" (Release No. 33-9052). I have researched the relation between compensation consultants and executive pay. My comment is applicable to section D, "New Disclosure Regarding Compensation Consultants".

My co-authors and I examine the relation between CEO pay and the potential for compensation consultants to have conflicting incentives in their advice to their clients in "The Incentives of Compensation Consultants and CEO Pay", which is forthcoming in the peer-reviewed journal, *Journal of Accounting and Economics*. We study samples of S&P1500 firms and Russell 3000 firms to determine if the potential for a conflict of interest of the compensation consultant is related to higher the levels of CEO pay. The Waxman Commission completed a similar, but limited, study in 2007 using a measure of conflict of interest from data that you are proposing would be disclosed in this new rule (actual fees for non-executive compensation consulting relative to executive compensation fees paid by the firm to the compensation consultant). Since that data was not available to us, we use three proxies for potential conflicts of interest. Despite subjecting the data to a battery of tests, we find no consistent evidence that our measures of potential conflicts of interest are associated with greater CEO pay. That is, concerns about compensation consultant independence may be overstated. A copy of our article is attached.

My intention is not to promote the interests of compensation consultants. Instead, I am bringing our study to your attention as it provides evidence on the extent of the potential problem that you are seeking to correct with the proposed additional disclosures of compensation consultant fees. Our evidence suggests that the benefits of disclosure may be more limited because the problem may not be as severe as has been alleged.

Sincerely,

Mary Ellen Carter

Mary Ellen Carter

# The Incentives of Compensation Consultants and CEO Pay

Brian Cadman*
*David Eccles School of Business*
*University of Utah*
brian.cadman@business.utah.edu

Mary Ellen Carter
*Carroll School of Management*
*Boston College*
maryellen.carter@bc.edu

Stephen Hillegeist
*INSEAD*
Stephen.Hillegeist@INSEAD.edu

forthcoming,
*Journal of Accounting and Economics*

## ABSTRACT

We examine whether compensation consultants' potential cross-selling incentives explain more lucrative CEO pay packages using 755 firms from the S&P 1500 for 2006. Critics allege that these incentives lead consultants to bias their advice to secure greater revenues from their clients (Waxman, 2007). Among firms that retain consultants, we are unable to find widespread evidence of higher levels of pay or lower pay-performance sensitivities for clients of consultants with potentially greater conflicts of interest. Overall, we do not find evidence suggesting that potential conflicts of interest between the firm and its consultant are a primary driver of excessive CEO pay.

---

We gratefully acknowledge the financial support of the Alliance Center for Global Research and Development at INSEAD, Boston College, University of Utah, and The Wharton School. We appreciate helpful comments from Ross Watts (the editor), and Jennifer Gaver (the referee), Tim Gray, Sue Haka, Steve Matsunaga, Karen Nelson, Katerina Semida, and seminar participants at Chinese University of Hong Kong, Dartmouth College, George Washington University, INSEAD, Hong Kong University of Science and Technology, Northwestern University, Southern Methodist University, University of California at Davis, University of Texas at Dallas, University of Utah, University of Washington, Washington University of St. Louis, and participants at the 2008 European Accounting Association Annual meeting and 2008 London Business School Accounting Symposium. This project involved extensive hand collection of data. We thank Nichole Kim, Cheng Li, Christine Roh, Katerina Semida, Shari Singh and YinYin Yu for their help with this effort. Some of the data has been supplied by The Corporate Library.
*****Corresponding Author

## 1. Introduction

Compensation consultants are frequently hired by board compensation committees to assist them in designing pay packages for the Chief Executive Officer (CEO) and other top executives. Despite their widespread use at public firms, little is known about how consultants influence executive pay packages. This study examines whether potential conflicts of interest of compensation consultants influence CEO pay for a large sample of S&P 1500 firms. Compensation consultants are often subject to conflicts of interest in that they can sell additional services to the firm. In theory, that might lead them to recommend overly generous compensation for client CEOs. We thus examine their effect on the level of pay and pay-performance sensitivity (PPS).

Compensation consultants assist compensation committees in two primary ways. First, they provide expertise on compensation-related issues. This expertise includes knowledge of relevant laws and an understanding of executive compensation practices in general and for organizational changes such as mergers, acquisitions, spinoffs, and restructurings. Consultants' extensive knowledge about different forms of compensation allows them to help boards tailor executive pay packages (Brancato, 2002). Second, compensation consultants typically have access to detailed, proprietary information about pay practices. If consultants do not respond to conflicting incentives and, instead, act in the interests of shareholders, then they can advocate for efficient levels of compensation and for packages that effectively link pay to firm performance compared with compensation schemes that committees acting alone would have devised.

Many executive compensation (EC) consultants also provide non-executive compensation (non-EC) consulting services to the firm (as opposed to the board of directors), such as advice on pension plans, outsourcing of employee benefits plans, and compensation advice for mid-level managers. Providing non-EC services creates an economic dependence on revenues that are ultimately under the control of the CEO. Critics allege that these cross-selling interests induce compensation consultants to provide biased advice in order to secure additional revenues from

non-EC services (Bebchuk and Fried, 2006; Morgenson, 2006; Waxman, 2007). Beyond simply recommending higher levels of compensation, consultants can also design compensation schemes that provide greater pay without requiring greater performance. According to this view, consultants with conflicts of interest ("conflicted consultants") help executives extract wealth from shareholders through higher compensation and/or lower PPS.

To examine the effect of cross-selling incentives, we take advantage of new SEC rules requiring companies to disclose the use of compensation consultants in proxy statements. We hand collect data on which, if any, compensation consultant the compensation committee retains to advise it on executive pay and whether the firm discloses its consultant provides additional services to the firm. Our primary sample consists of 755 firms in the S&P 1500 index with December 2006 fiscal-year ends that retain a compensation consultant.[1]

We examine whether the level of pay (salary, bonus, equity and total) is higher and whether the degree of pay-performance sensitivity is lower in firms where consultants have greater potential cross-selling incentives. Data on actual EC and non-EC services are not available so we consider three proxies for conflicts of interest: (1) client firms who affirmatively disclose that their compensation consultant provides non-EC services; (2) firms that are not clients of Frederic W. Cook or Pearl Meyer, large consultants that focus exclusively on executive compensation services and thus do not have cross-selling incentives; and (3) firms that hire their auditor for significant non-audit services, indicating a willingness to allow possible conflicts of interest among their professional service providers.[2]

Contrary to recent reports (Waxman, 2007), we find no consistent evidence that firms whose consultants have greater cross-selling conflicts of interest compensate their CEOs more highly or have lower PPS than the clients of consultants that are less likely to be conflicted. Our

[1] Our sample consists of firms with December 2006 fiscal year-ends since the Securities and Exchange Commission (SEC) first mandated firms disclose their use of compensation consultants for fiscal years ending on or after December 15, 2006.
[2] In Section 3, we discuss the correlation of our proxies with actual EC and non-EC revenues.

results are robust to several alternative measures of performance and remain when we control for the decision to retain a consultant. Further, our findings do not result from our sample being biased toward larger firms nor do we find effects of conflicts in firms with weaker corporate governance structures. Finally, we explore, but find little support for, the possibility that the decision to hire a consultant overshadows any effect that potential conflicts of interest might have. While we find some evidence that firms hiring a consultant in 2006 compensate their CEOs more than firms that do not, this result is not robust when we examine changes in pay as a function of changes in the use of consultants in 2007. Specifically, firms that add or continue to use a consultant do not have greater increases in pay, and firms that drop consultants do not have smaller increases in pay compared to firms that do not use a consultant in either year. Those analyses do not provide consistent evidence that compensation consultants are associated with more lucrative pay packages.

Overall, we do not find evidence suggesting that potential conflicts of interest associated with cross-selling incentives are a primary driver of excessive CEO pay. Reputation and credibility incentives can limit consultants' desires to act on cross-selling incentives. Similarly, safeguards put in place by compensation committees, such as requiring prior approval of or prohibiting the provision of non-EC services by the consultant, can limit the consultants' ability to act on their incentives. Taken together, our findings suggest that concerns about compensation consultant independence are overstated.

This study contributes to the compensation and corporate governance literatures on how potential conflicts of interest affect the services provided by advisors to the firm. Our setting examines one important advisor, the compensation consultant, and its role in achieving efficient contracts. Because of prior limited disclosure, ours is among the first to study the role of compensation consultants and the effect they have on executive pay using a broad sample of firms in the U.S. Our study also provides additional evidence on the more general debate regarding executive compensation practices, which remains an important issue, not least because

the controversy has moved to a global forum with non-U.S. executive pay packages coming to resemble their U.S. counterparts (Fabrikant, 2006; Grant et al., 2006).

Our paper continues as follows. In Section 2, we discuss background information and provide our research question. Section 3 discusses data sources and our research design. Section 4 presents the results of our empirical tests examining the influence of cross-selling conflicts on CEO pay. Section 5 provides additional analyses examining alternative explanations for our findings in Section 4. We provide concluding remarks in Section 6.

## 2. Background and Research Question

### *2.1 Background and related studies*

Compensation consultants are frequently employed to help boards of directors design executive compensation plans for U.S. firms. However, the role that consultants play in determining pay for top executives has long been controversial (Crystal, 1991). While consultants can use their expertise to assist the compensation committee in designing compensation packages that maximize shareholder value, critics accuse them of aiding executives at the expense of shareholders (Morgenson, 2006). Critics focus on cross-selling conflicts of interest that arise when the consultant provides potentially more profitable non-EC services to the client firm beyond advice on executive pay. While the compensation committee almost always has the sole authority to hire a compensation consultant, the hiring decisions for non-EC services are ultimately under the CEO's control.[3] Thus, compensation consultants can curry the CEO's favor by recommending excessive pay packages in order to secure or protect these other assignments (Crystal, 1991; Morgenson, 2007).

[3] Since the Sarbanes-Oxley Act, compensation committees have generally retained their own consultants, while previously the consultant was often hired directly by management. In addition, listing requirements adopted in 2003 by the New York Stock Exchange (Rule 303A) require that the compensation committee retain sole authority over the compensation consultant. In 247 firms randomly selected from our sample, 95% indicate the compensation committee hired the consultant in 2006.

A recent report issued by the United States House of Representatives Committee on Oversight and Government Reform (Waxman, 2007) suggests that cross-selling conflicts may influence pay. Examining pay in Fortune 250 companies between 2002 and 2006 using proprietary data obtained from six compensation consultants, the study finds that firms with the highest conflicts of interest with their consultants, as measured by the ratio of fees for other services to fees for executive pay advice, had higher median compensation than other firms. However, this study fails to control for the economic determinants of pay and, therefore, its conclusions should be interpreted with caution.

Until recently, little public information has been available because firms were not required to disclose the use of compensation consultants. In response to increased concerns over executive pay, the Securities and Exchange Commission requires companies to provide a "Compensation Disclosure and Analysis" (CD&A) section in their annual proxy statement. The CD&A requires numerous disclosures by the Compensation Committee, including which, if any, compensation consultant is used in setting compensation for top executives.[4] These new disclosures allow us to provide systematic evidence on the incentives of compensation consultants.

