

# **Shareholder Voting and Directors' Remuneration Report Legislation: Say on Pay in the UK**

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This version  
18<sup>th</sup> August 2009

First version  
June 2009

## **Acknowledgements**

We would like to thank Peter Cappelli, Arijit Chatterjee, David Maber, Simon Peck, Sarah Wilson (Manifest) and seminar participants at ESSEC for comments during the preparation of this paper. We acknowledge the Center for Human Resources at the Wharton School for generous funding. We especially thank Sarah Wilson at Manifest for the voting data used in this paper.

## **Abstract**

This paper investigates shareholder voting in the UK. The Directors' Remuneration Report (DRR) Regulations of 2002 gave shareholders a mandatory non-binding vote on boardroom pay. First, using data on about 50,000 resolutions over the period 2002 to 2007 we find that less than 10% of shareholders abstain or vote against the mandated Directors' Remuneration Report (DRR) resolution. Second, investors are more likely to vote against DRR resolutions compared to non-pay resolutions. Third, shareholders are more likely to vote against general executive pay resolutions, such as stock options, long-term incentive plans and bonus resolutions compared to non-pay resolutions. Forth, firms with higher CEO pay attract greater voting dissent. Fifth, there is little evidence that CEO pay is lower in firms that previously experienced high levels of shareholder dissent. In addition, there is little evidence that the equity pay-mix, representing better owner-manager alignment, is greater in such firms. Currently, we find limited evidence that, on average, 'say on pay' materially alters the subsequent level and design of CEO compensation.

## I. INTRODUCTION

In this study we investigate the relation between UK shareholder voting and executive pay. The Directors' Remuneration Report (DRR) Regulations, introduced in 2002, mandated boards of directors at public companies to produce a comprehensive remuneration report and submit it to an advisory shareholder vote at the firm's Annual General Meeting (DRR 2002). The so-called 'say on pay' initiative was introduced by the UK government against a background of public outrage at rising levels of CEO compensation and a putative lack of transparency in pay packages. The DRR legislation gave shareholders a voice on pay: our study examines what they are saying and what it means. We contribute to a nascent research stream investigating UK shareholder voting on executive pay (Ferri and Maber 2009; Carter and Zamora 2009; Alissa 2009).

In principle, 'say on pay' initiatives promote shareholder activism, giving owners more power and influence to shape boardroom pay. Legislation giving shareholder "voice" has sprung up in many countries including the United Kingdom, Australia, the Netherlands, Norway, and Sweden. At the time of writing, the debate on 'say on pay' is raging in the United States. Typically, the goal of such policies is to reduce managerial excess and mitigate concerns that pay packages are not designed in owners' best interests. Executive pay remains a highly controversial subject, recently observed in the outrage over compensation paid to executives at many of the financial firms worst hit by the credit crisis. Critical questions remain as to whether levels of CEO pay are "too high" and overall pay packages are designed optimally (Kaplan 2008; Bebchuk and Fried 2006; Bebchuk and Fried 2004; Core and Guay 1999; Core et al. 2003). Shareholder voting

may be one mechanism to reduce alleged egregious pay packages (Cheffins and Thomas 2001; Alissa 2009; Carter and Zamora 2009; Ferri and Maber 2009).

Our study contributes to a broader literature on shareholder activism, including studies that specifically investigate voting on proposals initiated by shareholders themselves (Thomas and Martin 2000; Karpoff et al. 1996; Cai and Walkling 2009; Gillan and Starks 2000; Morgan and Wolf 2007; Carter and Zamora 2009; Del Guercio et al. 2008; Leech 2001; Thomas and Martin 1999; Becht et al. 2008; Ferri and Sandino 2009; Martin and Thomas 2005). Few previous studies have examined the connection between shareholder voice and CEO pay in the UK. Notable recent exceptions include Ferri and Maber (2009), Carter and Zamora (2009) and Alissa (2009) which investigate shareholder voting in the UK.

Case-study evidence suggests that shareholders are sufficiently concerned about CEO pay and express this through the voting mechanism (Deloitte 2004). Notably, the prominent British firm GlaxoSmithKline attracted adverse publicity during the first DRR proxy season of 2003. Shareholders, unhappy with the controversial compensation package for CEO Jean-Pierre Garnier, in particular his severance arrangements, which were perceived as ‘excessive’ in the media and out of line with CEO pay at other British firms, voted against acceptance of the Remuneration Report. The symbolism of the “no” vote ultimately resulted in a more shareholder-friendly pay package as well as significant changes in personnel at the company (Ferri and Maber 2009; Cai and Walkling 2009). Further cases of shareholder dissent have been well publicized in other British firms including Vodafone, ITV, Unilever, and Tesco. However, it is far from clear whether these are just isolated cases of shareholder discord, or are symptomatic of more

widespread dissension. A study providing systematic evidence on British say on pay is clearly warranted. More importantly it provides insights to the general governance issue of how shareholders might vote on pay in other dominions and potential effects.

In this study we investigate shareholder activism in relation to executive pay by way of voting outcomes on resolutions at company general meetings. The study uses polling data for a large sample of UK firms for the six-year period from 2002 to 2007. The UK institutional context provides a fertile field experiment to test say on pay legislation. We investigate the factors that determine shareholder dissent. Given the Directors' Remuneration Report voting resolution is mandatory our analysis avoids otherwise potentially important selection bias effects.

Our study contributes to the extant literature in the following ways. First, we find that shareholder voting dissent on CEO pay is low. Typically, less than 10% of shareholders abstain or vote against the mandated Directors' Remuneration Report (DRR) resolution. Over 90% of shareholders vote in favor of the DRR. Second, using data on about 50,000 resolutions over the period 2002 to 2007 we find that shareholders are more likely to vote against the Directors' Remuneration Report compared to other non-pay resolutions such as the election of a director to the board. Third, investors are more likely to vote against general executive pay resolutions, such as stock options, long-term incentive plans and bonus resolutions compared to other non-pay resolutions. Forth, firms with high CEO pay attract greater voting dissent. In general, our statistical models illustrate that investor voting (activism) is endogenous. Fifth, we find little evidence that CEO pay is lower in firms that previously experienced high levels of shareholder dissent. In addition, there is little evidence that the equity pay-mix, representing better owner-

manager alignment, is greater in such firms. Overall, we find limited evidence that, on average, voting dissent materially alters the subsequent level and design of CEO pay.

The rest of the paper is organized as follows. Next we consider the institutional context, related studies and the development of the hypotheses. We then describe the data and our econometric strategy. This is followed by the results and conclusions.

## **II. HYPOTHESES DEVELOPMENT**

### **Voting and the Directors Remuneration Report (DRR)**

Since the early 1990s the UK has introduced several pieces of legislation aimed at improving the accountability, transparency and performance of the corporate governance system. For example, the Cadbury Report (1992) addressed accountability and audit committee functions in the wake of notable bank failures such as BCCI. For the first time a minimum number of outside (independent) directors was recommended for boards of directors. The Greenbury Report (1995) resulted in wide-ranging changes to the disclosure of executive pay, especially regarding stock options, so that investors could get a more complete picture of the economic costs associated with equity grants. The Greenbury Report was also a response to widespread concern about excess pay in the then recently privatized utilities. These principles of UK corporate governance were then enshrined in the Hampel Report (1998). Subsequently, the Higgs Report (2003) made recommendations to improve the effectiveness of non-executive (outside) directors. The report endorsed the “comply or explain” approach to UK corporate governance. This doctrine encourages firms to comply with best practice corporate governance, but leaves the door open for companies to deviate from the code. If the company deviates from the

rule it needs to explain why. The history of corporate governance policies in the UK since the 1990s can be viewed as a sequence of incremental steps aimed to mitigate problems and managerial malfeasance (Fama and Jensen 1983; Jensen and Meckling 1976).

