

SYMPOSIUM - Executive Compensation, Compensation Consultants, and Shopping for Opinion: Evidence from the UK

1. Introduction

The use of compensation consultants has risen rapidly over the past few years on both sides of the Atlantic (Higgins [2007]; Conyon, Peck, & Sadler [2009]). Despite their widespread use, there is limited evidence on the role of compensation consultants in the design of compensation packages and the extent to which they influence executive pay. Compensation consultants provide advice on a range of executive pay issues, such as developing peer comparison and benchmarking groups, designing equity compensation plans, suggesting performance measures and targets, conducting compensation surveys, and analyzing the accounting, legal and tax implications of service contracts. They typically advise the remuneration (compensation) committee, which in turn makes recommendations to the board of directors about the level and structure of executives' compensation packages.¹ Although consultants have input into the compensation committees' deliberations, but do not themselves make the final decisions (Murphy [1999]), final compensation figures may be very similar to those recommended by consultants, and consultant reports are likely to have "anchored the committees' judgment" in determining compensation (Bender [2003], 214).

The use of compensation consultants is controversial and has often been criticized by both practitioners and academics (Crystal [1991]; Bebchuk, Fried, & Walker [2002]).

¹ Boards of directors in the UK are composed of executive directors (such as the CEO and other senior executives, who would be referred to in the US as inside directors) and non-executive directors (outside directors). In this study we focus on all executive directors and split them into two groups: CEOs and non-CEOs. The remuneration (compensation) committee should be composed entirely of independent non-executive directors (Provision B.2.1 of the Combined Code, 2008) and are responsible for appointing any external consultants in respect of executive director remuneration (Provision B.2 of the Combined Code, 2008).

One of the main functions served by consultants is to compile evidence of market rates of compensation, before making a recommendation on an appropriate package (Ezzamel & Watson [1998], Barkema & Gomez-Mejia [1998]). Critics argue that this might lead to consultants being a means of justification for higher levels of compensation (Bebchuk & Fried [2004]; Waxman [2007]), with firms paying high salaries being more likely to highlight the role of compensation consultants in their compensation-setting process, and to downplay financial performance (Wade, Porac, & Pollock [1997]). In a recent survey of 660 US board members, Lawler and Finegold (2007) find that 62% of respondents identified the actions of compensation consulting firms as a key factor in increasing CEO compensation.

In addition, consultants can cross-sell other services such as advice on pension plans, employee benefits plans, and actuarial services, raising concerns about potential conflicts of interests and the independence of their judgments. Critics suggest that consultants with conflicts of interest help executives extract wealth from shareholders through higher compensation and/or lower pay-performance sensitivity, since compensation consultants interested in selling other services may make more favorable recommendations to executives (Bebchuk & Fried [2006]; Waxman [2007]). Consulting firms interested in using compensation consulting as an initial point of access for gaining other contracts with a firm may also have an incentive to make generous compensation recommendations for potential clients. This creates the possibility of compensation committees soliciting various consultant opinions and choosing more favorable opinions.

The concern about potential conflicts of interest of consultants has been one of the motivations for increased disclosure requirements on the use of third party advisors or

consultants, both in the UK and the US. The Directors' Remuneration Report Regulations (DRRR), requiring disclosure of compensation consultants, became effective in the UK for fiscal years ending on or after December 31, 2002,² while in the US, the Securities and Exchange Commission (SEC) mandated the disclosure of the use of compensation consultants for fiscal years ending on or after December 15, 2006.³ Following these disclosures, researchers have found a positive association between the use of a compensation consultant and compensation levels (Armstrong, Ittner, & Larcker [2008]; Murphy & Sandino [2008]; Conyon, Peck, & Sadler [2009]). However, there is no strong evidence of this increased compensation being due to potential conflicts of interest (Murphy & Sandino [2008]; Cadman, Carter & Hillegeist [2009]).

This research, however, is limited by cross-sections of data where the vast majority of the sample firms employed compensation consultants at a point in time. Due to its earlier disclosure requirements, the UK provides an ideal setting to conduct a larger-scale, longitudinal study to analyze the use of compensation consultants, their effect on compensation levels and packages, and more interestingly, changes in their use over time. In this paper, we build on prior evidence about compensation consultants and executive pay at a point in time, and examine the relation between changes in consultants and changes in compensation levels and structure over time. This consultant “change” model, where we examine changes in the number of consultants (consultant appointment

² The DRRR (2002) requires firms to name any person who provided advice or services to the committee which was of material assistance and, in the case of any person who is not a director, details of any other services provided by that person to the company and whether that person was appointed by the committee. (Schedule 7A, paragraph 2).

³ Regulation S-X 407(e)(3)(iii) requires companies to provide a “narrative description” of “[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.”

or dismissal) and consultant-switching decisions by firms, and associated changes in compensation, provides a more powerful setting in examining the consultant-compensation relationship.

Using a sample of FTSE 350 firms from 2002-2008,⁴ we find that CEO and executive director pay is generally higher in firms that use compensation consultants, consistent with prior research. Firms using compensation consultants also provide their executives with compensation packages formed of a higher proportion of equity incentives, such as stock options or long term incentive plans (LTIPs), and a lower proportion in salary. We then investigate changes in the use of consultants over time by examining the relationship between consultant appointments, dismissals, and switching, and executive pay. We find that executives of firms increasing the number of consultants they employ, and firms switching their main compensation consultant during the year, have higher salary increments and decreased equity pay as a proportion of total pay in the year of the switch or increase, compared to non-switching or non-increasing firms, providing new evidence of shopping by firms for external opinions on compensation. When we examine both effects together, we find that the switching effect is dominant.

Our research contributes to the growing interest in the role of compensation consultants by providing insights on the nature of the executive-compensation consulting industry in the UK, and its effect on executive pay packages, for both CEOs and non-CEO executive directors, using a number of measures of compensation and composition

⁴ The FTSE 350 index is composed of the largest 350 companies (by market capitalization) which have their primary listing on the London Stock Exchange.

of pay packages over a multi-period setting. By using time-series data, we build on prior literature, which has, for the most part, been based on single years of data.⁵

The key contribution of our study is our consultant change model, which provides new evidence on the changes in compensation associated with changes in number of consultants and/or the primary consultant hired by the firm. To the best of our knowledge, our study is the first to examine consultant switching and changes in the number of consultants, and their association with changes in the level and composition of pay packages.

Second, we provide evidence on executive compensation and consultants for all executive directors. With the exception of Murphy and Sandino (2008), prior research on consultants and compensation has focused entirely on CEO pay or that of the highest paid director, and therefore little is known about the pay packages and incentives for executive directors directly below the CEO. We include executive directors below the CEO level, since the team of executive directors is often viewed and assessed as a group (Fee and Hadlock [2004], Fee, Hadlock, & Pierce [2006]), there is growing interest in total board executive pay (Bebchuk, Cremer, & Peyer [2007]), and compensation consultants often provide advice on the pay of all directors. Furthermore, there is evidence of benchmarking of non-CEO executive compensation to executives in other firms (see, for example, the *Financial Director Salary Survey*, and Lipman and Hall [2008]).

⁵ Conyon, Peck, and Sadler (2009, 52) highlight the limitations of cross-sectional data, stating that “[in] cross-section data of the sort used here it is difficult to adequately deal with endogenous and omitted variable biases as well as the limitations they impose. As longitudinal or panel data becomes available researchers will be able to get a clearer picture of the effects of consultants on pay. By exploiting the within-firm variation, researchers can test how changes in consultants lead to subsequent changes in CEO pay.”

The remainder of the paper is organized as follows. Section 2 discusses the institutional context of compensation disclosures in the UK, prior literature on executive compensation and the role of consultants, and our hypotheses. Section 3 outlines our research methodology, sample selection procedure, and data characteristics. Section 4 discusses our results from our analysis on the relationship between compensation consultants and the level and composition of executive pay, and the association between changes in consultant use and changes in compensation. In Section 5 we offer conclusions and discuss limitations of our research.

2. Prior Literature

2.1 Institutional Requirements in the UK

Since the publication of the Cadbury Report (1992), there have been a number of significant developments in the UK corporate governance disclosure requirements. The Greenbury Report (1995), in particular, led to a significant increase in required disclosures on executive compensation. Disclosures in annual reports should include a list of members of the remuneration committee; the total level of compensation and its disaggregation into its various components including share options and LTIPs, for individual directors by name; performance criteria and rationale for annual bonus schemes, share options and LTIPs; comparator groups of companies; service contracts and policy on early termination; and pension provisions. The subsequent DRRR (2002) mandated, among other things, disclosure of third parties who provided assistance or advice to the compensation committee, and whether these third parties provided other services to the firm.

2.2 Theoretical approaches towards executive compensation research

The traditional optimal contracting framework suggests that executive compensation contracts are designed to align shareholder interests and managerial actions to reduce agency costs (Fama & Jensen [1983]), and an effective compensation scheme would exhibit a strong link to firm performance. A stylized fact emerging from the literature which supports this viewpoint is that the pay-performance sensitivity arises mainly from equity components of compensation and not from cash (Murphy [1999]).⁶ Stock-based compensation is therefore viewed as an efficient way of tying executive pay to firm performance. The Greenbury Report (1995) recommends that companies replace executive share options with conditional share options and/or LTIPs, which should be typically “tied to challenging performance criteria” (Greenbury [1995, section C8]). Compensation consultants have played a role in spreading these best practices (Bender [2003]), which has led to some degree of homogeneity between firms. An alternative perspective on increased compensation is provided by managerial power and rent extraction theory (Bebchuk & Fried [2003, 2004]), which argues that increased CEO compensation is the result of CEOs unduly influencing boards to grant themselves excessive pay, a form of rent-seeking at the expense of shareholders.

The role of the compensation committee is to set compensation for all executive directors and determine the broad policy for performance-related pay and service contracts. There is mixed evidence on the role of the compensation committee, in particular executive-influenced compensation committees, on the effect on the level and change in executive pay. For example, Conyon and Bonet (2005) find that executive-

⁶ See Hall and Liebman (1998) for US and Main, Bruce, and Buck (1996) for UK evidence on a strong positive relationship between executive pay and firm performance, driven primarily by the inclusion of share options and incentive pay in compensation packages.

influenced compensation committees are associated with higher levels of executive compensation, while Anderson and Bizjak (2003) find that CEO compensation is lower in firms where the CEO is a member of the compensation committee.⁷

2.3 The role of consultants in the executive compensation-setting process

Recent research focusing on compensation consultants and pay has provided evidence of their widespread use by compensation committees in formulating executive compensation contracts, both in the US (Murphy & Sandino [2008]; Cadman, Carter, and Hillegeist [2009]) and the UK (Conyon, Peck, & Sadler [2009]; Kabir & Minhat [2009]; Voulgaris, Stathopoulos, & Walker [2009]). Compensation consultants may help to facilitate an efficient contract between the firm and executives, by providing useful labour market information and expertise. Consistent with a shareholder alignment view, prior research suggests that firms that employ compensation consultants have a higher proportion of their compensation packages “at risk” in the form of equity pay, consistent with optimal contracting (Conyon, Peck, & Sadler [2009]; Voulgaris, Stathopoulos, & Walker [2009]).

The rent-extraction theory proposes that executives can use their power over the compensation consultants to extract excess pay, and consultants, particularly those that seek other or repeat business, have strong incentives to help executives in this process or to keep them satisfied (Bebchuk & Fried [2003]; Morgenson [2006]; Anderson et al. [2007]; Waxman [2007]). The interests of the compensation consultant may therefore be

⁷ See Daily, Johnson, and Dalton (1998), Newman and Mozes (1999), and Anderson and Bizjak (2003) in support of the optimal contracting view point, and O’Reilly, Main, and Crystal (1988) and Conyon and Bonet (2005) in support of the managerial power theory for compensation committees.

more closely aligned with those of executives rather than those of shareholders (Tosi & Gomez-Mejia [1989]).

Research on social comparison and tournament theory discusses the mechanism of consultants imparting an upward bias through comparison with relevant peer groups and focusing on setting compensation above the median of peer firms. However, the selection of the peer group itself is equally important since firms may benchmark to “similar executives in the most successful comparator firms or in those that provide better than-average pay (or both)” (Ezzamel & Watson [1998, 223]).⁸ One of the primary functions of the compensation consultant is to provide such peer group information to compensation committees, and a recommendation to set compensation at or above the median of a firm’s peer group, or to select more highly-paying peers, are mechanisms which may contribute to the ratcheting-up problem (Faulkender & Yang [2008]).

The role of the consultant as an expert and independent advice-giver also provides legitimization for compensation committees in their pay-setting decisions (Bender [2007]) and for the justification of pay levels. For example, Wade, Porac, and Pollock (1997) find that CEOs that have large base salaries and work in firms with more concentrated and active outside owners are more likely to justify higher levels of pay by highlighting their use of compensation consultants as expert advisors. Although compensation committees make their own decisions independently, there is evidence of a

⁸ The use of peer groups is prevalent in setting compensation, however empirical evidence is mixed about whether peer group selection is a mechanism for deliberate rent-extraction or competitive labour market benchmarking. Some researchers have found the use of peer groups is consistent with competitive benchmarking in the labour market, for retention of valuable human capital (Bizjak, Lemmon & Naveen [2008]; Cadman, Carter & Semida [2008]), while find some evidence of self-protection in selection of peers (Porac, Wade, and Pollock [1999], Bizjak, Lemmon & Nguyen [2009], Faulkender & Yang [2009]).

high correlation between the consultant's recommendations and the final decision of the compensation committee (Bender [2003]).