In a related study, Conyon et al. (2006) find that CEO pay in the 250 largest U.K. companies is higher when the company engages one of the two most prevalent consultants in their sample. In concurrent research, Armstrong et al. (2008) highlight the joint role of governance characteristics and compensation consultants. Their findings on potentially conflicted consultants, proxied by market strategy, are consistent with our results even after including additional governance metrics. Most similar to ours is a concurrent study by Murphy

[4] Item 407(e)(3)(iii) of Regulation S-K requires firms to disclose "Any role of compensation consultants in determining or recommending the amount or form of executive and director compensation, identifying such consultants, stating whether such consultants are engaged directly by the compensation committee (or persons performing the equivalent functions) or any other person, describing the nature and scope of their assignment, and the material elements of the instructions or directions given to the consultants with respect to the performance of their duties under the engagement." (Securities and Exchange Commission, 2006).

and Sandino (2008). Their proxies for cross-selling incentives are whether the consultant provides actuarial services to the client and whether the firm states the consultant is independent. Consistent with our results, they find no evidence that cross-selling incentives lead to more lucrative pay. Our study differs from these on three important dimensions. First, we consider additional proxies for conflicts of interest that go beyond market strategy and that are not self-reported. We also document the correlations of our proxies with actual (confidential) revenue data used to measure conflicts of interest as in Waxman (2007). Second, our expanded tests on the use of a consultant show that the association between the use of a consultant and greater CEO pay is not robust. Since these related studies do find such an association, it suggests that their results may be due to correlated omitted variables. Third, we examine the relation between potential conflicts of interest and pay-performance sensitivity. This is important as conflicts of interest can manifest themselves in lower PPS in addition to higher pay levels. Overall, our study contributes to this stream of literature by testing multiple proxies for potential conflicts of interest, while also examining the role of consultants in the pay-setting process more generally using expanded analysis.

### *2.2 Research question*

Revenues from non-EC services can be many times larger than the revenues from EC services. Waxman (2007) reports several instances where non-EC revenues from a client are more than 10 times the client's EC revenues. In addition, non-EC revenues are believed by many to yield higher profit margins than EC revenues.[5] If cross-selling incentives compromise the independence and objectivity of compensation consultants, then we would expect that CEOs of firms that retain consultants with greater potential conflicts of interest would receive higher

[5] In his opening statement at hearings held by the U.S. House of Representatives Committee on Oversight and Government Reform, Senator Waxman stated that compensation consultants "know what the CEO wants to hear, and they know what will happen to their *lucrative* contracts if they don't say it" (http://oversight.house.gov/story.asp?ID=1646). Even compensation consultants describe non-EC services as "more lucrative" than EC services (Paulin, 2007).

compensation levels compared with the clients of consultants less likely to suffer from conflicts of interest ("independent consultants"). In addition, compensation schemes link executive wealth to firm performance, typically by including variable cash pay (bonus) and equity-based components. Risk- and effort-averse executives prefer large *fixed* compensation packages with variable pay that is less sensitive to firm performance. Therefore, in addition to recommending higher levels of pay, consultants with greater cross-selling incentives are also likely to advocate contracts that result in weaker PPS compared with the recommendations of independent consultants.

There are, however, reasons why consultants would not respond to cross-selling incentives. First, consultants have strong incentives to develop and maintain their reputations as independent information experts who provide accurate and unbiased advice. Acting on short-term incentives by casting aside their objectivity compromises future EC revenues to the extent that a consultant obtains a reputation for recommending overly generous pay packages. To prevent such conflicts, some consulting firms ensure that the individual who advises the compensation committee does not work on non-EC projects for the same client (Powers, 2007).

Second, compensation committees can take steps to manage potential cross-selling conflicts of interests. Many committees require their consultant to detail non-EC services and fees provided to the company and often also require the consultant to obtain the committee's written approval before providing non-EC services (Lublin, 2007). Other committees prohibit any non-EC work from the consulting firm that provides EC services (Powers, 2007; Lowman, 2007).[6]

With the exception of Frankel et al. (2002), research on the effects of potential conflicts of interest for audit firms has not produced evidence that providing additional non-audit services

[6] Evidence examining reasons why firms change consultants is consistent with this claim. In our sample, 88 firms change consultants in 2007. Of those firms that offer an explanation for the change, 28% state that the change was made to ensure that the compensation consultant provided only executive compensation services. The largest percent (29%) was due to personnel changes in the consulting firm.

affects auditors' independence (for example, DeFond et al., 2002 and Kinney et al., 2004). Compensation consultants have similar incentives to generate additional revenues by selling other services to the firm. However, unlike auditors, there are no required disclosures for EC or non-EC revenues from which shareholders can assess potential conflicts of interest in executive compensation consulting services. In addition, unlike auditor requirements in Form 8-K, there is no mandatory disclosure of changes or reasons for changes in compensation consultants, which could provide insight into consultants' relationships with their clients. As a result, it is not clear to what extent our findings will be similar to those in the audit literature. As such, we provide insight into the role of disclosure in mitigating these conflicts of interest.

To the extent that consultants' reputation incentives and organizational processes, along with safeguards instituted by boards are effective, compensation consultants will retain their independence and provide objective advice. In this case, we would not expect to find an association between our proxies for greater cross-selling incentives and the level of CEO pay or PPS at client firms. Thus, whether potential cross-selling conflicts of interest faced by compensation consultants result in more lucrative pay packages for client CEOs is the empirical question we address.

## 3. Research Design

### *3.1 Sample selection and data sources*

Our initial sample consists of 880 firms with fiscal years ending in December 2006 from the S&P 1500 index. Of these firms, 755 (86%) used consultants in 2006. Our sample period is limited to one year because the new CD&A requirement is effective for fiscal years ending on or after December 15, 2006. Besides compensation and accounting data from Execucomp and Compustat, we obtain data about compensation consultants through extensive hand-collection from proxy statements. We determine which, if any, compensation consultant the compensation

committee retains from the CD&A disclosures in the 2006 proxy statements.[7] We also collect the description of the services provided by the consultant.

The market for executive compensation services is dominated by a handful of firms. As reported in Table 1 Panel A, 76% (571) of the 755 firms that use compensation consultants employ one of six large consultants: Towers Perrin, Mercer Human Resources Consulting, Hewitt Associates, Frederic W. Cook, Watson Wyatt, and Pearl Meyer & Partners. The remaining firms report using one of 63 other small consulting firms.

In Table 1 Panel B, we report the client-industry distribution across consultants. For each industry, we provide both the number of sample clients in that industry (based on the Barth et al., 1998 classifications) and the percent of sample clients that engage each consultant. In general, there is limited evidence of significant industry concentration with a few exceptions indicated by chi-square tests. To address the influence of industry, we include industry indicators in the tests that follow. In Table 1 Panel C, we provide descriptive information on our initial sample of 880 firms and of the 755 firms that retain a consultant. Only mean salary is significantly different between the two groups and none of the medians are significantly different at conventional levels.

### *3.2 Proxies for cross-selling incentives*

When the compensation consultant provides non-EC services to a client, critics allege that the consultant's independence from the CEO is impaired. To examine this concern, we test for differences in levels of compensation and PPS of compensation between clients of conflicted compensation consultants and clients of independent consultants. Ideally, we would measure conflicts of interest using actual data on EC and non-EC revenues, as used in Waxman (2007).

[7] The SEC requires that firms describe the "role of compensation consultants in determining or recommending the amount or form of executive and director compensation, identifying such consultants, stating whether such consultants are engaged directly by the compensation committee (or persons performing the equivalent functions) or any other person, describing the nature and scope of their assignment, and the material elements of the instructions or directions given to the consultants with respect to the performance of their duties under the engagement." (Regulation S-X 407(e)(3)(iii))

However, that data is proprietary and not available to researchers.[8] As a result, we consider three proxies to capture the potential conflicts of interest between compensation consultants and compensation committees. First, we examine the Compensation Disclosure and Analysis (CD&A) report in the proxy statement to determine whether a firm discloses that its compensation consultant also provides non-EC services to the firm. We create an indicator variable, DISCLOSE, that equals one if the firm states that the consultant provides other services and zero otherwise. DISCLOSE is equal to one for 170 out of 755 firms using a consultant (22%).

Second, we exploit the differing market strategies of compensation consultants. Specifically, Frederic W. Cook and Pearl Meyer (FCPM) specialize in executive and director compensation design and do not provide non-EC services.[9] Accordingly, they do not face cross-selling conflicts of interest. We use pay packages at their clients as a benchmark to assess the effects of cross-selling conflicts. In our sample, 132 firms are clients of FCPM.

We divide the remaining consulting firms other than FCPM into two groups. TOP 4 consultants (Hewitt, Towers Perrin, Watson Wyatt, and Mercer) have large market shares in our sample and provide a wide range of consulting services to their clients. In fact, Waxman (2007) finds that of the 179 Fortune 250 firms in his sample that retain a TOP 4 consultant, the consultant provides additional services to 113 (63%) of the firms. In such cases, the TOP 4 consultants are less likely to be independent than the smaller consultants. We also define an indicator variable, OTHER, that equals one if the consultant is neither one of the TOP 4 firms nor Frederic W. Cook or Pearl Meyer and is zero otherwise. These other consultants have only a limited number of S&P 1500 clients (no single OTHER consultant serves more that 2% of the market in our sample). If an S&P 1500 client represents a substantial share of the consulting firm's total revenue, then retaining such a client will be especially important to the consultant's

[8] Due to privacy concerns, the Committee on Oversight and Government Reform will not make the data available.
[9] We verified these claims from the marketing material of these firms' websites.

profits and reputation. This desire to retain the client firm may cause the consultant to be more captive to the CEO.

Our third proxy for cross-selling incentives by compensation consultants is the firm's willingness to hire its auditor for non-audit services. We conjecture that extensive use of non-audit services indicates that the firm is more likely to permit its compensation consultant to experience conflicts of interest. The indicator variable NAS equals one if the firm's ratio of non-audit fees to total fees paid to its auditor is in the top third of our sample (greater than 11%) and zero otherwise.

Our proxies for cross-selling conflicts contain measurement errors that weaken our ability to examine our research question. For example, firms are not required to disclose whether their compensation consultants provide non-EC services. As a result, our DISCLOSE proxy contains errors as some firms classified as independent (DISCLOSE = 0) should be classified as conflicted (DISCLOSE = 1).[10] Likewise, our market segmentation proxy also contains measurement error because not all the TOP 4 consultants provide EC clients with non-EC services. However, this is less of a problem since these EC clients represent potential customers for non-EC services. While the cross-selling incentives may be stronger for existing non-EC clients, they exist for all EC clients of TOP 4 consultants. Finally, potential economic conflicts of interest of auditors do not imply that their independence is impaired. Indeed, the empirical evidence generally suggests otherwise (DeFond et al., 2002 and Kinney et al., 2004). However, it indicates a willingness to allow potential conflicts and enables us to identify firms that likely do not preclude other work from their consultants.

To provide some assurance that our proxies are correlated with the underlying construct of interest, we examine the correlation between our proxies and the ratio of actual non-EC to EC

[10] We do not expect classification errors when DISCLOSE equals 1 since firms are unlikely to state that their consultant provides non-EC services when, in fact, they do not. Murphy and Sandino (2008) rely on affirmative statements of independence which Waxman (2007) documents to have errors; that study finds that 27% of firms affirmatively stating that their consultants were independent actually purchased non-EC services from their EC consultants.

revenues. The actual EC and non-EC revenues were provided to us, confidentially, by two consulting firms. One firm provided these data for all of their clients in our sample while the other firm only provided data for their clients that were included in the study by Waxman (2007). The ratio we use is the same one used by Waxman (2007) and is similar in spirit to those used in the audit literature to examine auditor independence (see, for example, DeFond et al. 2002). For the two proxies that we could examine, our results indicate a statistically significant positive correlation (0.23, *p*-value < 0.10) between DISCLOSE and the ratio of non-EC revenues to EC revenues.[11] The correlation between NAS and the fee ratio is positive and marginally significant (0.12, *p*-value < 0.17). While limited, this evidence does provide some comfort that our proxies are correlated with the underlying construct of interest, cross-selling incentives.