The Director Remuneration Report (DRR) Regulations were introduced in the UK in 2002. The regulations were initiated as an amendment to the Companies Act of 1985, and subsequently were absorbed into the Companies Act of 2006. The new regulations significantly upgraded the information available to investors about executive pay and more importantly, also incorporated a requirement for the directors to seek approval from the shareholders for the DRR. Consequently, effective for companies with fiscal year ending on or after 31, December 2002, a resolution at their Annual General Meeting (AGM) seeking approval of the DRR became mandatory for all public companies. However, the regulations state that “No entitlement of a person to remuneration is made conditional on the resolution being passed” (Companies Act 2006, Section 439) and as such the resolution can only be considered advisory i.e. non-binding. However, a negative vote for the DRR still effectively amounts to a vote of no confidence in the firm’s remuneration policies and the Remuneration Committee itself.

The Directors’ Remuneration Report (DRR) regulations required significant new executive compensation disclosure by firms. The most important information included naming the advisors to the board and compensation committee such as the name of the board’s remuneration consultants (Conyon et al. 2009b). Firms also had to disclose details about executive service contracts, including contract duration and severance packages. They also had to supply a narrative on company policy on remuneration,

including a description of executive pay performance criteria (Ferri and Maber 2009; DRR 2002).

One important mechanism for shareholder voice in the UK is the capacity to vote on resolutions at the firm's AGM. Management typically tables all resolutions at an AGM although shareholders can table their own resolutions but this requires a minimum 5% share ownership or the co-ordination of 100 shareholders. Section 338 of the Companies Act 2006 governs the process (see subsection 3) and as such, shareholder requisitioned resolutions are rare. The actual outcome of a resolution can be formalized in several ways. For many years, non-contentious resolutions have been passed on a simple "show of hands" basis, where each member (or proxy thereof) present at the AGM has one vote regardless of the size of their shareholding. An Ordinary resolution, such as the approval of the DRR, requires a simple majority (i.e. greater than 50%) of hands voting for the resolution to be passed; a Special resolution requires 75% in favor to be passed. Other than asking questions of directors from the floor, this show of hands vote provides the most tangible way for the shareholders who have attended the AGM to provide a collective expression of their concerns and opinions. However, there is no guarantee such a vote will take place, and indeed this largely symbolic mechanism has in recent years began to disappear from AGMs. Typically shareholders can register their proxy vote in advance, either by post, or by email (if held in a nominee account) and indeed increasing numbers of companies now provide the provision for shareholders to vote via a website.

## **Related studies**

An early UK study by Conyon and Leech (1994) investigated the effect of shareholder power on CEO pay. They found weak evidence that greater shareholder control, lowered CEO pay but no evidence that shareholder power constrained the growth in pay. Recent research by Carter and Zamora (2009) estimates a shareholder voting model using UK data on FTSE350 firms between 2002 and 2006. They find that shareholders disapprove of higher salaries, weak pay-for-performance sensitivity in bonus pay and greater potential dilution in equity pay. They find some evidence that boards respond to past negative votes by reducing excess salary and dilution of stock option grants and also improving pay for performance links. Our paper is different in important respects because Carter and Zamora (2009) investigate shareholder voting on DRR resolutions only. In contrast, we investigate shareholder voting on all proposals (such as resolutions to elect or reelect directors and executives to the board) and evaluate how DRR voting differ from these other proposals. We also use data on all public companies, which extends beyond the FTSE350 companies in previous studies. Finally, we treat shareholder voting as an endogenous choice variable in our CEO pay equations.

Ferri and Maber (2009) studied UK firms over the period 2000 to 2005 to test the effect of UK say on pay legislation on CEO pay for performance. They found no evidence of a change in the level or growth rate of CEO pay after the adoption of the UK say on pay regulations. However, they did find that there was an increase in the sensitivity of CEO cash and total compensation to negative operating performance, particularly in firms with excessive compensation in the period prior to the DRR regulations and in firms with high voting dissent. Again, different from Ferri and Maber (2009) we estimate a shareholder-voting model and treat this as an endogenous variable

in the estimation of our CEO pay equations. In addition, we do not conduct a “before and after” style test, but instead compare voting on DRR with other non-pay related voting resolutions.

Contemporary US research by Ferri and Sandino (2009) finds that CEO compensation decreased in firms where a shareholder proposal to expense employee stock options was submitted. In addition, where the proposal gained greater shareholder votes, CEO pay subsequently declined. Alissa (2009) investigates say on pay in a sample of UK FTSE350 firms in fiscal year 2006 and finds that say on pay is associated with a reduction in excess compensation and greater CEO turnover.

### **Research hypotheses**

In contrast to previous ‘say on pay’ research we are able to compare shareholder voting on executive pay resolutions to voting on other non-pay resolutions. This is a significant feature of our study. Unlike prior studies we compare shareholder voting on the Directors’ Remuneration Report and/or other executive pay issues to shareholder voting on non-pay related resolutions. Shareholders typically vote on about ten different resolutions at a yearly company AGM. These include resolutions to accept the annual report and accounts, the election of directors to the board as well as the resolution relating to the directors’ remuneration report. Table 1 provides a case example for Glaxo-SmithKline.

We hypothesize that on average shareholder voting on pay-related resolutions will attract greater shareholder voting dissent compared to non-pay resolutions. First, unlike other types of shareholder resolutions (for instance on electing a director to the board or

approving a takeover), the resolution on the directors' remuneration report (DRR) is non-binding for the company. If a majority of shareholders vote against executive pay, the board could, in principle, ignore it. Shareholders' can signal dissatisfaction about CEO pay knowing that the consequences may, in reality, not be too severe. Non-binding voting may therefore help align owner and manager interests in a cost-effective way. In contrast, a majority vote against the election of a director will lead to the loss of that person from the company – which may not have been the desired effect of the shareholders.

Second, managerial power and rent seeking theories argue that CEO pay levels are too high and lead to general 'outrage' (Bebchuk and Fried 2003; Bebchuk and Fried 2006; Bebchuk and Fried 2004). Increasingly, U.S. and U.K. policy makers are addressing boardroom pay. Indeed, the UK Directors Remuneration Report legislation was introduced, in part, as a response to perceived high levels and growth rates in CEO pay. CEO pay appears especially controversial compared to other types of corporate governance issues such as the routine election of officers to the board of directors. We therefore expect greater voting dissent on pay matters compared to other more routine governance issues.

Third, voting against CEO pay has a clear alternative; namely to change the current pay package. Voting on other corporate governance issues may have less clear alternatives. For example, voting against the election of a board member may be much more difficult due to the lack of close substitutes in terms of skills, the supply of qualified candidates etc.. The risks and unintended consequences for this voting strategy are potentially greater compared to simply signaling dissatisfaction by voting against pay. This discussion leads to our first hypothesis.

*H<sub>1</sub>: Shareholder voting dissent is positively correlated to Director Remuneration Report (DRR) resolutions compared to non-DRR resolutions*

Our second hypothesis relates voting patterns on the directors' remuneration report (DRR) to the observed levels of CEO pay. UK shareholders were given the opportunity to vote against pay packages they deemed unreasonable, excessive or egregious in 20002. If shareholders are content with company pay strategies then we expect CEO pay has no effect on the level of voting dissent. Shareholder dissatisfaction predicts that high levels of CEO pay are associated with greater shareholder voting dissent. This hypothesis is consistent with media reports that excessive CEO pay produces more shareholder (and public) unhappiness. It is also consistent with extant research (Carter and Zamora 2009).