However, a potential loss of professional reputation in the marketplace may deter some consultants in colluding with the management and recommending excessive pay packages that are not linked to firm performance.⁹ Both Murphy and Sandino (2008) and Conyon, Peck, and Sadler (2009) argue that compensation consultants have strong reputational incentives to use their expertise to design economically-justified contracts that align managerial and shareholder interests, since in the long run their ability to retain a portfolio of customers relies on their credibility.

Prior research on compensation consultants establishes that CEO pay is higher in users of compensation consulting firms, after controlling for firm size, industry, economic, governance and director characteristics, and finds that the use of consultants shifts the composition of total compensation from salary to equity-based pay (Higgins [2007]; Armstrong, Ittner, & Larcker [2008]; Murphy & Sandino [2008]; Cadman, Carter & Hillegeist [2009]; Conyon, Peck, & Sadler [2009]; Voulgaris, Stathopoulos, & Walker [2009]). While the higher level of compensation would be consistent with a rent-extraction theory of executive pay, the higher level of equity-based incentives may help to mitigate agency costs by aligning shareholder and managerial interests, and would therefore support optimal contracting theory.

This seemingly competing evidence could be explained by arguing that compensation consultants compensate the CEO for holding greater risk in the form of

⁹ There is a large body of work that proposes the existence of similar reputational effects for outside directors (Fama [1980]; Fama & Jensen [1983]) in the labour market which prevents them from colluding with CEOs.

equity pay, by balancing it with a higher level of total pay (Canyon, Peck, & Sadler [2009]). Also, contrary to the rent extraction view, there is no significant evidence that potential conflicts of interest, such as consultants seeking to provide repeat or additional services, leads to higher compensation levels or the adverse design of pay contracts (Armstrong, Ittner, & Larcker [2008]; Murphy & Sandino [2008]; Cadman, Carter & Hillegeist [2009]; Canyon, Peck, & Sadler [2009]).

2.4 Hypothesis development

Prior literature on compensation consultants and the competing, yet non-mutually exclusive, optimal contracting and rent-extraction views of compensation-setting motivate our hypotheses. If consultants align their interests with executives and enable them to extract and justify excessive levels of compensation, we would expect to observe higher levels of pay for users of consultants, as suggested by the rent extraction view. However, since the vast majority of firms employ a consultant (Armstrong, Ittner, & Larcker [2008]; Murphy & Sandino [2008]; Canyon, Peck, & Sadler [2009]), it is important to examine within-sample differences. Prior evidence suggests that pay levels of clients of the larger, most frequently used compensation consultants are typically higher than those of firms using other smaller boutique consulting firms (Canyon, Peck, & Sadler [2009], Armstrong, Ittner, & Larcker [2008]; Kabir & Minhat [2009]). For example, Canyon, Peck, and Sadler (2009) and Kabir and Minhat (2009) find that total CEO pay in the largest UK companies is higher when companies have used one of the two largest consulting firms (Towers Perrin and New Bridge Street Consultants). Under the rent extraction view, larger consultancies, who provide related services, are more

likely to align their interests with managers, since they have a greater incentive to design more generous contracts, to ensure repeat business and gain other contracts. We use consultant market share as a general proxy for consultant size and expertise, and group the largest five consultancy firms as *BIG5*. These *BIG5* firms offer a broad range of compensation-related and other consulting services, have significant depth of survey data, and possibly a greater reputation to justify higher levels of pay, peer group selection, and higher equity compensation. We therefore formulate Hypothesis 1 as:

H₁: The use of a compensation consultant, and in particular a BIG5 compensation consultant, is associated with higher levels of executive pay.

Alternatively compensation consultants may, either for reputational reasons or as effective tools in the executive compensation setting process, encourage economically justified contracts with a higher proportion of equity incentives to encourage shareholder-managerial interest alignment. The presence of a consultant may also help the firm to justify higher overall compensation packages, through a greater equity-based component, increasing director equity ownership. Due to their expertise, the *BIG5* consultants in particular, may also make greater use of equity-based compensation, as a means of increasing the total the pay package, but in line with shareholder alignment. Based on this, we frame Hypotheses 2 as:

H₂: The use of a compensation consultant, and in particular a BIG5 compensation consultant, is associated with higher proportions of equity-based compensation.

2.5 Motivation for change model and hypothesis

The above research with cross-sectional analysis has raised some issues of endogeneity and self-selection bias, since the choice of using a compensation-consultant and the number of consultants may be related to the size and complexity of the firm, and the consultant appointment decision may be made out of necessity (Murphy & Sandino [2008], Conyon, Peck, & Sadler [2009], and Voulgaris, Stathopoulos, & Walker [2009]). Ideally, to resolve this, researchers could examine initial consultant-hiring decisions. However, since most firms employed a compensation consultant prior to the disclosure rules being effective, our sample of newly hiring firms is limited, and we instead examine changes in use of consultants.

Prior literature in accounting has examined the possibility of “opinion-shopping” for favourable audit opinions, with Lennox (2000) finding some evidence of successful opinion-shopping, showing that firms are more likely to receive favourable audit opinions after taking a switching decision. We apply the idea of opinion-shopping to consultant opinions, and investigate whether a switch in main consultant or change in the number of consultants is associated with a favorable change in compensation. Like auditors, compensation consultants exercise an outside judgment on compensation arrangements within a firm, and the existence of multiple consulting firms, competing for business, creates the possibility of firms shopping for favourable compensation advice. Unlike auditors, the primary role of compensation consultants is to provide advice about compensation arrangements rather than to express an opinion about the appropriateness of these arrangements. While consultant recommendations are not made public like audit opinions, their consequences may be observable. In the UK, unlike comparable disclosure requirements and shareholder approval requirements for external auditors, there is no

mandatory disclosure of reasons for changes in compensation consultants.¹⁰ Companies need only disclose if consultants “... have any other connection with the company” (Combined Code, 2008, Provision B.2.1). This creates some limitations in understanding the nature of consultants’ relationships with their clients, and a firm’s decision to appoint, dismiss, retain, or switch consultants, and limits researchers to drawing inferences on relationships based on ex-post compensation data. Though compensation consultants advise on one of most public and controversial functions of the board, we are unaware of any research on the effects of compensation committees’ decisions to change their consultant on executive pay design. We attempt to fill this gap in the literature by examining the effect of both changing the number of consultants and switching the main compensation consultant on executive pay.

A change in the portfolio of consultants hired by the firm (number or composition) can affect compensation in a number of ways. A new consultant may have different opinions about appropriate compensation levels, and propose a different placement within the existing peer comparator group (for example, from median to 3rd quartile), recommend a change in the composition of the peer group, or recommend a shift towards to its preferred components of the compensation package. We assume here that different compensation consultants take different approaches to defining an optimal package, and that this would create differences in recommended levels and structures of compensation packages (Murphy & Sandino [2008]; Cadman, Carter & Hillegeist [2009]).

¹⁰ The Combined Code (2008) requires the audit committee “to make recommendations to the board, for it to put to the shareholders for their approval in general meeting, in relation to the appointment, re-appointment and removal of the external auditor and to approve the remuneration and terms of engagement of the external auditor.” (C.3.2, Combined Code)

Prior literature suggests that the use of multiple consultants may be a means to extract rents and justify higher levels of pay, and may allow opinion-seeking from multiple consultants, leading to a more generous package.¹¹ Firms may solicit multiple opinions and use the more favourable ones to justify a more generous package, or split the consulting function among various consultants, for example by component of compensation. This would allow the firm to construct a compensation package based on individual consultant recommendations on specific components of compensation, which may result in an overall higher level of compensation (Murphy & Sandino [2008]). An increase in the number of consultants during the year may be indicative of compensation committees seeking additional opinions, splitting up the consulting function across multiple firms, or may be due to organizational demand. As a test for opinion-shopping, we investigate whether there is an association between the increase in the number of consultants during the year and incremental growth in compensation, and form Hypothesis 3 as follows:

H₃: There is a positive association between an increase in the number of compensation consultants and change in compensation during the year.

It is possible that the use of multiple consultants may be optimal for the firm and may actually serve to mitigate the conflicted consultant problem, since the client's work would not be concentrated with a single consultant. A rejection of Hypothesis 3 would indicate that firms change their number of consultants for economically justified reasons

¹¹ Murphy and Sandino (2008, 24–25) note 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.” However, Kabir and Minhat (2009) find no evidence of a positive relationship between multiple consultant use and CEO pay in the UK.

such as a change in the firm's organizational complexity and growth opportunities, or may even mitigate potential conflicts by splitting functions between multiple consultants.

Along with the change in the number, we investigate whether a change in the main compensation consultant affects compensation. Firms could replace their primary consultant for a number of reasons, including cost savings, dissatisfaction with recommended compensation arrangements, reduced necessity (for example, an increase in internal capabilities, such as NED expertise on compensation), a desire to reduce entrenchment of the existing consultant (*optimal contracting hypothesis*), or to seek more favourable opinions (*rent extraction hypothesis*). Using opinion-shopping as our null hypothesis, we formulate Hypothesis 4 as:

H₄: There is a positive association between a switch of a main consultant and change in compensation during the year.

As with Hypothesis 3, a rejection of Hypothesis 4 may indicate that firms switch their consultant in order to find an optimal economic solution.

Lastly, a new consultant may prefer certain compensation components and may design compensation structure to reflect their preferred pay structure. We would therefore expect to see a change in the composition of pay with the change in the consultant usage.

We formulate Hypothesis 5 as:

H₅: There is change in the composition of pay packages when firms change the number of consultants hired or switch their main consultant during the year.

Under an opinion-shopping framework, the change would be in favour of the executive, such as through decreased proportion of equity or increased salary or bonus proportions.

3. Method

3.1 Sample and data

Our sample is composed of firms that were members of the FTSE 350 index any time during the 2002-2008 period.¹² We exclude equities classified as investment trusts and real estate trusts due to their different governance practices, yielding a sample of 2,581 firm-years. Data on executive compensation, director age, tenure, service on boards, and other board and director characteristics are obtained from BoardEx for 2,283 of the above firm-years. We obtain accounting and market data from Datastream, and some data on compensation consultants from the Hemscott database, supplemented by manual data collection from annual reports. Index membership and industry classification were obtained directly from FTSE.

After excluding data for 2002 for firms with year-ends prior to December 31, to which the DRRR did not apply, and firms with missing Datastream data, our final sample consists of 1,878 firm-years (and CEO-years) and 5,427 director-years for non-CEO executive directors. The sample consists of data for 420 unique firms, 629 unique CEOs, and 1,806 unique non-CEO executive directors. Overall, the UK compensation consulting industry is relatively fragmented; our 420 sample firms employed over 70 different consulting firms. Table 1, Panel A, shows the distribution of observations by year.¹³

Table 1, Panel B, shows the usage of compensation consultants among FTSE 350 firms, showing widespread use of compensation consultants and multiple consultants.

¹² In order to maximize the panel and also to reduce index-survivorship bias we use all available observations from firms that join the FTSE 350 index during 2002-2008, firms that drop out of the FTSE 350 index but remain listed, and those that drop out and rejoin the index,.

¹³ 2002 is selected as the first year of our sample since the DRRR (2002) became effective as of December 31st 2002. At the time of the data collection, annual reports for 2008 were not published for many of the firms in our sample. Therefore we do not have full year data for both 2002 and 2008. This reduction in observations is reflected in Table 1, Panel A.

90% of sample firms have at least one consultant, and over 40% employed two or more consultants during the year. This is comparable to usage levels found in prior US and UK studies (Armstrong, Ittner, & Larcker [2008]; Murphy & Sandino [2008]; Cadman, Carter & Hillegeist [2009]; Kabir & Minhat [2009]). Since the vast majority of firms employ a consultant, it is difficult to draw conclusions about users and non-users of consultants. We therefore identify other characteristics of consultant usage among the 90% of firms that engage a consultant, such as the number of consultants employed, type of consultant (*BIG5* or other), and consultant change, which may provide greater insight into the market for compensation consultants.

Table 1, Panel A, classifies the usage of the six largest consultants within the FTSE 350. The most frequently used consultants were New Bridge Street Consultants (32%) and Towers Perrin (16%), with (the consultancy divisions of) two auditing and business service firms, Deloitte and PricewaterhouseCoopers, also frequently used. 63% of firms used these four firms as their main consultant, showing market dominance by a few firms.

