

Executive Pay and “Independent” Compensation Consultants*

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Abstract

Executive compensation consultants face potential conflicts of interest that can lead to higher recommended levels of CEO pay, including the desires to secure repeat business and “cross-sell” additional services. We find no evidence that executive pay is lower in companies where the consultant is described as “independent” or works directly for the compensation committee rather than for management. Similarly, we find no evidence that executive pay is higher in companies where the consulting firm also serves as the companies’ actuary, provides rank-and-file employee compensation consulting, or provides services related to managing the firm’s benefits plans. However we find evidence that CEO pay is higher in a small subsample of firms where the consultant provides consulting services unrelated to compensation (e.g. advice related to human resources or to the firm’s strategy). Also, we find evidence suggesting that companies use multiple pay consultants to justify or legitimize unusually generous pay packages.

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Executive Pay and “Independent” Compensation Consultants

by Kevin J. Murphy and Tatiana Sandino

1. Introduction

Most large companies rely on executive compensation consultants to make recommendations on appropriate pay levels, to design and implement short-term and long-term incentive arrangements, and to provide survey information on industry and market pay practices. In addition, consultants are routinely asked to sanctify existing compensation arrangements and to give general guidance on complex and evolving accounting, tax, and regulatory issues related to executive pay. Finally, while some consultants are “boutique” firms focused exclusively on executive compensation, many are integrated corporations offering a full-range of compensation, benefits, actuarial and human resources consulting services.

Critics of perceived abuses in executive pay have increasingly accused the consultants as being complicit in the alleged excesses in compensation.¹ The accusations have typically focused on conflicts of interests faced by consultants that could lead them to favor incumbent managers when making pay recommendations. For example, a December 2007 report from the US House of Representatives Committee on Oversight and Government Reform, “Executive Pay: Conflicts of Interest Among Compensation Consultants” (the “Waxman Report”), warned about conflicts of interest arising when the “consultants who are advising on executive pay are simultaneously receiving millions of dollars from the corporate executives whose companies they are supposed to assess.” Specifically, the Waxman Report (p. i) found that:

“In 2006, the consultants providing both executive compensation advice and other services to Fortune 250 companies were paid almost 11 times more for providing other services than they were paid for providing executive

¹ For example, in his 2005 letter to shareholders, Berkshire Hathaway’s Warren Buffett asserted that “a mediocre-or-worse CEO – aided by his handpicked VP of human relations and a consultant from the ever-accommodating firm of Ratchet, Ratchet and Bingo – all too often receives gobs of money from an ill-designed compensation arrangement.” Similarly, an October 2007 report issued by the Corporate Library, “The Effect of Compensation Consultants” (Higgins, 2007), concluded that companies using consultants offer significantly higher pay than companies not using consultants and that “engaging the services of a compensation consultant does not appear to increase the effectiveness of incentive plans.”

compensation advice. On average, the companies paid these consultants over \$2.3 million for other services and less than \$220,000 for executive compensation advice.”

In this paper we investigate whether conflicts of interest between the compensation consultants and their client firms lead to higher levels of executive pay. There are two primary sources of conflicts of interest (which we call “other services” and “repeat business,” respectively) between consultants and their client firms that could lead to biased pay recommendations. First, as documented by the Waxman Report, the large integrated consulting firms routinely receive fees from “other services,” including actuarial, benefits, rank-and-file employee pay, and other human resources consulting practices that are orders of magnitude larger than the fees earned by their executive pay practices. Decisions to engage the consulting firm in these more lucrative corporate-wide consulting areas are often made or influenced by the same top executives who are benefited or harmed by the consultant’s executive pay recommendations. Such prospects for cross-selling other consulting, benefits management, or actuarial services can potentially pressure the consultants into making pay recommendations that favor management.

Second, compensation consultants historically have been retained not by the compensation committee but rather by company management, and work directly for and with the head of human resources, the chief financial officer, and/or the CEO. This situation creates an obvious conflict of interest, since the consultants make recommendations on the pay of the individuals who hire them. Consultants can increase the probability of “repeat business” by recommending generous pay levels and by aligning the recommended composition of pay with the preferences of the CEO and other top managers.²

Until recently, US corporations have not been required to disclose the identity of their executive compensation consultants and, as a result, academic research on the role of such consultants has been relatively limited.³ However, in 2006 the Securities and Exchange Commission (SEC) introduced a set of new disclosure rules for executive compensation that for the first time required publicly traded corporations to identify and describe the role of all

² Put more bluntly, Bebchuk and Fried (2004, p. 38) offer the following quote from a director interviewed by *Fortune*: “I would say that it is unusual to find a consultant who does not end up, at the least, being a prostitute. The consultants are hired by management. They’re going to be rehired by management.”

³ As a notable exception, Conyon, Peck, and Sadler (2007) examine the role of compensation consultants in a sample of 231 UK corporations (since 2002, firms in the UK have been required to identify their compensation consultants and any other services provided to the firm by that consultant). They find weak evidence that CEO cash compensation is higher in UK firms whose compensation consultants provide other services to the client firms, and that firms using the “major” consultants (i.e., consultants with more clients) pay more than other firms.

consultants who provided advice on executive compensation. In this paper we code the newly disclosed executive compensation consulting data from proxy statements and combine it with IRS filings (to identify company actuaries) and Execucomp data (to obtain executive compensation data). We identify 1,341 firms and show that 83% of these firms (1,046 companies) retained one or more compensation consultant during 2006.⁴ We examine data from the 1,046 companies using compensation consultants to investigate whether conflicts of interest between consultants and their client firms lead to higher pay for CEOs and other top executives.

Somewhat surprisingly, and in contrast to the accusations made by critics of CEO pay, we find only limited evidence that higher levels of executive pay are related to the potential conflicts of interest faced by the consultants. In particular, we test the hypothesis that CEO pay is higher when the consultant provides services beyond executive compensation advice. We measure “other services” by whether the company voluntarily discloses in its proxy statement that it uses the consultant for services beyond providing advice on executive pay.⁵ In addition, we use Form 5500 filings with the IRS and Department of Labor to identify which of the consultants used by each of our sample companies also provide actuarial services to those firms (actuarial services are required by all companies with defined benefit pension plans, about 52% of our sample). We find no evidence that executive pay is higher in companies where the consulting firm also serves as the companies’ actuary or where the consultant is a “potential” actuary (that is, the consultant provides actuarial services and the company requires an actuary). Similarly, we find no evidence that CEO pay is higher when the consultant provides services related to benefits administration or employee pay. However, we do find evidence that CEO pay is higher in a subsample of firms (1.8% of firms using consultants) where the executive compensation consultant provides other consulting services unrelated to compensation.

We also test the “repeat business” effect (i.e., the consultants’ concern with being reappointed) by examining whether CEO pay is related to proxies for managerial influence over the decision to appoint (or reappoint) consultants, including whether the consultant works exclusively for the committee or also works for management, and whether the consult is described as “independent” in the company proxy statement. Inconsistent with this hypothesis, we find no evidence that executive pay is lower in companies where the

⁴ Our full sample includes one year of data for 1,341 S&P 500, S&P MidCap 400, and S&P SmallCap 600 companies filing under the new disclosure rules (effective for companies with fiscal closings after December 15, 2006) and included in ExecuComp’s executive compensation database. We exclude 295 firms that did not report using a consultant during this year.

⁵ Under the new SEC disclosure rules, companies are *not* required to disclose services provided by their executive-pay consultants that are unrelated to executive pay, but many firms have done so voluntarily.

consultant is described to be “independent” or works exclusively for the compensation committee rather than for management.

Our result that potential conflicts of interest among consultants are not strongly associated with higher pay levels is seemingly inconsistent with contemporaneous academic research (including Cadman, Carter, and Hillegeist, 2008; Armstrong, Ittner, and Larcker, 2008; and Conyon, 2008) showing that CEO pay is higher in companies that use compensation consultants than in companies that do not use consultants. We offer an alternative (and potentially reconciling) hypothesis that companies use outside consultants to “justify” or legitimize high levels of executive pay. As an anecdote to motivate our analysis, we describe the recent situation in which Countrywide Financial management hired its own consultant to provide a reasonableness opinion on the compensation package for its CEO after two consultants retained by the compensation committee recommended lowering his pay.⁶ We test the “justification” hypothesis by examining the relation between CEO pay and the number of consultants retained. We find that companies using three or more consultants pay almost 24% more to their CEOs than companies using only one consultant

Our research contributes to the literature related to executive pay. It is among the first to examine how executive pay varies across consulting firms⁷ and provides new insights on the nature of the executive-compensation consulting industry and the conflicts of interest that may affect the consultants’ recommendations. Our study is particularly relevant in view of the current debate in the US where several legislators and activists have demanded that executive compensation consultants disclose information regarding other non-executive-pay related services provided to their client firms.⁹

More broadly, our research is closely related to the literature on “auditor independence.” Concerns regarding conflicts when accounting firms offered services beyond auditing led to both the Sarbanes-Oxley Act and to detailed disclosures of fees charged for auditing and non-auditing businesses. Subsequent to the Act and these disclosures, companies have largely abandoned the practice of using the same accounting firm for both auditing and other services, avoiding perceived conflicts of interest but at the cost of losing

⁶ James R. Hagerty and JoAnn Lublin, “House Report Says Countrywide’s Mozilo Resisted Pay Cuts,” *Wall Street Journal*, March 7, 2008, p. A11.

⁷ Cadman, Carter, and Hillegeist (2008) analyze a similar sample to ours and also find that CEO pay is higher in companies with compensation consultants. Conyon, Peck, and Sadler (2007) examine the role of compensation consultants in the UK and also find that CEO pay is higher in UK firms using consultants.