### *3.3 Multivariate analysis*

To explore whether clients of conflicted consultants provide their CEOs with greater levels of compensation or lower PPS, we model various measures of compensation as a function of economic determinants and one of our three proxies for whether the firm retains a conflicted compensation consultant as follows:

$$\begin{aligned} COMPENSATION_j = {} & \beta_0 + \beta_1 CONFLICT_j + \beta_2 LNASSETS_j + \beta_3 BM_j \\ & + \beta_4 ROA_j + \beta_5 CONFLICT_j * ROA_j + \Sigma \beta_i IND_j + \varepsilon_j \end{aligned} \quad (1)$$

Where:

$COMPENSATION_j$ = SALARY = Log of CEO Salary (ExecuComp variable Salary); BONUS = Log of CEO Bonus (1+ sum of ExecuComp variable Bonus and Noneq_incent); EQUITY = Log of (1+ the fair value of CEO stock and option grants); or TOTAL = Log of CEO total annual compensation (the sum of salary, bonus, the fair value of stock and option grants, change in deferred compensation and pension value, and all other annual compensation) each for firm j in 2006;

[11] We cannot examine clients of FCPM vs. clients of TOP 4 or OTHER since clients of FCPM do not have non-EC revenues.

| | |
|---|---|
| $CONFLICT_j$ | = 1 if firm j employs a compensation consultant in 2006 that is more likely to suffer from a conflict of interest based on one of our three proxies, and equals zero otherwise; |
| $LNASSETS_j$ | = Log of total assets (Compustat Data Item 6) of firm j in 2006; |
| $BM_j$ | = Book value of common equity (Compustat Data Item 6 – Compustat Data Item 181 – Compustat Data Item 130) divided by market value of equity (Compustat Data Item 25 * Compustat Data Item 199) of firm j in 2006; |
| $ROA_j$ | = Return on assets (Compustat Data Item 18 / Compustat Data Item 6) of firm j in 2006; |
| $IND_j$ | = Indicator variables for 15 industries based on Barth et al. (1998). |

We include the log of total assets to control for firm size effects and the book-to-market ratio to control for growth opportunities (Smith and Watts, 1992; Gaver and Gaver, 1993; Core et al., 1999). In a random subsample of 271 firms, 98% of our firms reveal that accounting performance helps determine CEO bonus.[12] Therefore, we use return on assets (ROA) as our measure of firm performance. To reduce the influence of outliers, we winsorize BM and ROA at 1% and 99%. We include industry indicator variables using the Barth et al. (1998) classification to capture differences in compensation across industries.

We use contemporaneous values of the economic determinants when bonus, equity and total compensation are the dependent variables as these forms of compensation are generally rewards for performance during the year. When salary is the dependent variable, we measure the independent variables as of the prior fiscal year-end since salaries are established at the beginning of the fiscal year. We also control for the relation between existing equity incentives and equity grants (Core and Guay, 1999) by including the residual from an estimation of the executive portfolio of equity incentives at the prior fiscal year-end (EQ_INCENT) when estimating equity grants and total compensation.[13]

[12] This is consistent with Murphy (2000), where 91% of sample firms use accounting earnings as a performance measure in bonus contracts.

[13] Specifically, EQ_INCENT is the deviation of the CEO's equity incentive levels from its predicted level measured as ln(actual incentive level/predicted incentive level) following the procedure in Core and Guay (1999) as of the prior fiscal year-end.

The coefficient on CONFLICT ($\beta_1$) provides evidence on whether firms that retain conflicted consultants compensate their executives more highly after controlling for economic determinants. If the use of a potentially conflicted consultant leads to higher CEO pay, as critics contend, then $\beta_1$ will be positive. The coefficient on the interaction of CONFLICT and ROA tests the influence of conflicted consultants on the relation between compensation and performance. A negative coefficient on the interaction term ($\beta_5$) is consistent with the use of conflicted consultants resulting in less PPS.

## 4. Evidence on the effect of consultants' cross-selling incentives

### *4.1 Descriptive analysis*

Table 1 Panel D provides compensation summary statistics across our various proxies for conflicted compensation consultants. First, we find no statistical difference in mean or median compensation between firms that disclose their compensation consultant provides other services and those that do not. Second, comparing the clients of the three types of consultants (FCPM, TOP 4, and OTHER), we find that mean and median salary and bonus are not significantly different across the three groups. However, clients of Frederic W. Cook and Pearl Meyer pay significantly greater levels of average equity and total compensation than do clients of either TOP 4 or OTHER consultants (*p*-value < 0.01), but the median compensation levels are not statistically different across the groups. At the same time, while average and median equity and total compensation are larger for TOP 4 clients relative to OTHER clients, these differences are not significant at conventional levels. Finally, we do not find significant differences in salary or bonus when NAS is the proxy for conflicted consultants. However, firms with larger proportions of non-audit service fees compensate their CEO with significantly greater average equity and total compensation *(p*-value < 0.01), but this difference is not significant when comparing the medians.

### *4.2 Disclosed conflicts of interest and CEO pay*

In Table 2 Panel A, we report the results from estimating Eq. (1) when our proxy for cross-selling conflicts of interest is DISCLOSE, an indicator variable equal to one if the firm discloses that the compensation consultant also provides non-EC services for the firm. We find no evidence that clients of these consultants provide higher levels of pay. The coefficient on DISCLOSE is not significantly positive when any compensation measure (SALARY, BONUS, EQUITY, TOTAL) is the dependent variable. In addition, we do not find evidence of lower PPS for these firms. The coefficient on ROA*DISCLOSE is not significantly negative regardless of which compensation measure is the dependent variable. Together, these findings do not confirm that CEOs of firms with consultants that provide non-EC services extract greater economic rents than CEOs of firms that employ consultants without such conflicts.

### *4.3 Market strategies of compensation consultant and CEO pay*

In Table 2 Panel B, we report the results from estimating Eq. (1) when our proxies for conflicts of interest are TOP 4 and OTHER, indicator variables that capture consultants who may follow a broad market strategy of offering a full range of EC and non-EC services. We find no evidence consistent with increased levels of pay or lower PPS for clients of TOP 4 consultants as compared with clients of Frederic W. Cook or Pearl Meyer. Regardless of the form of compensation, neither the coefficient on TOP 4 is significantly positive, nor is the coefficient on ROA*TOP 4 significantly negative. In fact, when equity is the form of compensation, the coefficient on ROA*TOP 4 is significantly positive ($p$-value < 0.05, two-tailed) contrary to predictions. When we examine pay in clients of OTHER consultants relative to FCPM, we also find no evidence of greater levels of pay. In fact, contrary to predictions, the coefficient on OTHER when SALARY is the dependent variable is significantly negative ($p$-value < 0.05, two-tailed). We also find no evidence of lower PPS for clients of OTHER consultants.

*4.4 Provision of non-audit services and CEO pay*

We present the results of our analyses where conflict of interest is measured based on the proportion of non-audit service fees in Panel C of Table 2. We identify firms based on the ratio of non-audit fees to total fees, where NAS is equal to one if the proportion of non-audit fees is in the top tercile and zero otherwise. Examining the level of compensation, we find no evidence that clients of potentially conflicted consultants provide higher salaries, bonus, or equity compensation after controlling for the economic determinants of compensation. When TOTAL is the dependent variable, the coefficient on NAS is positive and marginally significant (*p*-value < 0.10). However, evaluated at the mean, the marginal effect of NAS contributes only $3,734 to total executive compensation; this is less than 1% of average total compensation in our sample.

We also find little evidence that clients of firms with high proportions of non-audit services compensate their CEOs with lower PPS. The coefficients on ROA*NAS are not significantly negative when SALARY or BONUS is the dependent variable. However, the coefficients are marginally significant when EQUITY and TOTAL are the dependent variables (*p*-values < 0.10). Thus, this analysis provides some evidence that cross-selling incentives are associated with lower PPS in determining the value of equity grants and total annual compensation at clients whose auditors provide a substantial amount of non-audit services.

In addition to the three proxies for potential conflicts used above, we use an aggregate measure, SCORE, that is potentially a more powerful proxy for potential conflicts of interest. Specifically, SCORE is an indicator variable that equals one if the firm discloses a conflict of interest and the ratio of non-audit to audit services is in the top tercile. Our estimation results from this analysis are presented in Panel D and provide no evidence that firms with potential conflicts of interest compensate their executives more highly or provide lower PPS.

Collectively, our evidence does not confirm the claim that the use of consultants subject to potential cross-selling conflicts of interest leads to more lucrative CEO compensation packages. These findings are important given recent allegations that such conflicts are

responsible for abnormally high compensation for the clients of consultants who also provide non-EC services (Waxman, 2007).

### *4.5 Alternative performance metrics and selection bias*

#### *4.5.1 Alternative performance metrics*

In this section, we analyze three alternative performance measures to assess the robustness of the results in Table 2. First, we use the annual buy-and-hold return on the firm's stock assuming dividend reinvestment (RETURN) in place of ROA. Second, we separate ROA into an industry component based on the mean industry ROA (IND_ROA) and a firm-specific component (ADJ_ROA). One way in which firms can reduce the link between the CEO's performance and compensation is to place less weight on firm-specific performance (ADJ_ROA) that captures CEO effort and skill (Garvey and Milbourn, 2006). Finally, we partition ROA into positive ROA (POS_ROA) and negative ROA (NEG_ROA) following Gaver and Gaver (1998). Pay schemes that advantage CEOs over shareholders would penalize the CEO less for poor performance. In this case, we would predict that firms with conflicted consultants place less weight on poor performance in determining CEO pay.

As reported in Table 3, we find little evidence that using alternative measures of performance changes our main conclusions.[14] When DISCLOSE is our proxy for conflicts, we find no evidence of higher levels of pay. We find some evidence of lower PPS when RETURN is our performance metric for EQUITY and TOTAL compensation ($p$-values < 0.10). When the TOP 4 and OTHER are our proxies for conflicts, we again find no evidence of greater pay and only limited evidence of lower PPS. When NEG_ROA is our performance measure, the relation between SALARY and performance is negative for TOP 4 and OTHER ($p$-values < 0.10) and the relation between TOTAL and performance is negative for OTHER ($p$-value < 0.10). When

[14] Although the estimation includes the control variables in Eq. (1), for brevity, we report only the coefficients on the proxies for potential conflicts of interest.