*H<sub>2</sub>: Shareholder voting dissent on the Directors Remuneration Report (DRR) is positively correlated to executive pay*

Finally, in addition to modeling shareholder voting, we also consider whether voting dissent on the Directors' Remuneration Report is associated with the future level and structure of CEO compensation. Specifically, we consider whether CEO compensation this period is correlated with the shareholder dissent on the DRR last period. If voting against the DRR is effective, meaning that firms adjust their compensation policies in the light of negative voting, we would expect to see a negative association between CEO pay and DRR dissent (Carter and Zamora 2009). In addition,

we expect that voting dissent is associated with greater future alignment between owner and manager interests. To test this we investigate whether the CEO equity pay mix (the fraction of total pay made up of options and other equity pay) is greater in firms with greater prior voting dissent. Our analysis differs from previous research as we investigate the relation between voting outcomes and pay, and not only the introduction of legislation (Ferri and Maber 2009) and we consider a total measure of CEO pay which includes stock options and other equity pay, rather than the change in salary compensation (Carter and Zamora 2009).

*H<sub>3</sub>: CEO pay is negatively associated with prior high levels of dissent on the directors' remuneration report (DRR).*

*H<sub>4</sub>: CEO equity pay mix is positively associated with prior high levels of dissent on the directors' remuneration report (DRR).*

### **III. METHODS**

#### **Sample**

We investigate shareholder-voting behavior using UK data from 2002 to 2007. The polling data is supplied by a private sector research firm called Manifest Ltd, a proxy-voting agency based in the UK that provides corporate governance data. Manifest collect data on many aspects of corporate governance including the composition of boards of directors, biographical director and officer information, executive and director

compensation, and ownership structure. For the shareholder voting models we use information from all publicly traded firms in the Manifest data set. The Manifest data has been used in previous research on ‘say on pay’ (Carter and Zamora 2009; Ferri and Maber 2009). However, for the CEO pay models we use a smaller subset of about 200 large public firms in 2006 because we needed to separately hand collect all the stock option data to construct the CEO pay variable. We describe the CEO pay data more completely below.

The unit of analysis in the shareholder voting models is the voting resolution: each firm has a number of resolutions per year. Examples of a voting resolution include the election of a director to the board, the reappointment of auditors, or a proposal to adopt the report and accounts of the company. We have the resolution narrative and from these we can identify the nature of the resolution. Each observation thus represents a “resolution-firm-year”. Each firm has several different resolutions to be voted in each year. In the data set the average (median) number of resolutions is about 10.5 (10.0) per AGM. In total, the sample contains 1958 unique publicly traded firms, although the number of firms per year can vary as firms enter or leave the data set. The initial data set contained 75,455 distinct “resolution-firm-year” observations. From these resolutions we had a smaller number of 51,263 complete observations on voting outcomes that we can use in the regressions. There are some missing observations for other right hand side variables included in the shareholder-voting regressions. The final data set for the voting models contain up to 44,787 resolution-firm-year observations over the period 2002 to 2007.

## Shareholder voting model

We estimate the following shareholder-voting model using panel data methods. Specifically, we use a GLS panel data random effects estimator, clustered on the firm identifier (Greene 2007; Wooldridge 2008). This controls for unobserved firm effects.

$$\text{Shareholder dissent}_{ijt} = f(\text{Directors Remuneration Report}_{ijt}, \text{Pay Resolutions}_{ijt}, \text{CEO Pay}_{jt}, \text{Controls}_{ijt}) \quad (1),$$

The dependent variable in the regressions is constructed from shareholder dissent on resolution  $i$  in firm  $j$  at time  $t$ . It is measured as the fraction of votes against a resolution plus the fraction of votes abstaining. It is consistent with prior research estimating shareholder-voting models which using a non-transformed outcome variable. These include Gillan and Starks (2000), Thomas and Cotter (2007), Morgan et al (2006), Carter and Zamora (2009).<sup>1</sup> Our study contributes to extant research on shareholder voting (Thomas and Cotter 2007; Carter and Zamora 2009). Thomas and Cotter (2007) use the percentage of votes in favor of a shareholder resolution as the dependent variable because they are investigating support for shareholder-initiated proposals. Our empirical results are qualitatively unchanged using this alternative measure.

The independent variables are as follows. First, we define a dummy variable equal to one if the resolution relates in whole or in part to the Directors' Remuneration Report (DRR) and zero otherwise. The variable is constructed from the narrative of the firm's voting resolution. This is a labor-intensive process because the resolution narratives vary from firm to firm, even when they relate to the same topic, and can be several lines long.

For example, the resolution narratives relating to the DRR might state the following: “To adopt the remuneration report for the year ended 30 September 2007” or “To approve the report of the Remuneration Committee” or even “To adopt the report & accounts for the year ended 31 December 2005, and to approve the report of the Remuneration Committee”. Because of this we had to manually go through all resolutions in the data set (over 50,000 observations in total) to code each resolution separately.

We classified all the resolution narratives into eleven distinct types: (1) Resolutions about directors: e.g. the election or re-election of a director. (2) Resolutions about major acquisitions or disposals: e.g. approving a merger or disposal of a significant asset. (3) Resolutions about auditors: e.g. appointing an auditor or approving the auditors’ remuneration. (4) Resolutions about equity: e.g. to approve changes to the share premium account, or to approve a share split. (5) Resolutions relating to the company: e.g. to change the company name, to wind up the company, approve a delisting, or to authorize donations. (6) Resolutions relating to dividends: e.g. to declare a dividend. (7) Resolutions relating to the articles of association: e.g. to amend or adopt new articles of association. (8) Resolutions relating to specific remuneration issues: e.g. to approve a share option plan, to amend long-term incentive plan, or to approve a grant of shares or options. (9) Resolutions that are contingent on the passing of one or more of the other mentioned resolutions first. (10) Resolutions relating to the report and accounts e.g. accepting them. (11) Resolution relating to the approval of the Directors’ Remuneration Report.

Second, the voting models contain an executive pay measure. We define executive compensation variable as the sum of salary, bonus and other cash

compensation. Unfortunately, for the large sample of firms in the voting models we cannot easily get executive option and other equity information and as such our figures for executive pay are lower bound estimates. We also define a number of further dummy variables if the resolution was about a specific executive pay issue, such as approving a share option scheme, amending a bonus plan or granting shares under a long-term incentive plan.

Our shareholder voting regressions contain a set of control variables. We control for whether the voting event was an emergency or annual general meeting by including a dummy variable for an emergency general meeting (EGM). EGM's are expected to attract greater dissent. We include an indicator variable if the management is against the resolution, usually suggesting that that shareholder will heed management recommendations and vote against. We also include a firm size measure, calculated as the log of market value at the fiscal year end (Thomas and Cotter 2007). We further control for share ownership concentration (Thomas and Cotter 2007; Morgan et al. 2006). Ownership concentration is the percentage ownership of the largest off-board shareholder (the one-firm concentration ratio). Ownership stakes exceeding a 3% cut-off level are revealed in the report and accounts of UK firms. We also control for the level of insider ownership (Thomas and Cotter 2007; Morgan et al. 2006). Insider ownership is the proportion of shares owned by the management of the firm as disclosed in the annual report. We control for firm performance as the return on firm assets during the fiscal year (Thomas and Cotter 2007; Morgan et al. 2006). We control for board governance by including the proportion of outside directors and board size in the regression models

(Core et al. 1999). The regressions also contain a set of year dummy variables to net out macro-economic shocks and other economy wide factors.