⁹ For examples, see Congressional hearings in December 2007 (<http://oversight.house.gov/story.asp?ID=1643>) and the comment letters to the SEC’s proposed rule on executive compensation and related party disclosure, related to compensation consultant disclosures (<http://www.sec.gov/rules/proposed/s70306.shtml>).

the auditing firm’s extensive knowledge of the client firm and industry (which could presumably be leveraged in other services). And yet, there is little direct evidence that these potential conflicts actually translated into misleading auditing decisions. For example, DeAngelo (1981) (two decades before Sarbanes-Oxley) concluded that auditors with a greater number of clients have “more to lose” if they fail to disclose any problems encountered during their audit; these incentives lead larger auditor firms to increase the quality of their audits. More recently, Kinney, Palmrose and Scholz (2004) documented that the Sarbanes-Oxley auditing rules were approved despite an extensive number of academic studies were unable to find the existence of a positive association between non-audit services fees and surrogates for financial reporting quality.

Similar to the conclusions of the auditor-independence literature, we find limited evidence that higher levels of executive pay are related to the potential conflicts of interest faced by the consultants. One explanation (consistent with DeAngelo, 1981) is that these conflicts (especially for the largest consulting firms) are mitigated by the potential negative reputational consequences of being associated with particularly egregious pay practices. These reputational concerns may have increased with the SEC disclosure requirement that firms identify their executive compensation consultants. Our results present a cautionary tale for current demands by some legislators and activists requesting that firms disclose fees paid for non-executive-pay related services provided by the compensation consultant, or further requesting that executive compensation consultants do not provide any non-executive-pay services to their client firms. Following the auditing-independence analogy, we suspect that such requirements would lead companies to avoid using the same consultants for executive pay advice and other services, in spite of the weak evidence that such a division would benefit shareholders.

We begin in Section 2 with a summary of our data and an institutional description of the compensation consulting industry. Section 3 examines the effect of the two sources of conflicts of interests (“other services” and “repeat business”). In Section 4 we explore the hypothesis that managers use compensation consultants to justify unusually high levels of executive pay. Section 5 summarizes our results. Our evolving conclusion is that the relation between the use of consultants and the level of executive compensation does not systematically reflect “accommodating” consultants seeking repeat business or cross-selling opportunities. However, we find some evidence that companies use (or misuse) compensation consultants to justify or legitimize unusually generous pay packages.

2. The Structure of the Compensation Consulting Industry

2.1. *Who Are the Consultants?*

The new Securities and Exchange Commission (SEC) disclosure rules for executive compensation effective for publicly traded corporations with fiscal closings after December 15, 2006 required corporations 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.”¹⁰

Taking advantage of this change in disclosure rules, we collected information from the proxy statements of 1341 firms, representing all firms filing under the new rules and included in the October 2007 release of Compustat’s ExecuComp Database. Our sample includes 408 firms from the S&P 500, 291 firms from the S&P MidCap 400, 382 firms from the S&P SmallCap 600, and 260 additional firms. From the proxy statements, we identified every consultant recommending executive or director pay in each sample firm, and coded information regarding the consultant’s assignment and whether the consultant was engaged by (or worked for) the compensation committee, management or both.

Table 1 summarizes the use of compensation consultants used for executive compensation in our 1341 sample firms during the first year of disclosure.¹¹ Nearly 83% (1046 firms) of our sample firms retained a consultant to advise on executive pay in 2006, and another 9.2% (123 firms) relied on purchased compensation surveys (often prepared by consulting firms). Over 12% (181 firms) used two or more consultants for executive pay issues.

Table 1 shows the compensation consultants identified most frequently by our sample firms. The compensation consulting industry is relatively fragmented; our 1341 sample firms reported working with 91 different consulting firms. However, the industry is dominated by

¹⁰ Title 17, Section 229, Item 407(e)(3)(iii). The rules can be found at the following electronic website: <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl>

¹¹ In a small number of cases, the company did not identify consultants used in 2006 (or stated that they did not use a consultant in 2006) but did identify consultants used in earlier years. In these cases, we recorded information for the consultants used in earlier years.

six major consulting firms – Towers Perrin, Mercer Human Resource Consulting, Hewitt Associates, Frederic W. Cook & Co., Watson Wyatt Worldwide, and Pearl Meyer & Partners – who collectively serve 801 of the 1046 firms (76%) in our sample of firms using consultants for executive pay.¹² Of these six, Towers Perrin, Mercer, Hewitt, and Watson Wyatt are large integrated corporations with offices in most major U.S. and international cities offering a full-range of compensation, benefits, and actuarial services.¹³ Pearl Meyer & Partners, located in seven offices in the U.S., offers executive, director and employee pay consulting services,¹⁴ while Frederic W. Cook, located in five offices in the U.S. offers executive and director pay consulting services.¹⁵

2.2. Does CEO Pay Differ Across Firms Hiring Different Consultants?

Figure 1 shows the composition and level of pay for the median CEO in our 1046 sample firms, grouped by compensation consultant. For companies retaining consultants, the figure shows the median total expected pay associated with each of the six primary consulting firms (along with a seventh category consisting of all other consultants). Total expected compensation (indicated by bar height) is defined as the sum of salaries, non-equity incentives, stock & options and other pay. The non-equity incentives are evaluated at the target level of payout (or, at an estimated target level calculated as the average of the minimum and maximum payout if the target is not reported) and include realized payouts from discretionary bonuses. Stock options and stock awards are evaluated at grant-date using their company-estimated present value (typically Black-Scholes calculations for options and the grant-date market price for stock). Other compensation includes perquisites, signing bonuses, termination payments, and above-market interest paid on deferred compensation.

As evident from Figure 1 the median pay varies substantially by consultant: the median CEO client of Frederic Cook, for example, earned \$5.7 million, over 70% more than the pay of the median CEO client of Pearl Meyer. Another feature of Figure 1 is that companies rely more or less on incentive-based pay depending on the consultant they seek advice from. For

¹² The percentage of our sample that uses at least one of the six major consulting firms is less than the percentage implied by adding up the percentages in Table 1 because many companies use multiple consultants.

¹³ Towers Perrin has 91 offices in 25 countries (including 37 offices in the US); Mercer (which is an operating unit of insurance giant Marsh & McLennan Companies) has 180 offices in 41 countries (including 72 offices in the US); Watson Wyatt has 101 offices in 32 countries (including 34 offices in the US); and Hewitt has 111 offices in 37 countries (including 31 offices in the US).

¹⁴ During 2006, Pearl Meyer & Partners (not to be confused with its founding partner, Pearl Meyer, currently with Steven Hall & Partners) was an operating unit of Clark Consulting, a diversified benefits firm specializing in corporate-owned life-insurance and other benefit programs. In 2007, in connection with Aegon's purchase of most of Clark's assets, Pearl Meyer & Partners became part of Clark & Wamberg, LLC.

¹⁵ Although based only in the US, Frederic Cook & Company was closely affiliated with UK-based New Bridge Street Consultants until Hewitt acquired New Bridge in March 2008.

example, the use of equity-based pay is particularly high among clients of Frederic Cook, where 52% of pay is comprised of restricted stock and options.

One of the best-documented facts about CEO pay is that pay increases with company size. Indeed, the findings in Figure 1 are largely driven by the fact that the choice of consultants varies with company size. Among the primary consulting firms, Frederic Cook services the largest clients (the median revenues for Cook’s 143 clients in our sample is \$4.03 billion; the median revenues for clients of Hewitt, Mercer, Towers Perrin, Watson Wyatt, and Pearl Meyer are \$3.98 billion, \$2.95 billion, \$2.85 billion, \$2.43 billion, and \$1.53 billion, respectively).

3. Conflicted Consultants and CEO Pay

In Section 2 we described the nature of the compensation consulting business and documented that the levels of CEO pay vary for firms using different compensation consultants. In this section we examine whether conflicts of interest between the compensation consultants and their client firms explain why some CEOs are paid more. Section 3.1 starts by describing the two primary sources of conflicts of interest to which consultants are exposed: “other services” and “repeat business.” In section 3.2 we test the “other services” effect by examining whether CEO pay is higher in firms where the compensation consultant carries out other work for management beyond executive compensation consulting (e.g., actuarial, benefits administration, or rank-and-file employee pay consulting services). In section 3.3 we test the “repeat business” effect (i.e., the consultants’ concern with being reappointed) by examining whether CEO pay is lower in companies where the compensation consultant works exclusively for the board rather than for top management.

3.1. Conflicts of Interest among Compensation Consultants

In principle companies can benefit significantly from the services provided by compensation consultants (described in Section 2). Such services can be of great help to compensation committees that may lack the time or the expertise necessary to design appropriate executive pay plans (Murphy, 1999). They can play a crucial role in informing the company not only about the market conditions and the regulatory requirements related to executive compensation, but also about different ways in which the compensation plans can be designed to attract and retain executive talent, as well as to promote shareholder value creation.

Although most academics and practitioners recognize that consultants can contribute to improving the executive compensation process, perceived abuses in executive pay¹⁶ have raised suspicions about the role played by executive compensation consultants. These suspicions arise because compensation consultants are unlikely to be truly independent from the CEOs who are the subjects of their pay recommendations since the consultants will naturally seek to provide additional engagements in the form of non-executive-pay services (“other work”) or future consulting assignments (“repeat business”). As noted by pay critic Graef Crystal, “this is not to suggest that a firm like Towers Perrin, or indeed any other consulting firm, will make recommendations in which it does not believe simply to keep some additional client business. But, the pressure to do just that is always present.”¹⁷

There are several ways in which “accommodating” consultants can purposely or inadvertently inflate executive pay. For example, consultants can justify high levels of compensation by benchmarking their client companies against groups of “peer firms” that offer generous pay to their CEOs and executives,¹⁸ or by recommending pay levels at or above (but never below) the peer-group median.¹⁹ High pay can also be camouflaged through stock and option awards, low performance hurdles on accounting-based plans, and generous deferred compensation and pension arrangements that are not fully disclosed to (or the cost of which is not fully understood by) shareholders.²⁰ In addition, consultants will routinely

¹⁶ Some observers believe an increase in stock option grants during the 1990s provided the incentives leading to the accounting scandals in the early 2000s. Indeed several studies provide evidence that the use (or misuse) of stock options was linked to earnings management (Bergstresser and Philippon 2006), accounting restatements (Burns and Kedia, 2007; Efendi, Srivastava, and Swanson, 2007); and strategic disclosures of financial information around option grants and exercises (Aboody and Kasznik 2004; Bartov and Mohanram 2004). Outrage over perceived excesses in executive pay intensified after academic research and subsequent *Wall Street Journal* investigations unearthed the practice of “option backdating” in which companies deliberately falsified stock option agreements so that options granted on one date were reported as if granted on an earlier date when the stock price was unusually low (Lie 2005; Heron and Lie 2006; Maremont 2005).

