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**BOARDS' RESPONSE TO SHAREHOLDERS' DISSATISFACTION:  
THE CASE OF SHAREHOLDERS' SAY ON PAY IN THE U. K.**

A Dissertation in

Business Administration

by

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## **Abstract**

In the United Kingdom, a recently adopted regulation provides shareholders the opportunity to cast non-binding (advisory) votes on firms' compensation reports during annual meetings (i.e., 'Say-on-Pay'). This study examines how the regulation affected the behavior of shareholders and boards. I find evidence that shareholders use the vote to convey their dissatisfaction with excessive executive compensation practices. In addition, I find evidence that boards respond to shareholders' dissatisfaction by: (1) reducing the excessiveness of CEO compensation for firms whose CEOs have above average excess compensation; or (2) forcing the CEO out of office. These findings provide evidence of 'Say-on-Pay' regulation playing a role in firms' corporate governance.

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## 1. Introduction

Executive pay has been a controversial topic for the past two decades. Investors and regulators around the world have spent considerable effort debating and advocating different solutions. A byproduct of the debate has been proposals that shareholders should have a greater say on executive pay. In 2002, the United Kingdom (UK) government responded by requiring, among other things, quoted companies to publish a directors' compensation report as part of their annual reporting cycle and put the compensation report to a non-binding (advisory) shareholder vote at the annual meeting.<sup>1</sup>

The UK government introduced the regulation because it believed that the best practice disclosure regime at that time did not achieve compliance with the three fundamental principles regarding directors' compensation: accountability, transparency, and performance linkage. The then Secretary of State for Trade and Industry, Melanie Johnson, stated “[the government is] not in the business of becoming involved in setting directors' pay in individual companies. [The government] want[s] to create an open and effective framework in which pay will be set and disclosed, given the conflict of interest that directors face and the consequent public concern.”<sup>2</sup> The purpose of this paper is to evaluate the impact of the regulation on shareholders and boards. More specifically, the purpose is twofold: (1) to determine whether the vote reflects shareholders' perception of aggressive pay practices; and (2) to determine whether boards respond to these perceptions.

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<sup>1</sup> A director in the UK refers to both executive and nonexecutive board members.

<sup>2</sup> House of Commons, Delegated Legislation Committee Debates, Session 2001-02, “Draft Directors' Remuneration Report Regulations 2002.”

To capture shareholders' perception, I use the total vote against the compensation report as a measure of shareholders' dissatisfaction.<sup>3</sup> Shareholders' dissatisfaction over pay practices, as argued by the popular press, academic researchers, and regulators, stems from the excessiveness of the compensation package, the lack of connection between pay and performance, and the rate of increase in compensation. I use excess compensation, as measured in prior literature, to capture at least the first two sources of dissatisfaction.

My first research question examines whether shareholders consider the excess compensation of the Chief Executive Officer (CEO) when they cast their vote.<sup>4</sup> I argue that if shareholders disapprove of excess compensation, then the vote should reflect their disapproval. Put differently, I expect shareholders' dissatisfaction to be increasing in excess compensation. Using a hand-collected sample from the largest UK companies (firms listed in the FTSE 350) from 2002 to 2008, I find evidence consistent with this expectation.

My second research question examines whether boards respond to shareholders' dissatisfaction. I argue that shareholders' negative view of the board's pay philosophy is expected to put pressure on the board to react and avoid financial and nonfinancial (e.g.

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<sup>3</sup> Shareholders' dissatisfaction in this study captures the level of shareholders' negative reaction to (or disapproval of) a particular compensation arrangement because, from the shareholders viewpoint, the arrangement is unjustified or extreme. This definition is consistent with the 'outrage' definition used by Bebchuk and Fried (2004). I avoid using the word 'outrage' because, generally, it has a negative connotation.

<sup>4</sup> For the purpose of this study, I use shareholders' vote on the entire compensation report, which covers pay related information for all directors, as a proxy for their vote on the CEO's compensation package. I view this as a proper proxy for four reasons. First, in almost all cases, the CEO is the highest paid employee of the company and the one with the compensation package that most likely attracts attention. Second, elements of the CEO's pay package are often sighted by funds and government agencies as a justification of their vote choices. Third, most of the cases publicized in the media are related to the CEO's pay. Finally, the models used in this study are well-specified in the literature for the CEO only.

reputation, power, and honor) consequences that could result when shareholders vote ‘no’ on the compensation report. This argument represents a joint test that the votes truly reflect shareholders’ view of the CEOs’ pay and fit, and that boards are responsive to shareholders’ dissatisfaction. I select two possible actions that boards might consider when dealing with such pressure: boards can adjust the CEO’s package to lower excess compensation; or they can force the CEO out of office, which can be thought of as an extreme form of reduction in excess compensation.<sup>5</sup> While not finding evidence that boards change excess compensation for the overall sample, I find evidence consistent with boards reducing excess compensation for firms whose CEOs have above the mean excess compensation. For CEO turnover, I find evidence that turnover is increasing in shareholders’ dissatisfaction, suggesting that the vote might reflect shareholders’ sentiment regarding the executive’s performance.

In addition to the analysis above, I examine whether board independence has an effect on the boards’ response to shareholders’ dissatisfaction. The evidence suggests that boards that are more independent respond by increasing the CEO’s excess compensation for firms whose CEOs have below the mean excess compensation. This evidence is consistent with both shareholders’ and boards’ desire to hold onto their valuable CEOs.

This study offers three contributions. First, it provides evidence on the impact of the regulation. The regulation provides shareholders with a tool that can be used to communicate their dissatisfaction with boards’ pay decisions. The evidence suggests that

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<sup>5</sup> Note that CEOs forced out of office are not necessarily fired in this setting. A CEO could be pushed out because the CEO refuses to accept a pay cut, for example. Looking at it from the outside, I cannot distinguish between a fired CEO and a CEO that has been pushed out. Therefore, both cases are coded as forced.

boards care about shareholders' perception as evident by the boards' response to the dissatisfaction. This evidence is timely given the interest in other countries, such as the US, to adopt a similar regulation, particularly 'Say-on-Pay,' and empower shareholders with similar rights. Proponents of the 'Say-on-Pay' regulation in the US argue for the regulation based on the effectiveness of the UK experience. This study is among the first that presents evidence based on the UK experience.

Second, this study contributes to the debate led by Bebchuk and Fried (2004) and others on giving shareholders more say with regard to setting executive compensation. Opponents of granting shareholders rights, such as the ones given to UK shareholders, argue that allowing shareholders a say on executive pay will ultimately destroy the value of the firm by putting unwarranted pressure on the board to make suboptimal decisions that cater to shareholders. The evidence presented in this paper is inconsistent with their argument. It appears that shareholders are casting their vote strategically and are not misusing the added voting power.

Finally, this study contributes to the corporate governance literature, in particular the research that investigates the impact of corporate governance mechanisms on executive compensation. I evaluate the use of a non-binding vote as an external governance tool to pressure the board. The evidence suggests that boards respond to such a tool. I also evaluate board independence as an internal governance mechanism. The evidence suggests that more independent boards exhibit stronger response to shareholders' dissatisfaction for firms whose CEOs have below the mean excess compensation.

There are two other concurrent papers that examine ‘Say-on-Pay’ regulation in the UK. Carter and Zamora (2009) examine which aspects of executive compensation result in shareholder disapproval. The authors find that shareholders votes reflect their disapproval of higher salaries, higher excess bonuses, and greater dilution in stock-based compensation. They also examine the impact of shareholders’ vote on components of executive compensation and find no evidence of the board responding to greater shareholder disapproval. Ferri and Maber (2008) examine the effect of introducing the ‘Say-on-Pay’ regulation in a pre-post research design. The authors find no evidence of a change in the level and growth rate of executive compensation after the introduction of the regulation. However, they do find evidence consistent with an increase in the sensitivity of executive pay to negative operating performance after the introduction of such regulation. This study goes beyond the prior two studies by providing evidence of executive turnover as a response to shareholders’ dissatisfaction and by showing that boards reduce excess compensation for firms whose CEOs have above the mean excess compensation.

The remainder of the study proceeds as follows. Section 2 provides some background on relevant UK regulations. Section 3 develops the hypotheses. Section 4 describes the sample. Section 5 presents the research design and results. Section 6 provides additional analyses. Section 7 provides some caveats regarding the setting of the study, and Section 8 concludes the study.

## 2. Regulation Background

During the early 1990s, the issue of executive compensation has become a primary concern for practitioners, investors, and the public at large in the UK. Specifically, the concern was over: (1) perceived excessive levels of compensation paid to executives in quoted companies and several recently privatized electric utilities companies; and (2) the failure of compensation packages to motivate executives to perform better. Recognizing that corporate governance issues relating to executives' compensation needed to be addressed in a more rigorous manner, the UK government established the Greenbury Committee.<sup>6</sup> The committee issued the Greenbury Report in 1995 outlining a best-practice framework for setting compensation packages and significantly expanding disclosure rules for the compensation of UK executives.<sup>7</sup>

The Hampel Report (1998) set out to review and update the codes produced by the Cadbury Report (1992) and the Greenbury Report (1995).<sup>8</sup> A consolidation of the work presented in all three reports forms the basis of the 1998 Combined Code on Corporate Governance (the Combined Code hereafter). All of the reports of these

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<sup>6</sup> The committee was set up by Sir Bryan Nicholson, president of the confederation of British Industry and led by Sir Richard Greenbury, the then Chairman and CEO of Marks & Spencer.

<sup>7</sup> Some of the report's most important recommendations include: (1) the compensation committee should consist entirely of independent non-executive directors and have the power to establish compensation policy and determine specific packages for individual executives; (2) the compensation committee should include in the company's annual report a section about their compensation philosophy and details of the compensation of each executive; and (3) the compensation committee should aim to pay enough, but no more than enough, "to attract, retain and motivate [d]irectors of the quality required."

<sup>8</sup> The Cadbury Committee, chaired by Adrian Cadbury, produced the first Code of Best Practice on corporate governance, in 1992. Its stated objective was "to help raise the standards of corporate governance and the level of confidence in financial reporting and auditing by setting out clearly what it sees as the respective responsibilities of those involved and what it believes is expected of them."

committees have shared a similar set of assumptions about both the nature of corporate governance and the means through which it should be reformed. The objective of the various committees has been to come up with proposals that improve the quality of this relationship, without recourse to government intervention. As such, the Combined Code sets out standards of good governance practice in a non-binding fashion. That being said, the UK Listing Rules require listed companies to: (1) apply the principles set out in the Combined Code and explain how they have been applied; and (2) either comply with the provisions set out in the Combined Code or give reasons for any non-compliance. The purpose of this “comply or explain” principle is to secure sufficient disclosure so that investors and other readers can assess a listed Company's corporate governance practices and respond in an informed manner.

During 1999, the Department of Trade and Industry commissioned a study by PricewaterhouseCoopers to monitor listed companies’ compliance with the best practice framework from the Combined Code. In a speech to institutional investors, the then Secretary of State for Trade and Industry, Stephen Byers, shared the results of the study and argued that “accountability can only work properly if there is a framework in place which allows shareholders to exercise their influence effectively over [compensation] policy.” He further elaborated that when companies do not comply with best practices, shareholders are forced to take costly actions. After this study, the Department of Trade and Industry published a consultative document that put forth the notion of requiring a vote on the compensation report.