INSERT TABLE 1

Table 2 presents descriptive statistics of firm- and director-level characteristics for our final sample of firms (Panel A), CEOs (Panel B) and non-CEO executive directors (Panel C). Sample firms are large, with median market capitalization (total assets) approaching £0.9 billion (£1.1 billion). Both mean accounting (9%) and market returns (14%) are positive over the sample period. Median market value of equity is 2.3 times the book value, and the average firm is highly leveraged with a debt to equity ratio of 78%.

The median firm has nine board members, 59% of whom are non-executive directors (NEDs). For almost all firms, the compensation committee, which receives advice from the external compensation consultants, is composed solely of non-executive directors, following Combined Code guidelines. The mean (median) total pay package received by a CEO is £1.91 million (£1.12), nearly double that of non-CEO executive directors who receive £0.98 million (£0.63). The average CEO (non-CEO) pay package is comprised of 38% (41%) of salary and 37% (34%) of equity related pay. The average CEO (non-CEO) is 51 (49) years of age, has been in his current role for 5(4) years and holds 1.5 (1.28) other board seats. The average tenure of NEDs is close to 5 years.

INSERT TABLE 2

3.2 Regression models and variable definitions

We examine the relationship between consultant usage and the level and composition of pay packages using a panel regression model, estimated for the j^{th} executive director in firm i at time t , allowing for standard errors clustered by firm and director (Petersen [2009]). Our first two models, capturing the level (*Hypothesis 1*) and composition of pay (*Hypothesis 2*), respectively, are as follows:

$$\begin{aligned} \ln(\text{PAY})_{jit} = & \beta_0 + \beta_1 \text{CONSULT}_{it} + \beta_2 \text{CONSULT} * \text{BIG5}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{SHARERETURNS}_{it} \\ & + \beta_5 \text{SIZE}_{it} + \beta_6 \text{GROWTH}_{it} + \beta_7 \text{LEVERAGE}_{it} + \beta_8 \text{AGE}_{jit} + \beta_9 \text{TENURE}_{jit} \\ & + \beta_{10} \text{OTHERBOARDS}_{jit} + \beta_{11} \% \text{NEDS}_{it} + \beta_{12} \text{AvgNEDTenure}_{it} + \\ & \beta_{13} \text{BoardSize}_{it} + \text{YearDummies} + \text{IndustryDummies} + \varepsilon_{jit+n} \dots \dots \dots (1) \end{aligned}$$

$$\begin{aligned}
\text{PAYPERC}_{jit} = & \beta_0 + \beta_1 \text{CONSULT}_{it} + \beta_2 \text{CONSULT} * \text{BIG5}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{SHARERETURNS}_{it} \\
& + \beta_5 \text{SIZE}_{it} + \beta_6 \text{GROWTH}_{it} + \beta_7 \text{LEVERAGE}_{it} + \beta_8 \text{AGE}_{jit} + \beta_9 \text{TENURE}_{jit} \\
& + \beta_{10} \text{OTHERBOARDS}_{jit} + \beta_{11} \% \text{NEDS}_{it} + \beta_{12} \text{AvgNEDTenure}_{it} + \\
& \beta_{13} \text{BoardSize}_{it} + \text{YearDummies} + \text{IndustryDummies} + \varepsilon_{jit+n} \dots\dots\dots(2)
\end{aligned}$$

The dependent variable in Model 1 is $\ln(\text{PAY})$ where *PAY* is defined as one of four measures: *Salary*, *Bonus*, *EquityPay* (sum of long- and short-term incentive plans and stock options)¹⁴ and *TotalPay* (sum of salary, bonus, other benefits and *EquityPay*) received during the year. Base salaries represent the fixed component of pay, while bonuses and equity pay are typically tied to performance criteria and represent a variable element of compensation. Similar to other studies, we use log of pay and size, and assume a log-linear relationship (see Murphy [1999]). We run separate tests on CEOs and non-CEOs, as we expect the effects to vary between the groups for a number of reasons: (i) since CEO pay is the often criticized and debated in the media, and non-CEOs comparatively attract less attention, compensation consultants may handle CEO and non-CEO pay differently; (ii) non-CEO pay is often much lower than CEO pay (Table 2); (iii) non-CEOs may have different risk profiles; and (iv) the number of non-CEO executives on the board is greater, therefore creating a larger network of potentially satisfied or dissatisfied customers for consultants, and a larger pool of benchmarking peers.

We examine the composition of the overall pay package in Model 2, with the dependent variable *PAYPERC*, where *PAYPERC* is one of three possible measures representing the percentage of the total pay package (*TotalPay*) that is composed of *Salary* (*SALARYPERC*), *Bonus* (*BONUSPERC*), or *EquityPay* (*EQUITYPERC*).

¹⁴ Stock option grants are measured at grant date using the Black-Scholes model. LTIPs are valued at full value using closing price at the end of the year of the grant (the date of annual report).

Our explanatory variable *CONSULT* captures the presence of a compensation consultant; it is an indicator variable set to 1 if the firm used a compensation consultant in the given year t and 0 otherwise. *BIG5* proxies for consultant size and expertise and is equal to 1 if the firm employed one of the top five firms ranked by market share in year t and 0 otherwise. We estimate both Models 1 and 2 with and without the interaction term *CONSULT*BIG5*, looking first at the overall consultant effect and then at the incremental effect of hiring a large consultancy firm.

We control for a number of firm and director level characteristics that we expect to affect compensation. Prior evidence suggests that executive compensation levels should be increasing with firm size and investment opportunities, as they may reflect organizational complexity; as well as operating and stock price performance, to reflect the potential alignment of director and shareholder interests (Lambert & Larcker [1985]; Jensen & Murphy [1990]; Murphy [1999]; Core & Guay [1999]; Tosi, Werner, Katz, & Gomez-Mejia [2000]).

We measure firm size (*SIZE*) as the log of the firm's total assets at the end of the fiscal year, and growth opportunities using the ratio of market value of equity to book value of shareholders' funds (*GROWTH*). *LEVERAGE* is defined as the ratio of debt to equity in the capital structure. We use *ROA* (operating profit scaled by the average of beginning and end of year total assets) and *SHARERETURNS* (total returns to shareholders, reflecting share price appreciation and dividend yield during the year) to capture firm performance. We also include executive director characteristics such as *AGE* (age of director j at t), *TENURE* (tenure of director j at t) and *OTHERBOARDS* (other board seats held by director j at time t) to capture experience and reputation both within

and outside the firm. *%NEDS* (percentage of board members classified as non-executive directors) and *AvgNEDTENURE* (average tenure of all non-executive directors) proxy for the level of independence of the board and board monitoring quality.¹⁵ Since large boards may be associated with less effective corporate governance (Yermack [1996]; Hermalin & Weisbach [2003]), we also include *BOARDSIZE* in our model, measured as the total number of executive and non-executive directors on the board. Industry dummies are based on FTSE's Industrial Classification Benchmark system at 2 digits.

Since prior literature also suggests that variations in pay packages are partly influenced by consultant characteristics, we run three additional tests replacing *CONSULT* in models 1 and 2 with variables capturing (i) the number of consultants employed during the year by the firm (0, 1, 2, 3 and >3); (ii) the individual consultants by name, for the five most frequently used consulting firms, with a sixth category consisting of all other consultants used; and (iii) the type of consulting firm used as the main consultant (human resource, auditor, solicitor, and other). The results for level and composition of pay are attached as Appendices 1 and 2 respectively.

3.3 Changes in consultant usage and compensation

In order to test for the association between changes in consultant usage and compensation (H_3 , H_4 and H_5), we classify firms into six categories based on the number of compensation consultants employed at times $t-1$ and t , with the *CONTROL* group

¹⁵ Prior research indicates that board (and CEO) monitoring increases with the fraction of outside board members (Weisbach [1988]; Dahya & McConnell [2005]). According to the Combined Code (2008) all directors should be subject to election by shareholders and re-election thereafter at intervals of no more than three years (Principle A.7.1, page 11). Therefore a longer tenure indicates possible NED entrenchment. Results remain robust to alternative variables capturing NED tenure greater than 6 (two re-elections) and 9 years (three re-elections).

being firms that do not use compensation consultants in either year. Firms without a consultant at time $t-1$ but with at least one consultant at t are categorized as *NEW* (firms newly hiring a consultant), while firms employing at least one consultant at $t-1$ but none at t are classified as *EXIT* (firms that dismiss their consultants). Firms with at least one consultant at $t-1$ and t , who have more consultants at t than at $t-1$, are classified as *INCREASE* (firms increasing the number of consultants that they use), while firms where the number at t is less than at $t-1$ are categorized as *DECREASE* (firms decreasing the number of consultants). Firms that have the same number (greater than zero) of consultants at $t-1$ and t are classified as *SAME*. Recognizing that *SAME*, *INCREASE*, and *DECREASE* may include firms that hire a new consultant and fire their old consultant in the same year, we then develop a secondary classification for firms switching their main consultant during the year. We classify firms where the main consultant changed during the year, for the *INCREASE*, *DECREASE* and *SAME* categories, as *SWITCH*.

Table 3 reports the distribution of executive director-years by change in the number of consultants, with the *SWITCH* column identifying the number of director-years in which we observe a switching of the main consultant.¹⁶ In about 70% of director-years we do not observe a change in the number of consultants (*CONTROL* and *SAME*). The small number of *NEW* firms (2.5% of the sample) indicates a widespread use of consultants at the beginning of the sample time frame, though it is interesting that almost 4% of the sample chooses to discontinue their use of consultants (*EXIT*). Where the firm already had a compensation consultant at time $t-1$, 12% of the sample increased their

¹⁶ An executive director should have been employed in the same firm at both time $t-1$ and t to be included in the analysis. The pooled number of CEO and executive director-years in the switching model is smaller than in those in Table 2, Panels B and C, due to loss of observations from new and departing executives.

number of consultants, while a similar fraction reduced their number of consultants used. 41% of the sample switched their main consultant during the year.

INSERT TABLE 3

We examine the relation between changes in consultant use from time $t-1$ to t and changes in compensation levels and composition from time $t-1$ to t for all executive directors j (CEOs and non-CEOs) in firm i by estimating panel regressions with clustered standard errors by firm and director, and dummy variables capturing year and industry effects.¹⁷

$$\begin{aligned} \Delta(\text{PAY})_{jit} = & \beta_0 + \beta_1 \Delta \text{CONSULTANT}_{it} + \beta_2 \text{LAG}(\text{PAY})_{it-1} + \beta_3 \Delta \text{ROA}_{it} + \beta_4 \Delta \text{SHARERETURNS}_{it} \\ & + \beta_5 \text{SIZE}_{it} + \beta_6 \text{GROWTH}_{it} + \beta_7 \text{LEVERAGE}_{it} + \beta_8 \text{AGE}_{jit} + \beta_9 \text{TENURE}_{jit} \\ & + \beta_{10} \text{CEO}_{it} + \beta_{11} \% \text{NEDS}_{it} + \beta_{12} \text{AvgNEDTenure}_{it} + \beta_{13} \text{BoardSize}_{it} \\ & + \text{YearDummies} + \text{IndustryDummies} + \varepsilon_{jit+n} \dots \dots \dots (3) \end{aligned}$$

$$\begin{aligned} \Delta(\text{PAYPERC})_{jit} = & \beta_0 + \beta_1 \Delta \text{CONSULTANT}_{it} + \beta_2 \text{LAG}(\text{PAYPERC})_{it-1} + \beta_3 \Delta \text{ROA}_{it} \\ & + \beta_4 \Delta \text{SHARERETURNS}_{it} + \beta_5 \text{SIZE}_{it} + \beta_6 \text{GROWTH}_{it} + \beta_7 \text{LEVERAGE}_{it} \\ & + \beta_8 \text{AGE}_{jit} + \beta_9 \text{TENURE}_{jit} + \beta_{10} \text{CEO}_{it} + \beta_{11} \% \text{NEDS}_{it} + \beta_{12} \text{AvgNEDTenure}_{it} \\ & + \beta_{13} \text{BoardSize}_{it} + \text{YearDummies} + \text{IndustryDummies} + \varepsilon_{jit+n} \dots \dots \dots (4) \end{aligned}$$

where $\Delta \text{CONSULTANT}$ is defined as: (A) change in the number of consultants during the year (*CONTROL*, *NEW*, *EXIT*, *INCREASE*, *DECREASE*, or *SAME*); (B) change in the primary consultant during the year (*SWITCH*) or (C) a switch in the primary consultant (*SWITCH*) and a change in the number of consultants during the year (*INCREASE* or *DECREASE*), and the incremental interaction effect of both a switch and a change in the number (*INCREASE*SWITCH* or *DECREASE*SWITCH*). The vector of control variables

¹⁷ The reported results do not vary across CEOs and non-CEOs, therefore in the main analysis we have presented the results from a pooled sample.

remains the same as that defined in Section 3.2, with the exception of ΔROA and $\Delta SHARERETURNS$ (which replace ROA and $SHARERETURNS$ respectively) to capture change in operating and market performance during the year, a dummy variable CEO which equals one if the director was the CEO at time t and zero otherwise, $LAG(PAY)$ capturing the level of PAY at time $t-1$ for Model 3, and $LAG(PAYPERC)$ to capture the composition at $t-1$ in Model 4.¹⁸