¹⁷ Crystal (1991), p. 219-220. Crystal speaks from experience: before become an outspoken critic of executive pay, he spent decades building Tower Perrin’s executive pay practice.

¹⁸ Porac, Wade and Pollock (1999) examine how companies define their peer groups and find that firms expand industry boundaries to include companies with high levels of CEO pay. Similarly, Faulkender and Yang (2008) find that firms forego potential peers whenever they provide lower compensation to their CEOs, especially in cases where the firms have weak governance or are receiving advice from Towers Perrin. Practitioners have expressed concerns related to this matter. In its 2006 annual letter to Berkshire Hathaway’s shareholders (<http://www.berkshirehathaway.com/letters/2006ltr.pdf>), Warren Buffett argued that: “Irrational and excessive comp practices will not be materially changed by disclosure or by ‘independent’ comp committee members (...) The consultants’ present drill of deftly selecting ‘peer’ companies to compare with their clients will only perpetuate present excesses.”

¹⁹ Bizjak, Lemmon and Naveen (2007) find that the “vast majority of firms that use peer groups set pay levels at or about the 50th percentile of the peer group, although a number of firms seek pay levels well above the peer-group median.”

²⁰ For arguments Bechuk, Lucian, Jesse Fried, and David Walker, 2002, “Managerial Power and Rent Extraction in the Design of Executive Compensation,” *University of Chicago Law Review* 69, 751-761

discuss various incentive design alternatives with senior executives before presenting a final proposal to the compensation committee, which also biases plans in favor of the executives.

The inherent biases for consultants to favor executives are only imperfectly mitigated by the consulting firm’s concerns about its own reputation, in part because the identities of the consultants had not been disclosed until the end of 2006 and because the biases, when realized, had typically not been sufficiently blatant to generate unfavorable consequences. However, the fact that companies are now required to disclose the identities of their consultants will naturally subject the consultants to more scrutiny, increasing the reputational consequences of bad pay recommendations. We expect that scrutiny on pay consultants and the accompanying reputational consequences will further intensify with the passage of proposed legislation giving shareholders a “vote” on executive compensation.²¹ In addition, we expect that the new disclosure rules will increase the prevalence of consulting companies being named as defendants in lawsuits over excessive executive pay and identified by the media when discussing perceived abuses in pay for particular executives. For example, consultant Lyons Berenson & Co. was named as a defendant in a recent lawsuit related to option backdating at Cablevision, which included an award of backdated options to its vice chairman after his death in 1999.²² And, a Towers Perrin consultant hired by management was implicated for recommending a generous compensation contract for Countrywide’s CEO, after two other pay consultants hired by the compensation committee (Pearl Meyer & Partners and Exequity) had been fired after recommending pay cuts.²³

Although most compensation consultants are unlikely to be truly independent, the inherent conflicts of interest vary across consultants and their clients. Table 2 provides a description of our proxies for potential conflicts of interests faced by the consultants working for the 1046 firms that identified at least one compensation consultant that the company retained in 2005 or 2006. The statistics in the table are based on 1270 observations (or one observation for each consultant identified by the 1046 firms). A more refined understanding

²¹ The “Shareholder Vote on Executive Compensation Act” (H.R. 1257) was approved by the House of Representatives on April 20, 2007, and is pending the approval of the Senate and the President to take effect in 2009. The bill proposes that public companies provide shareholders with “an annual nonbinding advisory vote on their company’s executive compensation plans,” and “an additional nonbinding advisory vote if the company awards a new golden parachute package while simultaneously negotiating the purchase or sale of the company.” Although these votes are advisory in nature, negative votes can be relevant to the companies. Recent research has suggested compensation-related advisory votes supported by a majority of shareholders tend to affect financial reporting and compensation decisions made by the companies (e.g. Ferri and Sandino, 2008; Ertimur, Ferri and Stubben, 2007).

²² Peter Grant, James Bandler and Charles Forelle. 2006. “Cablevision Gave Backdated Grant To Dead Official,” *Wall Street Journal*, Sept. 22, p. A1; and Kaja Whitehouse. 2006. “Pay Advisors Seek Shelter From Suits,” *Wall Street Journal*, Dec. 13.

²³ James R. Hagerty and JoAnn Lublin, “House Report Says Countrywide’s Mozilo Resisted Pay Cuts,” *Wall Street Journal*, March 7, 2008, p. A11. We discuss this case in more detail in Section 4 below.

of the sources of conflict allows us to investigate their effect (and the potential effect of these proxies) in greater depth. Consultants face two types of conflicts of interest that may compromise their judgment in recommending executive pay: the consultants’ objective to cross-sell “other services” to the firm and their determination to get “repeat business.”

Other Services (Actuarial Services)

The first source of conflict arises when the compensation consultants provide services to their client firms in addition to giving advice on executive compensation. These other services, which include actuarial services, management of employee benefits, and rank-and-file employee compensation consulting among others, are provided to the human resources department (a department subordinate to the CEO). The fees generated from these other services are often much larger than the fees for executive compensation consulting. For example, between 1997 and 2006 Verizon paid Hewitt Associates more than \$500 million for actuarial services and for running the company’s employee benefit plans.²⁴ Similarly, in 2006 Johnson & Johnson paid Towers Perrin over \$11 million for other services compared to only \$160,000 for executive compensation advice, and Halliburton paid Hewitt over \$11 million for other services, compared to \$210,000 for executive compensation advice.²⁵

Compensation consultants perceive that recommending a lower-than-expected level of CEO pay can jeopardize the opportunities to cross-sell other more lucrative services to the firm. Indeed, the integrated compensation consultants routinely assign “customer relationship managers” charged explicitly with cross-selling of services within the client firms. The conflicts of interest arising from the desire to preserve opportunities to cross-sell other services beyond executive compensation consulting lead to the following prediction:

Hypothesis 1: CEO pay is higher if the compensation consultant provides (or could provide) services to the firm beyond executive compensation consulting.

In our statistical tests of Hypothesis 1, we measure “other work” using both company-reported disclosures in proxy statements and externally obtained data extracted from tax filings. Prevalence statistics for our measures are summarized in Panel A of Table 2.

Although the new SEC disclosure rules do not explicitly require firms to disclose other services the consultants provided to the firm, several firms voluntarily disclosed this information in their proxy statements. Panel A of Table 2 summarizes these voluntary

²⁴ Gretchen Morgenson, “Gilded paychecks, Troubling Conflicts: Outside Advice on Boss’s Pay May Not Be So Independent,” *New York Times* April 10, 2006.

²⁵ The Waxman Report, p. 4.

disclosures, which indicate that 3.0% of the consultants provided actuarial services, 4.9% of the consultants identified by our sample firms provided employee pay services to the firm, 3.8% provided benefits administration services, 1.5% provided other consulting services unrelated to compensation (mostly advice related to the firm’s strategy and human resources functions) and 3.1% provided other services (most of which were unspecified). Voluntary disclosures suggest Watson was the consultant that cross-sold “other services” to the largest share of its executive compensation-consulting clients. The fact that the disclosure of other services is not mandated by the SEC suggests that the percentages above are underestimated.

One major component of “other services” is actuarial service: Towers Perrin, Hewitt, and Watson Wyatt all began as firms providing actuarial services to sponsors of defined-benefit pension plans.²⁶ Under a defined-benefit pension plan, beneficiaries are promised a pre-specified future sum or annuity (often based on years of service and final salaries) to be paid upon retirement. Companies with defined-benefit pension plans require certified actuaries to determine the extent to which the plans are over funded or under funded (that is, whether the companies have sufficient assets in its pension plans to fund expected liabilities) and to determine the annual cash contribution requirements and the current accounting expense associated with the liabilities. In our sample of 1341 firms, 693 (52%) had defined-benefit plans with total pension plan assets in 2005 of almost \$1 trillion.²⁷

In contrast with “other services” provided by compensation consultants, information on actuarial services is publicly available. Companies with defined-benefit pension plans must file Form 5500 annually with the IRS and the Department of Labor, and Schedule B of Form 5500 includes information on the plan’s actuary. We obtained information from 162,942 Form 5500 filings covering the years 2003 through early 2006 from Pension Planet, an organization that collects and tabulates these data. We matched the Schedule B data to our sample firms using Employee Identification Numbers (EINs) and hand-matching in some cases,²⁸ and were ultimately able to match actuaries to 1180 defined-benefit plans in 604 of our sample firms (representing 87% of the 693 sample firms with defined benefit plans).

²⁶ Information based on histories provided on company websites. Hewitt Associates was founded in 1940 as provider of actuarial services. Towers, Perrin, Forster & Crosby opened for business in 1934 with a reinsurance division and life division 20 years after founding partner H. W. Forster developed the first private pension plan. Watson Wyatt was formed from the 1995 merger of the UK actuarial firm R. Watson & Sons (founded in 1878) and the US-based actuarial firm The Wyatt Company (founded in 1946). Mercer began in 1937 as the employee benefits department of Marsh & McLennan, Inc.

²⁷ Pension plan assets and the existence of a defined-benefit plan are obtained from Compustat using Data item 287.

²⁸ Companies with multiple subsidiaries (each its own legal entity) will often have multiple EINs, and matching Form 5500 data to parent companies based on EINs is therefore imperfect.