Up to this point, the UK government believed that the best practice disclosure regime at that time did not achieve compliance with the three fundamental principles regarding directors' compensation identified by the 1995 Greenbury Report: accountability, transparency, and performance linkage. This led to the introduction of the Director Remuneration Report (DRR) Regulation, effective as of August 1, 2002. The DRR Regulation requires quoted<sup>9</sup> companies to: publish a directors' compensation report as part of their annual reporting cycle; disclose within the report details of individual directors' compensation packages, the company's forward-looking statement on the compensation policy, and the role of the board and compensation committee in this area; and put the compensation report to a non-binding (or advisory) shareholder vote at the Annual General Meeting (AGM) of the quoted company. The goal of the DRR Regulation is not to regulate the amount of compensation given to executive and non-executive directors; it is, however, to make sufficient information available to shareholders to assess the fairness/appropriateness of the firm's pay policy.

The use of a non-binding vote for the DRR resolution is the first of its kind in the UK.<sup>10</sup> Section 241A(8) of the Companies Act (1985) provides that "no entitlement of a person to remuneration is made conditional on the resolution being passed by reason only of the provision made by the section." Even though a negative vote would not legally affect existing contractual compensation, it could be used by shareholders as a

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<sup>9</sup> Quoted firms, as defined by the companies act, are those incorporated in the UK that are: (1) admitted to the UK Official List; (2) listed in an European Economic area state; or (3) admitted to the New York Stock Exchange or Nasdaq.

<sup>10</sup> Both the Greenbury Report (1995) and the Hampel Report (1998) argue that directors' remuneration should not be a matter for shareholder approval in general meetings.

mechanism for showing their dissatisfaction with the company's compensation philosophy.

### 3. Hypotheses Development

#### *3.1 Do Shareholders Consider the CEO's Excess Compensation when Casting their Votes on the DRR Resolution?*

The rationale for shareholders' dissatisfaction arises from the need to resolve the agency conflicts inherent in the corporation. That is, shareholders delegate decision-making responsibility to executives, whose incentives are not perfectly aligned with those of the shareholders (Berle and Means, 1932). The board of directors has a significant role in controlling such agency problems, given their delegated responsibility of contracting with management -hiring, firing, compensating, and monitoring (Jensen and Meckling, 1976 and Fama and Jensen, 1983). Unless the board acts perfectly in the interests of shareholders, contracts will differ from those predicted by an optimal model.

Prior research contends that there are economic, social, and psychological costs the board has to bear that will lead the board to take the executive's interest over shareholders' interests, which will result in a sub-optimal contract (Bebchuk and Fried, 2004).<sup>11</sup> Bebchuk and Fried (2004) argue that managerial power, or control over the board, is the source of sub-optimality. CEOs, in Bebchuk and Fried's view, set their own pay and are limited in how high they pay themselves by the "outrage constraint."<sup>12,13</sup>

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<sup>11</sup> Bebchuk and Fried (2004) provide that "collegiality, team spirit, a natural desire to avoid conflict within the board, friendship and loyalty, and cognitive dissonance" are reasons why boards are biased against engaging in arm's length negotiations when it comes to CEO compensation.

<sup>12</sup> Bebchuk and Fried (2004) define the 'outrage constraint' as the outrage of relevant outsiders to compensation arrangements perceived as "unjustified, abusive or even egregious." This outrage will only act as a constraint if the costs to managers of retaining the offending compensation arrangement are sufficiently high.

Core, Guay, and Thomas (2004) agree that CEOs' contracts reflect their power and that the higher the CEO's power the higher the pay; however, they disagree that this necessarily reflects sub-optimality for shareholders. Notwithstanding this debate, the purpose of this study is not to test the optimality of UK pay practices. It is, however, to test shareholders' perception of aggressive pay practices.

On the issue of shareholders' perception, the popular press, academic research, and regulators convey a sense of shareholders' dissatisfaction over CEO's pay practices in recent history. The dissatisfaction stems from the excessiveness of compensation packages, the lack of connection between pay and performance, and the rate of increase in compensation. I use the CEO's excess compensation, as measured in prior research (see, for example, Core, Guay, and Larcker, 2008), with the goal of capturing at least the first two sources of shareholders' dissatisfaction.

My first research question examines whether shareholders consider CEO's excess compensation when they cast their vote. I argue that if shareholders disapprove of the CEO's excess compensation, then the vote should reflect their disapproval. For this to be true, one would have to assume that shareholders always vote diligently. Historically, shareholders have exercised their voting rights as a way of expressing their dissatisfaction. Johnson and Shackell (1997), for example, investigate 169 shareholder proposals on executive compensation and find that the probability of receiving a proposal is associated with executive compensation policies, firm performance, and the

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<sup>13</sup> The flipside of this argument is contracting based on arm's-length bargaining where the board is negotiating with the CEO with the intent of serving shareholders. Prior empirical research finds evidence consistent with the board writing compensation contracts in ways that avoid providing executives with incentives to behave opportunistically (See, for example, Dechow, Huson, and Sloan, 1994).

composition of the shareholder base. Using a similar sample as in the previous study, Martin and Thomas (1999) find that shareholders generally target poorly performing firms with higher levels of CEO compensation.<sup>14</sup> The overall evidence from the prior studies suggests that activists make an effort to target firms with unfavorable pay practices. Extending the discussion above to this setting leads to the following hypothesis:

*H1: The higher the CEO's excess compensation, the greater the dissatisfaction expressed by shareholders.*

One would expect that requiring firms to put their compensation report to vote should encourage shareholders to expend their efforts to vote diligently. However, there are two reasons why this might not be the case. First, shareholders in UK, through the Companies Act, have greater rights than other regulatory environments around the world. For example, at annual meetings, the statutory rule indicates that each and every director must receive a majority approval of the vote cast to be elected. Conversely, in the US, on the other hand, a candidate does not need a majority vote to be elected nor is it possible to cast votes against that candidate. Shareholders can also propose a resolution to remove a director from the board before the end of the director's term.<sup>15</sup> They also have the power to place director candidates on the corporate ballot (Bebchuk, 2007). Given their access to these regulatory provisions, shareholders have no reason to question boards pay

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<sup>14</sup> More recently, Cai and Walkling (2008) find that there is a favorable stock reaction to the Say-on-Pay bill passage in the US for firms with abnormal CEO pay, implying that shareholders are eager about the prospect of voicing their dissatisfaction with CEO pay.

<sup>15</sup> Under s. 376 of the Companies Act, a shareholder can propose a resolution to be voted on at a company's annual meeting. Additionally, under s. 368 of the Companies Act, shareholders may call for an extraordinary general meeting to put forward propositions to remove any or all directors at any time during their term.

decisions and therefore are more likely to approve the compensation resolution. Bebchuk (2007) discusses that “shareholders’ greater power in the United Kingdom enables them to exert greater influence on boards and make boards more attentive to their interests and wishes.”

Even if the regulatory environment in the UK does not grant shareholders more rights, shareholders might not vote diligently because of the nonbinding nature of the DRR Regulation. They might not be willing to exert the effort needed to analyze the CEO’s pay package because they do not have the tools nor complete information to analyze the compensation structure disclosed in these reports. They also might think that CEO’s pay is only a small part of the overall wealth of the company and does not warrant their attention.

### ***3.2 How Do Boards Respond to Shareholders’ Dissatisfaction?***

Shareholders have a set of tools at their disposal to express their dissatisfaction to the boards, the latest of which is the non-binding vote introduced by the DRR Regulation.<sup>16</sup> The responsiveness of the board to the non-binding vote will depend on: (1)

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<sup>16</sup> Prior activism research suggests that activists can: (1) participate in proxy contest for control of the firm; (2) participate in or lead shareholders’ suits and class actions; (3) steer the filing of shareholder-sponsored governance proposals; (4) vote against the re-election of certain board members; (5) participate in or lead “just vote no” campaigns; and (6) use the media to embarrass board members (See Gillan and Starks (1998) and Gillan and Starks (2007) for survey evidence). This study is different from activism research in three fronts. First, activists target companies only when the benefit they receive exceeds the cost they incur and when private negotiations with the board fail. Therefore, the vote on compensation related proposals would take place only if activists targeted the company. The setting of this study requires all public companies listed in the main market of the London Stock Exchange to put their compensation reports for shareholders approval. Second, most of the tools that the shareholders can use are costly (some more than others). Given that not all investors share the same goals or have the same trading/ownership philosophy, activists will suffer from the free-rider problem where some shareholders will benefit by the actions of others. This will deter more activism, even if justified, from taking place. The setting of this study alleviates the free-rider problem. Finally,

the legitimacy of the vote from the board's perspective; and (2) the imposed economic and social costs on the board.

For the vote to be considered legitimate, the board needs to believe that it reflects shareholders' true perception of the CEO's excess compensation and that shareholders are not going to misuse their voting rights for self-interest gains. There has been some debate about the latter issue. Opponents of the DRR Regulation argue that shareholders are interfering with internal decisions that will, ultimately, destroy the value of the firm. While it is true that boards are better informed about the CEO's responsibilities and are better equipped to pay the CEO accordingly, shareholders have the most to lose. Understanding the market for executives and the risk of losing a good CEO over pay issues, shareholders are expected to defer most of the decisions to the board and would only vote against the compensation report when they detect an abuse of the pay process. Evidence of this is apparent in the vote averages presented in Table 3. The numbers are surprisingly low given the recent negative publicity surrounding CEO pay.

In addition to representing a viable tool, the vote needs to impose upon (or provide to) the board economic and social costs (benefits) in order for it to put pressure on the board. Fama and Jensen (1983) hypothesize that directors have incentives to develop reputations as experts in what they label as "decision control" (the ratification and monitoring of CEO decisions). The value of directors' human capital depends primarily on their performance as internal decision managers in other organizations.

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while votes from prior activism can be obtained through data providers such as ISS, the UK Combined Code requires firms to make their vote outcomes public on their websites, adding an element of pressure on the board that was not present before. Given these differences, a priori, one should not expect to observe similar findings.

Consistent with this hypothesis, prior literature documents that publicizing outrage with board members will negatively affect the monetary and nonmonetary (power, prestige, and honor) rewards that often come with their directorship (See Kaplan and Reishus, 1990, Grundfest, 1993, Farrell and Whidbee, 2000, and Dyck and Zingales, 2002).

The discussion up to this point makes the case for the vote being a legitimate signal that conveys shareholders' views on (and support of) the firm's pay policies. An acknowledgment from the board about the legitimacy of the signal has manifested in the form of increased dialog between boards and shareholders in the post DRR Regulation era. Based on an interview with director David Paterson from Research, Recommendations and Electronic Voting, the ISS's UK corporate governance team, Davis (2007) states that "the introduction of the (non-binding vote), and in particular the GlaxoSmithKline board's stunning defeat in 2003, produced a virtual overnight increase in the level of dialogue between companies and shareholders, especially institutional investors." Consistent with this change, the Association of British Insurers estimates that contacts initiated by companies before they finalize compensation plans tripled after the DRR Regulation (Davis, 2007). This could be the board's way of understanding the source of shareholders' dissatisfaction and responding accordingly. This leads to my second research question: how will the board respond, if at all, to shareholders' dissatisfaction?