### **CEO compensation model**

We estimate the following CEO compensation model using instrumental variable (IV) regression methods. CEO pay data from U.K. public companies in fiscal year 2006 is used. The sample consists of the largest 200 firms based on market capitalization. The primary independent variable, shareholder-voting dissent on the Directors' Remuneration Report (DRR), is endogenous. In consequence, the OLS estimator is biased even asymptotically (Greene 2007; Wooldridge 2008) and therefore we instrument voting dissent. The CEO pay model is specified as:

$$CEO\ pay_{j,t+1} = f(Shareholder\ Voting\ Dissent\ on\ Pay_{jt}, Firm\ Size_{jt}, Firm\ Performance_{jt}, Controls_{jt}) \quad (2),$$

The CEO pay data for this model was hand-collected from annual reports and accounts. CEO pay in firm  $j$  and time  $t+1$  is measured as the sum of salary, bonus, benefits, stock options, restricted stock grants (valued at 70% of performance contingent awards), and other compensation. Consistent with previous executive pay research the granted options are valued using the Black and Scholes pricing model:  $c = Se^{-qt}N(d1) - Xe^{-rt}N(d2)$ , where  $d1 = (\ln(S/X) + (r-q+\sigma^2/2)t) / \sigma\sqrt{t}$ ,  $d2 = d1 - \sigma\sqrt{t}$ , and  $S$  is the stock price;  $X$  the exercise price;  $t$  the maturity term;  $r$  the risk-free interest rate;  $q$  the dividend yield and  $\sigma$  the

volatility of returns.  $N(\cdot)$  is the cumulative probability distribution function for a standardized normal variable (Black and Scholes 1973; Murphy 1999).

We used a limited sample of public firms because we could not get the option and other equity data for the larger set of firms. Previous literature has pointed out that it is difficult to get such large samples of data on UK CEO equity grants (such as options) because of the lack of a European equivalent to the US Execucomp database (Canyon et al. 2009a). The sample used in this section is a cross-section of UK publicly traded firms in 2006. The firms are drawn from the population of the 200 largest firms, ranked by market capitalization. Complete CEO pay information was hand collected on all these firms (Cadman et al. 2008; Canyon et al. 2009b; Murphy and Sandino 2008; Canyon and Murphy 2000).

As noted the independent variable is voting dissent, which is treated as endogenous. The right hand side variables are all lagged by one period to further mitigate endogeneity problems. The CEO pay regression models contain a set of economic and human capital control variables that have been used in prior research (Canyon et al. 2009b). CEO pay studies control for the size of the company, which is generally taken to reflect the returns to organizational complexity (Core et al. 1999; Murphy 1985). Consistent with these, the log of firm sales was used in the regression models. The economic determinants of CEO pay include company performance, reflecting the potential alignment of executive and shareholder interests (Murphy 1985; Murphy 1999). This was measured as total returns to shareholders (share price appreciation plus dividends). The book-to-market ratio was included as an inverse measure of growth opportunities within the firm (Demsetz and Lehn 1985). CEO pay models also included

stock volatility, measured as the standard deviation of annualized monthly stock returns over the prior calendar year. This was included as risk-averse executives might require greater compensation in more risky environments. The human capital variables included were CEO tenure and CEO age, to reflect the CEO's skill and experience. The quality of board governance variables was controlled using the proportion of non-executive directors and board size (Core et al. 1999). Finally, a set of industry indicator variables were included as controls for between industry variation in the demand for executive talent (Core *et al.* 1999). We control for boardroom pay setting institutions by including a dummy variable for compensation consultants (Conyon et al. 2009b).

#### **IV. RESULTS**

Table 1 illustrates the results of shareholder voting at the (controversial) GlaxoSmithKline Annual General Meeting in May 2003. There are seventeen unique resolutions. The DRR regulations yielded, for the first time, a resolution to approve the report of the remuneration committee (Resolution 2 in the table). The management recommended a vote "for" all the resolutions, including the approval of the DRR. The outcome of the voting, however, signaled shareholders displeasure with the way executive compensation had been handled at the firm. There were 1,398,142,951 votes cast in favor of the resolution (36.9%), 957,568,920 abstentions (25.2%) and 1,439,003,920 votes against approving the DRR (37.9%). The distribution of shareholder votes signaled significant shareholder disquiet over CEO pay at GlaxoSmithKline and while the shareholder vote was non-binding, ultimately it did lead to a change in compensation strategy.

It is noteworthy, that the shareholder backlash against CEO pay was not entirely observed in a pronounced way for the other resolutions. The worst showing for any other resolution, perhaps not unsurprisingly, was for the re-election of the CEO Dr. Garnier (Resolution 4) but even here the resolution gained 75% support and almost all other resolutions were passed with over 90% support. The case illustrates that shareholders are prepared to signal dissatisfaction by voting against pay, but not to the degree of removing directors.

Table 2 shows the level of shareholder dissent for each of our eleven categories of company resolution. The mean, standard deviation and inter-quartile range (p25 to p75) are reported. We find that the absolute level of shareholder dissent on the Directors' Remuneration Report (DRR) is in fact very low. Overwhelmingly, shareholders vote in favor of the DRR and, in this sense, are satisfied with company executive pay policies. We found that average dissent, namely shareholders who abstain or vote against the DRR resolution, is only about seven to ten percent over the sample period. Typically, over ninety percent of shareholders vote in favor of the Directors' Remuneration Report.

However, the figures in Table 2 do suggest that of all resolutions, those relating to executive pay are among the most likely to be voted against, with categories number 8 (specific pay resolutions) and 11 (DRR) recording the highest mean level of dissension of all eleven resolution groups. Unsurprisingly the declaration of dividends is the most supported resolution amongst shareholders, with on average a dissension rate of only 0.4%. Importantly, resolutions about mergers and acquisitions, although a small number of the resolutions, also attract relatively high shareholder dissent.

Figure 1 shows the time series of shareholding voting dissent from 2002 to 2007. The upper line is the percentage of shareholder dissent on DRR and other executive pay resolutions. The lower line is dissent on non-DRR and non-pay resolutions. On average investors are more likely to vote against pay resolutions. We find that shareholder dissent on the Directors' Remuneration Report has been falling over time. The corollary is that shareholder approval has been increasing. Dissent on non-DRR proposals appears stable over time.

We find that say on pay proposals ("DRR resolutions") attract more dissenting votes than routine votes to elect directors or other forms of resolutions. While it is important to document this fact, it is also significant for corporate governance. None of the shareholder resolutions attracts much dissent except in rare cases, so why one might ask why does it matter to boards of directors that DRR resolutions get more negative votes than other resolutions? One reason is that it may reduce managerial agency costs. There is a sense that shareholders who vote the directors down will get another slate of directors who look much the same. That is, it's not a vote with a clear counterfactual. Voting 'no' doesn't explain who replaces the current slate. It is hard to know enough about the candidates to be sure what signal you are sending by voting them down. Voting "no" on pay, on the other hand, has a clearer meaning.

### **Shareholder voting model: regression results**

Table 3 contains the multivariate regression results. The dependent variable in all regressions is voting dissent by shareholders. This is defined as votes against the resolution plus the number of votes abstained all divided by the total number of votes

cast. The models in columns 1 and 2 are estimated for all resolution types. The model in column 3 is restricted to the set of directors' remuneration report (DRR) resolutions.

The finding in Column 1 further illustrate that shareholder dissent is greater for resolutions relating to the directors' remuneration report compared to all other resolutions, such as electing a director to the board or changing the articles of association ( $p < 0.01$ ). This confirms our hypothesis. In column 2 we add a linear time trend and an interaction variable between the time trend and the DRR dummy variable. The negative coefficient on the time trend implies that shareholder dissent on all resolutions has been declining over the sample period. What is more interesting is the interaction term. Dissent on the director remuneration report (DRR) has been falling over time beyond the general trend in shareholder voting patterns. The change in voting dissent on the director remuneration report over time is significantly negative. The multivariate results confirm the pattern of voting behavior observed in Figure 1.

In Column 3 we add the log of executive pay to the estimating equation. The estimation of the voting model is now restricted to observations on the set of director remuneration report (DRR) resolutions only. We find that shareholder dissent on DRR reports is greater in firms with greater executive compensation ( $p < 0.01$ ). Our hypothesis is confirmed. Greater levels of executive pay are associated with an increased likelihood of voting dissent by shareholders on the DRR. The result is consistent with other contemporary research (Carter and Zamora 2009).