4. Results

4.1 Executive pay level and composition results

4.1.1 *The association between compensation consultants and compensation levels*

Table 4, Panels A and B, show the association between the level of CEO and non-CEO executive pay, respectively, and the employment of a compensation consultant (Model 1A), and the incremental relationship with a *BIG5* consultant (Model 1B). In support of Hypothesis 1, and consistent with prior literature (Murphy & Sandino [2008]; Conyon, Peck, & Sadler [2009]; Voulgaris, Stathopoulos, & Walker [2009]), we find that firms using a compensation consultant pay higher levels of salary, bonus, equity compensation, and total compensation to all executive directors (CEOs and non-CEOs), after adjusting for size, director, and firm characteristics. Compensation is positively related to accounting returns, stock returns (for bonus, equity and total pay), firm size, tenure (for salary and total pay), age (for salary), and percentage of NEDs on the board. However, both bonus and equity-based pay are negatively related to age, suggesting a possible propensity to shift compensation towards less risky forms as an executive

¹⁸ In earlier specifications we also included $\Delta SIZE$, $\Delta GROWTH$ and $\Delta LEVERAGE$, ROA and $SHARERETURNS$ in our model. The inclusion of these variables does not influence our results and we have excluded them from the main analysis.

director gets older, reduced willingness of an older executive director to accept risky compensation, and/or greater negotiating power on the part of an older executive director to receive a less risky, performance-contingent package.¹⁹

We find no incremental effect of a *BIG5* consultant on any component of CEO compensation. However, firms that employ a *BIG5* compensation consultant pay higher salary levels to non-CEO executive directors, consistent with Hypothesis 1. This shows that while there is little incremental difference in compensation for CEOs when employing a *BIG5* consultant, the choice of a consultant with large market share is positively related to non-CEO executive salaries. We propose several possible reasons for this difference: (i) non-CEO board members may also have a cumulatively larger network of other board seats and their satisfaction is important for future business; (ii) *BIG5* consultants may have a greater range of comparative non-CEO data, giving them greater flexibility in benchmarking non-CEO executive pay; or (iii) there may be a selection bias where larger and more complicated firms, with more resources, may pay more to their executives, and may have a greater propensity to select *BIG5* consulting firms.

The positive relationship between consultant use and compensation indicates that firms hiring a consultant pay a premium over those that do not. However, like prior literature, this only establishes an association and not causality, and we cannot necessarily use these results to infer that firms use consultants as a means of justifying higher compensation. The results above, on compensation consultants and compensation

¹⁹ In additional tests we also allowed for incremental effects of employing a compensation consultant on firm performance, including an interaction term between employing a consultant (*CONSULT*) and *ROA*, and *CONSULT* and *SHARERETURNS*. Results for the interaction terms were insignificant except for $\text{Ln}(\text{Bonus})$ where *CONSULT*SHARERETURNS* was positive, indicating that consultants had an incremental effect in linking cash bonuses to market returns. This indicates that consultants contribute to the pay-performance sensitivity by tying bonuses to shareholder returns.

levels, are consistent with Hypotheses 1, and the justification role of consultants, where consultants enable executives extract excess compensation from the firm and justify higher levels of pay. Since few studies on compensation consultants have examined compensation below the CEO level, our results contribute to the literature as we find differences in consultant-related compensation between CEOs and non-CEOs across consultancy size. This is important since compensation consultants often advise on the pay of the top executive team and not only the CEO.

INSERT TABLE 4

4.1.2 The association between compensation consultants and composition of the compensation package

Table 5, Panels A and B, shows the relationship between compensation consultants and the proportions of the total pay package composed of salary, bonus, and equity. Consistent with Hypothesis 2, we find that firms employing a consultant pay a lower percentage of salary and a higher percentage in equity (Conyon, Peck, and Sadler [2009]; Voulgaris, Stathopoulos, and Walker [2009]). This suggests that employment of consultants is associated, in addition to higher overall compensation levels, with more equity-sensitive compensation packages. The use of a *BIG5* consultant is associated with a lower percentage of cash bonus (for both CEOs and non-CEOs) and a higher proportion of equity compensation (for non-CEOs only), indicating that the larger consulting firms may have a preference for equity-based compensation.

Under the optimal contracting view of executive compensation, this shift towards a longer term equity-based pay may be considered a closer alignment of shareholders and

managerial interests (Jensen & Meckling [1976]; Core & Larcker [2002]). This is consistent with Conyon, Peck, and Sadler (2009) and Murphy and Sandino (2009), who argue that compensation consultants have strong incentives to design economically-justified contracts that align executive and shareholder interests, for reputational reasons.

From the rent-extraction viewpoint, however, if these findings are considered in conjunction with higher compensation levels in Table 4, the increase in compensation may be viewed as a mechanism for rent extraction under the premise of shareholder alignment (Bebchuk & Fried [2006]). Although compensation consultants are associated with a shift in executive pay towards a riskier equity based pay package, this package also has a significantly higher overall value.

INSERT TABLE 5

4.2 Consultant change model

Tables 6 and 7 report the relationships between changing the number of consultants during the year and switching the main consultant, and compensation during the year.

4.2.1 Changes in the number of consultants and changes in compensation

In Model 3A, we find no evidence of a firm that newly hires a consultant (*NEW*, a firm without a consultant at $t-1$ but with a consultant at t) of having a higher change in compensation. It may be the case that these firms may have previously been paying competitive pay levels, only to have them be confirmed or justified by their newly appointed consultant. For firms hiring an additional consultant during the year (*INCREASE*), we find evidence of significantly higher salary increases, providing some

evidence of opinion-shopping, consistent with Hypothesis 3. The recommendations of an additional consultant may have helped the firm to justify a higher level of compensation, or reinforce or legitimize a more generous suggestion of an existing consultant, if the compensation committee had prior reservations. Another consultant may also have recommended a more favourable position in the peer group or changes to the peer group, against which salary levels are benchmarked. We find a lower but significant increase in salary for firms with the same number of consultants (*SAME*), an indication of a consultant-related increment premium, over those firms that continue to have no consultant. We observe no significant effect for firms that dismiss one or more consultants (*DECREASE*).

We observe a significant decrease in bonus for firms choosing to discontinue their usage of consultants (*EXIT*). One possible explanation is that firms that drop their consultant could have performed poorly (as indicated by a decrease in bonus), or decided their consultant has not provided a motivational scheme that works for them, or that it may be too costly to maintain the consultant's services. We do not find evidence of associated increments in other elements of compensation and suggest that this may be due to the performance-sensitive nature of bonus (evidenced by the significant coefficient to ΔROA and $\Delta SHARERETURNS$), and significant variation in implementation of equity-based plans across firms.

INSERT TABLE 6

4.2.2 Switching of main consultant and changes in compensation

In Model 3B, we find strong evidence that firms that switch their main consultant (*SWITCH*) have a higher increase in salary than those who retain their primary consultant. In this case a firm switches to a different main consultant, who may in turn recommend a higher salary level than the level recommended by the previous consultant. As with an increase in consultant, this may occur through different opinions about appropriate salary levels, composition of peer groups, or positioning within the peer group. While we do not find significant results for bonus and equity pay, we consider the salary result to be economically significant, because benchmark bonus and equity compensation levels are often functions or multiples of salary level (Murphy [1999]). Our results suggest that the firm is able to successfully seek new opinions which result in more favourable outcomes for the CEO and executives, consistent with Hypothesis 4 on opinion-shopping.

While this is consistent with possible rent-extraction, we do not propose that there is deliberate collusion between compensation committees and consultants (a higher recommendation from the consultant in return for appointment or future business), or a deliberate decision to hire a consultant to justify a higher level of compensation. Instead, we suggest that compensation committees may seek alternative opinions, which are then associated with increase in salary levels.

4.2.3 Switching of consultant, changes in the number of consultants, and changes in compensation

Sections 4.2.1 and 4.2.2 above assess changes in number of consultants and consultant switching as independent events, however they may occur simultaneously and

have different effects. Model 3C analyses the impact of both a change in the number and a switch in the main consultant during the year. Our results for $\Delta SALARY$ indicate that any effects of *SWITCH* dominate over changes in the number of consultants employed (*INCREASE* and *DECREASE* being insignificant), and that there are no incremental effects of switching and increasing (*INCREASE*SWITCH*) or switching and decreasing (*DECREASE*SWITCH*). This suggests that the positive coefficient on *INCREASE* in Model 3A may be driven by the half of firms also switching at the same time, and that the base effects of increasing are limited. This may also explain the significantly positive coefficient on *SAME* firms in Model 3A, as a significant proportion of *SAME* firms (36%) also *SWITCH* during the year. These results complement findings from prior research, which indicate that multiple consultants may be evidence of opinion-shopping (Murphy & Sandino [2008]; Voulgaris, Stathopoulos, & Walker [2009]). We suggest instead that the incremental increase in the number of consultants in itself may not cause an incremental change in compensation, but when accompanied by a switch in the main consultant it affects compensation.²⁰ The insignificance of the *INCREASE* term (the increase and non-switch scenario) is consistent with the hiring of new consultants for specific functions such as pension, legal, or tax consulting, etc., which have a more subtle effect on general compensation-setting, while the continued significance of the *SWITCH* variable provides more support for our opinion-shopping hypothesis.

Our salary finding is important since an increase in the fixed, riskless component of compensation (salary) would interest managers, and because of salary is often a baseline in determining other elements of compensation. The non-significance on other

²⁰ Over half of the firms in the *INCREASE* and *DECREASE* categories also *SWITCH* in the same year (Table 3).

elements of compensation may be due to variability in their determination; bonus, in particular, is performance-contingent, and it may not be possible for a newly appointed consultant to immediately facilitate a higher bonus payout. There is also significant variation in equity grants, which are granted with varying levels of performance conditions, and may be made based on other long-term considerations (e.g capital structure or leverage of firm). These other elements of compensation all create variation in total compensation as well.

4.2.4 Switching of consultant, changes in the number of consultants, and changes in the composition of the compensation package

Table 7 presents the effects of switching consultants on the total compensation mix. We find that firms increasing the number of consultants or keeping the same number of consultants have increases (decreases) in their proportion of equity-based compensation (salary). There are no significant incremental changes to the composition of the pay package for newly-hiring firms (*NEW*), but *EXIT* firms pay a decreased proportion of compensation in bonuses and higher proportions of equity pay, likely a function of the decrease in bonus as observed in Table 6.

An interesting result from this analysis is that firms that switch their primary consultant (*SWITCH*) have an increase in the proportion of compensation composed of cash bonuses and a decrease in the proportion of equity pay in the year of the switch. This positive coefficient to *SWITCH* for $\Delta BONUSPERC$ and negative coefficient to *SWITCH* for $\Delta EQUITYPERC$ holds after allowing for possible incremental effects of increases and decreases in the number of consultants (Model 4C). This suggests that a consultant switch is associated with a *less* equity-sensitive compensation package, with greater emphasis on

the short-term bonus component. Though we did not find a significant increase in bonus or decrease in equity levels associated with a switching decision (Table 6, Models 3B and 3C), we suggest this could be for several reasons: an improvement in performance associated with greater motivational tools provided by the new consultant (optimal role of consultants), a new consultant recommending more favourable performance benchmarking peer group, a shift in the maximum bonus/salary ratio, or a reduced long-term equity grant with a higher short-term payment as compensation.

4.2.5 Implication of findings

The combined evidence in Tables 6 and 7 suggests that firms switching consultant during the year not only pay their executives a higher salary and higher proportion of bonus, but at the same time, pay a lower proportion of risky equity-based pay. This has the effect of making the overall compensation package less equity-sensitive, reducing the risk for executives, and making the package more favourable for the executive. While this may seem inconsistent with both our and prior levels analyses (Conyon, Peck, & Sadler [2009]), which shows that consultants are associated with more equity-based packages (*optimal contacting view*), we believe that the switching decision is a different one from the consultant-use decision, and that while the initial hiring decision increases equity as a mechanism of shareholder alignment, a subsequent switch decision may favour executives by reducing risk and increasing base or cash compensation, rather than grant more equity. We believe that our overall change and switching methodology links the consultant-choice and compensation relationship more directly, and provides an indication of firms successfully shopping for opinion in favour of executive directors.

While we are limited in our ability to draw conclusions about the reasons for these favourable changes, we propose some possible explanations. First, the firm might believe that its executives are underpaid and seek another consultant to recommend or justify a higher level of compensation (we find evidence of this only for salary, though salary is in many cases a baseline for bonus and equity). Second, a newly-hired consultancy firm may recommend a higher package as a reward for its hiring or in order to facilitate future business. Both of these are consistent with consultants extracting rents in the form of excess compensation for directors (Bebchuk, Fried, & Walker [2002]).