Table 3 provides summary statistics for the actuaries used by our sample firms. The 604 firms we matched to Form 5500 data used a total of 57 different actuaries. The four largest actuaries – Hewitt, Mercer, Towers Perrin, and Watson Wyatt – collectively provide actuarial services to 426 of our 1341-firm sample (representing 61% of the 693 sample firms with defined-benefit plans). The pension plans associated with these four actuaries have \$741 billion in assets and cover 12.4 million beneficiaries (current employees or retirees).

Based on these data we are able to identify firms where the consultant provides both executive compensation consulting and actuarial services. As shown in Panel A of Table 2, 9.5% of the consultants provide actuarial services to the company that employs them. This percentage contrasts with the 3.0% obtained from the firms that voluntarily disclosed that the consultant provided actuarial services in their proxy statements. Table 4 shows the prevalence of providing both executive compensation and actuarial services is higher than the “expected” prevalence if the retention decision were truly independent. For example, the table shows that Towers Perrin serves as the pay consultant for 214 of our 1341 sample firms, serves as an actuary for 112 sample firms, and serves as *both* pay consultant and actuary for 44 sample firms. If the decision to retain pay consultants and actuaries were independent (but the overall prevalence were unchanged), we would expect Towers Perrin to provide both services in only 18 firms, or less than half the number observed.²⁹ Overall, 120 of our 1046 sample firms that use compensation consultants (11.5%) use the same consulting firm for both executive pay and actuarial services.

The data also allow us to identify cases where the consultant has the *potential* to become the actuary of the firm. These cases occur whenever the firm has a defined-benefit pension plan (i.e., the company requires an actuary), the consultant offers actuarial services, but the consultant is not currently the actuary of the firm. Our results in the last row of Panel A of Table 2 reveal that a large number of firms have consultants that could potentially offer actuarial services to the firms.

Repeat Business

The second source of conflict derives from the compensation consultant’s desire to be rehired by the firm. Consultants have a conflict of interest whenever they design the pay packages of the same executives that have the power to reappoint them. Traditionally, most

²⁹ The “Expected” number for Towers Perrin is computed as the number of consulting clients (n=214) multiplied by the number of actuarial clients (n=112) divided by the number of sample firms (n=1341). Put differently, Towers Perrin is a pay consultant for 16.0% of the sample firms, and an actuary for 8.3% of the sample firms, so if the retention decision were independent we would expect Towers Perrin to be both pay consultant and actuary for $(16.0\%) \times (8.3\%) = 1.33\%$ of the 1341 sample firms, or about 18.

compensation consultants were retained by and worked for the firm’s CEO and/or the human resources department. Such consultants have clear incentives to please the firm’s CEO and top executives by recommending generous pay packages. According to Warren Buffett, excessive compensation packages in the 1990s were promulgated by consultants “which had no trouble perceiving who buttered their bread.”³⁰

The potential for conflicts of interest related to repeat-business concerns has arguably decreased in recent years. Historically, consultants were rarely retained by the compensation committee but were rather retained by company management, and worked directly for and with the head of human resources, the chief financial officer, and/or the CEO, creating obvious conflicts of interest for consultants concerned about generating repeat business. However, over the last four years, compensation committees have increasingly retained their own compensation consultants, partly due to general governance concerns resulting from Sarbanes Oxley Act (and the scandals that precipitated the Act) but also in response to listing requirements from the New York Stock Exchange, which adopted a rule (Rule 303A) in November 2003, stipulating that “if a compensation consultant is to assist in the evaluation of director, CEO or senior executive compensation, the compensation committee charter should give that committee sole authority to retain and terminate the consulting firm, including sole authority to approve the firm’s fees and other retention terms.”³¹

The shift towards giving the compensation committee authority over hiring consultants has decreased but not eliminated the repeat-business conflicts of interest. First, while complying with the NYSE listing requirement implies that the compensation committee has the sole authority to hire and fire the consultant, the requirement does not imply that the compensation committees in fact exercise that authority. The rule does not, for example, preclude the CEO or other executives from making recommendations regarding the appointment or reappointment of the compensation consultant. Second (and as we discuss in more detail in Section 4 below), management routinely hires their own consultant in addition to the consultant retained by the compensation committee, and management’s consultants remain conflicted. Third, even when retained by compensation committee, consultants often work directly for top managers.

The conflicts of interest associated with generating repeat business lead to the following hypothesis:

³⁰ 2003 Annual letter from Warren Buffett to Berkshire Hathaway’s shareholders.
(<http://www.berkshirehathaway.com/letters/2003ltr.pdf>)

³¹ A copy of these rules can be found at <http://www.nyse.com/pdfs/finalcorpgovrules.pdf>.

Hypothesis 2: CEO pay is higher in firms where the CEO influences the decision to appoint (or reappoint) the compensation consultants.

In our statistical tests of Hypothesis 2, we use two proxies to measure managerial influence over consultant appointments: whether the consultant works exclusively for the committee or also works for management, and whether the consultant is referred to as “independent” by the firm.

Panel B of Table 2 provides prevalence statistics for our measures of managerial influence over consultant appointments. Specifically, 45.3% of the consultants used by our sample firms are described in the firms’ proxy statements as “independent.” This qualification presumably captures the level of managerial influence over retaining the consultant, however the definition of “independence” is unspecified in most firms and may vary across consultants. A better measure to capture managerial influence is a measure indicating whether the manager works for the board or for management. In spite of the NYSE listing rules, we find that only 46.5% of the consultants identified in our sample work exclusively for the compensation committee or board, rather than for management.

In the remaining two sub-sections of Section 3, we examine the effect of conflicts of interest on CEO pay. Specifically, we test our two hypotheses.

3.2. Relation between CEO Pay and Compensation Consultants Providing Other Services to the Firm

Research Design

Our first set of analyses tests whether CEO pay is higher in firms where compensation consultants provide other services to the firm (i.e., Hypothesis 1). We restrict our sample to the 1046 firms using compensation consultants, and exclude firms hiring a new CEO to avoid the effect of one-time compensation choices (e.g., severance payments to outgoing CEOs, mega-grants to incoming CEOs). We conduct our tests at the firm level by employing the following OLS regression:

$$\begin{aligned} \ln(\text{Expected CEO Pay}_i) = & \mu_0 + \mu_1 * \text{Fraction of consultants providing other services}_i \\ & + \mu_2 * \text{Fraction of consultants that could provide other services}_i \\ & + \alpha_n * \text{Controls}_i + \varepsilon_i \end{aligned} \quad (1)$$

The dependent variable in this equation is the natural logarithm of the expected CEO pay. We initiate our analyses by defining the first two explanatory variables as the fraction of consultants that provided actuarial services to the firm (as reported in Form 5500) or that

could have provided actuarial services to the firm (if the firm offered defined-benefit pension plans and the consultant provided actuarial services). Then, we extend our analyses to include additional explanatory variables indicating the fraction of consultants providing other services beyond actuarial services (namely, employee pay services, benefits administration services, consulting services unrelated to compensation, and other unspecified services). Our extended analyses rely on information voluntarily disclosed in the proxy statements of the firms.

We control for other key determinants of CEO pay. We account for size using the logarithm of prior-year firm sales, as it is well established that firm size is strongly associated with higher pay, presumably due to the fact that large firms have higher monitoring costs and demand highly skilled executives to operate (Gabaix and Landier 2008). We also include two performance measures typically linked to compensation contracts (Lambert and Larcker 1987; Murphy 1999): stock returns over the prior three years and average return on assets (measured as net income before extraordinary items and discontinued operations divided by total assets) over the prior three years. Since CEOs who also serve as board chairman predictably receive higher levels of pay, we include a dummy variable indicating that the CEO is also the chairman.³² In addition, we control for differences in the composition of the pay package. Our measure of compensation is meant to approximate the expected *opportunity cost* to shareholders of the executive’s pay package. However, our measure does not approximate the *value* of the package from the perspective of a risk-averse and undiversified executive who presumably does not hedge the risk of the package.³³ Thus, for example, while the opportunity cost to shareholders of giving an additional \$100 in base salary is the same as the opportunity cost of giving \$100 in restricted stock, a risk-averse and undiversified executive will prefer certain salary to risky stock, and will predictably discount the value of the stock. Put differently, all else equal, we expect that executives at companies with riskier pay will receive higher expected levels of pay to compensate for the increased risk. To control for differences in the riskiness of pay, we include as control variables the fraction of expected pay from non-equity incentives and from equity-based incentives. We expect that expected pay will be positively related to both of these variables, and expect a higher coefficient on the equity-pay variable since equity pay is traditionally riskier than bonuses based on accounting returns.³⁴ Finally, we control for top-six consultant effects by

³² Although we are interpreting our CEO/Chair dummy variable as a “control,” we also recognize that it may capture the influence of the CEO over the board and perhaps over the compensation consultant.

³³ For examinations of the distinction between the company’s cost and the executive’s value of equity-based compensation, see Hall and Murphy (2002), Meulbroek (2001), and Lambert, Larcker and Verrecchia (1991).

³⁴ We also recognize that the coefficients on equity pay in our regression may reflect a systematic over-granting of stock and options by compensation committees who do not understand the full opportunity cost of granting stock and options.

including indicators for the top compensation consultants and for industry-effects by including nine industry dummies based on the Fama-French classification³⁵ plus an additional dummy variable for the financial services sector (SIC codes 6000 to 6999).