RETURN is our performance measure, the PPS between EQUITY and OTHER is negative (*p*-value < 0.05). When NAS is our proxy for conflicts, we only find a significant association when ADJ_ROA is our performance measure and either EQUITY or TOTAL is the performance measure (*p*-values < 0.05 and 0.10, respectively). These findings are consistent with corresponding results in Table 2 Panel C. However, the results on NAS are not robust to the other measures of performance as we find no other evidence of higher levels of pay or lower PPS for high NAS firms. Finally, when SCORE is our proxy, we also find no evidence of higher levels of pay or lower PPS. Thus, even when varying the definition of performance, we continue to find no evidence of greater pay and only limited evidence of lower PPS among firms with potential conflicts of interest. [15]

### *4.5.2 Selection Bias*

In this section, we examine the effects of CONFLICT on CEO pay using a Heckman model that controls for the prior decision to retain a consultant. While there is limited theory to guide us, we expect that firms are more likely to use a consultant when the operations of the firm are more complex, and therefore require a more sophisticated compensation scheme to align the interests of shareholders with the CEO. As a proxy for firm complexity, we use the number of reported business segments from Compustat. Firms are less likely to use a consultant when the CEO has greater ownership of the firm because CEO ownership reduces agency problems. We proxy for CEO ownership using the percent of outstanding shares held by the CEO from ExecuComp. In addition, we expect that the use of compensation consultants is less likely when the CEO has been in office longer because the compensation contracts have already been established and are less likely to require outside expertise to modify them. CEO tenure is our

[15] We also consider the change in the value of the stock and option grants for a 1% change in the firm's stock price (DELTA) as an alternative dependent variable that measures PPS. For this specification, we include additional control variables as in Core and Guay (1999). In untabulated results, we find no evidence of lower DELTA with any of our proxies for conflicts of interest.

proxy for the length of the contract. Finally, we expect that compensation committees are more likely to retain a consultant when they wish to (1) outsource more of the compensation contract design or (2) devise more complex compensation schemes. We expect that outsourcing is more likely when the compensation committee is smaller and less active, but a larger and more active committee may be necessary for more complex schemes. For proxies, we hand-collect the number of members on the compensation committee and the number of committee meetings held during the fiscal year from firms' proxy statements. The results of the first-stage model are reported in Table 4, Panel A. The pseudo $R^2$ of the probit estimation is 11.3%. CEO ownership percentage is negatively associated and the number of compensation committee meetings is positively associated with the decision to hire a compensation consultant.

As reported in Table 4, Panels B – E, controlling for the first stage hiring decision does not significantly alter our conclusions. We continue to find no evidence of greater levels of pay or lower PPS when DISCLOSE, TOP 4 and OTHER, or SCORE are the proxies for conflicts of interest. Interestingly, our evidence of higher total compensation when NAS is our proxy in Table 2 is not robust to controlling for the first stage decision to retain a consultant. However, the findings of lower PPS for the NAS proxy when equity and total compensation are the dependent variables remain. Overall, this analysis supports the conclusions of Table 2. Despite subjecting our analyses to a battery of alternative tests and specifications, we find no consistent evidence that hiring conflicted consultants leads to either higher pay levels or lower PPS.

## 5. Alternative explanations

Our analyses above provide no compelling evidence that the possibility of conflicts of interests among compensation consultants is associated with excessive pay packages for CEOs. In this section, we consider several explanations for this finding since it is contrary to recent univariate evidence (Waxman, 2007).

### *5.1 Sample is biased towards larger firms*

One possible reason that we are unable to find any evidence of lucrative pay packages for conflicted firms is that our sample is limited to larger (S&P 1500) firms, and cross-selling incentives may be more pronounced in a broader cross-section of firms. To address this concern, we first examine whether the use of consultants is similar in smaller firms and then examine whether our conclusions would be different in a sample of smaller firms. Higgins (2007) finds that only 51% of the firms in the Russell 3000, which include the largest 3,000 U.S. firms based on total market capitalization, disclosed the name of a compensation consultant for the fiscal year 2006. We initially obtained data on consultant use in the Russell 3000 from the Corporate Library. However, deficiencies in their search screen yield incomplete data on the use of consultants.[16] To correct for these false negatives where the firm did, in fact, retain a consultant, we hand-collect data on the use of compensation consultants from firm proxy statements for firms identified as not having a consultant in this dataset.

Our analysis of the expanded sample reveals that the use of consultants is generally similar to our initial sample. We find that 73% of firms in the Russell 3000 retain a compensation consultant, compared to 86% for our initial sample of S&P 1500 firms. In

[16] The search screen used by the Corporate Library focused on a limited set of compensation consultants. A close examination found many instances where Corporate Library data indicated that a firm did not use a consultant when the proxy statement indicated that the compensation committee retained a consultant. In addition, their sample period began before the consultant disclosure requirement was mandated.

addition, the TOP 4 consultants, Frederick W. Cook, and Pearl Meyer retain market shares that are consistent with those found in our initial sample.

To test whether potential conflicts of interest influence compensation in the expanded sample, we replicate our analysis using OTHER and TOP 4, as well as NAS, as our proxies for potential conflicts of interest. In untabulated results, we continue to find that potential conflicts of interest of the consultants are not associated with higher compensation or lower PPS. To further test the influence of sample selection on our results, we repeat the analysis on the smallest 50% of the firms in our expanded sample and find consistent results. We conclude that our inability to detect a relation between compensation consultant conflicts and CEO pay packages is not because our sample consists of larger firms.

### *5.2 Conflicts only matter in poorly governed firms*

Another possibility is that only CEOs of poorly governed firms can use cross-selling incentives to pressure compensation consultants into biasing their advice. We analyze whether CEOs that are more likely to exert power over their boards receive higher compensation or lower PPS than less powerful CEOs. We use two measures of CEO power. First, CEOs with longer tenures are more likely to be entrenched than new CEOs. Second, we conjecture that boards with shorter tenure are less captive to CEOs than longer-tenured boards, so that CEOs with long-serving board members exert more power.[17] We separately interact the CEO's tenure and the average tenure of the board of directors (both measured in number of years) with our CONFLICT and CONFLICT*PERF variables. We find no evidence that more powerful CEOs at firms with more conflicted consultants earn greater compensation or are subject to less PPS compared to less powerful CEOs with conflicted consultants.

[17] We do not use board independence as an alternative measure because there is little cross-sectional variation in board independence since the passage of the Sarbanes-Oxley Act. We only find 12 firms in our sample with a compensation committee member that is not independent.

*5.3 Retention conflicts of interest and CEO compensation*

Concerns about consultant independence are related to cross-selling incentives that consultants experience when their firms also provide non-EC services (Morgenson, 2006; Waxman, 2007). However, it is possible that the compensation consultant's independence is also threatened by concerns that the client will not retain the consultant for future EC services. If CEOs have influence over the retention of compensation consultants, these concerns can lead them to bias their recommendations in favor of the CEOs.

The strength of a consultant's retention incentives is not constant across all clients, but instead, varies with the amount of revenues (or more specifically, contribution margin) provided by a particular client. Since client revenues are not publicly available, we use the relative size of the client's assets to proxy for the economic importance of a particular client to the compensation consultant. We expect size to proxy for both the EC revenues the firm receives from a client and the potential non-EC revenues it could receive from the client. We construct a variable, PCT, which equals the percent of assets that the client represents relative to the sum of total assets from all of the consultant's clients in our sample. For example, if a consultant retains three clients in our sample, with total assets of $100 million, $200 million, and $700 million, then PCT equals 0.1, 0.2, and 0.7, respectively. By capturing the economic importance of the particular client to a consultant, the variable proxies for the strength of the retention incentives.

The results from this analysis are reported in Table 5 and provide no evidence that retention incentives are associated with CEO pay. The coefficient on PCT is insignificant for each of the four measures of pay (SALARY, BONUS, EQUITY and TOTAL). Furthermore, the coefficients on each of the PCT*ROA interaction terms are also not significant. Thus, consistent with our prior results, we find no evidence of pay packages with either higher pay levels or lower PPS for more important clients compared to less important clients.

### *5.4 Decision to hire a consultant*

Although we demonstrate with a Heckman selection model that the choice to retain a consultant does not influence the inferences of our results, the model likely does not fully control for the influence of consultants on CEO compensation. A possible explanation for our findings that conflicted consultants do not yield more lucrative pay packages is that the decision to hire a consultant subsumes any effect that consultants' cross-selling incentives have on CEO pay.

Despite the limited variation in the decision to hire a consultant (86% of our sample firms retain a consultant), we nonetheless examine whether CEO pay differs for firms that retain a consultant. If retaining a consultant in and of itself results in more lucrative pay packages, we would expect higher pay and lower PPS in firms that retain a consultant, all else equal. To examine this possibility, we test whether pay is related to the use of a consultant (CONSULT) after controlling for the economic determinants of pay in Eq. (1). As reported in Table 6, we find evidence of greater SALARY, BONUS, EQUITY and TOTAL compensation in firms with consultants.[18] Related research (Armstrong et al., 2008 and Murphy and Sandino, 2008) find similar results.

While these results are consistent with the presence of a consultant subsuming any ability for consultants' cross-selling incentives to explain differences in CEO pay, one concern with examining only a single year of data (2006) is that CONSULT may be capturing correlated omitted variables. To address this concern, we hand-collect CEO pay and compensation consultant data for 2007. We then test for the influence of a change in the use of a consultant on the change in compensation. This analysis mitigates the influence of correlated omitted variables on our analysis.

[18] Since Hausman tests confirm the endogeneity of the decision to hire a consultant in our sample, we also estimate our analysis using two-stage least squares where the first stage models the decision to hire a consultant in 2006. Our instruments are the same variables discussed in Section 4.5.2 and we include the other economic determinants in Equation (1) as is customary in this analysis. It is important to note that tests of overidentifying restrictions and unconstrained regressions, as suggested in Larcker and Rusticus (2008), provide evidence that our instruments are of poor quality. Our conclusions are unchanged from this untabulated analysis.

Of our initial sample of 880 firms, 777 filed proxy statements in 2007. Of those, 649 continued to use a consultant in 2007 ("CONSULT"), 80 continued to *not* use a consultant ("NOT"), 24 began to use a consultant ("ADD_CONSULT"), and 24 dropped the use of a consultant ("DROP_CONSULT").[19] We test whether changes in CEO pay in 2007 are correlated with the use of consultants. In particular, we would expect greater increases in the level of pay for firms that add a consultant (ADD_CONSULT) and firms that continue to use a consultant (CONSULT).

As reported in Table 7, we examine the relation between the level of CEO pay in 2007 and indicator variables capturing ADD_CONSULT, DROP_CONSULT and CONSULT (NOT is included in the intercept). We control for prior levels of CEO pay and economic determinants of pay. We find no evidence of greater increases in pay when consultants are added; the coefficient on ADD_CONSULT is not significantly positive in any specification. Rather, we find significantly lower increases in bonus compensation when a firm begins retaining a consultant. We find limited evidence of greater pay when consultants continue to be used. Only when examining EQUITY pay do we find any evidence that CONSULT is related to greater pay increases (coefficient on CONSULT is significantly positive with $p$-value < 0.01).

If the use of consultants leads to more lucrative compensation packages, then we would expect lower increases in pay if consultants are no longer used. However, we find no evidence of this. The coefficient on DROP_CONSULT is not significantly negative in any specification. In untabulated tests, we also examine the change in CEO pay from 2006 to 2007 on the same independent variables of interest and controlling for the changes in the economic determinants of pay. Our inferences are the same. While the small number of changes weakens the power of our test, together, these results suggest that the use of consultants may not be associated with higher

[19] While we use the term "began" ("dropped") using a consultant, we recognize that this is only relative to 2006 and it is possible that these firms used a consultant in earlier (or later) time periods.

levels of pay and that the results in Table 6 might reflect uncontrolled firm characteristics related to the decision to retain a consultant.

Overall, our analyses in this section fail to provide any evidence that the structure of our tests leads to our inability to find a relation between cross-selling incentives and CEO pay. Rather, it suggests that our results are robust to these alternative explanations. In sum, we are unable to find evidence linking potential conflicts of interest of compensation consultants to more lucrative CEO pay packages.

## 6. Conclusion

Little is known about the influence of compensation consultants on executive pay. Understanding the influence of consultants has become an important question as the use of compensation consultants by boards of directors has risen (Higgins, 2007). In addition, there is heightened interest in issues regarding the independence of corporate advisors, such as auditors and compensation consultants. Recent evidence suggests that conflicted compensation consultants help secure and justify excessively high compensation levels (Waxman, 2007). Our study examines whether potential conflicts of interest of compensation consultants influence CEO pay for a large sample of S&P 1500 firms.