INSERT TABLE 7

4.3 Additional Analyses

To assess the robustness of our results, we re-estimate our models using different proxies for firm size (log of sales, log of market capitalization, and with a control indicator for membership in the FTSE 100 index). We also examine the impact of outliers by using winsorizing size, performance, and compensation variables at the 1st and 99th percentiles, and using a dummy variable for loss-making firms. We use a number of alternative measures of board characteristics and governance, measuring executive and CEO power over the board (Chairman/CEO duality, executive membership on the compensation committee, average age and tenure of executive and non-executive directors, average age and tenure of NEDs on the compensation committee). In all cases, results correspond closely to those reported here, reinforcing our findings that the use of compensation consultants lead to higher levels of pay and percentage of equity

compensation, and that consultant switching is associated with salary increases, and changes in the compensation package structure.

We extend Models 3 and 4 to test for effects of consultant changes on compensation packages at year $t+1$. This allows us to observe lagged effects of change in consultant on compensation. We find that the positive contemporaneous relationship between change in salary and both switch of the main consultant and increase in the number of consultants disappears in the year following the change ($t+1$). This suggests that the additional salary growth from the change decision is temporary and limited to the year of the change. However, we find a significant increase in bonus in the year after the change ($t+1$) for firms that increase their number of consultants and simultaneously switch their main consultant in year t ($INCREASE*SWITCH$). This lagged increase in bonus may occur for economic reasons, such as improved performance due to a better motivational scheme provided by the newly appointed consultant (*optimal contracting*), or could be a result of successful opinion-shopping, with a new consultant recommending higher maximum bonus levels, more favourable peer group selection for performance comparisons, or relaxed performance thresholds and targets (*rent extraction*), or both.

5. Conclusions

In this study we contribute to the existing literature on the use of compensation consultants and level and composition of compensation packages, and contribute new findings on compensation-switching, using a large panel of data of CEO and executive director data from the FTSE 350.

Consistent with prior research, we find that all components of CEO and non-CEO compensation (salary, bonus, equity and total pay) are higher in firms using consultants, after controlling for firm size, growth opportunities, leverage, firm performance, and board and director characteristics. We also find that the proportion of equity compensation (salary) used in the compensation package is higher (lower) in firms that use consultants, employ a consultant with a large market share, and firms using multiple consultants. One explanation is that consultants contribute to ratcheting up in salary based on their choice of comparator groups, but also provide a package that is perceived to be more effective, by more closely aligning shareholder and managerial interests.

We also find that compensation packages differ between individual consultants, with the choice of a *BIG5* consultant being associated with higher compensation levels (for non-CEOs) and more equity-sensitive compensation packages (for CEOs and non-CEOs). The propensity to facilitate an optimal contract or rent-extraction may therefore be consultant-specific.

We contribute new findings on the use of consultants, by examining consultant-switching and contemporaneous changes in compensation levels and composition. We find that firms that switch their main consultant during the year or increase the number of consultants have higher increases in salary than non-switching firms, providing some evidence of successful opinion-shopping for more favourable packages for executives. When considered together, the effects of the switch are dominant. Executives of firms switching consultants also have an increase in the proportion of bonus in their total compensation, and a decrease in the proportion of equity based pay, effectively reducing the risk of the compensation package. Our results show that consultants can play a role in

awarding more favourable compensation packages, with higher levels of salary, but lower-risk compensation packages following a switch in consultant. This may result from opinion-shopping, from consultants attempting to position themselves favourably for repeat business, or both.

In this paper, we cannot draw conclusions about the reasons for executive-friendly changes to pay following consultant-switching since disclosure in annual reports explaining changes or reasons for these changes is limited. Future research could examine potential drivers behind these favourable changes following a switching decision, such as whether the new consultants are more likely to be conflicted, or whether these compensation increases are rewarded by more future business to the consultant. Future research could also examine the effects of compensation consultants on other dimensions of pay design, such as peer comparator groups, design of equity incentive plans, and performance metrics. We encourage researchers to examine compensation of all directors, since we have shown that there may be incentives for other directors below the CEO. This would be particularly important for consultancies seeking to expand their business via board networks and directors holding multiple directorships. Our results here are consistent with opinion-shopping by compensation committees, and suggest that consultants may have their own incentives to provide executives with favourable compensation packages.

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Table 1: Usage of Compensation Consultants among Sample Firms

Panel A: Frequency of consultant usage, by main consultant and year									
Main Consultant	2002	2003	2004	2005	2006	2007	2008	Total	Share of firms using consultant
New Bridge Street Consultants	28	70	90	90	101	106	52	537	31.7%
Towers Perrin	27	61	53	53	41	34	11	280	16.5%
Deloitte	7	21	22	27	21	28	20	146	8.6%
Monks Partnership/ PricewaterhouseCoopers	11	18	18	19	19	15	8	108	6.4%
Watson Wyatt	11	18	18	16	13	12	4	92	5.4%
Mercer Human Resource Consulting	9	15	14	14	10	7	5	74	4.4%
Other HR Consultant	21	47	51	50	52	51	22	294	17.3%
Other Auditor/General Solicitor	9	12	13	15	13	12	4	78	4.6%
Other	4	11	11	11	13	14	3	67	4.0%
	2	5	4	3	3	2	0	19	1.1%
Total firms with a consultant	129	278	294	298	286	281	129	1695	100.0%
Total firms with no consultant	16	46	34	26	25	24	12	183	
Total number of firm-years	145	324	328	324	311	305	141	1878	

Notes to Table 1, Panel A:

This panel identifies the main consultant used by firms in the FTSE 350 (2002-2008). Main consultants are those that are identified first in the firm's remuneration report, or those who are used for general compensation consulting, rather than for a specific function, such as pension or benefits consulting, recruiting, or legal purposes.

Panel B: Frequency of consultant usage, by FTSE index (2002-2008)						
Number of Consultants	FTSE 100	FTSE 250	FTSE SmallCap	Total	Percentage of total	
0	24	85	74	183	9.7%	
1	191	539	152	882	47.0%	
2	127	257	54	438	23.3%	
3	87	116	12	215	11.4%	
4	49	46	10	105	5.6%	
5	32	10	0	42	2.2%	
6	8	1	0	9	0.5%	
7	4	0	0	4	0.2%	
Total	522	1054	302	1878	100.0%	

Notes to Table 1, Panel B:

This panel indicates the frequency of usage of consultants for sample firm-years. Index listing is taken at December 31 of each year. While the sample was chosen on the basis of FTSE 350 (FTSE 100 and the FTSE 250) constituents, there were some firms that joined the FTSE 350 during the sample time period (having previously been in the FTSE Small-Cap Index), and some firms that started the period as FTSE 350 members, subsequently leaving and possibly re-joining the index. We have kept these firms in the sample for the sake of completeness, and to maximize the number of observations. Similarly, there were several firms that moved between the FTSE 100 and FTSE 250 indices.

Table 2: Descriptive Statistics

Panel A: Firm-level								
Variable	N	Mean	Std Dev	Min	Q1	Median	Q3	Max
<i>Total Assets (£millions)</i>	1878	18,118	107,705	30	467	1,103	3,673	2,394,570
<i>Market Cap (£millions)</i>	1878	4,687	13,585	25	397	8,89	2,639	129,797
<i>GROWTH</i>	1878	1.43	54.05	-2114.39	1.39	2.30	3.77	239.06
<i>LEVERAGE</i>	1878	0.78	18.83	-762.00	0.21	0.57	1.12	100.80
<i>ROA</i>	1878	0.09	0.13	-1.97	0.05	0.08	0.13	0.83
<i>SHARERETURNS</i>	1878	0.14	0.47	-1.00	-0.13	0.13	0.34	4.93
<i>BOARDSIZE</i>	1878	9.43	2.69	3.00	8.00	9.00	11.00	29.00
<i>%NEDs</i>	1878	0.59	0.12	0.17	0.50	0.59	0.67	0.92
<i>%NEDs CompCommittee</i>	1878	1.00	0.04	0.33	1.00	1.00	1.00	1.00
<i>AvgNEDTenure (years)</i>	1878	4.91	2.67	0.00	3.21	4.37	5.97	20.56

Notes to Table 2, Panel A:

This table reports descriptive statistics for key regression variables. Variable definitions are as follows: *GROWTH* is the ratio of the market value of equity to book value of shareholders' funds; *LEVERAGE* is ratio of debt to equity; *ROA* is operating profit scaled by the average of beginning and end of year total assets; *SHARERETURNS* is total returns to shareholders, reflecting share price appreciation and dividend yield during the year; *BOARDSIZE* is measured as the total number of executive and non-executive directors on the board; *%NEDs* denotes the percentage of the board that is composed of non-executive directors; *%NEDs CompCommittee* denotes the percentage of the compensation committee that is composed of non-executive directors; *AvgNEDTENURE* is the average tenure of all non-executive directors on the board.

Table 2: Descriptive Statistics (cont'd)

Panel B: CEO								
Variable	N	Mean	Std Dev	Min	Q1	Median	Q3	Max
<i>Salary ('000s)</i>	1878	461	226	0	310	414	570	1725
<i>Bonus ('000s)</i>	1878	366	514	0	100	228	445	7960
<i>EquityPay('000s)</i>	1878	1055	2903	0	148	418	1075	87901
<i>TotalPay ('000s)</i>	1878	1913	3227	0	685	1122	2168	90185
<i>SALARYPERC</i>	1878	0.38	0.21	0.00	0.24	0.35	0.49	1.00
<i>BONUSPERC</i>	1878	0.20	0.14	0.00	0.10	0.19	0.27	0.97
<i>EQUITYPERC</i>	1878	0.37	0.24	0.00	0.21	0.39	0.54	1.00
<i>AGE (years)</i>	1878	51.12	6.60	31.00	46.00	51.00	56.00	76.00
<i>TENURE (years)</i>	1878	4.91	5.09	0.00	1.60	3.50	6.20	38.90
<i>OTHERBOARDS</i>	1878	1.50	1.00	1.00	1.00	1.00	2.00	17.00

Panel C: Non-CEO Executive Directors								
Variable	N	Mean	Std Dev	Min	Q1	Median	Q3	Max
<i>Salary ('000s)</i>	5427	278	167	0	180	250	345	4291
<i>Bonus ('000s)</i>	5427	206	367	0	43	120	237	10425
<i>EquityPay('000s)</i>	5427	482	1228	0	53	212	545	35201
<i>TotalPay ('000s)</i>	5427	982	1440	0	364	629	1161	35746
<i>SALARYPERC</i>	5427	0.41	0.22	0.00	0.26	0.38	0.53	1.00
<i>BONUSPERC</i>	5427	0.19	0.16	0.00	0.09	0.18	0.27	0.94
<i>EQUITYPERC</i>	5427	0.34	0.23	0.00	0.15	0.36	0.50	1.00
<i>AGE (years)</i>	5427	49.46	7.01	30.00	44.00	49.00	54.00	77.00
<i>TENURE (years)</i>	5427	4.47	4.29	0.01	1.40	3.30	6.10	45.30
<i>OTHERBOARDS</i>	5427	1.28	0.64	1.00	1.00	1.00	1.00	7.00

Notes to Table 2, Panels B and C:

Panels B and C present descriptive statistics for CEOs and non-CEO executive directors respectively. *EquityPay* is the value of short-and- long-term incentive plans and stock options. Stock option grants are measured at grant date using the Black-Scholes model and incentive plans are valued at full value using closing price at the end of the year of the grant (the date of annual report). *TotalPay* is the sum of the director's salary, bonus, other benefits and *EquityPay* received during the year. *SALARYPERC* ($Salary/TotalPay$), *BONUSPERC* ($Bonus/Total\ pay$), and *EQUITYPERC* ($EquityPay/TotalPay$) are calculated as proportions of the total compensation package composed of *Salary*, *Bonus* and *EquityPay* respectively. *TENURE* is measured by the number of years that the individual has been in his/her current role and *OTHERBOARDS* denotes the number of board seats currently held by the director on other boards.

Table 3: Number and percentage of directors in the different categories based on compensation consultant changes during year t

Categories	Number of consultants at:		Relation between number at $t-1$ and t	SWITCH			
	$t-1$	t		N	% of sample	N	% of sample
<i>CONTROL</i>	0	0	=	380	7.72%		
<i>EXIT</i>	>0	0	$t < t-1$	187	3.80%		
<i>NEW</i>	0	>0	$t > t-1$	121	2.46%		
<i>INCREASE</i>	>0	>0	$t > t-1$	613	12.45%	312	7.37%
<i>DECREASE</i>	>0	>0	$t < t-1$	582	11.82%	331	7.82%
<i>SAME</i>	>0	>0	=	3040	61.75%	1104	26.07%
<i>SWITCH=1</i>						1747	41.25%
<i>SWITCH=0</i>						2488	58.75%
Total				4923	100.00%	4235	100.00%

Notes to Table 3:

This table reports the number of directors in firms categorized on the basis of the change in the number of consultants between time $t-1$ and t . The sample consists of all executive directors (CEOs and non-CEOs) that are employed at the same firm at both $t-1$ and t ($n=4923$). The *CONTROL* group includes director in firms that do not use compensation consultants in either year. Firms employing at least one consultant at $t-1$ but none at t are grouped as *EXIT*. Director in firms without a consultant at time $t-1$ but with at least one consultant at t are categorized as *NEW*. Directors in firms with at least one consultant at $t-1$ and t , who have more consultants at t than at $t-1$, are categorized as *INCREASE* while where the number at t is less than at $t-1$ are labeled *DECREASE*. Directors in firms that have the same number (greater than zero) of consultants at $t-1$ and t are termed *SAME*. Directors in firms where the main consultant changed during the year, for the *INCREASE*, *DECREASE* and *SAME* categories ($n=4235$), are labeled *SWITCH*.