I conjecture that shareholders' negative view of the board's pay philosophy is expected to put pressure on the board to react and avoid the prospect of individual and collective financial and reputational damage. I select two possible actions that boards



might consider when dealing with such pressure: they can adjust the CEO's package to lower his excess compensation; or they can force the CEO out of office.<sup>17</sup> The latter can be thought of as an extreme form of reduction in compensation.<sup>18</sup>

Given the discussion above, I examine the following two hypotheses:

*H2: The greater the dissatisfaction expressed by shareholders, the larger the reduction in the excess compensation.*

*H3: The greater the dissatisfaction expressed by shareholders, the higher the turnover in the following period.*

Hypotheses *H2* and *H3* represent a joint test that the votes truly reflect shareholders' view of CEOs' pay and fit (i.e., the vote represents a viable signal) and that the cost from ignoring shareholders' dissatisfaction is large enough that boards take actions to avoid future dissatisfaction. The discussion is silent on a lack of response from the board (the null). There are several scenarios where a no-result is expected. First, the mandatory vote is non-binding, and therefore might not impose high enough costs on the board to trigger a reaction. Second, unlike shareholders, boards are fully informed about the CEOs' outside options and possess the complete knowledge of what constitutes fair and competitive compensation. The board, acting on behalf of shareholders, will put value on all the intangibles that may be nontransparent to shareholders. From the board's perspective, those intangibles justify the observed pay. Shareholders' dissatisfaction, in

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<sup>17</sup> The activism literature provides mixed support for using these two actions as a response to shareholder proposals that are put to vote and deal with CEO compensation. See for example Martin and Thomas (2005), Johnson and Shackell (1997), Johnson, Porter and Shackell (1997), Huson (1997), Smith (1996), Karpoff, Malatesta and Walkling (1996), and Del Guercio and Hawkins (1999). While the evidence from prior work is mixed, it seems conventional to use the adjustment of compensation and turnover as a reaction to shareholders' pressure.

<sup>18</sup> Prior literature that considers turnover as a crude measure of compensation includes Hallock (1999).

this case, does not warrant a response, especially if the board believes a response would result in losing a valuable CEO. Third, because of the increased dialog between boards and their shareholders in the post DRR Regulation era, boards now have the opportunity to explain their pay philosophy to shareholders before, during, or after the annual meeting. The board's justification could alleviate some dissatisfaction expressed by shareholders.

### ***3.3 How Would the Board Structure Impact the Response to Shareholders' Dissatisfaction?***

The DRR Regulation provides a framework for shareholders to assess how well compensation is governed. It is not and cannot be, in itself, a substitute for governance (Deloitte 2004). Fama and Jensen (1983) indicate that the board of directors is the core of corporate governance and that the structure of the board is influential to the functions that the board performs. The authors argue that outside directors are more efficient in monitoring and less likely to collude with the management. Therefore, under the separation of ownership and control, independent non-executive directors should facilitate the governance functions of the board.<sup>19</sup>

Prior literature provides evidence of the impact of board independence on the CEO's compensation and turnover. Core, Holthausen and Larcker (1999) study the relations among board composition, ownership structure, and CEO compensation and argue that the CEO earns greater compensation when the governance structure is less

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<sup>19</sup> The Combined Code provides that “[e]xcept for smaller companies, at least half the board, excluding the chairman, should comprise non-executive directors determined by the board to be independent. A smaller company should have at least two independent non-executive directors.”

effective. Their results suggest that CEO pay rises with the number of outsiders appointed by the CEO and decreases as the ownership of outside directors increases. Ozerturk (2005) and Singh (2006) show analytically that the board's monitoring intensity and the equilibrium pay-performance sensitivity of CEO's pay are increasing in board independence. Weisbach (1988) finds that CEO turnover is more sensitive to performance when the board is more independent.

Independent directors have stronger incentives to be known in the directors labor market as effective monitors (Fama and Jensen, 1983). Therefore, I argue that independent directors are more likely to respond to the pressure resulting from shareholders' vote on the compensation report. This leads to the following hypotheses:

*H4A: The more independent the board, the stronger the association between shareholders' dissatisfaction and the change in excess compensation.*

*H4B: The more independent the board, the stronger the association between shareholders' dissatisfaction and turnover.*

### ***3.4 How Would Continuous Shareholders Dissatisfaction Impact the Boards Response?***

One of the positive outcomes that resulted from the DRR Regulation is that it opened the dialog between the board and shareholders with respect to CEO compensation and performance. As a result, some might argue that a collective disapproval in one year will bring the board and shareholders together and allow the board to explain its pay philosophy. It is not until the mismatch between performance and pay persists when one would expect that the pressure on the board to be at its highest.

This leads to the following hypotheses:

*H5A: The association between shareholders' dissatisfaction and turnover is stronger the more persistent the dissatisfaction.*

*H5B: The association between shareholders' dissatisfaction and the change in executive excess compensation is stronger the more persistent the dissatisfaction.*

#### 4. Sample Selection and Variable Definitions

To investigate the hypotheses listed above, I require a measure of total compensation, a measure of perceived overpayment or excess compensation, a measure of shareholders' dissatisfaction, and other measures of board and company independence, size, and performance. Unlike the US where data are readily available in machine-readable form, the UK data require both labor and time intensive hand-collection. Therefore, to limit the sample I begin with firms in the FTSE 350 index.<sup>20</sup> I eliminate investment trust companies (45 companies), companies that have been through an IPO in the 2006 or 2007 fiscal years (23 companies), companies that came about as a result of the merger or divestiture of other companies listed in the index in either the 2006 or 2007 fiscal years (13 companies), and companies that moved from the Alternative Investment Market (AIM) to the main market of the London Stock Exchange (LSE) in either the 2006 or 2007 fiscal years (5 companies).<sup>21</sup>

For the remaining 226 companies, I gather compensation information from their annual reports. Proxy voting instructions or poll voting data are obtained from either the firm's website or from the Regulatory News Service offered by the LSE. Where vote information is not available, I contact the company's Secretary or Investor Relations

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<sup>20</sup> The FTSE 350 Index is a market capitalization weighted stock market index incorporating the largest 350 companies with their primary listing on the London Stock Exchange. The FTSE 350 Index represents about 96.67% of the UK's market capitalization. Because the FTSE index is a weighted stock index, firms are added to the index or dropped from the index on a regular basis. I only follow the firms that were listed in the index when I first started hand-collecting the data.

<sup>21</sup> I further eliminate 38 companies from the sample due to difficulty reaching their Investor Relations department.

professionals. Financial statement data and stock return information are obtained from Worldscope and Datastream, respectively, for the period from 2002 to 2008. Lack of data availability through those sources further eliminates 22 companies. Also, consistent with prior compensation literature, I eliminate CEO-years where the CEO served for only part of the fiscal year. The final sample consists of 204 companies (or 913 CEO-years).<sup>22</sup>

#### ***4.1 Measurement of Total Compensation***

Total compensation is the sum of base salary, annual bonus (cash and stock), long-term incentive plans (LTIP), share options, and other annual pay. Annual bonus paid in the form of stock and non-performance-contingent LTIP grants are valued at the face value of the shares on the grant date. Performance-contingent LTIP grants are valued at the face value of the shares on the grant date with an imposed 20% discount, consistent with Conyon and Murphy (2000). In valuing share options grants, I follow the approach used by both practitioners and academic researchers by measuring the grant-date expected value using the Black and Scholes (1973) formula.<sup>23</sup>

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<sup>22</sup> Because I am associating CEOs' excess pay with shareholders' votes, the sample only contains CEO years where the CEO turnover announcement happened after the turnover year's annual meeting. There is no reason for shareholders to be unhappy with the departing CEO's pay. If shareholders are dissatisfied with the departing CEO's exit package, for example, I expect that they would voice their opinion in an earlier period. Therefore, for every turnover I have in the sample, I search for when the announcement was made. If the announcement was made prior to the AGM and the CEO was still in office during the AGM, I eliminate that CEO-year. This result in the elimination of an additional 44 CEO-years.

<sup>23</sup> Conyon and Murphy (2000) list four potential drawbacks to using the Black-Scholes formula for calculating the value of an executive share option. First, the value is, at best, a measure of the company's opportunity cost of granting the option, and will typically overstate the value to the executive-recipient (Hall and Murphy, 2000). Second, executive share options are subject to forfeiture if the executive leaves the firm prior to vesting; the probability of forfeiture reduces the cost of granting the option and thus implies that the formula overstates the value. Third, the formula assumes that options can only be exercised at the expiration date, but executive options can be exercised immediately upon vesting. Finally, following recommendations in the Greenbury (1995) report, share options granted in the UK typically vest only upon attainment of some performance criteria. Although

$$\text{Option Value} = Pe^{-\ln(1+d)T} N(z) - Xe^{-\ln(1+r)T} N(z - \sigma\sqrt{T}),$$

where  $P$  is the grant-day share price,  $X$  is the exercise price,  $T$  is the time remaining until expiration,  $d$  is the annualized dividend yield,  $\sigma$  is the standard deviation of the monthly continuously compounded return over the prior 48 months multiplied by  $\sqrt{12}$ ,  $r$  is average yield on 7-year UK treasury bills,  $N(\cdot)$  is the cumulative normal distribution function, and

$$z = \frac{\ln(P/X) + [\ln(1+r) - \ln(1+d) + \sigma^2/2]T}{\sigma\sqrt{T}}.$$

Table 1 presents the averages of each component of CEO pay over the sample period. Except for options, CEO compensation components grew in size over time. The large increase in LTIP could be in part due to the decrease in the use of options in the UK. Total compensation grew by approximately 72%. This represents substantial growth, given that during the same period sales of sample firms declined on average by 11% (untabulated).

## ***4.2 Measurement of Excess Compensation***

To test whether shareholders take excess compensation into account when they vote on the compensation report, I need to develop an estimate of excess compensation. I follow prior research in developing a benchmark model for expected compensation (see, for example, Coughlan and Schmidt, 1985, Core, Holthausen and Larcker, 1999, and

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the existence of performance criteria will naturally reduce the company's cost of granting an option, the expected discount is fairly modest because the criteria are seldom binding.

Core, Guay, and Larcker, 2008). Some of the economic determinates that prior research deem important in explaining compensation include firm size, growth opportunities, performance, and industry affiliations. Prior research, for example, shows that larger and more complex firms and firms with greater growth opportunities require higher quality CEOs that demand higher pay (see Smith and Watts, 1992, Core et al., 1999, and Cyert, Kang, and Kumar, 2002). I proxy for size and complexity with firm sales and for growth opportunities with book to market ratio as defined above. In addition, prior research suggests that CEO pay should be an increasing function of performance in order to align the interests of shareholders and CEOs (see Core et al., 1999 and Roulstone, 2003). I proxy for firm performance using both contemporaneous and lagged stock return and accounting return. Prior research also shows that the longer the CEO's tenure, the more influence the CEO is likely to have on directors and internal pay practices (see Core et al., 1999 and Cyert et al., 2002).