Utilizing new SEC rules requiring companies to disclose their use of compensation consultants, we find that 755 of 880 firms in our initial sample retain compensation consultants, suggesting that the use of consultants is widespread. For firms that retain consultants, we examine whether consultants with greater incentives to recommend lucrative pay packages (greater conflicts of interest) are associated with higher levels of pay (salary, bonus, equity and total) and lower pay-performance sensitivity. Since data on actual executive compensation consulting services and non-executive compensation services are not available to measure the degree of cross-selling incentives, we consider three proxies: (1) client firms that disclose that their compensation consultant provides additional non-EC services; (2) firms that are not clients

of Frederic W. Cook or Pearl Meyer, large consultants that focus on executive compensation services and, thus, do not have cross-selling incentives; and (3) firms that hire their auditor for significant non-audit services, indicating a willingness to allow potential conflicts of interest among their professional service providers.

Our findings do not support claims that firms that hire consultants with greater conflicts of interest compensate their CEOs more highly or with lower PPS than clients of consultants that are less likely to be conflicted. Our results are robust to several alternative measures of performance and remain when we control for the decision to retain a consultant. Further, our findings do not result from our sample being biased towards larger firms and we are unable to find effects of conflicts of interest existing in firms with weaker corporate governance structures. We also explore, but find little support for, the possibility that the decision to hire a consultant overshadows any effect that potential conflicts of interest might have. Although firms that hire consultants in 2006 have greater levels of pay relative to firms that do not, this result is not robust when we examine changes in pay and changes in the use of consultants in 2007. Those analyses do not provide consistent evidence that compensation consultants are associated with more lucrative pay packages.

Our study provides evidence on the role of an important advisor, the compensation consultant, in achieving efficient contracts in the face of potential incentives to do otherwise. Overall, we do not find evidence suggesting that potential conflicts of interest associated with the much criticized cross-selling incentives are a primary driver of excessive CEO pay. One explanation is that opposing incentives to maintain consultants' credibility or safeguards put in place by compensation committees limit actions taken with regard to cross-selling incentives. Our findings are important as use of compensation consultants becomes more widespread and potential misconceptions of their role receive significant coverage in the press.

## References


Armstrong, C., C. Ittner, and D. Larcker, 2008. Economic characteristics, corporate governance, and the influence of compensation consultants on executive pay levels. Working Paper, The Wharton School.

Barth, M., W. Beaver and W. Landsman, 1998. Relative valuation roles of equity book value and net income as a function of financial health. *Journal of Accounting and Economics* 25 (1), 1-34.

Bebchuk, L. and J. Fried, 2006. Pay without performance: Overview of the issues. *Academy of Management Perspectives* 20 (1): 5-24.

Brancato, C. 2002. Is the compensation committee of the board up to its new role? *Insights* 16 (3): 13-15.

Conyon, M., S. Peck, and G. Sadler, 2006. Compensation consultants and executive pay. Working Paper, Wharton-SMU Research Center.

Core, J., R. Holthausen and D. Larcker. 1999. Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics* 51: 371-406.

Core, J. and W. Guay, 1999. The use of equity grants to manage optimal incentive levels. *Journal of Accounting and Economics* 28 (2), 151-184.

Crystal, G. S. 1991. "Why CEO compensation is so high," *California Management Review*, Fall, 34(1), pp. 9-29.

DeFond, M., K. Raghunandan, and K. Subramanyam. 2002. Do Non-Audit Service Fees Impair Auditor Independence? Evidence from Going Concern Opinions. Journal of Accounting Research 40(4), 1247-1274.

Frankel, R., M. Johnson, and K. Nelson, 2002. The relation between auditor's fees for nonaudit services and earnings management. *The Accounting Review*, 77(1), 71-105.

Fabrikant, G. 2006. US-style pay deals for chiefs become all the rage in Europe. *New York Times*, June 16.

Garvey, G. and T. Milbourn. 2006. Asymmetric benchmarking in compensation: Executives are rewarded for good luck but not penalized for bad. *Journal of Financial Economics* 82: 197-225.

Gaver, J. and K. Gaver. 1993. Additional evidence on the association between the investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Accounting and Economics* 16: 125-160.

Gaver, J. and K. Gaver. 1998. The relation between nonrecurring accounting transactions and CEO cash compensation. *The Accounting Review* 73, 235-253.

Grant, J., F. Guerrera and A. Ward. 2006. What price talent? Why US investors are now less content to hail the chief. *Financial Times,* June 16:13.

Higgins, A. 2007. The effect of compensation consultants: A study of market share and compensation policy advice. *The Corporate Library*.

Kinney, W., Z. Palmrose, and S. Scholz. 2004. Auditor Independence, Non-Audit Services, and Restatements: Was the US Government Right? Journal of Accounting Research 42(3), 561-588.

Larcker, D. and T. Rusticus. 2008. On the Use of Instrumental Variables in Accounting Research. Working paper. The Wharton School.

Lowman, D. 2007. "US House of Representatives Committee on Oversight and Government Reform Hearing 'Executive Pay: The Role of Compensation Consultants' Testimony of Donald L. Lowman Managing Director Towers, Perrin, Forster & Crosby, Inc.", December 5: 5.

Lublin, J. 2007. Boards aim to avoid conflicts – Safeguards are imposed on same pay consultant for executives, directors. *Wall Street Journal*, May 14.

Morgenson, G. 2006. Gilded paychecks: Troubling conflicts. *New York Times*, April 10.

Morgenson, G. 2007. Panel to look at conflicts in consulting, *New York Times*, May 11.

Murphy, K. 2000. Performance standards in incentive contracts. *Journal of Accounting and Economics* 30(3), 245-278.

Murphy, K. and T. Sandino. Executive pay and 'independent' compensation consultants. Working paper. University of Southern California.

Paulin, G. 2007. "Testimony of George B. Paulin, Chairman and CEO, Frederick W. Cook &Co., Inc. before House of Representatives Committee on Oversight and Government Reform Hearing on Executive Compensation Consultants' Independence", December 5: 2.

Powers, M. 2007. "Testimony of Michael J. Powers Hewitt Associates LLC before House Committee on Oversight and Government Reform on 'Executive Pay and the Role of the Compensation Consultant'", December 5: 7.

Securities and Exchange Commission. 2006. Executive compensation and related person disclosure. Releases No. 33-8732A, 34-54302A. September 8.

Smith, C. and R. Watts. 1992. The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Financial Economics* 32: 263-292.

Waxman, H. 2007. Executive pay: Conflicts of interest among compensation consultants. United States House of Representatives Committee on Oversight and Government Reform Majority Staff. December.

**Table 1**
**Descriptive statistics for 880 firms of the S&P 1500 in 2006**

Panel A: Number of clients and market-share by compensation consulting firm

| Consulting Firm | Number of Clients | Percent of Total Client Firms |
|---|---|---|
| No consultant | 125 | 14.20 |
| Towers Perrin | 154 | 17.50 |
| Mercer Human Resources Consulting | 121 | 13.75 |
| Hewitt Associates | 112 | 12.73 |
| Frederic W. Cook | 91 | 10.34 |
| Watson Wyatt | 52 | 5.91 |
| Pearl Meyer & Partners | 41 | 4.66 |
| Other* | 184 | 20.91 |
| Total | 880 | 100 |

*No single consultant in this group has more than 14 clients (2%) in our sample

## Table 1 (continued)

Panel B: Industry distribution of clients by consultant (number of firms and *percent* of industry)

| Industry | Towers | Mercer | Hewitt | FW Cook | Watson Wyatt | Pearl Meyer | Other Consult | No Consult | Total |
|---|---|---|---|---|---|---|---|---|---|
| Mining / Construction | 4 | 6 | 1 | 1 | 1 | 4 | 2 | 3 | 22 |
| | *18.18* | *27.27* | *4.55* | *4.55* | *4.55* | *18.18* | *9.09* | *13.64* | |
| Food | 4 | 3 | 4 | 3 | 1 | 1 | 3 | 2 | 21 |
| | *19.05* | *14.29* | *19.05* | *14.29* | *4.76* | *4.76* | *14.29* | *9.52* | |
| Textiles / Printing | 9 | 8 | 8 | 6 | 2 | 0 | 12 | 5 | 50 |
| | *18.00* | *16.00* | *16.00* | *12.00* | *4.00* | *0.00* | *24.00* | *10.00* | |
| Chemicals | 8 | 4 | 3 | 4 | 1 | 1 | 7 | 1 | 29 |
| | *27.59* | *13.79* | *10.34* | *13.79* | *3.45* | *3.45* | *24.14* | *3.45* | |
| Pharmaceuticals | 4 | 5 | 4 | 5 | 4 | 0 | 5 | 5 | 32 |
| | *12.50* | *15.62* | *12.50* | *15.62* | *12.50* | *0.00* | *15.62* | *15.62* | |
| Extractive Industries | 12 | 8 | 9 | 1 | 0 | 2 | 7 | 7 | 46 |
| | *26.09* | *17.39* | *19.57* | *2.17* | *0.00* | *4.35* | *15.22* | *15.22* | |
| Durable Mfg | 31 | 18 | 25 | 15 | 18 | 13 | 32 | 21 | 173 |
| | *17.92* | *10.40* | *14.45* | *8.67* | *10.40* | *7.51* | *18.50* | *12.14* | |
| Computers | 2 | 3 | 2 | 5 | 1 | 1 | 13 | 8 | 35 |
| | *5.71* | *8.57* | *5.71* | *14.29* | *2.86* | *2.86* | *37.14* | *22.86* | |
| Transportation | 9 | 9 | 4 | 4 | 4 | 1 | 6 | 11 | 48 |
| | *18.75* | *18.75* | *8.33* | *8.33* | *8.33* | *2.08* | *12.50* | *22.92* | |
| Utilities | **31** | 5 | 15 | 7 | 2 | 3 | 11 | 5 | 79 |
| | ***39.24*** | *6.33* | *18.99* | *8.86* | *2.53* | *3.80* | *13.92* | *6.33* | |
| Retail | 3 | 9 | 6 | 5 | 3 | 3 | 10 | 9 | 48 |
| | *6.25* | *18.75* | *12.50* | *10.42* | *6.25* | *6.25* | *20.83* | *18.75* | |
| Financial Institutions | 22 | 23 | 21 | 19 | 7 | 5 | 36 | 25 | 158 |
| | *13.92* | *14.56* | *13.29* | *12.03* | *4.43* | *3.16* | *22.78* | *15.82* | |
| Insurance / Real Estate | 3 | 2 | 0 | 4 | 1 | 0 | **18** | 3 | 31 |
| | *9.68* | *6.45* | *0.00* | *12.90* | *3.23* | *0.00* | ***58.06*** | *9.68* | |
| Services | 12 | 17 | 9 | 12 | 7 | 7 | 22 | 18 | 104 |
| | *11.54* | *16.35* | *8.65* | *11.54* | *6.73* | *6.73* | *21.15* | *17.31* | |
| Other | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 4 |
| | *0.00* | *25.00* | *25.00* | *0.00* | *0.00* | *0.00* | *0.00* | *50.00* | |
| Total | 154 | 121 | 112 | 91 | 52 | 41 | 184 | 125 | 880 |
| | *17.5* | *13.75* | *12.73* | *10.34* | *5.91* | *4.66* | *20.91* | *14.20* | |

Industries are based on Barth et al. (1998) classifications. Numbers and percent in bold font are significant in a partitioning of the chi-square at a 10% level.