The control variables add further insight into the endogenous nature of shareholder voting. There is more shareholder dissension if the meeting is an Emergency General Meeting ( $p < 0.01$ ), if management is against the resolution ( $p < 0.01$ ) and the

larger is the firm ( $p < 0.01$ ). There is less dissension (i.e. more investor approval of resolutions) the more concentrated is institutional ownership is ( $p < 0.01$ ), the more concentrated is board ownership ( $p < 0.05$ ) and the greater is firm performance ( $p < 0.01$ ). The signs seem to reflect the economic benefits and costs to investors.

In Table 4 we investigate the relation between shareholder dissent and pay resolutions in general (as opposed to voting on the directors remuneration report directly). In Column 1 we find that resolutions about stock options attract increased shareholder dissatisfaction ( $p < 0.01$ ). However, the option resolutions can be broken down into the resolutions about different types of options. Executive Stock Option Schemes (ESOS) are specifically designed for high-level executives in the firm and their use is restricted to such key employees. On the other hand Save as You Earn (SAYE) options are open to all company employees, not just executives. We can therefore investigate shareholder reactions to narrow ESOS schemes compared with broader and deeper SAYE schemes. We might hypothesize that executive options might attract more outrage and dissent compared to broad-based employee stock options. The results indicate that indeed it is executive options that attract shareholder dissatisfaction. The negative coefficient on the SAYE variable implies shareholders vote in favor of these company wide broad-based option initiatives.

We find that shareholder dissent increases with Long Term Incentive Plan (LTIP) resolutions (Column 3) and with resolutions about executive bonus plans (Column 4). Long Term Incentive Plans (LTIPs) are incentives provided by the allocation of performance-based shares to a recipient. In the final column the full model illustrates the general results that shareholder dissent is greater for pay related resolutions compared to

other resolutions. We note that the other control variables are qualitatively similar to those in the previous table.

### **CEO compensation model: regression results**

Our next set of tests investigates the relation between CEO compensation and shareholder voting dissent. Table 5 shows the relation between CEO pay at time  $t$  and shareholder dissent in the previous period. Because shareholder dissent is endogenous, as noted earlier instrumental variable (IV) methods are used (Greene 2007; Wooldridge 2008). A generalized method of moments (GMM) estimator is used. The instrument set includes variables from the shareholder-voting model. The identification restriction for the lagged shareholder dissent variable is pre-dated shareholder dissent. So, shareholder dissent in 2005 is instrumented with values of dissent in 2004.

The results show little evidence of a relation between CEO pay and shareholder dissent on the directors' remuneration report (DRR). In Column 1 there is a no statistically significant relation between CEO salary and DRR dissent. This suggests that boards do not revise downwards CEO salary after receiving an adverse signal about remuneration policy. Similarly, there is no evidence that CEO cash pay, defined as salary plus bonus, is reduced following DRR dissent. The coefficient on the dissent variable in Column 2 is not significant at conventional levels. In column 3 we find a significant positive correlation between total CEO pay and dissent, opposite to what we expected. The significance is, however, weak at conventional levels.

Our final test investigates the relation between the fraction of pay made up of equity compensation and shareholder voting. The final column in Table 5 shows that

there is no relation between the fraction of total pay made up of long-term incentives or stock options and DRR dissent. We might have expected that following a negative shareholder vote in previous periods boards might align CEO pay and shareholder interest by giving more performance pay. This does not happen. Maybe it is not that surprising because we do find in the shareholder voting model that investors are more likely to vote against executive option packages anyway. This might mean that there are no pressures to change this element of CEO compensation.

The results in this study are partially consistent with extant research investigating CEO pay outcomes and shareholder voting in the UK since the year 2000. Ferri and Maber (2009) do not explicitly investigate shareholder voting, but find that the introduction of DRR legislation did not affect the level or growth of CEO pay in the UK. Carter and Zamora (2009) find some evidence that negative voting curbs excess salaries.

### **Sensitivity analyses**

In this section we provide a sensitivity analysis of the basic CEO compensation results. Previously we examined the implications of the DRR resolution votes on CEO pay but found relatively little evidence of a negative effect of voting on subsequent CEO pay levels. We now consider exploring a subset of the DRR resolutions where the level of shareholder dissent is “high” to see if there are more pronounced reactions of executive pay to these votes. To identify firms where there is high voting dissent on directors’ remuneration reports, we defined a dummy variable equal to one if the firm was in the top quartile of dissent; zero otherwise. This empirical strategy follows Ferri and Maber (2009). We then estimated the previous CEO pay equations separately for the “high”

dissent firms and the remainder “low” dissent firms. The results are contained in Table 6 (columns 1 and 2). We find that in the “high” dissent firms there is no statistical correlation between CEO pay and shareholder dissent on pay. Similarly, there is no correlation between CEO pay and the shareholder dissent in the “low” dissent group. So, even though pay is not significantly lower in the high dissenting firms, it is also not greater.

As a second sensitivity test we investigated the relation between CEO pay and “excess pay”. We calculated “excess pay” along the lines of Core, Holthausen and Larcker (1999) and Ferri and Maber (2009), then see if high dissenting votes led to reductions in excess pay. To identify “excess pay” firms we estimated the CEO pay equation defined by equation (2). We calculated the residuals from this regression equation and ranked them. The greater the residual the further is the firm from the predicted regression line, conditional on the underlying economic model. Firms with residuals in the top quartile were defined as “excess pay” firms. We then estimated the CEO pay equation separately for the “excess pay” firms and the remainder “non-excess pay” firms. Again, the results are contained in Table 7 (columns 3 and 4). We find no evidence that CEO pay is negatively correlated with previous shareholder voting dissent in firms with greater in firms with “excess pay”. A qualitatively similar effect is observed for the sample of “non-excess pay” firms.

## **V. CONCLUSIONS**

This study has examined shareholder voting in UK firms. The 2002 Directors’ Remuneration Report (DRR) regulations gave shareholders the right, for the first time, to

vote on the firm's remuneration report. We used a large sample of U.K. public firms over the years 2002 to 2007 covering approximately 50,000 separate voting resolutions to investigate what shareholders are saying. Using polling data on votes cast at company meetings we were able to determine whether the new DRR, or other executive pay resolutions, are associated with greater voting investor dissent.

We found that the absolute level of shareholder dissent on the Director Remuneration Report (DRR) is in fact very low. Overwhelmingly, shareholders vote in favor of the Directors' Remuneration Report and, in this sense, are satisfied with company executive pay policies. We found that average dissent, namely shareholders who abstain or vote against the DRR resolution, is only about seven to ten percent over the sample period. Typically, over ninety percent of shareholders vote in favor of the Directors' Remuneration Report. Importantly, we also found that shareholder dissent (approval) on the Directors' Remuneration Report has been falling (increasing) over time.

Our study also compared voting outcomes for resolutions on the Directors' Remuneration Report, and other executive pay proposals, to voting outcomes on non-pay related resolutions, such as electing a director to the board, appointing auditors or amending the firm's share capital. Importantly, we found significant differences between the different groups. Our univariate results showed that shareholders are much more likely to vote against the Directors Remuneration Report (DRR), as well as other pay resolutions, compared to other types of non-pay related resolutions.

We furthermore examined the determinants of shareholder voting. The regression results from the shareholder-voting model showed that DRR resolutions attracted greater dissent (namely votes against or abstentions) compared to non-DRR resolutions. We

found that companies with high executive pay were more likely to attract greater shareholder dissent, especially on resolutions relating to the Directors' Remuneration Report. Our results here are consistent with extant research on shareholder voting (Carter and Zamora 2009). The results also show that shareholders are more likely to vote against the DRR compared to board election resolutions, suggesting that DRR is a way to signal shareholder dissatisfaction to the firm about pay.