Empirical Results

Our first set of analyses takes advantage of the actuarial services data from the IRS' Form 5500. These data allows us to explore Hypothesis 1, which predicts higher CEO pay whenever firms are perceived as actual or potential actuary clients by their compensation consultants. In Section 3.1 we indicate that any firm that has a defined-benefit plan requires an actuary. The relationship between firms requiring actuarial services and their consultants can be one of three kinds: (a) the firm is an actual actuary client (i.e., the compensation consultant provides actuary services to the firm); (b) the firm is a potential actuary client (i.e., the consultant does not provide, but could provide, actuary services to the firm); (c) the firm is neither an actuary client nor a potential actuary client since the consultant does not offer actuary services. We incorporate these possible relations into our analyses in Table 5. Although we find a positive association between CEO pay and the fraction of consultants that are actual or potential actuaries for the firm, our results are insignificant and thus are inconsistent with Hypothesis 1. To address a potential endogeneity concern where companies requiring more complex compensation packages (and thus providing higher CEO pay) systematically select specific compensation consultants, we replicate the analyses for the subsample of clients of each individual compensation consultant in columns (2) through (5). Again, our results suggest that the provision (and potential) provision of actuarial services is unrelated to higher levels of pay.

Table 6 examines whether CEO pay is higher in firms whose compensation consultant provides other services beyond actuarial services. We find no evidence that CEO pay is higher in firms where the executive compensation consultant provides actuarial, rank-and-file employee pay, or benefits administration services to the firm. However, our results suggest a significant relation between CEO pay and the percentage of consultants that provide other non-compensation consulting services to management. The positive coefficient $+0.2726$ in column (2) suggests that firms using consultants that provide other non-compensation consulting services to management are likely to pay 31.3% more³⁶ to their CEOs. A potential explanation for this result is that non-compensation consulting services are likely to be more

³⁵ Specifically, we employ the 10 Industry Portfolios Fama/French classification described at: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/changes_ind.html. The “omitted” category in our regressions includes mines, construction, transportation, hotels, entertainment, and services.

³⁶ Calculated as $e^{0.2726} - 1 = .3133$.

transient and to have lower switching costs across consultants, than other services such as actuarial services or administration of benefit plans.

Robustness Checks

We conduct several (untabulated) tests to verify the robustness of our results.

First, it is unclear whether controlling for the mix of pay and/or including compensation consultant-effects may have driven away some of the effects that conflicts of interest have on Expected CEO pay (e.g. firms where the consultant was providing other services may have paid more to the CEO but may also have suggested to “camouflage” this pay by granting additional equity instead of cash to the CEO). We replicate the regressions in Tables 5 and 6 without including the incentive and consultant controls to the model and still find an insignificant association between CEO pay and the consultant’s provision of actuarial, employee pay and benefits services. Our result that firms pay more to their CEOs whenever the compensation consultant provides other non-compensation consulting services remains robust to this alternative specification.

Second, a potential concern is that our findings (or lack of findings) are driven by a few outliers or are affected by significant noise on the CEO pay variable. We address these concerns by conducting two additional tests: (a) We replicate all of our results in Tables 5 and 6 after excluding the bottom and top one percentile of the CEO pay observations. (b) We construct a measure of average pay across the top five executives of the firm (including the CEO) to mitigate the noise embedded in a single-year observation of CEO pay, and then replicate our models using this new measure as the dependent variable. These additional tests yield essentially the same results that we found in Tables 5 and 6.

3.3. Relation between CEO Pay and Compensation Consultants’ Independence and Repeat-Business Concerns

Research Design

Our next analyses examine Hypothesis 2, which predicts higher CEO pay whenever the CEO is more likely to influence the decision to appoint (or reappoint) the compensation consultant. In order to control for the endogeneity in the choice of whether to retain a consultant, we restrict our sample to firms that actually use compensation consultants. We exclude firms where the CEO is new and conduct our tests at the firm level by employing the following OLS regressions:

$$\begin{aligned} \ln(\text{Expected CEO Pay}_i) = & \alpha_0 + \alpha_1 * (\text{Fraction of consultants described as independent}_i) \\ & + \alpha_n * \text{Controls}_i + \varepsilon_i \end{aligned} \quad (2)$$

$$\begin{aligned} \ln(\text{Expected CEO Pay}_i) = & \alpha_0 + \alpha_1 * (\text{Fraction of consultants who work only for board}_i) \\ & + \alpha_n * \text{Controls}_i + \varepsilon_i \end{aligned} \quad (3)$$

The main explanatory variable in equation (2) describes the fraction of compensation consultants for each firm that was described with the word “independent” in the proxy statement. According to Hypothesis 2, the predicted coefficient for “independent” is expected to be negative. The main explanatory variable in equation (3) is the fraction of the compensation consultants used by the firm that work exclusively for the board, and we expect a negative coefficient under Hypothesis 2.

As in equation (1), we control for size, stock returns, return on assets, a dummy indicating whether the CEO is the chairman of the board, the equity and non-equity incentive components of expected CEO pay, compensation consultants-effects for the six primary consulting firms, and ten industry dummy variables.

Empirical Results

Columns (1) and (3) in Table 7 indicate that the “independent” qualification does not have a significant effect on Expected CEO Compensation. This result is inconsistent with Hypothesis 2. A problem with this variable is that the word “independent” is not well defined in the disclosure requirements or by companies who use it to describe their consultant. For example, we note that 8.8% of the consultants associated with our 1,046 sample firms were described as “independent” in the same proxy statements that described how those consultants had been hired by management. The fact that we find such inconsistencies using data that are voluntarily disclosed by the companies suggests that firms may use the word “independent” to refer broadly to outside advice regardless of whether that advice is free of obvious conflicts of interest. Similarly, the Waxman Report indicates that 26.6% of 113 companies paying other service fees to their compensation consultants described their consultants as “independent” in their proxy statements. Overall, this evidence suggests that the word “independence” utilized in proxy statements is likely uninformative to investors.

Columns (2) and (3) in Table 7 provide additional evidence that is also inconsistent with Hypothesis 1, suggesting the percentage of consultants working exclusively for the compensation committee is weakly associated with *higher* rather than lower expected CEO pay. Specifically, column (3) suggests that firms using consultants working exclusively for

the board of directors tend to pay approximately 5.4% more to their CEOs than firms whose consultants do not work exclusively for the committee.

Robustness Checks

One difficulty in interpreting our result that CEO pay is higher in companies where the consultant works exclusively for the compensation committee is that committees may retain their own consultant precisely in cases where pay is suspected to be too high. To address the concern that committees have retained a consultant to evaluate suspected excessive levels of CEO pay or for other unobserved reasons correlated with CEO pay, we incorporate a correction for endogeneity by using a two-stage approach. In the first stage we predict the percentage of consultants working exclusively by the board as a function of the natural logarithm of expected CEO pay, the firm's size, industry dummies, and an instrumental variable indicating whether the firm is traded at the NYSE or not (since this stock exchange requires that listed firms give authority to their compensation committees to hire and fire their own compensation consultants). In the second stage we re-run models (2) and (3) of Table 7 using the predicted % of consultants that work for the board in lieu of the actual percentage. Our results confirm a weakly positive relation between the predicted percentage of consultants working for the board and Expected CEO pay.

As in Section 3.2, we rerun our models by (a) excluding the incentive components of pay, (b) excluding compensation consultant-effects, (c) excluding the bottom and top one percentile of the CEO pay observations, and (d) substituting the dependent variable for a variable capturing the average pay across the CEO and the top 4 executives of the firm. Our results are essentially equivalent to those reported in Table 7.

4. An Alternative Explanation for the High Levels of CEO Pay in Firms Using Compensation Consultants

In Section 3 we found limited evidence that pay is related to pressures among consulting firms to generate repeat business or cross-sell other services. Yet previous research (Cadman, Carter and Hillegeist 2008, Armstrong, Ittner and Larcker 2008) finds that firms using compensation consultants tend to pay more to their executives. In this section we explore an alternative explanation that may contribute to resolving this issue: We investigate whether compensation consultants are used by the firms to legitimize generous levels of CEO pay.

Critics often argue that (at least some) CEOs unduly influence the process by which their compensation is set, either by getting personally involved or by relying on directors that

are willing to support whatever compensation package the CEOs are expecting to obtain. It is argued, however, that the CEOs' ability to induce high levels of pay is bounded by the risk that outsiders perceive the compensation arrangements to be abusive and/or unjustified (Bebchuk and Fried 2004, p.65). Perceptions of abuse can substantially damage the CEOs' and directors' reputation and can lead to social and legal sanctions such as lawsuits, negative press, and/or negative shareholder activist campaigns. For example, former CEOs, Pfizer's Henry McKinnell and Home Depot's Robert Nardelli, were targeted in 2006 by angry shareholders who were outraged by what they perceived to be a disconnect between firm performance and CEO pay. Both CEOs were forced to resign after shareholders pressured directors by withholding a significant fraction of votes for their re-election to the board at the companies' annual meetings.³⁷

To avoid criticism, some directors and CEOs may try to find ways to justify their executives' compensation packages. Hiring a compensation consultant is perhaps the most obvious way in which this validation can be obtained. According to Bebchuk and Fried (2004, p.70), “The fact that directors adopt a pay package recommended by a consultant—rather than developing their own—provides legitimacy. When challenged, the directors can justify their compensation decisions as being based on the outside expert's recommendation.”³⁸ Previous research seems to provide evidence consistent with the argument that firms use consultants to justify executive pay to outsiders. For example, Wade, Porac, and Pollock (1997) examine data from 1992 regarding how companies justify executive pay plans in their proxy statements. They find that firms with more concentrated and active outside owners are more likely to justify their executive compensation packages by highlighting their use of compensation consultants.

A key element of this argument is that firms can use compensation consultants to legitimize high levels of CEO pay independent of whether or not the consultants are exposed to conflicts of interests, as long as the firm seeks advice from *multiple* consultants. CEOs and boards may construct generous compensation plans by integrating components of pay that were independently recommended by different consultants. Or they can try to justify a desired compensation plan, ignoring any recommendations that are inconsistent with pre-conceived expectations and seeking further advice until a consultant agrees with the level of pay the CEO or the board wanted to justify from the start.

³⁷ References to these cases can be found at: Shawn Tully, “Proxy Muses,” *Fortune*, December 25, 2006, and Alan Murray, “How Verizon Might Avoid Ruckus Over CEO's Pay,” *The Wall Street Journal*, April 25, 2007.