## Table 1 (continued)

Panel C: Mean (median) firm characteristics

| | Full Sample | Consultant Sample |
|---|---|---|
| | N=880 | N=755 |
| ASSETS | 25,377.36 | 26,309.51 |
| | (3,979.13) | (4,419.37) |
| LNASSETS | 8.32 | 8.46 |
| | (8.29) | (8.39) |
| BM | 0.43 | 0.44 |
| | (0.41) | (0.43) |
| ROA | 0.05 | 0.05 |
| | (0.05) | (0.04) |
| SALARY | 806.17 | 840.63* |
| | (771.26) | (800.00) |
| BONUS | 1,703.71 | 1,772.64 |
| | (933.18) | (1,012.50) |
| EQUITY | 6,128.80 | 6,820.32 |
| | (1,639.03) | (2,043.98) |
| TOTAL | 9,616.62 | 10,513.56 |
| | (4,286.02) | (4,921.69) |

* indicates a significant difference in the mean (*t*-statistic) at the 10 percent confidence interval. Wilcoxon rank-sum test *z*-scores indicate that none of the medians are significantly different at conventional levels. ASSETS = Total assets (Compustat Data Item 6) of the firm in millions, LNASSETS = log of total assets, BM = Book value of common equity (Compustat Data Item 6 – Compustat Data Item 181 – Compustat Data Item 130) divided by market value of equity (Compustat Data Item 25 * Compustat Data Item 199) of the firm in 2006, ROA = Return on assets (Compustat Data Item 172 / Compustat Data Item 6) of the firm, RETURN = Annual buy-and-hold return on the firms stock assuming dividend reinvestment, SALARY is the annual salary in thousands of dollars, BONUS is the sum of the annual bonus and non-equity incentives in thousands of dollars, EQUITY is the sum of the fair value of stock granted to the CEO in the fiscal year and the Black-Scholes value of the options granted in the fiscal year in thousands of dollars, and TOTAL is the sum of salary, bonus, change in pension and deferred compensation, the fair value of the equity grants and other compensation in thousands of dollars.

## Table 1 (continued)

Panel D: Mean (median) compensation for 755 firms that use a compensation consultant partitioned by proxies for conflicted consultants

| | DISCLOSE=0 | DISCLOSE=1 | FCPM | TOP 4 | OTHER | NAS=0 | NAS=1 |
|---|---|---|---|---|---|---|---|
| | N=585 | N=170 | N=132 | N=439 | N=184 | N=496 | N=259 |
| SALARY | 826.53 | 889.16 | 848.21 | 892.88 | 710.55 | 842.13 | 837.76 |
| | (795.83) | (833.33) | (850.00) | (847.88) | (665.73) | (791.46) | (825.00) |
| BONUS | 1,795.66 | 1,693.41 | 1,855.05 | 1,927.32 | 1,344.46 | 1,858.57 | 1,608.08 |
| | (1,000.00) | (1,171.26) | (1,258.81) | (1,132.69) | (736.35) | (987.23) | (1,050.00) |
| EQUITY | 7,559.22 | 4,277.63 | 21,452.38*** | 4,135.41 | 2,729.25 | 3,809.57*** | 12,586.08 |
| | (1,900.95) | (2,367.53) | (2,536.23) | (2,349.06) | (1,283.85) | (2,028.31) | (2,194.62) |
| TOTAL | 11,112.69 | 8,451.85 | 25,139.98*** | 8,097.32 | 5,785.53 | 7,506.33*** | 16,272.58 |
| | (4,735.92) | (5,197.06) | (5,969.84) | (5,201.53) | (3,517.19) | (4,935.41) | (4,879.38) |

*, **, *** indicates a significant difference in the mean (*t*-statistic) at the 10, 5, and 1 percent confidence intervals, respectively. Wilcoxon rank-sum test *z*-scores indicate that none of the medians are significantly different at conventional levels. DISCLOSE = 1 when the firm discloses that its consultant does other work in addition to advising on executive pay, 0 otherwise. FCPM = 1 if the consultant is Frederic W. Cook or Pearl Meyer. TOP 4 = 1 if the consultant is Hewitt, Towers Perrin, Watson Wyatt, or Mercer, 0 otherwise. OTHER = 1 if the consultant is not FCPM or TOP 4, 0 otherwise. NAS = 1 when the ratio of non-audit fees to total fees paid by the firm to the auditor is in the top tercile of the sample, 0 otherwise. SALARY is the annual salary in thousands of dollars, BONUS is the sum of the annual bonus and non-equity incentives in thousands of dollars, EQUITY is the sum of the fair value of stock granted to the CEO in the fiscal year and the Black-Scholes value of the options granted in the fiscal year in thousands of dollars, and TOTAL is the sum of salary, bonus, change in pension and deferred compensation, the fair value of the equity grants and other compensation in thousands of dollars.

## Table 2

**Evidence on the influence of conflicted compensation consultants as a regression of the level of compensation on economic determinants and an indicator for potentially conflicted consultants for 755 firms of the S&P 1500 index in 2006 using a consultant**

$$COMPENSATION_j = \beta_0 + \beta_1 CONFLICT_j + \beta_2 LNASSETS_j + \beta_3 BM_j + \beta_4 ROA_j + \beta_5 CONFLICT_j * ROA_j + \Sigma \beta_i IND_j + \varepsilon_j$$

Panel A: CONFLICT measured as an indicator for whether the firm discloses that its consultant does other work in addition to advising on executive pay (DISCLOSE)

| | | COMPENSATION measured as | | | |
|---|---|---|---|---|---|
| | | SALARY (a) | BONUS | EQUITY | TOTAL |
| | | (1) | (2) | (3) | (4) |
| | Pred. Sign | | | | |
| Intercept | | 12.455 | 9.495 | 5.283 | 11.774 |
| | | (25.86) | (9.51) | (3.89) | (42.02) |
| DISCLOSE | (+) | -0.034 | -0.209 | -0.794 | -0.108 |
| | | (-0.29) | (-0.38) | (-1.20) | (-1.20) |
| LNASSETS | (+) | 0.165*** | 0.558*** | 1.273*** | 0.526*** |
| | | (2.85) | (5.02) | (9.50) | (13.74) |
| BM | (-) | -0.241 | -0.960 | -2.055*** | -0.341*** |
| | | (-1.28) | (-1.22) | (-2.32) | (-2.823) |
| ROA | (+) | -0.204 | 9.876*** | -6.218** | 0.490 |
| | | (-0.27) | (3.15) | (-2.09) | (0.39) |
| EQ_INCENT | (-) | | | -0.041 | 0.042 |
| | | | | (-0.41) | (1.48) |
| ROA*DISCLOSE | (-) | 0.433 | 0.615 | 10.902 | 1.012 |
| | | (0.84) | (0.10) | (1.32) | (0.70) |
| N | | 755 | 755 | 755 | 755 |
| Adjusted R-square | | 0.084 | 0.093 | 0.148 | 0.490 |

## Table 2 (continued)

Panel B: CONFLICT measured as an indicator for clients of consultants that are NOT Frederic W. Cook or Pearl Meyer, partitioned into one of the four largest consultants (TOP 4) or other consultants (OTHER)

| | | SALARY (a) | BONUS | EQUITY | TOTAL |
|---|---|---|---|---|---|
| | | (1) | (2) | (3) | (4) |
| | Pred. Sign | | | | |
| Intercept | | 12.661 | 9.031 | 5.906 | 11.928 |
| | | (24.89) | (8.02) | (4.11) | (47.03) |
| TOP 4 | (+) | -0.088 | 0.230 | -0.811 | -0.268 |
| | | (-1.19) | (0.34) | (-1.17) | (-1.48) |
| OTHER | (+) | -0.286 | 0.887 | -0.671 | -0.155 |
| | | (-2.10) | (1.26) | (-0.81) | (-0.90) |
| LNASSETS | (+) | 0.153*** | 0.569*** | 1.230*** | 0.524*** |
| | | (2.63) | (4.98) | (9.20) | (14.25) |
| BM | (-) | -0.256 | -1.077 | -2.080*** | -0.352*** |
| | | (-1.37) | (-1.37) | (-2.27) | (-2.86) |
| ROA | (+) | -3.151 | 6.494 | -17.142** | -3.063 |
| | | (-1.17) | (1.00) | (-2.34) | (-0.71) |
| EQ_INCENT | (-) | | | -0.045 | 0.040 |
| | | | | (-0.45) | (1.54) |
| ROA* TOP 4 | (-) | 2.774 | 7.647 | 19.955 | 5.189 |
| | | (1.29) | (1.06) | (2.47) | (1.23) |
| ROA* OTHER | (-) | 3.432 | -0.913 | 9.050 | 3.635 |
| | | (1.42) | (-0.13) | (0.95) | (0.87) |
| N | | 755 | 755 | 755 | 755 |
| Adjusted R-square | | 0.098 | 0.102 | 0.155 | 0.501 |

Panel C: CONFLICT measured as an indicator for whether the ratio of non-audit to total service fees paid to the firm's auditor is in the top tercile (NAS)

| | | SALARY (a) | BONUS | EQUITY | TOTAL |
|---|---|---|---|---|---|
| | | (1) | (2) | (3) | (4) |
| | Pred. Sign | | | | |
| Intercept | | 12.445 | 9.749 | 5.344 | 11.689 |
| | | (25.25) | (9.52) | (3.76) | (37.56) |
| NAS | (+) | -0.102 | -0.593 | -0.599 | 0.152* |
| | | (-1.00) | (-1.14) | (-1.10) | (1.41) |
| LNASSETS | (+) | 0.165*** | 0.556*** | 1.258*** | 0.522*** |
| | | (2.92) | (5.03) | (9.65) | (14.40) |
| BM | (-) | -0.216 | -0.967 | -2.252** | -0.372*** |
| | | (-1.24) | (-1.22) | (-2.51) | (-3.24) |
| ROA | (+) | -0.160 | 7.249*** | -0.825 | 2.212*** |
| | | (-0.60) | (2.48) | (-0.21) | (4.45) |
| EQ_INCENT | (-) | | | -0.065 | 0.036 |
| | | | | (-0.66) | (1.42) |
| ROA*NAS | (-) | 0.404 | 5.962 | -8.614* | -3.531* |
| | | (0.27) | (1.09) | (-1.51) | (-1.63) |
| N | | 755 | 755 | 755 | 755 |
| Adjusted R-square | | 0.085 | 0.096 | 0.155 | 0.499 |

## Table 2 (continued)

Panel D: CONFLICT measured as an indicator for the independence score, where SCORE equals one if the firm discloses a conflict of interest and the ratio of non-audit to total services is in the top tercile

| | | SALARY (a) | BONUS | EQUITY | TOTAL |
|---|---|---|---|---|---|
| | | (1) | (2) | (3) | (4) |
| | Pred. Sign | | | | |
| Intercept | | 12.445 | 9.259 | 5.184 | 11.774 |
| | | (25.25) | (9.42) | (3.71) | (41.57) |
| SCORE | (+) | -0.152 | -2.557 | -1.149 | -0.050 |
| | | (-0.51) | (-2.16) | (-1.05) | (-0.31) |
| LNASSETS | (+) | 0.167*** | 0.594*** | 1.277*** | 0.525*** |
| | | (2.91) | (5.47) | (9.53) | (13.69) |
| BM | (-) | -0.219 | -0.875 | -1.991*** | -0.341*** |
| | | (-1.16) | (-1.14) | (-2.23) | (-2.79) |
| ROA | (+) | -0.055 | 9.027*** | -4.863 | 0.651 |
| | | (-0.09) | (3.13) | (-1.63) | (0.58) |
| EQ_INCENT | (-) | | | -0.036 | 0.042 |
| | | | | (-0.35) | (1.46) |
| ROA*SCORE | (-) | 0.384 | 18.598 | 14.233 | 0.425 |
| | | (0.47) | (1.42) | (0.91) | (0.18) |
| N | | 755 | 755 | 755 | 755 |
| Adjusted R-square | | 0.090 | 0.107 | 0.147 | 0.489 |