I use the error term from a pooled cross-sectional Ordinary Least Squares (OLS) regression of the natural logarithm of compensation on the economic determinants listed above as a measure of excess compensation:

$$\text{Log}(\text{Compensation}_{it}) = \alpha + x_{it}\beta + u_{it}, \quad (1)$$

where *Compensation* is total compensation as defined in Section 4.1 and  $x_{it}$  consists of  $\text{Log}(\text{Tenure}_{it})$ ,  $\text{Log}(\text{Sales}_{it-1})$ ,  $\text{Ret}_{it}$ ,  $\text{Ret}_{it-1}$ ,  $\text{ROA}_{it}$ ,  $\text{ROA}_{it-1}$ ,  $\text{Bk/Mkt}_{it-1}$ , industry, and time controls. *Tenure* is the number of years the CEO spent in office at the end of year t. *Sales* is the firm sales for year t-1. *Ret* is the firm annual return for the year t and t-1. *ROA* is the firm income before extraordinary items divided by average total assets for the year t



and t-1.  $Bk/Mkt$  is the book-to-market ratio where  $Bk$  is the book value of assets and  $Mkt$  is the book value of liabilities plus market value of equity at the end of year t-1. Table 2 provides results of running Model (1). The table indicates that tenure, size and stock performance are all significant at the 1% level. Consistent with prior research, the model explains about 53.19% of the variation in total compensation. Excess compensation,  $ExcessComp$ , is the error term from Model (1) above, and takes the following form:

$$ExcessComp = \log\left(\frac{Compensation}{ExpectedComp}\right)$$

It is used in this study to ensure, as Core, Guay, and Larcker (2008) argue, that changes in CEO compensation reflect changes in the excess part of compensation and not changes in firm characteristics. It is also more relevant to this study because shareholders are more likely to be dissatisfied with a CEO's compensation when excess compensation is a larger proportion of a CEO's overall compensation.

### **4.3 Measurement of Shareholders' Dissatisfaction**

I use the following fraction of votes against the compensation report over total votes cast as my proxy for shareholders' dissatisfaction with the compensation report:

$$Dissatisfaction_{it} = \frac{'against' vote_{it}}{'for' vote_{it} + 'discretion' vote_{it} + 'against' vote_{it} + 'abstain' vote_{it}}$$

where *'against' vote* and *'for' vote* are the total number of votes that were cast in year t for firm i against and in support of the compensation report, respectively. *'discretion'*

*vote* is the total number of votes where shareholders have given their proxy the discretion of voting choice. '*abstain*' *vote* is the total number of votes where shareholders elect to withhold their vote.<sup>24</sup>

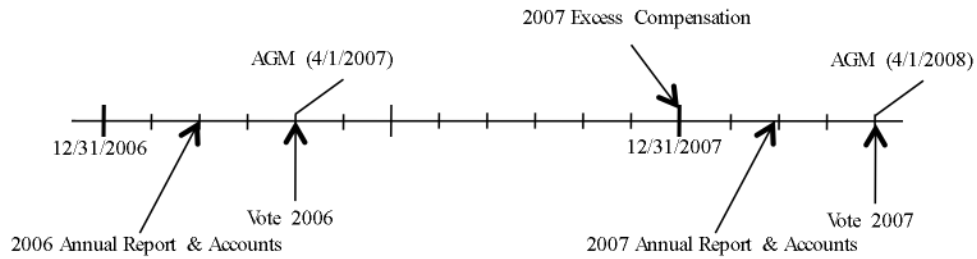
Table 3 provides descriptive statistics on the vote cast by shareholders on the compensation resolution. The mean (median) vote against the compensation report is 0.0518 (0.0257) for *Dissatisfaction*. On average, 61.46% of the shares outstanding are used to vote on the compensation report across my sample. Panel B indicates that the first two years of the regulation show the most negative votes. This negates the arguments made by opponents to such a regulation that shareholders will always vote against the board on this issue. Panel B also demonstrates that participation has increased from 54% to 66% over the sample period.

The timing of the vote is of great importance to this study. Shareholders cast their votes on resolutions at the AGM following the issue of the Annual Report and Accounts. For a firm with a 12/31/2007 year-end, the annual report for that year will be issued in early February 2008 and the AGM will take place in early April. I assign the 2008 AGM vote to the 12/31/2007 fiscal year (See Figure 1).

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<sup>24</sup> A shareholder is entitled to appoint one or more proxies to exercise any or all of his/her rights to attend, speak, and vote at the meeting. A proxy does not need to be a member of the company but must attend the meeting to represent the appointing shareholder. More than one proxy may be appointed, provided that each proxy is appointed to exercise rights attached to different shares.

**Figure 1: Events Timeline**



#### ***4.4 Descriptive Statistics***

Table 4 provides descriptive statistics for the sample used in this study. The table indicates that the mean (median) age for a CEO in the sample is about 52 (53) years old. The mean (median) number of years that the CEO has been in office is about 7 (5) years. The mean assets and sales for a firm in the sample are about £23.9 billion and £5.7 billion, respectively. The mean (median) annual return for a firm in the sample is around 19.28% (16.6%). The table also indicates that the average CEO holds about 36% of the stocks held by the entire board (both executives and non-executives).

Table 5 provides the correlations between some of the variables used in the study. The table indicates that excess compensation, *ExcessComp*, is positively correlated with *Dissatisfaction*. The table also indicates that the correlation between *ExcessComp* and *ExpectedComp* is not significant, as one would expect, given that *ExcessComp* is the error term from Model (1).

## 5. Research Design and Results

### 5.1 Shareholders' Dissatisfaction over Excess Compensation

To examine whether shareholders consider excess compensation when casting their vote, I use the following pooled cross-sectional OLS regression:

$$Dissatisfaction_{it} = \beta_0 + \beta_1 ExcessComp_{it} + \beta_2 Controls + u_{it}, \quad (2)$$

where *Dissatisfaction* is defined in Section 4.3 and *ExcessComp* is the error term from Model (1). I expect the dissatisfaction over the CEO's pay to be derived not only from the excessiveness of the CEO's pay package but also from other general determinants that might cause dissatisfaction among shareholders. For example, I include performance and size controls because prior activism research has found that the probability of attracting a corporate governance proposal increases with weaker performance and firm size (see Karpoff, Malatesta, and Walkling, 1996 and Mulherin and Poulsen, 1998). I use *Ret* and *ROA* for the years *t* and *t-1* as defined before (see section 4.2) to proxy for performance and *Log(Assets)*, defined as the logarithm of firm assets for year *t*, to proxy for size.<sup>25</sup>

The main variable of interest in Model (2) is *ExcessComp*. A significantly positive coefficient,  $\beta_1$ , would suggest that shareholders take CEO's excess pay into account when they cast their votes. Table 6 presents the results of estimating Model (2).

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<sup>25</sup> As a robustness check, I use *Log(Sales)* in place of *Log(Assets)* as a control for size and inferences are unaffected.

$\beta_1$  is positive and significant at the 1%. Excess compensation is stripped out of the economic factors that determine compensation. Therefore, the results reflect shareholders' disapproval of the mismatch between pay and performance. The higher the mismatch, the greater the dissatisfaction expressed by shareholders. The table also indicates that the coefficients for contemporaneous and prior stock return are significantly negative, suggesting that shareholders vote more against the compensation report when the stock return is low.

A potential concern in the above test is that excess compensation can be endogenous in the regression if boards perceive shareholders' dissatisfaction to be costly, as I argue in Section 3.2. In this case, boards will proactively reduce excess compensation in year  $t$  to avoid upsetting shareholders in year  $t$  and incurring the costs associated with shareholders dissatisfaction. To the extent that this happens, variation in CEOs' excess compensation across firms with greater shareholders' dissatisfaction will be smaller than if dissatisfaction was not costly. As a result, shareholders would vote less against the compensation report than if boards ignored the shareholders' dissatisfaction when they design the compensation package. I expect this reduction in excess compensation and the resulting reduction in votes against the compensation report (dissatisfaction) to make it tougher to detect a relation between excess compensation and dissatisfaction.

## ***5.2 Board Response to Shareholders' Dissatisfaction***

In the analysis that follows, I consider the joint test that the shareholders' vote truly reflects the shareholders' view of CEOs' pay and fit (i.e., the vote represents a viable signal) and that the cost from ignoring shareholders' dissatisfaction is large enough

that boards take actions to avoid future dissatisfaction. As described in Section 3, boards can take one of two actions when it comes to responding to shareholders' dissatisfaction: (1) they can change the CEO's compensation to lower the excess portion; or (2) they can force the CEO out of office. Note that the goal of the paper is not to determine whether the votes *cause* boards to act; it is to determine whether boards act in response to shareholders' sentiments over CEOs' pay that are reflected in the vote outcome.

### 5.2.1 *Change in the CEO's excess compensation*

Hypothesis *H2* argues that a responsive board will be more likely to reduce excess compensation as the dissatisfaction expressed by shareholders over CEO's compensation increases. To test this hypothesis, I run the following OLS model:

$$\Delta ExcessComp_{i(t+2,t+1)} = \beta_0 + \beta_1 Dissatisfaction_{it} + u_{it+1}, \quad (3)$$

where  $\Delta ExcessComp_{i(t+2,t+1)}$  is the change in excess compensation for firm *i* from year *t*+1 to year *t*+2, or  $ExcessComp_{it+2} - ExcessComp_{it+1}$ . I expect  $\beta_1$  to be significantly negative, implying that the stronger the shareholders' dissatisfaction, the greater the reduction in excess compensation.

I choose to use the change in excess from *t*+1 to *t*+2 instead of *t* to *t*+1 because Section 241A(8) of the Companies Act (1985) provides that negative votes would not legally affect existing contractual compensation. In addition, compensation committees usually decide on the level and structure of the CEO's pay either at the beginning of the current fiscal year or at the end of the previous fiscal year (i.e., before the annual vote on the compensation resolution). Given this reasoning, a negative vote at the 2006 AGM, for

example, will most likely have no impact on the excess compensation for 2006 (see Figure 2). The negative vote in this case will put pressure on the board to change the 2007 compensation.

**Figure 2: Change in Excess Compensation Choice**

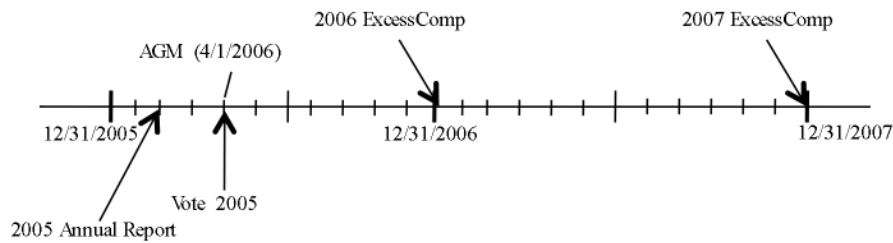


Table 7 Panel A presents the results from estimating Model (3). Column (1) provides no evidence for the hypothesis that the board responds to shareholders' dissatisfaction by changing excess compensation. There are several potential explanations for this lack of support. One possibility is that boards that are faced with shareholders' dissatisfaction may choose to take the more extreme option of forcing the CEO out of office instead of changing his compensation. I argue that, even though *Dissatisfaction* measures shareholders' disapproval with the board on the issue of CEO pay, it might also capture shareholders' sentiment toward the performance of the CEO. This is the focus Section 5.2.2.