³⁸ A quote from a director interviewed by *Fortune* magazine, quoted by Bebchuk and Fried (2004, p.38) makes this point in a more critical way: “Any other kind of consultant you can think of is brought in to try to cut costs. [However], the basic goal of compensation consultants is to justify whatever it is the CEO wants to make.”

The case of Countrywide Financial, mentioned earlier, is a particularly egregious example of a situation where the firm used multiple consultants to justify the pay package for founder Angelo Mozilo if he were to step down as CEO at the end of 2006, retaining his position as chairman of the board.³⁹ In 2004, the board retained Pearl Meyer & Partners to advise on Mr. Mozilo’s contract extension. Pearl Meyer recommended reducing Mr. Mozilo’s compensation from \$1 million to a level commensurate with his envisioned role as a non-employee chairman. The board subsequently ended its relationship with Pearl Meyer, and hired Exequity LLP which questioned both the “peer group” proposed by the board and the fact that the board targeted Mr. Mozilo’s compensation at the 90th percentile of this peer group.

After Exequity and the compensation committee recommended cuts in Mr. Mozilo’s compensation, Countrywide’s management hired Towers Perrin as “a competing compensation consultant” to evaluate the committee’s proposal. Although ostensibly hired by the company, Towers Perrin appears to have been hired directly by Mr. Mozilo (who explained that “[the head of the compensation committee] and I agreed that it would be best if I obtained a compensation consultant.” In addition, Towers Perrin discussed terms of a counter proposal only with Mr. Mozilo, submitted their preliminary report only to Mr. Mozilo and his attorney, and sent the final report to the compensation committee only after being instructed to do so by Mr. Mozilo. The final recommendations represented a reduction in pay relative to Mr. Mozilo’s current compensation, but were considerably more generous than the proposals by either Pearl Meyer or Exequity.

The use of multiple consultants to justify CEO pay provides an alternative explanation to the association between CEO pay and the use of compensation consulting services. Based on the arguments above, we make the following prediction:

Hypothesis 3: CEO pay is higher the larger the number of compensation consultants used by the firm.

Empirical Analyses

To test this hypothesis, we restrict our sample to firms already using compensation consultants and exclude firms with new CEOs. We estimate the following OLS regressions:

³⁹ The information in this section is based on the March 6, 2008 staff report from the U.S. House of Representatives Committee on Oversight and Government Reform titled “Supplemental Information on CEO Pay and the Mortgage Crises.” See also James R. Hagerty and JoAnn Lublin, “House Report Says Countrywide’s Mozilo Resisted Pay Cuts,” *Wall Street Journal*, March 7, 2008, p. A11. In fact, Mr. Mozilo did not step down and continued to serve as CEO through at least March 2008.

$$\begin{aligned} \ln(\text{Expected CEO Pay}_i) = & \alpha_0 + \alpha_1 * (\text{Number of consultants hired by the firm}_i) \\ & + \alpha_n * \text{Controls}_i + \varepsilon_i \end{aligned} \quad (4)$$

$$\begin{aligned} \ln(\text{Expected CEO Pay}_i) = & \alpha_0 + \alpha_1 * (\text{Indicator that the firm uses one consultant}_i) \\ & + \alpha_2 * (\text{Indicator that the firm uses two consultants}_i) \\ & + \alpha_3 * (\text{Indicator that the firm uses three or more consultants}_i) \\ & + \alpha_n * \text{Controls}_i + \varepsilon_i \end{aligned} \quad (5)$$

While equation (4) tests the hypothesis that the number of consultants will linearly affect the levels of Expected CEO pay, equation (5) considers the possibility of a non-linear relation between the number of consultants and the level of pay. We employ the same controls used in Section 3, i.e., size, return on assets, stock returns, a dummy indicating if the CEO is the chairman of the board, equity and non-equity incentive components of pay, and industry dummies.

Our results in Table 8, columns (1) and (2) are consistent with Hypothesis 3. Column 1 indicates every additional consultant used by the firm is associated with an 8.8% increase in CEO pay. Column 2 further suggests this result is not linear. While firms using two consultants are likely to pay 9.8% more to their CEOs than firms using a single consultant, firms employing three or more consultants (perhaps those seeking to find a consultant that would justify the CEOs desired compensation plan) pay 24.1% more to their CEOs than firms using only one consultant. Our results in Table 8 are consistent with the possibility that (at least some) firms seek the advice of as many consultants as it is necessary to justify high levels of CEO pay.

Robustness Checks

We carried out several robustness checks that were similar to those conducted in Sections 3.2 and 3.3. We reran our regressions by (a) excluding the incentive components of pay, (b) excluding the bottom and top one percentile of the CEO pay observations, and (c) substituting the dependent variable for a variable capturing the average pay across the CEO and the top 4 executives of the firm. These alternative specifications yielded equivalent results to those presented in Table 8.

5. Conclusions

This study examines the influence that compensation consultants have on executive pay. We focus on testing whether the lack of independence of compensation consultants relative to the firms they serve leads to higher levels of pay. Our empirical analyses suggest

that for the most part, higher levels of pay are unrelated to conflicts of interest between the consultants and their client firms. An exception occurs for firms retaining their executive consultants to perform other non-compensation consulting services. We find that this small subsample of firms (1.8% of all firms using consultants) tends to offer significantly higher compensation to their CEOs.

Our results may reflect the fact that the largest pay consultants – just like many other professional organizations subject to similar conflicts of interest (such as auditors, lawyers or accountants) – understand that the costs of behaving unethically are high, and their ability to retain a portfolio of customers in the long run relies on their credibility. Thus, consultants implement and follow closely codes of conduct and procedures that preempt inappropriate behavior (Nanda, 2003).

Our analysis of the conflicts of interest among compensation consultants and their client firms has many similarities to the literature on “auditor independence.” Concerns regarding conflicts when accounting firms offered services beyond auditing led to both the Sarbanes-Oxley Act and to detailed disclosures of fees charged for auditing and non-auditing businesses. And yet, there was little direct evidence that these undeniable conflicts actually translated into misleading auditing decisions.

Similar to the conclusions of the auditor-independence literature, we find little evidence that higher levels of executive pay are related to the conflicts of interest faced by the consultants. One explanation (consistent with DeAngelo, 1981) is these conflicts (especially for the largest consulting firms) are mitigated by the potential negative reputational consequences of being associated with particularly egregious pay practices (as, for example, the consequences imposed on Towers Perrin in the Countrywide case).

Although conflicts of interest seem to be unable to explain why firms using compensation consultants provide higher pay, we find evidence suggesting that executives may be taking the initiative to use (or misuse) compensation consultants to legitimize unusually high levels of CEO and director pay. We find that firms using multiple consultants tend to pay more to their CEOs, a result consistent with the idea that firms selectively choose information from multiple consultants to justify high levels of pay.

The findings of our study are particularly relevant in view of the current debate in the US where some legislators and activists have demanded that executive compensation consultants disclose information regarding other non-executive-pay related services provided to the firms. Indeed, concerns about the independence of compensation consultants have

attracted the attention of regulators, resulting in Congressional hearings in December 2007 and the production of the Waxman Report (2007).

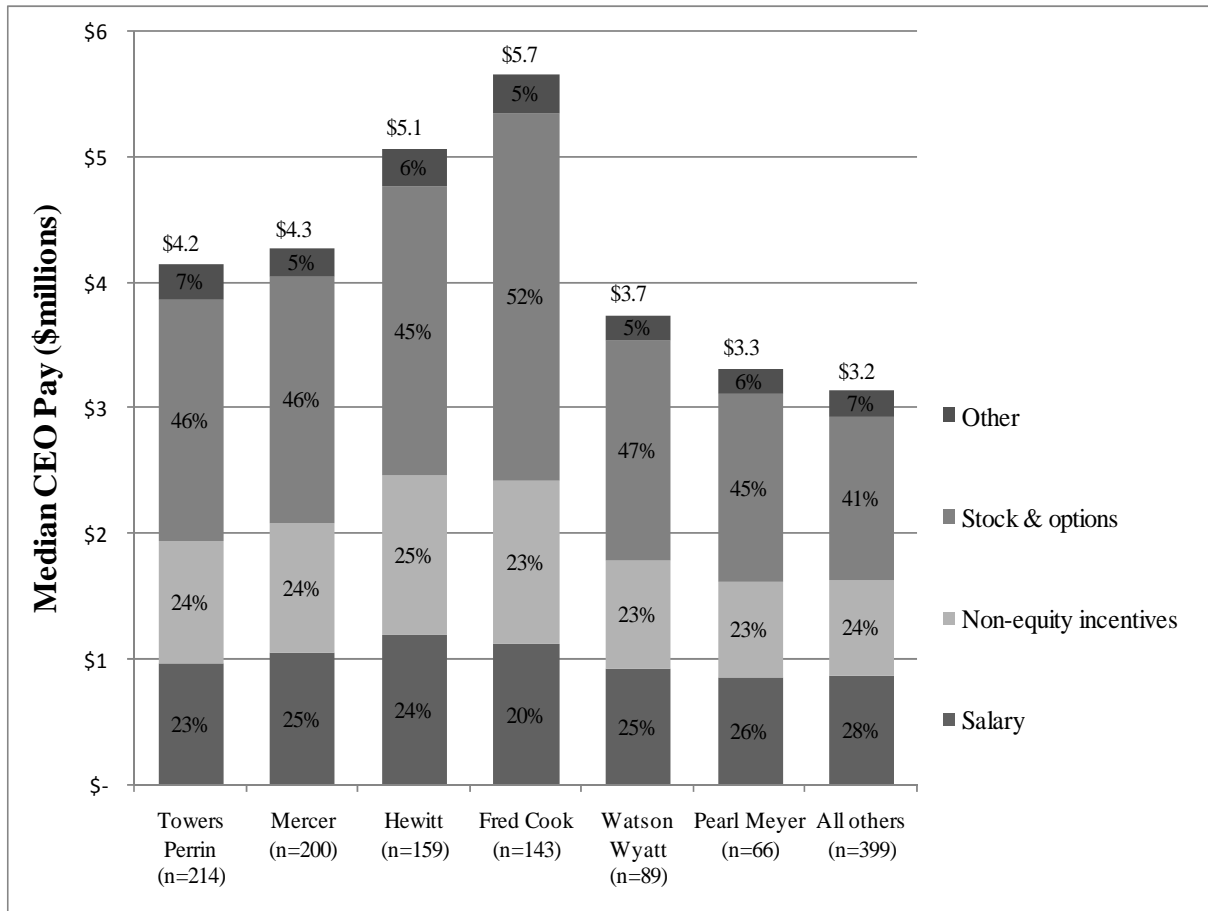
An objective and plausible outcome of the current debate is to require additional disclosure on other services provided by the consultants and even (following the auditing-independence analogy) to require companies to report the consulting fees associated with the various services. Our analyses have led us to mixed views on this “plausible outcome” of additional disclosure requirements. On one hand, our analyses provide no fodder for the Congressional investigation: we find very limited evidence that conflicts of interest among compensation consultants lead to higher pay. On the other hand, our study was made possible only by the recent disclosure requirements to identify the consultants retained, and we believe that this disclosure will have a positive effect on the self-enforcement of conflicted consultants. Moreover, the primary limitation of our analyses is that, despite we rely on independently verifiable actuarial services, we exclude potentially more-important employee pay, benefits, or human-resources outsourcing engagements because companies are not required to disclose other services provided by the consultant. We would therefore greet such additional disclosure requirements favorably, if for no other reason than to create additional research opportunities to investigate further the potential effect of conflicts of interest of consultants.