(a) We use the prior year values of the control variables (LNASSETS, BM, ROA) when SALARY is the dependent variable. *, **, *** indicates significant coefficients at the 10, 5, and 1 percent confidence intervals, based on one-tailed tests. *t*-statistics (in parentheses) are computed using Huber-White robust standard errors. The model, defined in equation (1), is estimated as OLS and includes industry indicator variables based on Barth et al. (1998) classifications (not reported). TOP 4 = 1 if the firm hired Towers Perrin, Hewitt Associates, Mercer Consulting or Watson Wyatt, 0 otherwise. OTHER = 1 if the firm hires a consultant other than Frederic W. Cook, Pearl Meyer, Towers Perrin, Hewitt Associates, Mercer Consulting or Watson Wyatt, 0 otherwise. NAS = 1 if the ratio of nonaudit fees to total fees paid to the auditor by the firm is in the top tercile (11%), 0 otherwise. DISCLOSE = 1 if the client discloses that the consultant does other work for the firm, 0 otherwise. SCORE = 1 if DISCLOSE = 1 and NAS = 1, 0 otherwise. EQ_INCENT is the deviation of the CEO's equity incentive levels from its predicted level measured as ln(actual incentive level/predicted incentive level) following the procedure in Core and Guay (1999) as of the prior fiscal year-end. The dependent variables are logs of SALARY, BONUS, EQUITY, and TOTAL. These and all remaining variables are defined in Table 1.

**Table 3**
**Evidence on the influence of conflicted compensation consultants as a regression of the level of compensation on economic determinants and an indicator for potentially conflicted consultants for 755 firms of the S&P 1500 index in 2006 with alternative performance metrics**

$$COMPENSATION_j = \beta_0 + \beta_1 CONFLICT_j + \beta_2 LNASSETS_j + \beta_3 BM_j + \beta_4 PERF_j + \beta_5 CONFLICT_j * PERF_j + \Sigma \beta_i IND_j + \varepsilon_j$$

| Measure of CONFLICT: | **Disclose Non-Independent** | | | **Type of Consultant** | | | **High NAS** | | **SCORE** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DISCLOSE | DISCLOSE *PERF | TOP 4 | TOP 4 *PERF | OTHER | OTHER*PERF | NAS | NAS*PERF | SCORE | SCORE*PERF |
| Pred. Sign: | (+) | (-) | (+) | (-) | (+) | (-) | (+) | (-) | (+) | (-) |
| Panel A: Compensation measured as SALARY | | | | | | | | | | |
| RETURN | -0.002 | -0.000 | 0.067 | 0.001 | -0.085 | -0.001 | -0.134 | 0.002 | -0.147 | 0.000 |
| | (-0.01) | (-0.29) | (0.51) | (0.52) | (-0.46) | (-0.35) | (-1.16) | (1.33) | (-0.42) | (-0.09) |
| ADJ_ROA | 0.058 | 0.315 | 0.382 | 3.433 | 0.197 | 3.826 | -0.220 | 0.876 | -0.114 | 2.398 |
| | (0.35) | (0.39) | (0.99) | (1.40) | (0.47) | (1.55) | (-1.39) | (0.72) | (-0.29) | (0.86) |
| NEG_ROA | -0.162 | -1.225 | -0.410 | -3.023* | -0.626 | -2.714* | -0.013 | 1.693 | -0.221 | -0.783 |
| | (-0.65) | (-0.89) | (-1.46) | (-1.31) | (-1.88) | (-1.05) | (-0.06) | (1.12) | (-0.67) | (-0.83) |
| Panel B: Compensation measured as BONUS | | | | | | | | | | |
| RETURN | -0.020 | -0.008 | 0.169 | 0.024 | 0.545 | 1.513 | -0.850 | 0.027 | -1.278 | -0.033 |
| | (-0.05) | (-0.63) | (0.34) | (3.53) | (0.98) | (1.70) | (-2.06) | (3.05) | (-1.41) | (-0.75) |
| ADJ_ROA | -0.268 | 3.484 | -0.165 | 11.096 | 0.429 | -0.843 | -0.383 | 6.030 | -2.453 | 19.964 |
| | (-0.42) | (0.57) | (-0.21) | (1.53) | (0.53) | (-0.12) | (-0.64) | (0.96) | (-1.88) | (1.47) |
| NEG_ROA | -0.158 | 4.116 | 0.530 | 19.521 | 0.576 | -7.810 | -0.590 | 5.993 | -2.591 | 17.381 |
| | (-0.26) | (0.22) | (0.65) | (0.98) | (0.66) | (-0.43) | (-0.93) | (0.47) | (-1.94) | (0.39) |

## Table 3 (continued)

| Measure of CONFLICT: | Disclose Non-Independent | | Type of Consultant | | | | High NAS | | SCORE | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DISCLOSE | DISCLOSE *PERF | TOP 4 | TOP 4 *PERF | OTHER | OTHER*PERF | NAS | NAS*PERF | SCORE | SCORE*PERF |
| Pred. Sign | (+) | (-) | (+) | (-) | (+) | (-) | (+) | (-) | (+) | (-) |
| Panel C: EQUITY | | | | | | | | | | |
| RETURN | 0.229 | -0.030* | 0.300 | 0.004 | 0.317 | -2.051** | -1.032 | 0.000 | -1.441 | 0.056 |
| | (0.41) | (-1.46) | (0.53) | (0.44) | (0.47) | (-1.79) | (-2.01) | (0.01) | (-1.36) | (1.76) |
| ADJ_ROA | -0.606 | 11.346 | -1.021 | 22.400 | -1.341 | 9.710 | -0.335 | -11.825** | -1.044 | 10.338 |
| | (-0.82) | (1.31) | (-1.42) | (2.69) | (-1.61) | (1.11) | (-0.55) | (-1.93) | (-0.82) | (0.58) |
| NEG_ROA | -0.055 | 47.603 | -1.668 | -16.605 | -1.234 | -17.230 | -0.736 | -14.927 | -0.295 | 53.004 |
| | (-0.07) | (1.71) | (-2.04) | (-0.96) | (-1.25) | (-0.93) | (-1.03) | (-1.17) | (-0.22) | (1.25) |
| Panel D: TOTAL | | | | | | | | | | |
| RETURN | -0.017 | -0.003* | -0.033 | 0.003 | 0.075 | -0.075 | -0.041 | -0.000 | -0.023 | -0.000 |
| | (-0.23) | (-1.50) | (-0.26) | (2.82) | (0.53) | (-0.69) | (-0.64) | (-0.03) | (-0.13) | (-0.08) |
| ADJ_ROA | -0.201 | 2.181 | -0.675 | 6.935 | -0.573 | 4.364 | 0.336* | -4.672* | -0.113 | 0.364 |
| | (-1.15) | (1.16) | (-1.72) | (1.58) | (-1.47) | (1.00) | (1.33) | (-1.44) | (-0.46) | (0.13) |
| NEG_ROA | -0.051 | 3.218 | -0.479 | -3.675 | -0.402 | -5.073* | 0.204 | -1.597 | 0.092 | 6.671 |
| | (-0.42) | (1.26) | (-1.48) | (-1.02) | (-1.26) | (-1.51) | (0.92) | (-0.94) | (0.48) | (2.04) |

Each row represents four separate estimations. We separately report results using our three proxies for conflicted consultant, where CONFLICT is either DISCLOSE, NAS, TOP 4, OTHER, and SCORE. For brevity, we only report the statistics for the coefficients on CONFLICT and CONFLICT*PERF. (+)/(-) indicate the predicted sign of the coefficient. We use the prior year's values of the control variables and performance metrics when SALARY is the dependent variable. *, **, *** indicate significant coefficients at the 10, 5, and 1 percent confidence intervals, based on one-tailed tests. *t*-statistics (in parentheses) are computed using Huber-White robust standard errors. Models are estimated as OLS with alternative performance (PERF) measures: RETURN is the buy and hold stock return over the fiscal year with dividend reinvestment. ADJ_ROA is the industry adjusted ROA over the fiscal year, this model also includes the industry ROA and does not include industry indicators; NEG_ROA is ROA if it is less than zero, zero otherwise, this model also includes POS_ROA, which is equal to ROA if it is positive, zero otherwise. The dependent variables SALARY, BONUS, EQUITY, and TOTAL are as defined in Table 2. The estimations also include (unreported) independent variables used in the estimations of Table 2.

## Table 4

## Evidence on the influence of conflicted compensation consultants as a regression of the level of compensation on economic determinants and an indicator for potentially conflicted consultants for 755 firms of the S&P 1500 index in 2006 using a consultant after adjusting for the presence of a consultant using a Heckman selection model

Panel A: Selection model for the presence of a consultant

| | | CONSULTANT |
|---|---|---|
| | Pred. Sign | |
| Intercept | | 0.091 |
| | | (0.37) |
| CEO ownership | (-) | -0.043*** |
| | | (-4.06) |
| CEO tenure | (-) | -0.009 |
| | | (-1.16) |
| Directors on the Compensation Committee | (?) | 0.067 |
| | | (1.35) |
| Compensation Committee Meetings | (?) | 0.150*** |
| | | (5.41) |
| Business Segments | (+) | 0.033 |
| | | (1.03) |
| N | | 880 |
| Pseudo R-square | | 0.113 |

Parameter estimates are based on a probit estimation of whether the firm retains a compensation consultant. *, **, *** indicates significant coefficients at the 10, 5, and 1 percent confidence intervals, based on one-tailed tests. *t*-statistics (in parentheses) are computed using Huber-White robust standard errors. CEO ownership is the percent of outstanding shares owned by the CEO, CEO tenure is the number of years the CEO has held the position, Directors on the Compensation Committee represents the number of individual committee members identified in the firm proxy statement, Compensation Committee Meetings is the number of times the compensation committee met during the fiscal year as reported by the firm, Business Segments is the number of reportable business segments identified by the firm and obtained from COMPUSTAT.