A second possibility is that shareholders' dissatisfaction is not only expressed when the CEO is paid above what is determined by economic factors (i.e. overpaid). If shareholders care about the long-term success and stability of their firms and they agree with the CEO's philosophy and outlook, there is no reason why they would not express their dissatisfaction with the CEO's pay when it is below what is determined by

economic factors (i.e., underpaid). Therefore, boards might respond by reducing a CEO's excess compensation when shareholders perceive the CEO to be overpaid and by increasing excess compensation when the CEO is perceived to be underpaid. The rationale for the latter argument is consistent with the retention story. To test this, I split the sample, at the time of the vote (year  $t$ ), into two subsamples: those with excess pay that is above the mean and those with excess pay that is below the mean. Table 7 Panels B and C present the results from estimating Model (3) for the two subsamples. Panel B (column 1) results indicate that boards of firms with CEO excess pay that is above the mean respond by reducing excess compensation. Panel C (column 1) indicates no such significance for firms in the sample where excess pay is below the mean.

### 5.2.2 *CEO turnover*

Hypothesis *H3* argues that a responsive board will be more likely to encourage the departure or removal of the CEO from office when shareholders' sentiment about the CEO is poor. To conduct this test it is important to determine if the CEO left the position voluntarily or was forced out. There are 134 turnover cases in the sample. I classify a turnover as voluntarily if the CEO is younger than 65 and one of the following conditions is satisfied:<sup>26</sup> (1) the retirement is pre-disclosed a year in advance of the incumbent CEO departure; (2) the CEO moved to the chairmanship position of the board or took a non-executive director role within the same board;<sup>27</sup> (3) the CEO moved horizontally within 6

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<sup>26</sup> Turnover for CEOs that are older than 65 is also considered voluntarily.

<sup>27</sup> Although the Combined Code states that the CEO should not move to the chairmanship of the board of the same company, a CEO can become a chairman if the board consults major shareholders in advance and provides reasoning to shareholders at the time of the appointment and in the next annual report. Refer to Provisions A.2.1 and A.2.2 of the Combined Code for more information.



months of his turnover date;<sup>28</sup> (4) the CEO departure was disclosed to be due to death or poor health; or (5) the firm went through delisting either due to merger and acquisition or insolvency.<sup>29,30</sup> Using the prior procedure, I classify 26 turnovers as retirement events, 16 turnovers as staying with their boards, and 1 turnover event as a result of death. I lose 22 turnover events either because the turnover happened in the first year that the firm enters the sample or because the vote took place with the knowledge that the CEO had been replaced.<sup>31</sup> The remaining 69 turnover events were coded as forced.

Note that CEOs forced out of office are not necessarily fired in this setting. A CEO could be pushed out because he/she refuses to accept a pay cut, for example. As an outsider to the firm, I cannot distinguish between a fired CEO and a CEO that has been pushed out. This is why I code both cases as forced.

I use the following logit model to examine CEO turnover following shareholders' vote:

$$Turnover_{it+1} = \beta_0 + \beta_1 Dissatisfaction_{it} + \beta_2 Controls + u_{it} , \quad (4)$$

where *Turnover* is 1 when the CEO is forced out of office in the year following the base year, and zero when there is no turnover or the turnover is determined to be voluntarily.

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<sup>28</sup> If it was disclosed that the CEO is retiring but he/she accepts a CEO role in another firm after 6 months then I interpret that as an indication that the CEO was forced out of office.

<sup>29</sup> The steps used above are consistent with prior literature (see for example Parrino, 1997).

<sup>30</sup> I rely on google.com, nndb.com, zoominfo.com, businessweek.com/research/people, and the firm's own press releases to track CEO movements.

<sup>31</sup> For example, consider a firm with a 12/31 fiscal year end that enters the sample in 2002. On 1/1/2003, the firm announces that their CEO is leaving. The 2002 annual report will be issued in early February and will feature the new CEO. The AGM will take place in early April 2003. In this scenario, I drop the 2002 fiscal year. There is no reason why shareholders would express their dissatisfaction with the board if the board had responded by forcing the incumbent CEO out.

Prior literature shows that turnover is increasing in age and decreasing in both stock ownership and CEO power (See for example Morck, Shleifer, and Vishny, 1989 and Denis, Denis, and Sarin, 1997). I control for age by including *Log(Age)*, which is the natural logarithm of the CEO age at the end of year t. I control for stock ownership by including *Holdings*, which is the ratio of the CEO holdings at the end of year t to the holdings of all board members (both executive and non-executive directors) at the end of year t. I control for CEO power by including *Founder*, which is 1 when the CEO is a founder of the firm or part of the founding family, and *Log(Tenure)*, which is the natural logarithm of the CEO tenure in office at the end of year t.<sup>32</sup>

In addition to the controls listed above, prior literature shows that there is an inverse relation between the firm's performance and turnover (Coughlan and Schmidt, 1985 and Warner, Watts and Wruck, 1988). I control for the firm's performance by including an industry adjusted stock return (*IndAdjRet*) and an industry adjusted return on assets (*IndAdjROA*) for the year prior to the turnover. *IndAdjRet* and *IndAdjROA* are calculated by subtracting the FTSE two-digit industry group average stock return and average return on assets from the firm's *Ret* and *ROA*, respectively. Prior literature shows that the composition of the board of directors is a factor that affects turnover (Weisbach, 1988). The more independent the board is, the higher the turnover. I control for the board composition by including *Independent*, which is the ratio of the number of independent

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<sup>32</sup> *Log(Age)*, *Holdings*, *Founder*, and *Log(Tenure)* are all hand-collected variables from the annual reports.

non-executive directors on the board to the board size.<sup>33</sup> I also include  $\text{Log}(\text{Assets})$ , as defined above, to control for size.

The main variable of interest in Model (4) is *Dissatisfaction*. I expect  $\beta_1$  to be significantly positive. Table 8 Column (1) presents evidence consistent with this expectation. The results suggest that boards respond to the pressure resulting from shareholders' dissatisfaction by forcing the CEO out of office. The table further indicates that the coefficient of *ExcessComp* is negative and significant, consistent with prior research in the turnover literature (Coughlan and Schmidt, 1985 and Mehran and Yermack, 1997).<sup>34</sup> The argument made for the negative coefficient is that boards might overpay to attract the CEO to the firm and retain him thereafter. As discussed before, the regulation is not intended to reduce pay; instead, it is intended to reduce the mismatch between pay and performance. Therefore, it is not surprising, given the increased dialog between shareholders and their boards, to find that excess pay is used as a tool to attract and retain CEOs because the pay philosophy can be explained to shareholders before (or after) the vote is cast.

To facilitate the economic interpretation of my results, I calculate the marginal effects ( $\partial y/\partial x$ ) of *Dissatisfaction*. Table 9 indicates that a 1% increase in the level of

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<sup>33</sup> The Combined Code recommended that Boards should be comprised of at least one-half independent non-executive directors. To qualify, an individual must not only have the necessary independence of character and judgment but also be free of any connections that may lead to conflicts of interest. The Combined Code makes it clear that someone will not normally be considered independent if: (1) they have been an employee of the group within the previous five years; (2) they have a "material business relationship" with the company or have had one within the previous three years; (3) they receive remuneration in addition to director's fees; (4) they have close family ties to the company; (5) they hold cross directorships or have significant links with other directors through involvement in other companies; (6) they represent a significant shareholder; or (7) they have served on the board for more than nine years.

<sup>34</sup> When Model (4) is estimated without *ExcessComp*, the results are unchanged. In addition, when Model (4) is estimated without *Dissatisfaction*, the negative sign and significance on *ExcessComp* to be consistent with prior research.

shareholders' dissatisfaction from the mean will result in an increase of 35% in the likelihood of turnover in the coming year.

Overall, the evidence presented gives support to the joint test that the votes truly reflect their view of CEOs' pay and fit and that boards are responsive to shareholders' dissatisfaction. While I do not find evidence that boards change CEOs' excess compensation for the overall sample, I find evidence consistent with boards reducing excess compensation for a subsample of firms whose CEOs have above the mean excess compensation. For CEO turnover, I find evidence that turnover is increasing in shareholders' dissatisfaction, suggesting that the vote might reflect shareholders' sentiments regarding the CEO's performance.

## 6. Additional Tests

### 6.1 Effect of Board Independence

Some might argue that expressed dissatisfaction by shareholders in and of itself is not going to pressure the board for an action if the board has more of an incentive to cater to the CEO. Board independence, therefore, is important when a board action (or in this case reaction) is expected because independent directors have a stronger incentive to build and maintain a reputation as effective monitors in the director labor market (Fama and Jensen, 1983). Therefore, I argue in hypotheses *H4A* and *B* that independent directors have a stronger response to the pressure resulting from shareholders' votes on the compensation report.

To test hypothesis *H4A*, I re-run Model (3) with *Independent* interacted with *Dissatisfaction*. I expect the coefficient on the interaction term to be negative and significant, indicating that the board will respond to shareholders' dissatisfaction with a greater reduction in excess compensation. Column (2) from Panel A of Table 7 provides the results of this hypothesis. The coefficient on the interaction term is significantly positive. This result seems inconsistent with the literature that deals with board independence because it implies that more independent boards are less responsive to the dissatisfaction expressed by their shareholders and thus cater more to CEOs. To explore this issue further, I re-run Model (3) with *Independent* interacted with *Dissatisfaction* for the two subsamples discussed in Section 5.2.1. I expect the coefficient on the interaction term to be negative for firms with above the mean excess compensation. Table 7 Panel B

provides no evidence consistent with this expectation. I expect the coefficient on the interaction term to be positive for firms with below the mean excess compensation. Table 7 Panel C shows evidence consistent with this expectation.

To test hypothesis *H4B*, I re-run Model (4) with *Independent* interacted with *Dissatisfaction*. I expect the coefficient on the interaction term to be positive and significant. Column (2) of Table 8 provides no evidence that board independence matters when responding to shareholders' dissatisfaction in the case of CEO turnover.

## ***6.2 Effect of Continuous Shareholders' Dissatisfaction***

This section examines the impact of continuous show of dissatisfaction by shareholders on the boards' response to such dissatisfaction. Section 3.4 discusses how a collective disapproval in one year will bring the board and shareholders together and allow the board to explain its pay philosophy. I argue that it is not until the dissatisfaction persists when one would expect that the pressure on the board to be at its highest. In order to test this argument, I develop a persistence measure, *Persistent*, which is equal to 1 if *Dissatisfaction* for year *t-1* and year *t* for company *i* is above the mean of *Dissatisfaction* for the same company.

Hypothesis *H5A* argues that the board's decision to reduce excess compensation is stronger when shareholders' dissatisfaction persists for more than one period. To test this hypothesis, I re-run Model (3) with *Persistent* interacted with *Dissatisfaction*. I expect the coefficient on the interaction term to be negative and significant. Table 7 Panel A (Column 3) presents the results for this hypothesis. There is no evidence that

continuous show of dissatisfaction matters when it comes reducing the CEO's excess compensation. I also re-run Model (3) for the two subsamples discussed in Section 5.2.1 and the lack of significance on the interaction term persists.