Table 1 Use of Executive Compensation Consultants by 1341 Sample Firms in 2006

	Consultants used for Executive Pay	
	All Sample Firms (n=1341)	Firms using consultants for Executive Pay (n=1046)
Firm does not use consultant	12.8%	—
Firm uses consultant for surveys only	9.2%	—
Firm uses one consultant	64.5%	82.7%
Firm uses two consultants	11.0%	14.1%
Firm uses three or more consultants	2.5%	3.2%
<u>Top consulting firms:</u>		
Towers Perrin	16.0%	20.4%
Mercer HR Consultants	14.9%	19.1%
Hewitt Associates	11.9%	15.2%
Frederic W. Cook & Co.	10.7%	13.7%
Watson Wyatt Worldwide	6.6%	8.5%
Pearl Meyer & Partners	4.9%	6.3%
Hay Group	2.2%	2.8%
Semler Brossy LLC	1.9%	2.4%
Compensia, Inc.	1.7%	2.2%
Deloitte & Touche	1.6%	2.0%

Note: Data based on disclosures from 1341 firms in the S&P 500 (n=408), S&P MidCap 400 (n=291), S&P SmallCap 600 (n=382) and S&P Other firms (n=260) reporting under the SEC's new reporting rules and included in the October 2007 ExecuComp release.

Figure 1 Median Expected Levels of CEO pay, by Consultant



Note: Median pay levels based on ExecuComp data for CEOs in 1046 firms using consulting services reporting under the SEC’s new reporting rules and included in the October 2007 ExecuComp release. Total compensation (indicated by bar height) defined as the sum of salaries, non-equity incentives (including discretionary bonuses and target levels for formula-based plans), stock & options (evaluated at grant date using company-estimated present values) and other pay (including perquisites, signing bonuses, termination payments, and above-market interest paid on deferred compensation.) The numbers in parentheses refer to the number of client firms in the sample; the total sums to more than 1046 because many firms use multiple consultants.

Table 2 Potential Conflicts of Interest among Compensation Consultants

Proxy Variable for Conflicts of Interest	All consultants in all firms (n=1270)	Major Compensation Consultant					
		Towers (n=214)	Mercer (n=200)	Hewitt (n=159)	Cook (n=143)	Watson (n=89)	Meyer (n=66)
<i>PANEL A. Consultant Other Work</i>							
<u>Other (non-Exec Pay) Work as reported in Proxy Statement:</u>							
Consultant provides actuarial services	3.0%	6.1%	4.5%	4.4%	0%	6.7%	0%
Consultant provides employee pay services	4.9%	6.1%	7.0%	6.3%	2.1%	7.9%	0%
Consultant provides benefits administration services	3.8%	3.7%	7.0%	8.2%	0%	7.9%	0%
Consultant provides non-compensation consulting services	1.5%	1.9%	2.0%	2.5%	0%	2.2%	1.5%
Consultant provides other non-specified services	3.1%	1.9%	7.0%	1.2%	0%	9.0%	1.5%
<u>Other Work determined by external sources</u>							
Consultant identified as actuary in Form 5500 filings	9.5%	20.6%	15.0%	18.9%	0%	9.0%	0%
Consultant is a “potential” actuary ^a	29.2%	55.1%	49.0%	49.0%	0%	50.6%	0%
<i>PANEL B. Consultant Retention</i>							
Consultant called “Independent” in proxy statement	45.3%	45.8%	33.5%	45.3%	64.3%	42.7%	45.4%
Consultant works exclusively for board or committee	46.5%	45.8%	40.5%	41.5%	60.8%	50.6%	48.5%

Note: Consulting based on disclosures from 1341 firms in the S&P 500, S&P MidCap 400, and S&P SmallCap 600 reporting under the SEC’s new reporting rules and included in the October 2007 ExecuComp release. Actuarial data from 2003-2006 Form 5500 filings.

^aA consultant is defined as a potential actuary if (1) the company is *not* the company's actuary; (2) the consultant provides actuary services (as indicated by Form 5500 data); and (3) the company has assets in a defined-benefit pension plan (that is, the company requires an actuary). Pension plan assets are defined by Compustat data item 287.

Table 3 Actuaries used by Sample Firms

Actuary Firm	All Sample Firms (n=1341)	Firms with Pension-Plan Assets (n=693)	Total Plan Assets (\$billions)	Total Plan Participants
Hewitt Associates	8.9%	17.2%	\$165.5	3,128,367
Mercer Human Resource Consultants	8.4%	16.3%	\$99.6	2,332,451
Towers Perrin	8.3%	16.2%	\$200.5	3,634,967
Watson Wyatt Worldwide	7.2%	14.0%	\$275.3	3,259,294
Buck Consultants	4.8%	9.2%	\$116.8	1,625,032
AON Corp	2.2%	4.2%	\$20.2	407,631
Milliman, Inc	1.7%	3.3%	\$10.1	170,372
Prudential (PRIAC)	0.7%	1.4%	\$23.0	349,538
PriceWaterhouseCoopers	0.6%	1.2%	\$4.0	66,488
Fidelity Investments	0.5%	1.0%	\$0.3	58,355
Mellon Consultants	0.5%	1.0%	\$3.9	33,575
<i>All other actuaries (n=46)</i>	<i>5.7%</i>	<i>11.0%</i>	<i>\$48.7</i>	<i>917,689</i>

Note: Actuarial data (including total plan assets and total plan participants) from 2003-2006 Form 5500 Schedule B filings, using only the most recent filing for each defined-benefit plan. Firms with Pension-Plan Assets identified from Compustat (Data Item 287).

Table 4 Consultants who are also Actuaries for 1341 “Client” Firms

Consulting/Actuary Firm	Number of Consulting Clients	Number of Actuary Clients	Number of Firms where the Consultant is the Actuary	
			Actual Matches	# Expected if Independent
Towers Perrin	214	112	44	18
Mercer HR Consultants	200	113	30	17
Hewitt Associates	159	119	30	14
Watson Wyatt Worldwide	89	97	8	6
<i>All other consultants who are also actuaries (n=8)</i>	<i>67</i>	<i>135</i>	<i>8</i>	<i>7</i>

Note: Actual matches represents number of corporations where the consultant provides both executive compensation consulting and actuarial services. The “# Expected if Independent” is calculated as the number of consulting clients multiplied by the number of actuary clients divided by the total number of clients (1341). The eight other consultant/actuaries are Buck Consulting, AON, Milliman, PriceWaterhouseCoopers, CCA Strategies, Deloitte, Ernst & Young, and The Ross Companies.

Table 5 Coefficients of OLS Regressions showing the relation between Expected CEO Compensation and "actuarial services" provided by the compensation consultants

Independent Variables	<i>Dependent Variable:</i> Ln(Expected CEO Compensation)				
	Sample firms	Towers Clients	Mercer Clients	Hewitt Clients	Watson Clients
Intercept	4.351 (39.5)	4.348 (18.2)	4.310 (19.6)	4.764 (14.0)	4.325 (10.8)
When firm requires actuarial services:					
Fraction of consultants that provide actuarial services	.0595 (0.8)	—	—	—	—
Fraction of consultants that do not provide but <i>could</i> provide actuarial services	.0523 (0.9)	—	—	—	—
Fraction of consultants that <i>cannot offer</i> actuarial services	.0356 (0.6)	—	—	—	—
(Dummy) Consultant provides actuarial services to firm	—	.1270 (1.1)	.0191 (0.2)	.0083 (0.0)	-.1055 (-0.5)
(Dummy) Consultant does not provide but <i>could</i> provide actuarial services to the firm	—	-.0240 (-0.2)	.0968 (1.1)	.0221 (0.2)	.0925 (0.6)
Ln(2005 Revenues)	.2968 (21.9)	.3759 (13.8)	.2274 (7.9)	.3371 (8.8)	.3843 (7.8)
Return on Assets (average percentage over previous 3 years)	-.0076 (-4.7)	-.0085 (-1.5)	-.0012 (-0.2)	-.0140 (-1.9)	-.0079 (-0.7)
Stock Returns (percentage returns over previous 3 years)	.0008 (1.7)	.0004 (0.3)	.0031 (2.2)	-.0003 (-0.2)	.0037 (1.4)
(Dummy) CEO is Chairman	.0923 (2.6)	.0879 (1.2)	.0407 (0.6)	-.0211 (-0.2)	.1485 (1.2)
Target Non-Equity Incentives as a fraction of Expected Pay	1.841 (15.8)	.7945 (2.5)	2.490 (9.3)	1.652 (5.3)	.8080 (1.7)
Grant-date values of stock and options as a fraction of Expected Pay	2.453 (32.0)	1.781 (9.2)	3.054 (17.5)	2.094 (9.0)	1.921 (6.6)
Dummy variables for individual consultants:					
Towers Perrin	-.0247 (-0.4)	—	—	—	—
Mercer HR Consultants	-.0215 (-0.3)	—	—	—	—
Hewitt Associates	.0567 (0.8)	—	—	—	—
Frederic W. Cook & Co.	.1041 (1.6)	—	—	—	—
Watson Wyatt Worldwide	-.0046 (-0.0)	—	—	—	—
Pearl Meyer & Partners	.0833 (1.0)	—	—	—	—
Other consultants that provide actuarial services (excluding Towers, Mercer, Hewitt and Watson)	-.0491 (-0.5)	—	—	—	—
Industry Controls?	Yes	Yes	Yes	Yes	Yes
R ²	0.740	0.747	0.791	0.659	0.736
N	966	201	185	153	83