Beyond these findings on DRR, we also show that other executive pay resolutions also attract more dissent compared to other non-pay resolutions. This is especially the case for executive stock option programs, executive bonuses, and executive long-term incentive plans where there is greater voting dissent by investors. However, we found that it is not stock options per se that investors are wary of because they were less likely to vote against company-wide Save As You Earn (SAYE) option resolutions available for all employees. The concern seems to be about stock options and equity payments to executives.

Finally, we investigated the relation between voting and subsequent CEO pay levels. There is little evidence that shareholder say on pay has consequences for subsequent CEO compensation practices. Since shareholder voting is endogenous, we provided instrumental variable estimates of the relation between CEO pay and voting dissent on the DRR. We found little evidence of a (negative) relation between CEO total pay and voting dissent, where total pay also included equity payments such as stock options. The same result was found for cash measures of pay too. Our results compliment the growing empirical evidence on shareholder voting and UK CEO pay (Ferri and Maber 2009; Carter and Zamora 2009; Alissa 2009).

## **Limitations and suggestions for future research**

Our study contains a number of potential limitations. First, it investigates the time period from 2002 to 2007. Since then the world has experienced a severe economic crisis. It is plausible that in the post-financial crisis Director Remuneration Report resolutions will be an even hotter topic for shareholders, especially at companies that are receiving any financial support from governments. The crisis may well spur greater shareholder activism and changes in dissent levels. Unfortunately, our data stops in 2007. A clear avenue for future research is how shareholder dissent and activism has changed due to the financial crisis. Second, in the UK, there are third-party voting advisors that issue recommendations to their clients about how to vote on among other things DRR resolutions. Ideally we would wish to include these as independent variables in the voting models, but data unavailability precluded this. We would encourage further investigation in this area since US research finds they have a potential impact (Alexander et al. 2009).

Despite these potential limitations our study contributes significantly to a nascent research literature investigating the shareholder ‘say on pay’ (Alissa 2009; Carter and Zamora 2009; Ferri and Maber 2009). We present unique new evidence on the determinants of shareholder voting in the UK and especially the pattern of voting. We also show how voting affects executive compensation. We hope this study provides the impetus for further research on the relation between shareholder activism and CEO pay.

Table 1: Shareholder voting at GlaxoSmithkline, 2003

Res #	Resolution Narrative						
1	To adopt the report & accounts for the year ended 31 December 2002						
2	To approve the report of the Remuneration Committee						
3	To re-elect as a director, Sir Christopher Hogg						
4	To re-elect as a director, Dr Jean-Pierre Garnier						
5	To re-elect as a director, Sir Roger Hurn						
6	To re-elect as a director, Mr John Coombe						
7	To re-elect as a director, Sir Peter Job						
8	To re-elect as a director, Mr John McArthur						
9	To re-elect as a director, Mr Donald McHenry						
10	To re-elect as a director, Sir Ian Prosser						
11	To re-elect as a director, Dr Ronaldo Schmitz						
12	To re-elect as a director, Dr Lucy Shapiro						
13	To appoint as auditors, PricewaterhouseCoopers LLP						
14	To authorise the directors to determine the auditor's remuneration						
15	To authorise the Company to make EU Political Donations and to incur EU Political Expenditure						
16	To approve a general authority to the directors to dis-apply pre-emption rights on the issue of shares for cash						
17	To allow the Company to make market purchases of its own shares						

Res #	For	Abstain	Against	For %	Abstain %	Against %	Turn out
1	3,476,455,197	146,103,704	172,154,655	91.61%	3.85%	4.54%	3,794,713,556
2	1,398,142,951	957,568,920	1,439,003,920	36.84%	25.23%	37.92%	3,794,715,791
3	3,512,549,248	204,944,274	77,220,034	92.56%	5.40%	2.03%	3,794,713,556
4	2,837,194,148	347,721,735	609,799,658	74.77%	9.16%	16.07%	3,794,715,541
5	3,271,098,730	243,660,480	279,956,581	86.20%	6.42%	7.38%	3,794,715,791
6	2,947,121,853	347,173,585	500,418,118	77.66%	9.15%	13.19%	3,794,713,556
7	3,550,398,820	126,184,974	118,117,260	93.56%	3.33%	3.11%	3,794,701,054
8	3,459,759,457	217,136,075	117,805,522	91.17%	5.72%	3.10%	3,794,701,054
9	3,401,184,976	321,676,593	71,839,485	89.63%	8.48%	1.89%	3,794,701,054
10	3,692,961,313	35,528,740	66,211,001	97.32%	0.94%	1.74%	3,794,701,054
11	3,692,827,694	35,537,579	66,335,781	97.32%	0.94%	1.75%	3,794,701,054
12	3,632,843,642	96,860,249	65,009,665	95.73%	2.55%	1.71%	3,794,713,556
13	3,511,733,511	123,682,425	159,297,520	92.54%	3.26%	4.20%	3,794,713,456
14	3,582,829,535	178,659,807	33,184,974	94.42%	4.71%	0.87%	3,794,674,316
15	3,452,000,341	17,153,987	212,896,986	93.75%	0.47%	5.78%	3,682,051,314
16	3,761,514,669	4,426,540	28,733,107	99.13%	0.12%	0.76%	3,794,674,316
17	3,614,549,832	155,832,969	24,330,655	95.25%	4.11%	0.64%	3,794,713,456

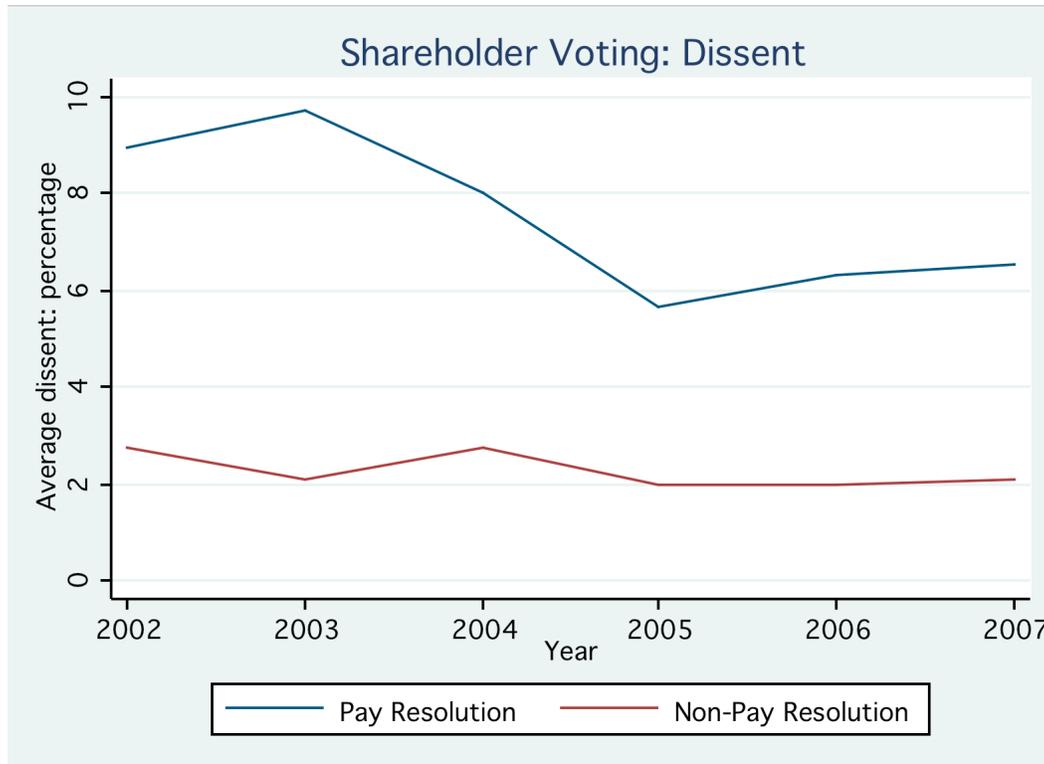
Shareholder voting at GlaxoSmithKline Annual General Meeting on 19<sup>th</sup> May, 2003. Management recommended voting for all the resolutions. 'Res' is the resolution identifier. Data source: Manifest.