Hypothesis *H5B* argues that the board decision to turn the executive over is stronger when shareholders' dissatisfaction persists for more than one period. To test this hypothesis, I re-run Model (4) with *Persistent* interacted with *Dissatisfaction*. I expect the coefficient on the interaction term to be positive and significant. Table 8 Column 3 provides no evidence of this hypothesis.

## 7. Robustness Checks

### 7.1 Voting on the Overall level of Compensation

I view the test of hypothesis *H1* as a joint test of the validity of the proxy used in this study, *ExcessComp*, and the effort shareholders exert when they vote on the compensation report. One might argue that shareholders are not putting forth any extra effort to evaluate the CEO's compensation package and instead they are voting based on the level of compensation. In this case, higher overall levels of total compensation would result in greater shareholders dissatisfaction. To rule out this alternative explanation, I include the log of expected compensation, *ExpectedComp*, along with *ExcessComp* and re-run Model (2).<sup>35</sup> Table 10 Column 2 indicates that the coefficient on *ExcessComp* is still significant and positive as in Column 1 (taken from Table 6). I performed an F-test to see if the coefficient on *ExcessComp* is the same as the one on *ExpectedComp*. The test indicates that there is no statistical difference between the two coefficients, suggesting that while excess compensation, theoretically, captures different elements of pay than expected compensation, it seems that the setting in this study lacks the power to detect a difference.

A potential concern with interpreting the insignificant coefficient on *ExpectedComp* in Column 2 of Table 10 is that many of the independent variables that were used to determine expected compensation in Model (1) are used to explain the level

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<sup>35</sup> Note that  $\text{Log}(\text{Compensation})_{it} = \text{ExpectedComp} + \text{ExcessComp}$ . Also note that both *ExpectedComp* and *ExcessComp* are logged variables (see the discussion on Model (1) for more information).



of shareholders' dissatisfaction. It is possible that *ExpectedComp* is significantly explained by the control variables in Model (1) and that it becomes insignificant when it is added to Model (3). To alleviate this concern, I re-run Model (3) without the controls. Results presented in Table 10 indicate that the coefficient on *ExpectedComp* is not significant when only *ExcessComp* and *ExpectedComp* are in the model together (Column 3) or when only *ExpectedComp* is in the model by itself with controls (Column 4) or without controls (Column 5).

## ***7.2 Alternative measures of Dissatisfaction***

There has been some debate over how to account for 'abstain' votes. UK law does not consider an 'abstain' vote as a vote when it comes to the passage of a resolution. That being said, the approval (or lack of approval) of the compensation report is non-binding and a shareholder decision to elect (vote) to abstain may carry a signal to the board. The Institute of Chartered Secretaries and Administrators argues that sometimes investors do not feel able to vote 'for' a resolution, but equally do not feel like voting 'against' a resolution. Shareholders might want to send a warning message to the board and could do so by abstaining.<sup>36</sup> Note that an 'abstain' vote is not the same as a non-vote. When the shareholder does not select any of the available choices (i.e., a non-vote) the shareholder is giving the chairman of the board, when the chairman is selected as a proxy, the discretion to vote their shares. Across all the firms in the sample a 'discretion' vote results in a vote for a resolution (never against it) when the chairman is selected as a proxy.

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<sup>36</sup> See Institute of Chartered Secretaries and Administrators (ICSA) guidance note reference number 040831.

Given the above discussion, and as a robustness check, I construct the following dissatisfaction measures:

$$Dissatisfaction2_{it} = \frac{'against' vote_{it}}{'for' vote_{it} + 'discretion' vote_{it} + 'against' vote_{it}}$$

$$Dissatisfaction3_{it} = \frac{'against' vote_{it} + 'abstain' vote_{it}}{'for' vote_{it} + 'discretion' vote_{it} + 'against' vote_{it} + 'abstain' vote_{it}}$$

Table 11 Panel A provides descriptive statistics on the two alternative measures of dissatisfaction. The mean (median) vote against the compensation report is 0.0547 (0.0263) for *Dissatisfaction2*, and 0.085 (0.0531) for *Dissatisfaction3*. Panel B indicates that both *Dissatisfaction2* and *Dissatisfaction3* exhibit the same time trend behavior as the main measure of dissatisfaction used in this paper. Examining all the three measures, *Dissatisfaction3* is probably the noisiest measure of them all because it includes all the ‘abstain’ votes in the numerator.

Table 12 Panel A (Panel B) replicates the results from Tables 6 and 10 using *Dissatisfaction2* (*Dissatisfaction3*) in place of the main dissatisfaction measure, *Dissatisfaction*. As can be seen from the table, the results are consistent with Tables 6 and 10 except for weaker significance on the variable of interest in Panel B. This might be attributed to fact that *Dissatisfaction3* is noisier and therefore, detecting a relationship between it and *ExcessComp* is harder.

Table 13 presents the results from running Model (3) for the entire sample (Panel A), for firms whose CEOs have above average excess compensation (Panel B), and for

firms whose CEOs have above average excess compensation (Panel C) using *Dissatisfaction2* and *Dissatisfaction3* in place of *Dissatisfaction*. The results are, similar to Table 7, consistent with boards reducing excess compensation for firms whose CEOs have above the mean excess compensation and with more independent boards increasing the CEO's excess compensation for a subsample of firms whose CEOs have below the mean excess compensation.

Table 14 presents the results from running Model (4) using *Dissatisfaction2* (Panel A) and *Dissatisfaction3* (Panel B) in place of *Dissatisfaction*. The results are, similar to Table 8, consistent with boards forcing the executive out of office as a response to shareholders' dissatisfaction.

## **8. Caveats**

Several countries, including the US, are considering granting shareholders more direct say on CEOs' pay. While the evidence that boards respond to shareholders provides some comfort to regulators and investors who have expressed dissatisfaction over the escalating level of CEO pay and have spent particular effort advocating different solutions, the results should be interpreted with caution.

There are two caveats from the standpoint of this setting that should be considered. First, the results presented are a manifestation of the UK regulatory environment as a whole. The UK regulatory environment has different governance, ownership, and rules structures from other countries. From the governance structure standpoint, UK shareholders have stronger rights than in other countries as discussed in Section 3.1. For example, the UK market has a concentrated ownership base rather than a dispersed ownership like in the US. UK rules are based on 'comply-or-explain' best practice guidelines, unlike the US regulatory style, which is rules-based. While each element of the regulatory environment might not be unique to the UK, the interaction between these elements might be unique, which is difficult to replicate.

Second, the UK government articulated three goals for the DRR Regulation: enhance transparency, improve accountability, and provide more effective performance linkage. In the Netherlands, another country that has given shareholders say on CEO pay, one of the goals is to restrain the growth of CEO compensation. A different regulatory environment with different goals might result in different outcomes.

## 9. Conclusion

During the past two decades, the issue of executive compensation has become a primary concern for practitioners, investors, and regulators around the world. Since 2002, shareholders in the United Kingdom have been given the opportunity, through the Directors Remuneration Report Regulation, to cast a non-binding advisory vote at the Annual General Meeting on directors' compensation. The purpose of this study is to investigate the effect of the vote on shareholders and the board of directors. I accomplish this by examining: (1) whether shareholders consider CEO's excess compensation when they cast their vote; and (2) whether the board responds to shareholders' dissatisfaction.

I argue that if shareholders disapprove of excess compensation, then one should expect the vote to reflect their disapproval. The evidence suggests that shareholders vote more against the compensation report when excess compensation is high. I also argue that shareholders' negative view of the board's pay philosophy is expected to put pressure on the board to react and avoid financial and nonfinancial (e.g. reputation, power, and honor) consequences that could result when shareholders vote 'no' on the compensation report. This argument represents a joint test that the votes truly reflect shareholders' view of the CEOs' pay and fit and that boards are responsive to shareholders' dissatisfaction. I select two possible actions that boards might consider when dealing with such pressure: boards can adjust the CEO's package to lower the CEO's excess compensation; or they can force the CEO out of office. While I do not find evidence that boards change CEOs' excess compensation for the overall sample, I find evidence consistent with boards reducing excess compensation for firms whose CEOs have above the mean excess

compensation. For CEO turnover, I find evidence that CEO turnover is increasing in shareholders' dissatisfaction, suggesting that the vote might reflect shareholders' sentiment regarding the CEO's performance.

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## APPENDIX: TABLES

**Table 1: Trends in CEO Compensation**

The table presents trends in CEO compensation (components and total) for sample firms from 2002 to 2007. The sample consists of 204 (913 CEO-years) of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. Compensation data were obtained from companies' annual reports. Financial statement data and stock return information were obtained from Worldscope and Datastream. *Salary* is the CEO's annual salary. *Bonus* is the sum of cash bonus and short-term equity bonus. LTIP includes Performance Share Plans, Restricted Share Plans, Co-Investment Plans, and Executive Share Incentive Plans. *LTIP* is the sum of performance contingent LTIP and non-performance contingent LTIP. Non-performance-contingent LTIP grants are valued at the face value of the shares on the grant date. Performance-contingent LTIP grants are valued at the face value of the shares on the grant date with an imposed 20% discount, consistent with Conyon and Murphy (2000). *Options Value* is the grant-date expected option value using the Black and Scholes (1973) formula. *Other Annual Pay* is all other annual compensation that does not belong to any of the components. *Compensation* is the sum of all the components listed above. The compensation variables are in thousands of pounds sterling (£). Due to the small number of observations in 2008, I do not include the averages of the components in the table, however, 2008 is included in the overall sample averages.

Year	N	Salary	Bonus	LTIP	Options Value	Other Annual Pay	Compensation
2002	53	470.8	314	356.6	296.3	119.5	1,557.20
2003	124	506.7	463.1	365.5	345.5	107	1,785.90
2004	165	507.9	502.5	567.4	267.5	127.8	1,973.10
2005	188	536.4	545	1,154.40	204.5	130.5	2,570.80
2006	191	569.3	635.6	867.3	174.7	132.4	2,379.10
2007	181	590.9	737	1,054.20	132.7	170.7	2,685.60
2002-2008	913	543.4	575.4	822.7	220.9	134.6	2,297
% change (2002-2007)		26%	135%	196%	-55%	43%	72%

**Table 2: Regression of Total Compensation on Economic Determinants**

The table presents the results of running a pooled cross-sectional OLS regression of the natural logarithm of total compensation on proxies of economic determinants such as firm size, stock return, accounting return, growth opportunities, and industry and time controls. The sample consists of 852 observations of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index.  $Ln$  (Compensation) is the natural logarithm of the sum of salary, bonuses, LTIP value, stock options value, and other annual pay that does not belong to any compensation component.  $Ln(Tenure)$  is the natural logarithm of the numbers of years the CEO spent in office at the end of year  $t$ .  $Ret$  is the firm annual return for the year  $t$  and  $t-1$ .  $ROA$  is the firm income before extraordinary items divided by the average total assets for the year  $t$  and  $t-1$ .  $Log(Sales)$  is the natural logarithm of the company's total sales for the year  $t-1$ .  $Bk/Mkt$  is the book-to-market ratio where  $Bk$  is the book value of assets and  $Mkt$  is the book value of liabilities plus market value of equity.  $ExcessComp$  is the residual from this analysis. Fixed effects are included in the regression, but are not tabulated. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Independent Variable	Ln (Compensation) <sub>t</sub> (1)
Log(Tenure) <sub>t</sub>	0.0892 *** (3.48)
Log (Sales) <sub>t-1</sub>	0.3158 *** (20.38)
Ret <sub>t</sub>	0.1371 *** (2.23)
Ret <sub>t-1</sub>	0.1697 *** (3.21)
ROA <sub>t</sub>	0.3296 (1.11)
ROA <sub>t-1</sub>	0.00093 (0.00)
Bk/Mkt <sub>t-1</sub>	-0.1037 (-1.06)
R <sup>2</sup>	0.5319
n	852