## Table 4 (continued)

$$COMPENSATION_j = \beta_0 + \beta_1 CONFLICT_j + \beta_2 LNASSETS_j + \beta_3 BM_j + \beta_4 ROA_j + \beta_5 CONFLICT_j * ROA_j + \Sigma\beta_i IND_j + \varepsilon_j$$

| | | COMPENSATION measured as | | | |
|---|---|---|---|---|---|
| | | SALARY (a) | BONUS | EQUITY | TOTAL |
| | | (1) | (2) | (3) | (4) |
| | Pred. Sign | | | | |
| Panel B: CONFLICT measured by DISCLOSE | | | | | |
| DISCLOSE | (+) | -0.034 | -0.209 | -0.794 | -0.108 |
| | | (-0.29) | (-0.38) | (-1.20) | (-1.20) |
| ROA*DISCLOSE | (-) | 0.433 | 0.615 | 10.902 | 1.012 |
| | | (0.84) | (0.10) | (1.32) | (0.70) |
| Panel C: CONFLICT measured by NAS | | | | | |
| NAS | (+) | -0.098 | -0.581 | -0.567 | 0.163 |
| | | (-1.04) | (-1.51) | (-1.08) | (0.98) |
| ROA*NAS | (-) | 0.502 | 6.161 | -7.666* | -3.204* |
| | | (0.51) | (1.46) | (-1.34) | (-1.78) |
| Panel D: CONFLICT measured by Marketing Strategy | | | | | |
| TOP 4 | (+) | -0.085 | 0.292 | -0.595 | -0.193 |
| | | (-0.71) | (0.57) | (-0.84) | (-0.89) |
| OTHER | (+) | -0.277 | 0.930 | -0.510 | -0.099 |
| | | (-2.04) | (1.26) | (-0.81) | (-0.90) |
| ROA* TOP 4 | (-) | 2.707 | 6.560 | 16.169 | 3.872 |
| | | (2.44) | (1.14) | (2.06) | (1.61) |
| ROA* OTHER | (-) | 3.421 | -1.432 | 7.001 | 2.922 |
| | | (2.72) | (-0.23) | (0.82) | (1.12) |
| Panel E: CONFLICT measured by SCORE | | | | | |
| SCORE | (+) | -0.217 | -2.509 | -1.023 | -0.007 |
| | | (-1.22) | (-3.48) | (-1.03) | (-0.02) |
| ROA*SCORE | (-) | 2.305 | 18.347 | 13.549 | 0.193 |
| | | (1.04) | (1.87) | (1.02) | (0.05) |

(a) Because salaries are typically set before the start of the fiscal year, we use the prior year's values of the control variables (LNASSETS, BM, ROA) when SALARY is the dependent variable. *, **, *** indicates significant coefficients at the 10, 5, and 1 percent confidence intervals, based on one-tailed tests. *t*-statistics (in parentheses) are computed using Huber-White robust standard errors. The model includes industry indicator variables based on Barth et al. (1998) classifications (not reported). For brevity, only the results on the proxies for conflicted consultants are provided, but the models are estimated as Heckman selection models, where the selection is whether a firm retains a consultant for 880 observations of which 755 retain a consultant. The selection model is a function of CEO ownership, CEO tenure, number of directors on the compensation committee, number of committee meetings, and number of business segments as shown in Panel A of Table 4. The determinants of compensation levels include the determinants reported in Table 2. All variables are defined in Tables 1 and 2.

## Table 5
## Evidence on the influence of conflicted compensation consultants as a regression of the level of compensation on economic determinants and PCT, a variable capturing the economic importance of the client, for 755 firms of the S&P 1500 index using a consultant in 2006

$$COMPENSATION_j = \beta_0 + \beta_1 PCT_j + \beta_2 LNASSETS_j + \beta_3 BM_j + \beta_4 ROA_j + \beta_5 PCT_j * ROA_j + \Sigma \beta_i IND_j + \varepsilon_j$$

| | | COMPENSATION measured as | | | |
|---|---|---|---|---|---|
| | | SALARY (a) | BONUS | EQUITY | TOTAL |
| | | (1) | (2) | (3) | (4) |
| | Pred. Sign | | | | |
| Intercept | | 12.436 | 8.828 | 6.481 | 12.004 |
| | | (25.37) | (9.78) | (6.32) | (49.97) |
| PCT | (+) | -0.166 | 0.153 | -1.454 | -0.089 |
| | | (-0.93) | (0.22) | (-1.58) | (-0.66) |
| LNASSETS | (+) | 0.164*** | 0.457*** | 0.848*** | 0.421*** |
| | | (2.85) | (4.76) | (7.99) | (14.55) |
| BM | (-) | -0.212 | -1.240 | -2.951*** | -0.591*** |
| | | (-1.09) | (-1.62) | (-3.46) | (-4.56) |
| ROA | (+) | -0.062 | 11.325*** | -0.957 | 1.678 |
| | | (-0.09) | (3.99) | (-0.29) | (1.62) |
| EQ_INCENT | (-) | | | -0.069 | 0.039 |
| | | | | (-0.69) | (1.24) |
| ROA*PCT | (-) | 0.142 | -0.487 | -4.388 | -1.400 |
| | | (0.09) | (-0.07) | (-0.43) | (-0.70) |
| N | | 755 | 755 | 755 | 755 |
| Adjusted R-square | | 0.09 | 0.08 | 0.09 | 0.41 |

(a) Because salaries are typically set before the start of the fiscal year, we use the prior year's values of the control variables (LNASSETS, BM, ROA) when SALARY is the dependent variable. *, **, *** indicates significant coefficients at the 10, 5, and 1 percent confidence intervals, based on one-tailed tests. *t*-statistics (in parentheses) are computed using Huber-White robust standard errors. The model, defined in equation (1), is estimated as OLS and includes industry indicator variables based on Barth et al. (1998) classifications (not reported). EQ_INCENT is the deviation from predicted incentives in the CEOs equity portfolio. PCT is the client's assets scaled by the sum of the assets for all of the consultant's clients in the sample, a measure of the importance of the client. All remaining variables are defined in Tables 1 and 2.

## Table 6
## Evidence on the influence of compensation consultants in a regression of the level of compensation on economic determinants and an indicator for the use of a consultant for 880 S&P 1500 firms in 2006

$$COMPENSATION_j = \beta_0 + \beta_1 CONSULT_j + \beta_2 LNASSETS_j + \beta_3 BM_j + \beta_4 ROA_j + \beta_5 CONSULT_j * ROA_j + \Sigma\beta_i IND_j + \varepsilon_j$$

| | | COMPENSATION measured as | | | |
|---|---|---|---|---|---|
| | | SALARY (a) | BONUS | EQUITY | TOTAL |
| | | (1) | (2) | (3) | (4) |
| | Pred. Sign | | | | |
| Intercept | | 12.079 | 8.124 | 3.049 | 11.557 |
| | | (26.79) | (7.47) | (2.23) | (44.54) |
| CONSULT | (+) | 0.703*** | 0.986* | 1.954*** | 0.438** |
| | | (2.67) | (1.59) | (2.63) | (1.91) |
| LNASSETS | (+) | 0.113*** | 0.522*** | 1.244*** | 0.478*** |
| | | (2.12) | (4.85) | (9.97) | (12.26) |
| BM | (-) | -0.134 | -0.879 | -1.505* | -0.349*** |
| | | (-0.778) | (-1.18) | (-1.75) | (-2.84) |
| ROA | (+) | 1.305 | 3.629 | -12.207 | -0.210 |
| | | (0.65) | (0.69) | (-2.17) | (-0.15) |
| EQ_INCENT | (-) | | | -0.157* | 0.001 |
| | | | | (-1.58) | (0.04) |
| ROA*CONSULT | (-) | -1.626 | 6.908 | 8.401 | 0.809 |
| | | (-0.64) | (1.18) | (1.35) | (0.52) |
| N | | 880 | 880 | 880 | 880 |
| Adjusted R-square | | 0.070 | 0.097 | 0.172 | 0.405 |

(a) Because salaries are typically set before the start of the fiscal year, we use the prior year's values of the control variables (LNASSETS, BM, ROA) when SALARY is the dependent variable. *, **, *** indicates significant coefficients at the 10, 5, and 1 percent confidence intervals, based on one-tailed tests. *t*-statistics (in parentheses) are computed using Huber-White robust standard errors. These results are an OLS regression of compensation on the use of a consultant and economic determinants of pay, including industry indicator variables based on Barth et al. (1998) classifications (not reported). EQ_INCENT is the deviation from predicted incentives in the CEOs equity portfolio. CONSULT=1 if the firm retains a consultant, 0 otherwise. All remaining variables are as defined in Tables 1 and 2.

## Table 7
## Evidence on the influence of compensation consultants in a regression of the level of compensation on economic determinants and indicators for adding, dropping, or retaining a consultant for 777 S&P 1500 firms in 2007

$$COMPENSATION_j = \beta_0 + \gamma_1 Lag\ COMPENSATION_j + \gamma_2 ADD\_CONSULT + \gamma_3 DROP\_CONSULT + \gamma_4 CONSULT + \gamma_5 LNASSETS_j + \gamma_6 BM_j + \gamma_7 ROA_j + \gamma_8 ADD\_CONSULT_j * ROA_j + \gamma_9 DROP\_CONSULT_j * ROA_j + \gamma_{10} CONSULT_j * ROA_j + \Sigma \gamma_t IND_j + \varepsilon_j$$

| | | COMPENSATION measured as | | | |
|---|---|---|---|---|---|
| | | SALARY (a) | BONUS | EQUITY | TOTAL |
| | | (1) | (2) | (3) | (4) |
| | Pred. Sign | | | | |
| Intercept | | 0.998 | 4.888 | 6.939 | 4.961 |
| | | (1.491) | (3.10) | (6.47) | (8.04) |
| Lag COMPENSATION | (+) | 0.927*** | 0.283*** | 0.172*** | 0.615*** |
| | | (17.05) | (4.88) | (6.04) | (12.35) |
| ADD_CONSULT | (+) | 0.053 | -3.065 | 0.820 | -0.046 |
| | | (0.51) | (-2.38) | (0.84) | (-0.33) |
| DROP_CONSULT | (-) | -0.023 | 0.059 | 2.362 | 0.190 |
| | | (-0.24) | (0.06) | (3.52) | (1.62) |
| CONSULT | (+) | 0.048 | -0.144 | 1.455*** | 0.094 |
| | | (0.52) | (-0.22) | (2.41) | (0.99) |
| LNASSETS | (+) | 0.003 | 0.421*** | 0.532*** | 0.138*** |
| | | (0.24) | (3.64) | (6.10) | (5.44) |
| BM | (-) | -0.058 | -3.085*** | -1.055*** | -0.330*** |
| | | (-0.76) | (-4.71) | (-2.37) | (-4.59) |
| ROA | (+) | 0.241 | 0.356 | -8.530 | -1.168 |
| | | (0.39) | (0.07) | (-1.62) | (-1.29) |
| EQ_INCENT | (-) | | | 0.067 | 0.008 |
| | | | | (1.83) | (1.28) |
| ROA*ADD_CONSULT | (+) | 0.392 | -0.684 | 6.398 | 0.739 |
| | | (0.48) | (-0.08) | (1.05) | (0.69) |
| ROA*DROP_CONSULT | (-) | -0.014 | 16.762 | 4.332 | 1.067 |
| | | (-0.02) | (1.55) | (0.64) | (0.97) |
| ROA*CONSULT | (?) | -0.167 | 9.631 | 9.172 | 1.334 |
| | | (-0.21) | (1.60) | (1.60) | (1.42) |
| N | | 777 | 777 | 777 | 777 |
| Adjusted R-square | | 0.818 | 0.260 | 0.295 | 0.769 |

(a) Because salaries are typically set before the start of the fiscal year, we use the prior year's values of the control variables (LNASSETS, BM, ROA) when SALARY is the dependent variable. *, **, *** indicates significant coefficients at the 10, 5, and 1 percent confidence intervals, based on one-tailed tests when there is a predicted sign, two-tailed otherwise. *t*-statistics (in parentheses) are computed using Huber-White robust standard errors. These results are an OLS regression of compensation on prior year compensation, the change in the use of consultants, the use of a consultant and economic determinants of pay, including industry indicator variables based on Barth et al. (1998) classifications (not reported). ADD_CONSULT = 1 if the firm retains a consultant in 2007, but did not retain a consultant in 2006, 0 otherwise. DROP_CONSULT = 1 if the firm does not retain a consultant in 2007, but retained a consultant in 2006, 0 otherwise. Lag COMPENSATION is COMPENSATION for fiscal year 2006, where COMPENSATION is defined similarly to the dependent variable. All remaining variables are as defined in Tables 1 and 2.