Note: t-statistics in parentheses. All regressions include only firms that use consultants. Expected compensation defined as the sum of salaries, discretionary bonuses, the target value for non-equity incentives, the grant-date value of restricted stock and stock options and other compensation (including perquisites, signing bonuses, termination payments, above-market interest paid on deferred compensation). Industry controls include dummy variables for Consumer Durables, Consumer Non-durables, Energy, Financial Services, Health Care, Hi-Tech, Manufacturing, Non-durables, Retail, Telecommunication, and Utilities. Controls are based on Fama-French definitions to which we have added Financial Services (SIC 6000-6999). The consultant dummy variables are defined as 1/n if the consultant provides executive compensation consulting services to the firm (where n equals the number of all consultants providing services to the firm) and 0 otherwise

Table 6 Coefficients of OLS Regressions showing the relation between Expected CEO Compensation and “other services” provided by the compensation consultants

Independent Variables	Dependent Variable: Ln(Expected CEO Compensation)	
	(1)	(2)
Intercept	4.343 (40.4)	4.360 (39.6)
Fraction of consultants that provide :		
Actuarial services to the firm	.0046 (0.1)	.0368 (0.5)
Employee pay consulting services to the firm	-.0867 (-1.0)	-.0826 (-1.0)
Benefits management services to the firm	.0365 (0.4)	.0343 (0.3)
Non-compensation consulting services (strategy, human resources)	.2695 (2.0)	.2726 (2.0)
Other non-specified services to the firm	.1596 (1.6)	.1533 (1.5)
When firm requires actuarial services:		
Fraction of consultants that do not provide but <i>could</i> provide actuarial services	—	.0437 (0.8)
Fraction of consultants that <i>cannot offer</i> actuarial services	—	.0361 (0.6)
Ln(2005 Revenues)	.2989 (23.2)	.2950 (21.8)
Return on Assets (average percentage over previous 3 years)	-.0078 (-4.8)	-.0076 (-4.7)
Stock Returns (percentage returns over previous 3 years)	.0008 (1.8)	.0008 (1.8)
(Dummy) CEO is Chairman	.0964 (2.7)	.0911 (2.5)
Target Non-Equity Incentives as a fraction of Expected Pay	1.856 (16.0)	1.855 (15.9)
Grant-date values of stock and options as a fraction of Expected Pay	2.449 (32.1)	2.447 (31.2)
Dummy variables for individual consultants:		
Towers Perrin	-.0111 (-0.2)	-.0190 (-0.3)
Mercer HR Consultants	-.0186 (-0.3)	-.0257 (-0.4)
Hewitt Associates	.0677 (1.1)	.0613 (0.8)
Frederic W. Cook & Co.	.1123 (1.7)	.1100 (1.7)
Watson Wyatt Worldwide	-.0114 (-0.2)	-.0156 (-0.2)
Pearl Meyer & Partners	.0778 (0.9)	.0799 (1.0)
Other consultants that provide actuarial services (excluding Towers, Mercer, Hewitt and Watson)	-.0429 (-0.5)	-.0471 (-0.5)
Industry Controls?	Yes	Yes
R ²	.741	.741

Note: t-statistics in parentheses. Sample size is n=966 for all regressions, and includes only firms that use consultants. Expected compensation is the sum of salaries, discretionary bonuses, the target value for non-equity incentives, the grant-date value of restricted stock and stock options and other compensation (including perquisites, signing bonuses, termination payments, above-market interest paid on deferred compensation). Industry controls include dummy variables for Consumer Durables, Consumer Non-durables, Energy, Financial Services, Health Care, Hi-Tech, Manufacturing, Non-durables, Retail, Telecommunication, and Utilities. Controls are based on Fama-French definitions to which we have added Financial Services (SIC 6000-6999). The consultant dummy variables are defined as 1/n if the consultant provides executive compensation consulting services to the firm (where n equals the number of all consultants providing services to the firm) and 0 otherwise

Table 7 Coefficients of OLS Regressions showing the relation between Expected CEO Pay and the “independence” and “repeat business” concerns of compensation consultants

Independent Variables	<i>Dependent Variable:</i> Ln(Expected CEO Compensation)		
	(1)	(2)	(3)
Intercept	4.310 (40.4)	4.284 (39.5)	4.280 (39.4)
Fraction of consultants described as “independent” in the proxy statement	.0375 (1.1)	—	.0275 (0.8)
Fraction of consultants that work exclusively for the board	—	.0574 (1.6)	.0522 (1.5)
Ln(Beginning Year Revenues)	.3007 (23.4)	.3026 (23.6)	.3020 (23.5)
Return on Assets (average percentage over previous 3 years)	-.0078 (-4.9)	-.0079 (-4.9)	-.0080 (-4.9)
Stock Returns (percentage returns over previous 3 years)	.0008 (1.7)	.0008 (1.8)	.0008 (1.7)
(Dummy) CEO is Chairman	.0960 (2.7)	.0980 (2.8)	.0964 (2.7)
Target Non-Equity Incentives as a fraction of Expected Pay	1.843 (15.9)	1.841 (15.9)	1.841 (15.9)
Grant-date values of stock and options as a fraction of Expected Pay	2.456 (32.2)	2.449 (32.2)	2.451 (32.2)
Dummy variables ^a for individual consultants:			
Towers Perrin	.0000 (0.0)	-.0045 (-0.1)	-.0032 (-0.1)
Mercer HR Consultants	.0057 (0.1)	.0017 (0.0)	.0055 (0.1)
Hewitt Associates	.0792 (1.3)	.0789 (1.3)	.0798 (1.3)
Frederic W. Cook & Co.	.1074 (1.7)	.1046 (1.7)	.1014 (1.6)
Watson Wyatt Worldwide	.0156 (0.2)	.0092 (0.1)	.0109 (0.1)
Pearl Meyer & Partners	.0884 (1.1)	.0880 (1.1)	.0883 (1.1)
Industry Controls?	Yes	Yes	Yes
R ²	.740	.741	.741

Note: t-statistics in parentheses. Sample size is n=966 for all regressions, and includes only firms that use consultants. Expected compensation defined as the sum of salaries, discretionary bonuses, the target value for non-equity incentives, the grant-date value of restricted stock and stock options (as valued by the company), and other compensation (including perquisites, signing bonuses, termination payments, above-market interest paid on deferred compensation). Industry controls include dummy variables for Consumer Durables, Consumer Non-durables, Energy, Financial Services, Health Care, Hi-Tech, Manufacturing, Non-durables, Retail, Telecommunication, and Utilities. Controls are based on Fama-French definitions to which we have added Financial Services.

^aThe consultant dummy variables are defined as 1/n if the consultant provides executive compensation consulting services to the firm (where n equals the number of all consultants providing services to the firm) and 0 otherwise.

Table 8 Coefficients of OLS Regressions showing the relation between Expected CEO Compensation and the use of multiple compensation consultants

Independent Variables	<i>Dependent Variable:</i> Ln(Expected CEO Compensation)	
	(1)	(2)
Intercept	4.260 (39.3)	4.348 (41.2)
Number of compensation consultants retained by the firm	.0842 (2.7)	—
Firm uses two compensation consultants	—	.0934 (1.9)
Firm uses three or more compensation consultants	—	.2161 (2.3)
Number of consultant surveys used	—	—
Firm uses two surveys	—	—
Firm uses three or more surveys	—	—
Ln(2005 Revenues)	.2981 (23.4)	.2978 (23.3)
Return on Assets (average percentage over previous 3 years)	-.0075 (-4.7)	-.0075 (-4.7)
Stock Returns (percentage returns over previous 3 years)	.0008 (1.8)	.0008 (1.8)
(Dummy) CEO is Chairman	.1059 (3.0)	.1058 (3.0)
Target Non-Equity Incentives as a fraction of Expected Pay	1.854 (16.1)	1.855 (16.1)
Grant-date values of stock and options as a fraction of Expected Pay	2.460 (32.5)	2.460 (32.5)
Industry Controls?	Yes	Yes
R^2	.742	.742

Note: t-statistics in parentheses. Sample size is n=966 for all regressions, and includes only firms that use consultants. Expected compensation defined as the sum of salaries, discretionary bonuses, the target value for non-equity incentives, the grant-date value of restricted stock and stock options (as valued by the company), and other compensation (including perquisites, signing bonuses, termination payments, above-market interest paid on deferred compensation). Industry controls include dummy variables for Consumer Durables, Consumer Non-durables, Energy, Financial Services, Health Care, Hi-Tech, Manufacturing, Non-durables, Retail, Telecommunication, and Utilities. Controls are based on Fama-French definitions to which we have added Financial Services.

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