**Table 3: Vote Descriptive Statistics and Trends**

The table presents descriptive statistics for the vote variables (Panel A) and trends in shareholders' dissatisfaction (Panel B). The sample consists of 204 companies (913 CEO-years) for the period from 2002 to 2008. The sample covers some of the largest companies listed on the London Stock Exchange (LSE). Proxy voting instructions or poll voting data were obtained from either the firm's website or from the Regulatory Notice Service offered by the LSE. Where vote information is not available, the company's Secretary or Investor Relations professionals were contacted. '*against*' vote and '*for*' vote are the total number of votes that were cast against and in support of the compensation report, respectively. '*discretion*' vote is total number of votes where shareholders have given their proxy the discretion of voting choice. '*abstain*' vote is the total number of votes where shareholders elect to withhold their vote. '*Dissatisfaction*' is the ratio of '*against*' vote to total vote cast ('*for*' vote + '*discretion*' vote + '*against*' vote + '*abstain*' vote). '*Vote Cast as % of Total Voting Rights*' is the ratio of shares with exercised voting rights to the total number of shares with voting rights outstanding at the Annual General Meeting date or as close to it as possible. I obtain total voting rights from either the voting outcome disclosure provided by the firm or by searching the Regulatory Notice Service offered by the LSE for "Voting Rights" announcements.

**Panel A – Vote Descriptive Statistics**

	Mean	Std Dev	P1	Q1	Median	Q3	P99
Dissatisfaction	0.0518	0.0766	0.0003	0.0097	0.0257	0.0617	0.3947
<i>for</i> ' vote	0.91488	0.0976	0.5063	0.8952	0.947	0.9756	1
<i>Abstain</i> ' vote	0.0339	0.0487	0	0.0053	0.0183	0.0428	0.2218
Vote Cast as % of Total Voting Rights	0.6146	0.1342	0.1565	0.5445	0.6258	0.6968	0.8948

Panel B: Trends in Voting Behavior

Year	Dissatisfaction	Vote Cast as % of Total Voting Rights
2002	0.1055	0.5411
2003	0.0719	0.5748
2004	0.0561	0.6219
2005	0.0403	0.6265
2006	0.0411	0.6407
2007	0.0416	0.6177
2008	0.0452	0.6616
2002-2008	0.0518	0.6146

**Table 4: Descriptive Statistics**

The table presents descriptive statistics for the variables used in the analysis for a sample of firms from 2002 to 2008. The sample consists of 204 (913 CEO-years) of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. Compensation data were obtained from companies' annual reports. Financial statement data and stock return information were obtained from Worldscope and Datastream. *Age* is the CEO age at the end of year *t*. *Tenure* is the numbers of years the CEO spent in office at the end of year *t*. *Assets* and *Sales* are the company's total assets and sales as reported in the annual report for the year *t*. *Bk/Mkt* is the book-to-market ratio where *Bk* is the book value of assets and *Mkt* is the book value of liabilities plus market value of equity. *Ret* is the firm annual return for the year *t* and *t-1*. *ROA* is the firm income before extraordinary items divided average total assets for the year *t* and *t-1*. *Independent* is a ratio of the number of non-executive independent board members to the board size. *Holdings* is the ratio of the CEO's current stock holdings to the holdings of the entire board. *Compensation* is the sum of salary, bonuses, LTTP value, stock options value, and other annual pay that does not belong to any compensation component. *Compensation* is in thousands of pounds sterling (£) and *Assets* and *Sales* are in millions of pounds sterling (£). *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants of compensation.

	Mean	Std Dev	P1	Q1	Median	Q3	P99
Age	52.3	6.14	37	48	53	57	66
Tenure	6.67	6.01	1	3	5	8	30
Assets	23,857.70	100,138	83.619	725,400	2,002.40	7,225.00	522,089.00
Sales	5,676.51	15,816	44.965	518.83	1,390.00	4,179.00	51,023.00
Bk/Mkt	0.7047	0.274	0.1705	0.5	0.693	0.9051	1.36
Ret	0.1928	0.369	-0.637	-0.0083	0.166	0.3635	1.415
ROA	0.0614	0.084	-0.115	0.0245	0.0533	0.0917	0.288
Independent	0.49362	0.11345	0.22222	0.4286	0.5	0.5625	0.7692
Holdings	0.3571	0.27	0	0.1307	0.3267	0.5297	0.9759
Compensation	2,297.04	306.83	299	926	1,514	2,673.70	11,847.80
ExcessComp	0.00169	0.5218	-1.1043	-0.3633	-0.0192	0.2988	1.4996

**Table 5: Simple Correlations**

The table presents Pearson correlations (Panel A) / Spearman correlations (Panel B) for some of the variables used in this study. The sample consists of 204 (913 CEO-years) of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. Compensation data were obtained from companies' annual reports. Financial statement data and stock return information were obtained from Worldscope and Datastream. *Tenure* is the numbers of years the CEO spent in office at the end of year  $t$ . *Assets* is the company's total assets as reported in the annual report for the year  $t$ . *Bk/Mkt* is the book-to-market ratio. *Ret* is the firm annual return for the year  $t$ . *ROA* is the firm income before extraordinary items divided average total assets for the year  $t$ . Independent is a ratio of the number of non-executive independent board members to the board size. *Holdings* is the ratio of the CEO's current stock holdings to the holdings of the entire board.  $\ln(\text{Compensation})$  is the log of the sum of salary, bonuses, LTIP value, stock options value, and other annual pay that does not belong to any compensation component.  $\ln(\text{Compensation}) = \text{ExpectedComp} + \text{ExcessComp}$ , where *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants. \*, \*\*, and \*\*\* indicate statistical significance at the 10, 5, and 1 percent levels, respectively.

**Panel A: Pearson Correlations**

	Ln (Compensation)	Excess Comp	Expected Comp	Dissatisfaction	Ln (Assets)	Ret	ROA	B/M	Holdings	Independent
ExcessComp	0.680 ***									
ExpectedComp	0.729 ***	-0.006								
Dissatisfaction	0.089 ***	0.089 ***	0.018							
Ln (Assets)	0.553 ***	0.069 **	0.696 ***	0.022						
Ret	-0.081 **	0.017	-0.092 ***	-0.130 ***	-0.1766 ***					
ROA	0.062	-0.002	0.083 **	-0.075 **	-0.225 ***	0.194 ***				
B/M	-0.028	-0.024	0.055 *	-0.001	0.3648 ***	-0.222 ***	-0.473 ***			
Holdings	0.006	0.113 ***	-0.064 *	-0.029	-0.186 ***	0.071 **	0.130 ***	-0.095 ***		
Independent	0.375 ***	0.148 ***	0.3901 ***	0.063 *	0.298 ***	-0.104 ***	-0.002	-0.081 **	0.0633	
Tenure	-0.0263	0.008	-0.046	-0.073 **	-0.145 ***	0.066 **	0.071 **	0.004	0.391 ***	-0.144 ***



Panel B: Spearman Correlations

	Ln (Compensation)	Excess Comp	Expected Comp	Dissatisfaction	Ln (Assets)	Ret	ROA	B/M	Holdings	Independent
ExcessComp	0.648***									
ExpectedComp	0.720***	-0.009								
Dissatisfaction	0.268***	0.191***	0.180***							
Ln (Assets)	0.617***	0.132***	0.715***	0.157***						
Ret	-0.045	0.046	-0.109***	-0.145***	-0.119***					
ROA	0.061*	-0.002	0.058*	-0.042	-0.264***	0.119***				
B/M	-0.047	-0.029	-0.015	-0.011	0.358***	-0.1445***	-0.598***			
Holdings	0.0257	0.089***	-0.041	-0.005	-0.145***	0.066**	0.164***	-0.112***		
Independent	0.3827***	0.154***	0.357***	0.195***	0.3134***	-0.102***	-0.018	-0.042	0.113***	
Tenure	-0.010	-0.023	0.019	-0.089**	-0.107***	0.0714**	0.146***	-0.060*	0.349***	-0.124***

**Table 6: Shareholders Response to the Excessiveness of the CEO's Compensation Package**

The table presents the results of running a pooled cross-sectional Ordinary Least Squares (OLS) regression where the dependent variable is shareholders' dissatisfaction, *Dissatisfaction*. The sample consists of 852 observations of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. *Dissatisfaction* is the ratio of 'against' vote to total vote cast (*for* vote + *discretion* vote + *against* vote + *abstain* vote). *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants of compensation for year *t*. *Ret* is the firm annual return for the year *t* and *t*-1. *ROA* is the firm income before extraordinary items divided average total assets for the year *t* and *t*-1. *Log(Assets)* is the natural logarithm of the company's total assets as reported in the annual report for the year *t*. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Independent Variable		Dissatisfaction
Intercept		0.10917 *** (3.1)
ExcessComp <sub><i>t</i></sub>	(+)	0.0139 *** (2.76)
Ret <sub><i>t</i></sub>		-0.03094 *** (-3.60)
Ret <sub><i>t</i>-1</sub>		-0.02336 *** (-3.38)
ROA <sub><i>t</i></sub>		-0.01144 (-0.26)
ROA <sub><i>t</i>-1</sub>		-0.03443 (-0.91)
Log (Assets <sub><i>t</i></sub> )		-0.00203 (-1.33)
R <sup>2</sup>		0.0437

**Table 7: Analysis of Changes in Excess Compensation Following Shareholders Vote on Directors' Compensation Report**

The table presents the results of running three pooled cross-sectional Ordinary Least Squares (OLS) regressions where the dependent variable is the change in the CEO's excess compensation from  $t+1$  to  $t+2$ ,  $\Delta ExcessComp$ . The sample consists of 576 observations of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. *Dissatisfaction* is the ratio of 'against' vote to total vote cast ('for' vote + 'discretion' vote + 'against' vote + 'abstain' vote). *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants of compensation for year  $t$ . *Independent* is a ratio of the number of non-executive independent board members to the board size. Column (2) includes an interaction term between *Dissatisfaction* and *Independent*. Column (3) includes an interaction term between *Dissatisfaction* and *Persistence*, where *Persistence* is 1 if *Dissatisfaction* for year  $t-1$  and year  $t$  for company  $i$  is above the mean of *Dissatisfaction* for the same company, and zero otherwise. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Panel A: Overall Sample