Table 2: Shareholder dissent and company resolutions

Resolution	N	Mean	sd	p25	p50	p75
1. Director	15,404	3.02	7.90	0.08	0.54	2.27
2. Acquisition or disposal of assets	510	6.57	16.25	0.15	0.53	3.22
3. Auditors	5,865	1.29	3.17	0.04	0.35	1.35
4. Shares	9,901	1.48	5.11	0.04	0.19	0.83
5. Company name	1,337	5.45	9.08	0.48	2.41	6.26
6. Dividends	3,251	0.40	2.63	0.00	0.01	0.14
7. Articles of Association	1,379	2.29	7.80	0.08	0.37	1.43
8. Remuneration	1,932	6.66	9.54	0.69	2.99	8.36
9. Related	2,586	2.25	6.76	0.04	0.22	1.11
10. Report & Accounts	4,377	1.48	3.93	0.02	0.30	1.53
11. Directors' Remuneration Report (DRR)	3,640	7.61	10.40	0.93	3.58	10.01
Total	50,182	2.73	7.16	0.05	0.40	1.98

This table shows shareholder dissent by company resolution. Dissent is measured as the percentage of votes against the resolution plus the percentage of votes abstained. The mean, standard deviation and inter-quartile range (p25 to p75) are reported. Resolutions are (1) Resolutions about directors: e.g. the election or re-election of a director. (2) Resolutions about mergers and acquisitions: e.g. approving a merger or disposal of an asset. (3) Resolutions about auditors: e.g. proposals to appoint or reappoint an auditor or to approve the auditors' remuneration. (4) Resolutions about shares e.g. to approve changes to the share premium account, or to approve a share split. (5) Resolutions relating to the company. e.g. to change the company name, to wind up the company, to approve a delisting, to authorize charitable donations. (6) Resolutions relating to dividends. e.g. to declare a dividend, a special dividend, or zero dividend. (7) Resolutions relating to the articles of association: e.g. to amend or adopt new articles of association. (8) Resolutions relating to remuneration: e.g. to approve a share option, bonus or long-term incentive plan; to approve changes to share option or long term incentive plans. (9) Resolutions that are contingent on the passing of one of the other mentioned resolutions first. (10) Resolutions relating to the report and accounts e.g. accepting them. (11) Resolution relating to the Directors' Remuneration Report (DRR).

Figure 1: Shareholder Voting on Pay versus non-Pay Resolutions from 2002 to 2007



This figure shows shareholder dissent by company year. Dissent is measured as the percentage of votes against the resolution plus the percentage of votes abstained. Pay Resolutions (upper line) are those related to the Directors' Remuneration Report (DRR), resolutions on share options, on long-term incentive plans and resolutions related to bonuses. Non-Pay Resolutions (lower line) are other resolutions such as electing members to the board of directors, voting on mergers or asset disposal etc.

Table 3: Shareholder voting dissent and director remuneration report (DRR) resolutions in UK firms 2002-2007.

Variables	All resolutions	All resolutions	DRR resolutions
Director Remuneration Report (DRR) resolution	5.72 <sup>***</sup> (0.18)	9.46 <sup>***</sup> (0.50)	
Time trend		-0.12 <sup>***</sup> (0.03)	
DRR × time trend		-0.98 <sup>***</sup> (0.12)	
Log executive pay			1.75 <sup>***</sup> (0.58)
<b>Controls</b>			
Emergency general meeting	1.47 <sup>***</sup> (0.21)	1.46 <sup>***</sup> (0.21)	-2.73 (1.70)
Log market capitalization	-0.00 (0.03)	0.00 (0.03)	0.21 (0.16)
Ownership concentration	-0.91 <sup>**</sup> (0.39)	-0.89 <sup>**</sup> (0.39)	-6.23 <sup>***</sup> (1.59)
Board ownership	-0.52 <sup>*</sup> (0.30)	-0.54 <sup>*</sup> (0.31)	-3.19 <sup>*</sup> (1.65)
Return on assets	-1.48 <sup>***</sup> (0.40)	-1.50 <sup>***</sup> (0.43)	-4.04 <sup>**</sup> (1.90)
Proportion of non-executives	0.00 <sup>**</sup> (0.00)	0.00 <sup>**</sup> (0.00)	0.05 <sup>***</sup> (0.01)
Board size	0.02 <sup>*</sup> (0.01)	0.02 <sup>*</sup> (0.01)	-0.06 (0.07)
Management against res.	70.04 <sup>***</sup> (2.01)	70.03 <sup>***</sup> (2.01)	
Constant	1.50 <sup>**</sup> (0.60)	2.39 <sup>***</sup> (0.57)	-18.94 <sup>***</sup> (6.40)
Observations	44,787	44,787	3,312
R-squared	0.499	0.499	0.141
Number of companies	1623	1623	1039

The table shows the determinants of shareholder dissent. The dependent variable is shareholder dissent: votes against the resolution plus abstentions divided by total votes cast. Robust standard errors in parenthesis below the coefficient estimates, clustered on the firm identifier. Directors' Remuneration Report (DRR) is a dummy variable equal to one for the DRR resolution. Trend is a linear time trend. Log executive pay is the sum of salary, bonus and other cash compensation. The controls are: Emergency General Meeting is a dummy variable if event meeting is not an Annual General Meeting (AGM); Management against res is a dummy variable if management recommends voting against the resolution; Log market capitalization is the log of the firm market value at year end; ownership concentration is the percentage ownership of the largest shareholder; board ownership is the percentage ownership of the board of directors; return on assets is the profit to asset ratio. Proportion of non-executives percentage of outside directors on the board; board size is the number of directors on the board \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 4: Shareholder voting dissent and pay resolutions in UK firms 2002-2007.

Variables	All resolutions	All resolutions	All resolutions	All resolutions	All resolutions
Option resolution	3.82 <sup>***</sup> (0.38)				3.95 <sup>***</sup> (0.38)
ESOS resolution		6.33 <sup>***</sup> (0.55)			
SAYE resolution		-0.70 <sup>***</sup> (0.24)			
LTIP resolution			4.63 <sup>***</sup> (0.32)		4.72 <sup>***</sup> (0.32)
Bonus resolution				2.03 <sup>***</sup> (0.65)	2.24 <sup>***</sup> (0.65)
<b>Controls</b>					
Emergency general meeting	0.92 <sup>***</sup> (0.21)	0.91 <sup>***</sup> (0.21)	0.83 <sup>***</sup> (0.20)	1.05 <sup>***</sup> (0.21)	0.68 <sup>***</sup> (0.20)
Log market capitalization	0.01 (0.03)	0.01 (0.03)	-0.00 (0.03)	0.01 (0.03)	-0.00 (0.03)
Ownership concentration	-0.81 <sup>**</sup> (0.38)	-0.84 <sup>**</sup> (0.38)	-0.83 <sup>**</sup> (0.38)	-0.85 <sup>**</sup> (0.38)	-0.79 <sup>**</sup> (0.38)
Board ownership	-0.54 <sup>*</sup> (0.29)	-0.56 <sup>*</sup> (0.30)	-0.54 <sup>*</sup> (0.30)	-0.56 <sup>*</sup> (0.30)	-0.52 <sup>*</sup> (0.29)
Return on assets	-1.36 <sup>***</sup> (0.41)	-1.36 <sup>***</sup> (0.41)	-1.37 <sup>***</sup> (0.41)	-1.37 <sup>***</sup> (0.41)	-1.36 <sup>***</sup> (0.41)
Proportion of non-executives	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Board size	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Management against res.	70.05 <sup>***</sup> (2.00)	70.01 <sup>***</sup> (2.00)	70.05 <sup>***</sup> (1.99)	69.91 <sup>***</sup> (2.00)	70.20 <sup>***</sup> (1.99)
Constant	1.98 <sup>***</sup> (0.54)	1.99 <sup>***</sup> (0.55)	2.23 <sup>***</sup> (0.56)	2.06 <sup>***</sup> (0.55)	2.18 <sup>***</sup> (0.55)
Observations	44,787	44,787	44,787	44,787	44,787
R-squared	0.506	0.503	0.501	0.501	0.506
Number of companies	1623	1623	1623	1623	1623