Table 4: Compensation Consultants and Levels of CEO and Executive Pay

Panel A: CEOs								
Variables	ln (Salary)		ln (Bonus)		ln (Equity)		ln (Total)	
	Model (1A)	Model (1B)	Model (1A)	Model (1B)	Model (1A)	Model (1B)	Model (1A)	Model (1B)
<i>Intercept</i>	2.50 (0.01)	2.50 (0.01)	-1.88 (0.03)	-1.89 (0.02)	-3.33 (0.01)	-3.29 (0.01)	1.82 (0.01)	1.82 (0.01)
<i>CONSULT</i>	0.20 (0.01)	0.19 (0.01)	0.63 (0.01)	0.66 (0.01)	1.37 (0.01)	1.25 (0.01)	0.28 (0.01)	0.28 (0.01)
<i>CONSULT*BIG5</i>		0.02 (0.64)		-0.04 (0.77)		0.15 (0.30)		0.00 (0.96)
<i>ROA</i>	0.25 (0.08)	0.25 (0.08)	2.70 (0.01)	2.70 (0.01)	1.06 (0.05)	1.06 (0.05)	0.76 (0.01)	0.76 (0.01)
<i>SHAREReturns</i>	-0.01 (0.57)	-0.01 (0.57)	0.85 (0.01)	0.85 (0.01)	0.31 (0.05)	0.31 (0.05)	0.22 (0.01)	0.22 (0.01)
<i>SIZE</i>	0.18 (0.01)	0.18 (0.01)	0.37 (0.01)	0.37 (0.01)	0.57 (0.01)	0.57 (0.01)	0.33 (0.01)	0.33 (0.01)
<i>GROWTH</i>	0.00 (0.18)	0.00 (0.19)	0.00 (0.47)	0.00 (0.46)	0.00 (0.42)	0.00 (0.40)	0.00 (0.14)	0.00 (0.14)
<i>LEVERAGE</i>	0.00 (0.18)	0.00 (0.19)	-0.01 (0.43)	-0.01 (0.42)	0.00 (0.66)	0.00 (0.65)	0.00 (0.08)	0.00 (0.08)
<i>AGE</i>	0.00 (0.09)	0.00 (0.09)	0.00 (0.85)	0.00 (0.87)	-0.03 (0.02)	-0.03 (0.02)	0.00 (0.31)	0.00 (0.31)
<i>TENURE</i>	0.02 (0.01)	0.02 (0.01)	0.01 (0.64)	0.01 (0.66)	-0.02 (0.25)	-0.02 (0.29)	0.01 (0.07)	0.01 (0.07)
<i>OTHERBOARDS</i>	0.03 (0.22)	0.03 (0.22)	0.02 (0.84)	0.02 (0.84)	0.04 (0.58)	0.04 (0.58)	0.02 (0.34)	0.02 (0.34)
<i>%NEDs</i>	0.46 (0.01)	0.46 (0.01)	1.61 (0.01)	1.60 (0.01)	1.46 (0.03)	1.48 (0.03)	0.91 (0.01)	0.91 (0.01)
<i>AvgNEDTenure</i>	0.00 (0.70)	0.00 (0.70)	-0.04 (0.09)	-0.04 (0.09)	-0.02 (0.58)	-0.02 (0.58)	-0.02 (0.01)	-0.02 (0.01)
<i>BOARDSIZE</i>	0.02 (0.08)	0.02 (0.08)	0.04 (0.18)	0.04 (0.18)	0.09 (0.02)	0.09 (0.02)	0.02 (0.08)	0.02 (0.08)
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1878	1878	1878	1878	1878	1878	1878	1878
Adjusted R ²	0.33	0.33	0.23	0.23	0.27	0.27	0.47	0.47

Table 4: Compensation Consultants and Levels of CEO and Executive Pay (cont'd)

Panel B: Non-CEO executive directors								
Variables	ln (Salary)		ln (Bonus)		ln (Equity)		ln (Total)	
	Model (1A)	Model (1B)	Model (1A)	Model (1B)	Model (1A)	Model (1B)	Model (1A)	Model (1B)
<i>Intercept</i>	2.09 (0.01)	2.09 (0.01)	-0.55 (0.45)	-0.55 (0.45)	-2.24 (0.01)	-2.24 (0.01)	1.99 (0.01)	1.99 (0.01)
<i>CONSULT</i>	0.08 (0.03)	0.03 (0.51)	0.52 (0.01)	0.52 (0.01)	0.87 (0.01)	0.70 (0.01)	0.15 (0.02)	0.11 (0.18)
<i>CONSULT*BIG5</i>		0.07 (0.05)		0.01 (1.00)		0.23 (0.11)		0.05 (0.33)
<i>ROA</i>	0.26 (0.03)	0.26 (0.03)	2.68 (0.01)	2.68 (0.01)	1.06 (0.04)	1.08 (0.04)	0.86 (0.01)	0.86 (0.01)
<i>SHARERETURNS</i>	-0.03 (0.26)	-0.03 (0.27)	0.80 (0.01)	0.80 (0.01)	0.41 (0.01)	0.42 (0.01)	0.21 (0.01)	0.21 (0.01)
<i>SIZE (log total assets)</i>	0.20 (0.01)	0.20 (0.01)	0.32 (0.01)	0.32 (0.01)	0.55 (0.01)	0.55 (0.01)	0.30 (0.01)	0.30 (0.01)
<i>GROWTH</i>	0.00 (0.58)	0.00 (0.64)	0.00 (0.91)	0.00 (0.91)	0.00 (0.24)	0.00 (0.27)	0.00 (0.28)	0.00 (0.30)
<i>LEVERAGE</i>	0.00 (0.56)	0.00 (0.60)	0.00 (0.91)	0.00 (0.91)	-0.01 (0.20)	-0.01 (0.21)	0.00 (0.23)	0.00 (0.25)
<i>AGE</i>	0.01 (0.04)	0.01 (0.04)	-0.03 (0.01)	-0.03 (0.01)	-0.04 (0.01)	-0.04 (0.01)	0.00 (0.31)	0.00 (0.30)
<i>TENURE</i>	0.03 (0.01)	0.03 (0.01)	0.02 (0.05)	0.02 (0.05)	0.02 (0.17)	0.02 (0.13)	0.03 (0.01)	0.03 (0.01)
<i>OTHERBOARDS</i>	-0.02 (0.69)	-0.02 (0.69)	-0.03 (0.65)	-0.03 (0.65)	-0.08 (0.34)	-0.08 (0.33)	-0.02 (0.75)	-0.02 (0.75)
<i>%NEDs</i>	0.55 (0.01)	0.56 (0.01)	1.08 (0.02)	1.08 (0.02)	1.72 (0.01)	1.77 (0.01)	0.74 (0.01)	0.75 (0.01)
<i>AvgNEDTenure</i>	-0.02 (0.05)	-0.02 (0.05)	-0.06 (0.01)	-0.06 (0.01)	-0.06 (0.01)	-0.06 (0.01)	-0.03 (0.01)	-0.03 (0.01)
<i>BOARDSIZE</i>	0.00 (0.70)	0.00 (0.69)	0.06 (0.03)	0.06 (0.03)	0.03 (0.20)	0.03 (0.20)	0.01 (0.29)	0.01 (0.30)
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5427	5427	5427	5427	5427	5427	5427	5427
Adjusted R ²	0.20	0.20	0.23	0.23	0.23	0.23	0.28	0.28

Notes to Table 4:

This table reports coefficient estimates and p-values (in parentheses) for our panel regression, estimating the effect of consultant usage on levels of compensation for CEOs (Panel A) and non-CEO executive directors (Panel B). The dependent variables are the log of *Salary* (LnSalary); *Bonus* (LnBonus), *EquityPay* (LnEquity) and *TotalPay* (LnTotal) where *EquityPay* is the sum of incentive plans and stock options and *TotalPay* is the sum of the director's salary, bonus, other benefits and *EquityPay* received during the year. *CONSULT* is an indicator variable set to 1 if the firm used a compensation consultant and 0 otherwise. *BIG5* is equal to 1 if the firm used one of the top five firms ranked by market share in the year and 0 otherwise. All control variables are as defined in Table 2. Year and industry dummy variables are included in the regression but not reported.

Table 5: Compensation Consultants and Composition of CEO and Executive Pay

Panel A: CEO						
	<i>SALARYPERC</i>		<i>BONUSPERC</i>		<i>EQUITYPERC</i>	
Variables	Model (2A)	Model (2B)	Model (2A)	Model (2B)	Model (2A)	Model (2B)
<i>Intercept</i>	0.93 (0.01)	0.93 (0.01)	0.24 (0.01)	0.23 (0.01)	-0.25 (0.01)	-0.24 (0.01)
<i>CONSULT</i>	-0.09 (0.01)	-0.09 (0.01)	0.01 (0.80)	0.02 (0.29)	0.09 (0.01)	0.07 (0.01)
<i>Consult*BIG5</i>		0.01 (0.82)		-0.02 (0.05)		0.02 (0.19)
<i>ROA</i>	-0.16 (0.01)	-0.16 (0.01)	0.12 (0.01)	0.12 (0.01)	0.06 (0.26)	0.06 (0.26)
<i>SHAREReturns</i>	-0.09 (0.01)	-0.09 (0.01)	0.03 (0.01)	0.03 (0.01)	0.06 (0.01)	0.06 (0.01)
<i>SIZE (log total assets)</i>	-0.04 (0.01)	-0.04 (0.01)	-0.01 (0.13)	-0.01 (0.16)	0.05 (0.01)	0.05 (0.01)
<i>GROWTH</i>	0.00 (0.41)	0.00 (0.41)	0.00 (0.28)	0.00 (0.24)	0.00 (0.65)	0.00 (0.61)
<i>LEVERAGE</i>	0.00 (0.26)	0.00 (0.26)	0.00 (0.39)	0.00 (0.36)	0.00 (0.93)	0.00 (0.96)
<i>AGE</i>	0.00 (0.01)	0.00 (0.01)	0.00 (0.34)	0.00 (0.28)	0.00 (0.01)	0.00 (0.01)
<i>TENURE</i>	0.00 (0.10)	0.00 (0.10)	0.00 (0.97)	0.00 (0.83)	0.00 (0.15)	0.00 (0.20)
<i>OTHERBOARDS</i>	0.00 (0.96)	0.00 (0.96)	0.00 (0.27)	0.00 (0.28)	-0.01 (0.34)	-0.01 (0.33)
<i>%NEDs</i>	-0.12 (0.02)	-0.12 (0.02)	0.01 (0.75)	0.01 (0.81)	0.09 (0.16)	0.09 (0.14)
<i>AvgNEDTenure</i>	0.01 (0.01)	0.01 (0.01)	0.00 (0.09)	0.00 (0.09)	0.00 (0.26)	0.00 (0.26)
<i>BOARDSIZE</i>	0.00 (0.11)	0.00 (0.11)	0.00 (0.47)	0.00 (0.46)	0.00 (0.25)	0.00 (0.25)
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes
N	1878	1878	1878	1878	1878	1878
Adjusted R ²	0.32	0.32	0.12	0.12	0.22	0.22

Table 5: Compensation Consultants and Composition of CEO and Executive Pay (cont'd)

Panel B: Non-CEOs executive directors						
Variables	SALARYPERC		BONUSPERC		EQUITYPERC	
	Model (2A)	Model (2B)	Model (2A)	Model (2B)	Model (2A)	Model (2B)
<i>Intercept</i>	0.82 (0.01)	0.82 (0.01)	0.27 (0.01)	0.26 (0.01)	-0.19 (0.01)	-0.19 (0.01)
<i>CONSULT</i>	-0.06 (0.01)	-0.06 (0.01)	0.01 (0.65)	0.03 (0.20)	0.07 (0.01)	0.05 (0.02)
<i>Consult*BIG5</i>		0.01 (0.73)		-0.02 (0.06)		0.03 (0.06)
<i>ROA</i>	-0.19 (0.01)	-0.19 (0.01)	0.15 (0.01)	0.15 (0.01)	0.07 (0.15)	0.07 (0.14)
<i>SHAREReturns</i>	-0.10 (0.01)	-0.10 (0.01)	0.04 (0.01)	0.04 (0.01)	0.07 (0.01)	0.07 (0.01)
<i>SIZE (log total assets)</i>	-0.04 (0.01)	-0.04 (0.01)	-0.01 (0.09)	-0.01 (0.10)	0.05 (0.01)	0.05 (0.01)
<i>GROWTH</i>	0.00 (0.34)	0.00 (0.35)	0.00 (0.12)	0.00 (0.14)	0.00 (0.05)	0.00 (0.06)
<i>LEVERAGE</i>	0.00 (0.28)	0.00 (0.28)	0.00 (0.09)	0.00 (0.10)	0.00 (0.03)	0.00 (0.03)
<i>AGE</i>	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.02)	0.00 (0.01)	0.00 (0.01)
<i>TENURE</i>	0.00 (0.54)	0.00 (0.54)	0.00 (0.92)	0.00 (0.97)	0.00 (0.88)	0.00 (0.79)
<i>OTHERBOARDS</i>	0.00 (0.98)	0.00 (0.98)	0.00 (0.73)	0.00 (0.71)	-0.01 (0.27)	-0.01 (0.26)
<i>%NEDs</i>	-0.09 (0.12)	-0.10 (0.12)	0.02 (0.68)	0.01 (0.76)	0.13 (0.01)	0.14 (0.01)
<i>AvgNEDTenure</i>	0.01 (0.08)	0.01 (0.08)	0.00 (0.76)	0.00 (0.74)	-0.01 (0.01)	-0.01 (0.01)
<i>BOARDSIZE</i>	-0.01 (0.09)	-0.01 (0.09)	0.01 (0.03)	0.01 (0.02)	0.00 (0.64)	0.00 (0.63)
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes
N	5427	5427	5427	5427	5427	5427
Adjusted R ²	0.27	0.27	0.13	0.13	0.20	0.20

Notes to Table 5:

This table reports coefficient estimates and p-values (in parentheses) for our panel regression, estimating the effect of consultant usage on composition of compensation for CEOs (Panel A) and non-CEO executive directors (Panel B). *SALARYPERC* (*Salary/TotalPay*), *BONUSPERC* (*Bonus/Total pay*), and *EQUITYPERC* (*EquityPay/TotalPay*) are calculated as proportions of the total compensation package composed of *Salary*, *Bonus* and *EquityPay* respectively. *CONSULT* is an indicator variable set to 1 if the firm used a compensation consultant and 0 otherwise. *BIG5* is the proxy for the largest five compensation consulting firms ranked by market share. All control variables are as defined in Table 2. Year and industry dummy variables are included in the regression but not reported.

Table 6: Changes in Consultant use and compensation levels for executive directors (CEOs and Non-CEOs)

Variables	Δ SALARY			Δ BONUS			Δ EQUITY			Δ TOTAL		
	Model (3A)	Model (3B)	Model (3C)	Model (3A)	Model (3B)	Model (3C)	Model (3A)	Model (3B)	Model (3C)	Model (3A)	Model (3B)	Model (3C)
Intercept	-293.74 (0.01)	-214.19 (0.01)	-214.61 (0.01)	-290.63 (0.01)	-313.83 (0.01)	-309.69 (0.01)	-3667.04 (0.01)	-4052.87 (0.01)	-3988.05 (0.01)	-4542.20 (0.01)	-5100.56 (0.01)	-5028.27 (0.01)
<i>EXIT</i>	11.28 (0.30)			-96.24 (0.03)			-18.82 (0.92)			-139.16 (0.56)		
<i>NEW</i>	15.68 (0.39)			19.73 (0.57)			48.49 (0.73)			58.56 (0.74)		
<i>INCREASE</i>	20.01 (0.02)		2.23 (0.63)	-33.33 (0.24)		1.82 (0.92)	-24.04 (0.83)		152.84 (0.22)	-70.53 (0.64)		180.25 (0.18)
<i>DECREASE</i>	13.07 (0.12)		-7.52 (0.16)	-8.61 (0.81)		-6.07 (0.74)	130.46 (0.64)		9.36 (0.92)	90.20 (0.75)		-16.33 (0.86)
<i>SAME</i>	17.73 (0.02)			-25.74 (0.33)			-85.14 (0.35)			-141.32 (0.31)		
<i>SWITCH</i>		10.32 (0.01)	11.70 (0.01)		11.77 (0.41)	8.68 (0.56)		43.41 (0.76)	-12.51 (0.88)		55.11 (0.70)	-4.14 (0.96)
<i>INCREASE*SWITCH</i>			-4.39 (0.54)			-22.79 (0.32)			-156.44 (0.32)			-201.15 (0.22)
<i>DECREASE*SWITCH</i>			0.19 (0.98)			37.08 (0.25)			370.15 (0.34)			431.17 (0.28)
<i>LAG(PAY)</i>	-0.37 (0.01)	-0.28 (0.01)	-0.28 (0.01)	-0.21 (0.01)	-0.22 (0.01)	-0.22 (0.01)	-0.81 (0.01)	-0.85 (0.01)	-0.85 (0.01)	-0.69 (0.01)	-0.75 (0.01)	-0.75 (0.01)
<i>ΔROA</i>	8.08 (0.61)	3.63 (0.83)	3.15 (0.85)	162.56 (0.01)	178.50 (0.01)	179.83 (0.01)	236.30 (0.11)	207.84 (0.16)	232.42 (0.13)	417.54 (0.02)	391.97 (0.04)	418.60 (0.03)
<i>ΔSHARERETURNS</i>	1.96 (0.24)	7.35 (0.01)	7.39 (0.01)	38.53 (0.01)	52.62 (0.01)	52.34 (0.01)	-16.92 (0.85)	-23.64 (0.85)	-27.83 (0.82)	13.05 (0.90)	24.17 (0.86)	19.43 (0.89)
<i>SIZE (log total assets)</i>	29.55 (0.01)	24.37 (0.01)	24.43 (0.01)	17.35 (0.01)	18.84 (0.01)	18.87 (0.01)	295.39 (0.01)	328.47 (0.01)	323.52 (0.01)	369.86 (0.01)	411.31 (0.01)	406.01 (0.01)
<i>GROWTH</i>	0.30	0.17	0.17	0.41	0.43	0.43	4.13	3.50	3.79	5.10	4.46	4.76

	(0.06)	(0.13)	(0.15)	(0.28)	(0.26)	(0.28)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
<i>LEVERAGE</i>	-0.85	-0.85	-0.84	-0.97	-2.10	-2.01	-11.90	-15.54	-16.01	-14.56	-20.38	-20.83
	(0.06)	(0.10)	(0.11)	(0.37)	(0.27)	(0.31)	(0.01)	(0.04)	(0.05)	(0.01)	(0.04)	(0.05)
<i>AGE</i>	-0.18	-0.33	-0.33	-0.64	-0.29	-0.33	-13.74	-14.47	-14.95	-12.51	-12.60	-13.17
	(0.56)	(0.15)	(0.15)	(0.37)	(0.74)	(0.70)	(0.01)	(0.02)	(0.02)	(0.02)	(0.04)	(0.04)
<i>TENURE</i>	-0.91	-1.29	-1.29	-0.47	-0.20	-0.16	33.96	42.32	42.78	31.92	40.23	40.78
	(0.19)	(0.03)	(0.03)	(0.65)	(0.88)	(0.90)	(0.17)	(0.17)	(0.17)	(0.22)	(0.21)	(0.21)
<i>CEO</i>	85.51	75.46	75.47	56.11	60.73	61.18	518.06	548.55	552.05	745.79	816.27	820.55
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
<i>%NEDs</i>	45.44	25.92	26.49	161.02	119.41	121.81	694.79	546.82	546.17	859.03	749.88	752.22
	(0.05)	(0.15)	(0.14)	(0.01)	(0.03)	(0.02)	(0.02)	(0.06)	(0.06)	(0.01)	(0.02)	(0.02)
<i>AvgNEDTenure</i>	-0.67	-0.46	-0.45	-1.30	0.05	-0.04	-14.50	-14.24	-14.96	-14.32	-16.12	-16.96
	(0.51)	(0.49)	(0.50)	(0.37)	(0.98)	(0.98)	(0.21)	(0.29)	(0.29)	(0.30)	(0.30)	(0.30)
<i>BOARDSIZE</i>	0.33	0.63	0.63	2.55	4.15	4.19	8.05	7.38	8.64	15.95	18.95	20.37
	(0.73)	(0.49)	(0.50)	(0.48)	(0.30)	(0.29)	(0.56)	(0.72)	(0.67)	(0.31)	(0.37)	(0.33)
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4923	4235	4235	4923	4235	4235	4923	4235	4235	4923	4235	4235
Adjusted R ²	0.30	0.29	0.29	0.11	0.12	0.13	0.41	0.43	0.43	0.35	0.38	0.39

Notes to Table 6:

This table reports coefficient estimates and p-values (in parentheses) for our panel regression, estimating the effect of change in consultant usage on changes in the levels of compensation for a pooled sample of CEOs and non-CEO executive directors. The dependent variables measures the change in *Salary* ($\Delta SALARY$); *Bonus* ($\Delta BONUS$), *EquityPay* ($\Delta EQUITY$) and *TotalPay* ($\Delta TOTAL$) between times $t-1$ and t where *EquityPay* is the sum of incentive plans and stock options and *TotalPay* is the sum of the director's salary, bonus, other benefits and *EquityPay* received during the year. $LAG(PAY)$ is defined as *Salary*, *Bonus*, *EquityPay* and *TotalPay* at time $t-1$ for the $\Delta SALARY$, $\Delta BONUS$, $\Delta EQUITY$ and $\Delta TOTAL$ models respectively; ΔROA is the change in return on assets during the year; *CEO* is a dummy variable which equals one if the director was the CEO at time t and zero otherwise. All other variable definitions are as in table 2 and 3. Year and industry dummy variables are included in the regression but not reported.

Table 7: Changes in Consultant use and changes in the composition of compensation packages (all executive directors)

Variables	Δ SALARYPERC			Δ BONUSPERC			Δ EQUITYPERC		
	Model (4A)	Model (4B)	Model (4C)	Model (4A)	Model (4B)	Model (4C)	Model (4A)	Model (4B)	Model (4C)
<i>Intercept</i>	0.41 (0.01)	0.45 (0.01)	0.45 (0.01)	0.17 (0.01)	0.15 (0.01)	0.15 (0.01)	-0.20 (0.01)	-0.14 (0.03)	-0.14 (0.03)
<i>EXIT</i>	-0.02 (0.55)			-0.04 (0.03)			0.07 (0.04)		
<i>NEW</i>	-0.04 (0.17)			0.01 (0.62)			0.03 (0.25)		
<i>INCREASE</i>	-0.05 (0.02)		-0.01 (0.30)	-0.02 (0.15)		-0.01 (0.36)	0.10 (0.01)		0.02 (0.24)
<i>DECREASE</i>	-0.04 (0.10)		0.00 (0.92)	-0.01 (0.42)		-0.01 (0.43)	0.08 (0.01)		0.01 (0.66)
<i>SAME</i>	-0.04 (0.06)			-0.01 (0.43)			0.08 (0.01)		
<i>SWITCH</i>		0.01 (0.26)	0.01 (0.40)		0.01 (0.04)	0.01 (0.03)		-0.02 (0.01)	-0.02 (0.03)
<i>INCREASE*SWITCH</i>			0.00 (0.80)			-0.01 (0.47)			0.01 (0.74)
<i>DECREASE*SWITCH</i>			0.00 (0.85)			0.01 (0.72)			-0.01 (0.77)
<i>LAG(PAYPERC)</i>	-0.49 (0.01)	-0.51 (0.01)	-0.51 (0.01)	-0.49 (0.01)	-0.55 (0.01)	-0.55 (0.01)	-0.66 (0.01)	-0.66 (0.01)	-0.66 (0.01)
<i>AROA</i>	-0.12 (0.01)	-0.13 (0.01)	-0.14 (0.01)	0.12 (0.01)	0.12 (0.01)	0.11 (0.01)	-0.02 (0.71)	0.00 (0.97)	0.00 (0.94)
<i>ASHARERETURNS</i>	-0.04 (0.01)	-0.05 (0.01)	-0.05 (0.01)	0.01 (0.12)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.03 (0.01)	0.03 (0.01)
<i>SIZE (log total assets)</i>	-0.02 (0.01)	-0.02 (0.01)	-0.02 (0.01)	-0.01 (0.03)	0.00 (0.09)	0.00 (0.12)	0.03 (0.01)	0.03 (0.01)	0.03 (0.01)
<i>GROWTH</i>	0.00 (0.14)	0.00 (0.02)	0.00 (0.01)	0.00 (0.52)	0.00 (0.82)	0.00 (0.93)	0.00 (0.05)	0.00 (0.04)	0.00 (0.03)
<i>LEVERAGE</i>	0.00 (0.08)	0.00 (0.05)	0.00 (0.04)	0.00 (0.29)	0.00 (0.98)	0.00 (0.86)	0.00 (0.01)	0.00 (0.06)	0.00 (0.03)
<i>AGE</i>	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.18)	0.00 (0.77)	0.00 (0.77)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
<i>TENURE</i>	0.00 (0.16)	0.00 (0.39)	0.00 (0.38)	0.00 (0.55)	0.00 (0.47)	0.00 (0.47)	0.00 (0.61)	0.00 (0.97)	0.00 (0.96)
<i>CEO</i>	-0.02 (0.01)	-0.02 (0.01)	-0.02 (0.01)	0.01 (0.01)	0.01 (0.06)	0.01 (0.06)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)
<i>%NEDs</i>	-0.04 (0.29)	-0.10 (0.01)	-0.10 (0.01)	0.05 (0.12)	0.05 (0.08)	0.06 (0.07)	0.06 (0.15)	0.08 (0.11)	0.07 (0.13)
<i>AvgNEDTenure</i>	0.00 (0.25)	0.00 (0.13)	0.00 (0.13)	0.00 (0.40)	0.00 (0.82)	0.00 (0.80)	0.00 (0.06)	0.00 (0.30)	0.00 (0.31)
<i>BOARDSIZE</i>	0.00 (0.09)	0.00 (0.29)	0.00 (0.27)	0.00 (0.21)	0.00 (0.72)	0.00 (0.77)	0.00 (0.62)	0.00 (0.39)	0.00 (0.35)