The table shows the determinants of shareholder dissent. The dependent variable is shareholder dissent: votes against the resolution plus abstentions divided by total votes cast. Robust standard errors in parenthesis below the coefficient estimates, clustered on the firm identifier. Option resolution is a dummy equal for any option resolution. SAYE is a dummy variable for a Save As You Earn option resolution. ESOS is a dummy variable for an Executive Share Option Scheme resolution. LTIP is a dummy variable for a Long Term Incentive Plan Resolution. Bonus is a dummy variable for an executive bonus resolution. The controls are: Emergency General Meeting is a dummy variable if event meeting is not an Annual General Meeting (AGM); Management against res is a dummy variable if management recommends voting against the resolution; Log market capitalization is the log of the firm market value at year end; ownership concentration is the percentage ownership of the largest shareholder; board ownership is the percentage ownership of the board of directors; return on assets is the profit to asset ratio. Proportion of non-executives percentage of outside directors on the board; board size is the number of directors on the board\*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 5: CEO pay and Shareholder Directors' Remuneration Report dissent in UK firms in 2006

Variables	Log salary	Log cash pay	Log total pay	Equity pay mix
Shareholder dissent on DRR	0.00 (0.01)	0.01 (0.01)	0.02* (0.01)	0.01 (0.00)
<b>Controls</b>				
Log sales	0.17*** (0.02)	0.14*** (0.03)	0.23*** (0.04)	0.05*** (0.01)
Book to market	-0.42*** (0.11)	-0.40** (0.17)	-0.60*** (0.23)	-0.09 (0.08)
Shareholder returns	-0.36*** (0.13)	-0.23 (0.18)	-0.16 (0.31)	0.03 (0.12)
Stock volatility	-0.31 (0.21)	-0.30 (0.30)	-0.16 (0.44)	0.11 (0.15)
CEO tenure	0.00 (0.00)	0.01** (0.01)	0.01 (0.01)	-0.00 (0.00)
CEO age	0.01*** (0.00)	0.01 (0.01)	0.01 (0.01)	0.00 (0.00)
Compensation consultant	-0.02 (0.12)	0.13 (0.11)	0.29* (0.16)	0.09 (0.08)
Board size	0.01 (0.01)	0.05*** (0.02)	0.05** (0.02)	0.00 (0.01)
Proportion of non-execs	0.01** (0.00)	0.01** (0.00)	0.01*** (0.00)	0.00 (0.00)
Ownership concentration	-0.00 (0.00)	-0.00 (0.00)	-0.01 (0.00)	-0.00 (0.00)
Constant	3.13*** (0.36)	3.31*** (0.48)	2.34*** (0.71)	-0.38 (0.23)
Observations	196	196	196	196
R-squared	0.557	0.510	0.448	0.101

The table shows the determinants of CEO pay. It contains a sample of UK public firms in 2006. The independent variable is shareholder dissent: votes against the resolution plus abstentions divided by total votes cast. CEO pay is the sum of salary, bonus, Black-Scholes value of stock option grants, restricted stock grants, and other pay. Equity pay mix is equity pay (the value of options and restricted stock) divided by CEO pay. Consultant is an indicator variable equal to 1 if the firm has a consultant and 0 otherwise; Log Sales is the log of firm sales revenues; Book to Market is the book value of assets divided by the market value of the company; Shareholder Returns are stock price appreciation plus dividends over three years; Volatility is the annualized standard deviation in stock prices; Job Tenure is executive time in office (years); Executive Age is CEO age (years); and Consultant Supplies Other Business is an indicator variable equal to 1 if consultant provides services other than remuneration advice to the focal firm; ownership concentration is the percentage ownership of the largest shareholder; board ownership is the percentage ownership of the board of directors; return on assets is the profit to asset ratio. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors in parenthesis below the coefficient estimates, clustered on the firm identifier.

Table 6: CEO pay and shareholder voting in “high” dissent and “excess pay” UK firms in 2006.

Variables	Log total pay “High dissent” firms	Log total pay “Low dissent” firms	Log total pay “Excess pay” firms	Log total pay “Non-excess pay” firms
Shareholder dissent on DRR	0.01 (0.05)	0.10 (0.12)	0.11 (0.17)	0.01 (0.01)
<b>Controls</b>				
Log sales	0.33** (0.15)	0.18*** (0.05)	0.21 (0.15)	0.19*** (0.03)
Book to market	-0.66 (0.90)	-0.76*** (0.27)	-0.35 (1.36)	-0.51*** (0.18)
Shareholder returns	-0.37 (1.06)	-0.11 (0.32)	-0.55 (2.17)	-0.19 (0.27)
Stock volatility	-0.82 (1.06)	-0.31 (0.82)	1.49 (3.27)	-0.31 (0.36)
CEO tenure	0.02 (0.04)	0.00 (0.01)	0.01 (0.06)	0.01 (0.01)
CEO age	0.00 (0.03)	0.01 (0.01)	0.01 (0.05)	0.00 (0.01)
Compensation consultant	0.37 (0.61)	0.10 (0.27)	0.84 (1.20)	0.22 (0.15)
Board size	0.02 (0.18)	0.04 (0.03)	0.13 (0.18)	0.07*** (0.02)
Proportion of non-execs	0.01 (0.03)	0.01*** (0.00)	0.01 (0.04)	0.01*** (0.00)
Ownership concentration	0.03 (0.02)	-0.01** (0.00)	-0.05 (0.12)	-0.01** (0.00)
Constant	1.46 (2.27)	3.23*** (1.06)	1.24 (3.80)	2.97*** (0.56)
Observations	47	149	45	151
R-squared	0.463	0.510	0.463	0.629

The table shows the determinants of CEO pay. It contains a sample of UK public firms in 2006. The independent variable is shareholder dissent: votes against the resolution plus abstentions divided by total votes cast. CEO pay is the sum of salary, bonus, Black-Scholes value of stock option grants, restricted stock grants, and other pay. Equity pay mix is equity pay (the value of options and restricted stock) divided by CEO pay. Consultant is an indicator variable equal to 1 if the firm has a consultant and 0 otherwise; Log Sales is the log of firm sales revenues; Book to Market is the book value of assets divided by the market value of the company; Shareholder Returns are stock price appreciation plus dividends over three years; Volatility is the annualized standard deviation in stock prices; Job Tenure is executive time in office (years); Executive Age is CEO age (years); and Consultant Supplies Other Business is an indicator variable equal to 1 if consultant provides services other than remuneration advice to the focal firm; ownership concentration is the percentage ownership of the largest shareholder; board ownership is the percentage ownership of the board of directors; return on assets is the profit to asset ratio. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors in parenthesis below the coefficient estimates, clustered on the firm identifier.

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<sup>1</sup> We note some statistical issues. The dissent measure lies in the interval [0,1] and so using OLS the estimator can predict outside the range 0-1 (Greene 2007; Wooldridge 2008; Booth 1983). We tested the sensitivity of our results by also using the transformed dependent variable  $\log(p/(1-p))$  where  $p$  is the percentage of dissenting shareholder votes. In addition, we estimated the models using other limited dependent variable econometric models (logit and probit). Overall, the results reported here are qualitatively unaffected by using these alternative estimation strategies.