<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4923	4235	4235	4923	4235	4235	4923	4235	4235
Adjusted R ²	0.33	0.35	0.35	0.28	0.31	0.31	0.39	0.40	0.40

Notes to Table 7:

This table reports coefficient estimates and p-values (in parentheses) for our panel regression, estimating the effect of change in consultant usage on changes in the composition of compensation for a pooled sample of CEOs and non-CEO executive directors. The dependent variables measure the change in *SALARYPERC* (Δ *SALARYPERC*); *BONUSPERC* (Δ *BONUSPERC*), and *EQUITYPERC* (Δ *EQUITYPERC*) between times *t-1* and *t* where *SALARYPERC* (*Salary/TotalPay*), *BONUSPERC* (*Bonus/Total pay*), and *EQUITYPERC* (*EquityPay/TotalPay*) are calculated as proportions of the total compensation package composed of *Salary*, *Bonus* and *EquityPay* respectively. *LAG(PAYPERC)* is defined as *SALARYPERC*, *BONUSPERC* and *EQUITYPERC* at time *t-1* for the Δ *SALARYPERC*, Δ *BONUSPERC* and Δ *EQUITYPERC* models respectively; Δ *ROA* is the change in return on assets during the year; *CEO* is a dummy variable which equals one if the director was the CEO at time *t* and zero otherwise. All other variable definitions are as in table 2 and 3. Year and industry dummy variables are included in the regression but not reported.

Appendices

Appendices 1 and 2 report the results of running three additional tests replacing *CONSULT* in Models 1A (Table 4) and 2A (Table 5) with variables capturing (i) the number of consultants employed during the year by the firm (0, 1, 2, 3 and >3); (ii) the individual consultants by name, for the five most frequently used consulting firms, with a sixth category consisting of all other consultants used; and (iii) the type of consulting firm used as the main consultant (human resource, auditor, solicitor, and other). The results for level and composition of pay are attached as Appendix 1 and 2 respectively. Results suggest a variation in compensation design across the use of multiple consultants and the existence of consultant specific preferences.

Appendix 1: The number of consultants, individual consultant, or type of consultant and CEO and Executive Director Compensation levels

Variables	CEO				Non-CEOs executive directors			
	ln (Salary)	ln (Bonus)	ln (Equity)	ln (Total)	ln (Salary)	ln (Bonus)	ln (Equity)	ln (Total)
Panel A: Number of Consultants								
<i>Number = 1</i>	0.17 (0.01)	0.57 (0.02)	1.29 (0.01)	0.22 (0.02)	0.09 (0.03)	0.50 (0.01)	0.81 (0.01)	0.11 (0.08)
<i>Number = 2</i>	0.24 (0.01)	0.59 (0.02)	1.48 (0.01)	0.36 (0.01)	0.09 (0.05)	0.45 (0.03)	0.99 (0.01)	0.23 (0.01)
<i>Number = 3</i>	0.27 (0.01)	0.86 (0.01)	1.50 (0.01)	0.36 (0.01)	0.11 (0.02)	0.68 (0.01)	1.02 (0.01)	0.24 (0.01)
<i>Number >3</i>	0.28 (0.01)	0.64 (0.03)	1.83 (0.01)	0.41 (0.01)	0.04 (0.56)	0.47 (0.04)	1.15 (0.01)	0.20 (0.05)
Adjusted R ²	0.32	0.22	0.26	0.47	0.20	0.22	0.23	0.28
Panel B: Name of Consultant								
<i>New Bridge Street</i>	0.19 (0.01)	0.49 (0.05)	1.33 (0.01)	0.23 (0.02)	0.12 (0.01)	0.48 (0.02)	0.91 (0.01)	0.16 (0.03)
<i>Towers Perrin</i>	0.26 (0.01)	0.89 (0.01)	1.86 (0.01)	0.46 (0.01)	0.13 (0.05)	0.70 (0.01)	1.16 (0.01)	0.28 (0.01)
<i>Watson Wyatt</i>	0.26 (0.01)	0.84 (0.01)	1.18 (0.01)	0.24 (0.11)	0.07 (0.45)	0.65 (0.02)	0.86 (0.02)	0.12 (0.38)
<i>Deloitte</i>	0.28 (0.01)	0.91 (0.01)	1.66 (0.01)	0.41 (0.01)	0.09 (0.20)	0.79 (0.01)	1.21 (0.01)	0.20 (0.09)
<i>PWC/Monks Partnership</i>	0.07 (0.45)	0.28 (0.41)	1.16 (0.01)	0.15 (0.23)	0.04 (0.50)	0.11 (0.71)	0.46 (0.13)	0.02 (0.80)
<i>Mercer</i>	0.18 (0.04)	0.89 (0.01)	1.32 (0.01)	0.29 (0.02)	0.03 (0.66)	0.44 (0.07)	0.58 (0.11)	0.05 (0.58)
<i>Other consultants</i>	0.21 (0.01)	0.63 (0.01)	1.36 (0.01)	0.30 (0.01)	0.04 (0.37)	0.47 (0.02)	0.76 (0.01)	0.13 (0.10)
Adjusted R ²	0.33	0.24	0.28	0.48	0.20	0.23	0.24	0.28

Panel C: Type of Consultant								
<i>HR</i>	0.21 (0.01)	0.57 (0.02)	1.40 (0.01)	0.26 (0.01)	0.08 (0.04)	0.52 (0.01)	0.87 (0.01)	0.13 (0.05)
<i>Auditing</i>	0.22 (0.01)	0.61 (0.02)	1.44 (0.01)	0.27 (0.01)	0.10 (0.04)	0.58 (0.01)	0.90 (0.01)	0.14 (0.10)
<i>Solicitor</i>	0.09 (0.41)	0.78 (0.04)	1.21 (0.01)	0.40 (0.01)	0.08 (0.31)	0.58 (0.07)	1.21 (0.01)	0.47 (0.01)
<i>Other</i>	0.39 (0.01)	2.00 (0.01)	0.93 (0.14)	0.68 (0.01)	0.17 (0.06)	1.11 (0.01)	0.00 (1.00)	0.19 (0.23)
Adjusted R ²	0.31	0.22	0.26	0.47	0.20	0.22	0.23	0.28
<i>Control Variables</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1878	1878	1878	1878	5427	5427	5427	5427

Notes to Appendix 1:

This table reports coefficient estimates and p-values (in parentheses) for our panel regression, estimating the effect of different types of consultant usage on levels of compensation. This table presents results to three sets of additional tests using the same framework as Model (1A) in Table 4. *CONSULT* is replaced in Panel A with the number of consultants employed during the year by the firm (1, 2, 3, and >3); in Panel B with the individual consultants by name, for the five most frequently used consulting firms, with a sixth category consisting of all other consultants used; and in Panel C with the type of consulting firm used as the main consultant (human resource, auditor, solicitor, and other). Control variables are the same as those in Table 4 but are not reported.

Appendix 1 shows that as firms employ more consultants, compensation levels are higher for all executive directors (CEOs and non-CEOs); firms employing Towers Perrin and Deloitte as their main consultant have the highest levels total compensation for both CEOs and executive directors (particularly equity compensation); firms employing a consultant that is not a specialist HR consultant or auditing firm have the highest amount of consultant-specific compensation.

Appendix 2: The number of consultants, individual consultant, or type of consultant and CEO and Executive Director Compensation Composition

Variables	CEO			Non-CEOs executive directors		
	<i>SALARY PERC</i>	<i>BONUS PERC</i>	<i>EQUITY PERC</i>	<i>SALARY PERC</i>	<i>BONUS PERC</i>	<i>EQUITY PERC</i>
Panel A: Number of Consultants						
<i>Number = 1</i>	-0.08 (0.01)	0.01 (0.79)	0.08 (0.01)	-0.05 (0.01)	0.00 (0.78)	0.06 (0.01)
<i>Number = 2</i>	-0.09 (0.01)	-0.00 (0.99)	0.10 (0.01)	-0.08 (0.01)	0.01 (0.49)	0.08 (0.01)
<i>Number = 3</i>	-0.10 (0.01)	0.01 (0.67)	0.10 (0.01)	-0.08 (0.01)	0.02 (0.28)	0.08 (0.01)
<i>Number >3</i>	-0.11 (0.01)	-0.03 (0.18)	0.15 (0.01)	-0.10 (0.01)	-0.02 (0.40)	0.13 (0.01)
Adjusted R ²	0.31	0.10	0.21	0.27	0.13	0.19

Panel B: Name of Consultant						
<i>New Bridge Street</i>	-0.07 (0.01)	-0.00 (0.86)	0.09 (0.01)	-0.05 (0.01)	0.00 (0.96)	0.07 (0.01)
<i>Towers Perrin</i>	-0.13 (0.01)	0.00 (0.99)	0.14 (0.01)	-0.09 (0.01)	0.01 (0.64)	0.10 (0.01)
<i>Watson Wyatt</i>	-0.07 (0.02)	0.02 (0.38)	0.05 (0.16)	-0.06 (0.06)	0.03 (0.20)	0.05 (0.10)
<i>Deloitte</i>	-0.11 (0.01)	0.00 (0.97)	0.13 (0.01)	-0.09 (0.01)	0.00 (0.94)	0.10 (0.01)
<i>PWC/Monks Partnership</i>	-0.09 (0.01)	-0.01 (0.75)	0.08 (0.04)	-0.04 (0.09)	-0.01 (0.60)	0.03 (0.26)
<i>Mercer</i>	-0.09 (0.01)	0.01 (0.60)	0.08 (0.01)	-0.05 (0.03)	0.01 (0.75)	0.06 (0.03)
<i>Other consultants</i>	-0.09 (0.01)	0.01 (0.60)	0.09 (0.01)	-0.06 (0.01)	0.02 (0.36)	0.06 (0.01)
Adjusted R ²	0.32	0.12	0.23	0.27	0.13	0.20
Panel C: Type of Consultant						
<i>HR</i>	-0.08 (0.01)	-0.00 (0.85)	0.09 (0.01)	-0.06 (0.01)	0.00 (0.78)	0.07 (0.01)
<i>Auditing</i>	-0.09 (0.01)	-0.00 (0.89)	0.10 (0.01)	-0.06 (0.01)	0.00 (0.84)	0.07 (0.01)
<i>Solicitor</i>	-0.12 (0.01)	0.07 (0.08)	0.06 (0.20)	-0.11 (0.01)	0.05 (0.13)	0.06 (0.02)
<i>Other consultants</i>	-0.17 (0.01)	0.13 (0.01)	0.03 (0.53)	-0.04 (0.36)	0.11 (0.01)	-0.02 (0.68)
Adjusted R ²	0.31	0.12	0.21	0.26	0.13	0.19
<i>Control Variables</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	1878	1878	1878	5427	5427	5427

Notes to Appendix 2 :

This table reports coefficient estimates and p-values (in parentheses) for our panel regression, estimating the effect of different types of consultant usage composition of compensation. *CONSULT* is replaced in Panel A with the number of consultants employed during the year by the firm (1, 2, 3, and >3); in Panel B with the individual consultants by name, for the five most frequently used consulting firms, with a sixth category consisting of all other consultants used; and in Panel C with the type of consulting firm used as the main consultant (human resource, auditor, solicitor, and other). *SALARYPERC* (*Salary/TotalPay*), *BONUSPERC* (*Bonus/Total pay*), and *EQUITYPERC* (*EquityPay/TotalPay*) are calculated as proportions of the total compensation package composed of *Salary*, *Bonus* and *EquityPay* respectively. Control variables are the same as those in Table 5 but are not reported.

Appendix 2 shows that as a firm employs more compensation consultants, the proportion of total compensation composed of salary decreases, and the proportion of equity increases for all executive directors (CEOs and non-CEOs); firms using Towers Perrin and Deloitte have the highest (lowest) proportion of equity-based compensation, (salary) while Watson Wyatt and PWC have the most conservative approach to equity-based pay with the lowest equity-form coefficient of any individual firm examined; firms employing a HR consultancy or auditing firm issue the highest proportion of equity-based compensation and those employing solicitors or other consultants pay a lower (higher) proportion of salary-based compensation(bonus).