Independent Variable	Dependent Variable:		
	$\Delta ExcessComp$	$\Delta ExcessComp$	$\Delta ExcessComp$
	(1)	(2)	(3)
Intercept	-0.01397 (-0.68)	-0.0095 (-0.85)	-0.01285 (-0.91)
Dissatisfaction <sub><math>t</math></sub> (-)	0.12391 (0.55)	0.1240 (0.56)	-0.21128 (-0.50)
Independent * Dissatisfaction <sub><math>t</math></sub> (-)		2.609 *** (2.83)	
Persistent * Dissatisfaction <sub><math>t</math></sub> (-)			0.418157 (0.62)
R <sup>2</sup>	0.0005	0.005	0.0011
n	576	576	376

**Table 7 (Continued)**

**Panels B & C: Analysis of Changes in Excess Compensation Following Shareholders Vote on Directors' Compensation Report when Excess Compensation is Above (Below) the Mean**

Panel B (Panel C) presents the results of running three pooled cross-sectional OLS regressions where the dependent variable is the change in the CEO's excess compensation from t+1 to t+2,  $\Delta ExcessComp$ , when  $ExcessComp$  is above (below) the mean of excess compensation for the entire sample. The subsample consists of 291 (285) observations of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index.  $Dissatisfaction$  is the ratio of 'against' vote to total vote cast ('for' vote + 'discretion' vote + 'against' vote + 'abstain' vote).  $ExcessComp$  is the residual from an expected compensation model that controls for standard economic determinants of compensation for year t. Column (2) includes an interaction term between  $Dissatisfaction$  and  $Independent$ . Column (3) includes an interaction term between  $Dissatisfaction$  and  $Persistence$ , where  $Persistence$  is 1 if  $Dissatisfaction$  for year t-1 and year t for company i is above the mean of  $Dissatisfaction$  for the same company, and zero otherwise. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Panel B: Above the mean of  $ExcessComp$  subsample

Independent Variable	Dependent Variable:		
	$\Delta ExcessComp$ (1)	$\Delta ExcessComp$ (2)	$\Delta ExcessComp$ (2)
Intercept	-0.0858 *** (-3.88)	-0.116 *** (-5.17)	-0.13865 *** (-4.07)
$Dissatisfaction_t$	-0.6562 ** (-1.81)	-0.6507 ** (-1.79)	-2.08469 ** (-2.10)
Independent * $Dissatisfaction_t$		0.19996 (0.908)	
Persistent * $Dissatisfaction_t$			1.52625 (1.22)
$R^2$	0.0107	0.0108	0.0464
n	291	291	188

Panel C: Below the mean of *ExcessComp* subsample

Independent Variable	Dependent Variable:		
	$\Delta\text{ExcessComp}$	$\Delta\text{ExcessComp}$	$\Delta\text{ExcessComp}$
	(1)	(2)	(2)
Intercept	0.0856 *** (3.74)	0.09688 *** (4.78)	0.093462 *** (3.71)
Dissatisfaction <sub>t</sub>	0.280 (1.15)	0.2468 (1.02)	0.110553 (0.27)
Independent * Dissatisfaction <sub>t</sub>		2.518 ** (2.14)	
Persistent * Dissatisfaction <sub>t</sub>			0.021149 (0.03)
R <sup>2</sup>	0.0039	0.0105	0.0005
n	285	285	188

### **Table 8: Analysis of CEO Turnover Following Shareholders Vote on Directors' Compensation Report**

The table presents the results of running three logit models where the dependent variable is 1 if the CEO was forced out of office in year  $t+1$  and zero otherwise. The sample consists of 204 of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. *Dissatisfaction* is the ratio of 'against' vote to total vote cast ('for' vote + 'discretion' vote + 'against' vote + 'abstain' vote). *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants of compensation for year  $t$ . *IndAdjRet* is the industry adjusted firm annual return for the year  $t$ . *IndAdjROA* is the industry adjusted firm return on assets for the year  $t$ . *Log(Assets)* is the natural logarithm of the company's total assets as reported in the annual report for the year  $t$ . *Founder* is 1 if the CEO is a member of the founding family. *Log(Age)* is the natural logarithm of the CEO age at the end of year  $t$ . *Log(Tenure)* is the natural logarithm of the number of years the CEO spent in office at the end of year  $t$ . *Independent* is a ratio of the number of non-executive independent board members to the board size. *Holdings* is the ratio of the CEO current stock holdings to the holdings of the entire board. Column (2) includes *Dissatisfaction* interacted with *Independent*. Column (3) includes an interaction term between *Dissatisfaction* and *Persistence*, where *Persistence* is 1 if *Dissatisfaction* for year  $t-1$  and year  $t$  for company  $i$  is above the mean of *Dissatisfaction* for the same company, and zero otherwise. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Independent Variable		Dependent Variable:		
		Turnover <sub>t+1</sub> (1)	Turnover <sub>t+1</sub> (2)	Turnover <sub>t+1</sub> (3)
Dissatisfaction <sub>t</sub>	(+)	6.8660 *** (5.54)	6.8660 *** (5.6)	6.9550 *** (3.40)
ExcessComp <sub>t</sub>		-1.0161 *** (-3.44)	-1.0161 *** (-3.44)	-1.412 *** (-3.81)
Ind Adj Ret <sub>t</sub>		-0.587 *** (-2.58)	-0.584 *** (-2.56)	-0.6789 ** (-2.23)
Ind Adj ROA <sub>t</sub>		-0.9686 (-1.11)	-0.9537 (-1.11)	-3.0556 (-1.61)
Log (Assets) <sub>t</sub>		0.1081 (1.43)	0.1078 (1.42)	0.1194 (1.03)
Founder		-0.2903 (-0.40)	-0.2788 (-0.38)	0.1853 (0.21)
Log(Age) <sub>t</sub>		3.43 *** (2.81)	3.437 *** (2.81)	2.288 * (1.63)
Log(Tenure) <sub>t</sub>		-0.1984 (-1.02)	-0.1994 (-1.03)	-0.2248 (-0.72)
Holdings <sub>t</sub>		-0.4267 (-0.63)	-0.4295 (-0.63)	-0.475 (-0.61)
Independent <sub>t</sub>		0.7824 (0.64)	0.9149 (0.6)	1.1532 (0.69)
Independent * Dissatisfaction	(+)		0.154 (0.0428)	
Persistence * Dissatisfaction	(+)			-0.0166 (0.01)
R <sup>2</sup>		0.1409	0.141	0.13
n		809	809	560

**Table 9: Marginal Effects for the Turnover Analysis**

The table presents the marginal effects, evaluated at the mean, of each variable. The first column is a logit model where the dependent variable is 1 if the CEO was forced out of office in year t+1 and zero otherwise (the results are the same as in column 1 of Table 8. The sample consists of 204 of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. *Dissatisfaction* is the ratio of 'against' vote to total vote cast ('for' vote + 'discretion' vote + 'against' vote + 'abstain' vote). *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants of compensation for year t. *IndAdjRet* is the industry adjusted firm annual return for the year t. *IndAdjROA* is the industry adjusted firm return on assets for the year t. *Log(Assets)* is the natural logarithm of the company's total assets as reported in the annual report for the year t. *Founder* is 1 if the CEO is a member of the founding family. *Log(Age)* is the natural logarithm of the CEO age at the end of year t. *Log(Tenure)* is the natural logarithm of the number of years the CEO spent in office at the end of year t. *Independent* is a ratio of the number of non-executive independent board members to the board size. *Holdings* is the ratio of the CEO current stock holdings to the holdings of the entire board. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Independent Variable		Turnover <sub>t+1</sub>	dy/dx	z	x
Dissatisfaction <sub>t</sub>	(+)	6.8660 ***	0.3531 ***	(4.97)	0.05348
Excess Comp <sub>t</sub>		-1.0161 ***	-0.05224 ***	(-3.76)	0.012177
Ind Adj Ret <sub>t</sub>		-0.587 ***	-0.03 ***	(-2.55)	-0.01579
Ind Adj ROA <sub>t</sub>		-0.9686	-0.0498	(-1.15)	-0.00229
Log (Assets) <sub>t</sub>		0.1081	0.0055	(1.46)	21.7564
Founder <sub>t</sub> <sup>D</sup>		-0.2903	-0.0302	(-0.45)	0.07302
Log(Age) <sub>t</sub>		3.43 ***	0.1763 ***	(2.88)	3.9493
Log(Tenure) <sub>t</sub>		-0.1984	-0.0102	(-1.03)	1.57619
Holdings <sub>t</sub>		-0.4267	-0.0219	(-0.61)	0.358273
Independent <sub>t</sub>		0.7824	0.0369	(0.64)	0.494486
R <sup>2</sup>		0.1409			
n		809			

D: for discrete change of dummy variable from 0 to 1



**Table 10: Ruling out Alternative Explanation for Shareholders Response to the Excessiveness of the CEO's Compensation Package**

The table presents the results of running six pooled cross-sectional OLS regressions where the dependent variable is a measure of shareholders' dissatisfaction. The sample consists of 852 observations of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. *Dissatisfaction* is the ratio of 'against' vote to total vote cast ('for' vote + 'discretion' vote + 'against' vote + 'abstain' vote). *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants of compensation for year  $t$ .  $ExpectedComp = \ln(Compensation) - ExcessComp$ . *Ret* is the firm annual return for the year  $t$  and  $t-1$ . *ROA* is the firm income before extraordinary items divided average total assets for the year  $t$  and  $t-1$ . *Log(Assets)* is the natural logarithm of the company's total assets as reported in the annual report for the year  $t$ . Column (1) repeat the results presented in Table (6) (provided for ease of comparison). Column (2) presents the results from running a regression of *Dissatisfaction* on parts of compensation, *ExpectedComp* and *ExcessComp*, in addition to the control variables listed above. Column (3) presents the results from running the same regression as in Column (2) without controls. Column (4) presents the results from running a regression of *Dissatisfaction* on *ExpectedComp* in addition to the control variables listed above. Column (5) presents the results from running the same regression as in Column (4) without controls. Column (6) presents the results from running a regression of *Dissatisfaction* on *ln(Compensation)* in addition to the control variables. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Independent Variable	Dissatisfaction (1)	Dissatisfaction (2)	Dissatisfaction (3)	Dissatisfaction (4)	Dissatisfaction (5)	Dissatisfaction (6)
Intercept	0.10917 *** (3.1)	0.1161 (0.15)	0.01487 (0.19)	0.01969 (0.25)	0.01596 (0.21)	-0.012825 (-0.21)
ExcessComp <sub>t</sub> (+)	0.0139 *** (2.76)	0.01455 *** (2.88)	0.013252 *** (2.43)			
ExpectedComp <sub>t</sub>		0.01066 (1.57)	0.00 (0.50)	0.00902 (1.33)	0.00259 (0.48)	
ln(Compensation <sub>t</sub> )						0.01324 *** (2.50)
Ret <sub>t</sub>	-0.03094 *** (-3.60)	-0.03061 *** (-3.60)		-0.03004 *** (-3.52)		-0.030473 *** (-3.52)
Ret <sub>t-1</sub>	-0.02336 *** (-3.38)	-0.02377 *** (-3.50)		-0.02374 *** (-3.52)		-0.023877 *** (-3.52)
ROA <sub>t</sub>	-0.01144 (-0.26)	-0.02791 (-0.68)		-0.02507 (-0.85)		-0.031869 (-0.78)
ROA <sub>t-1</sub>	-0.03443 (-0.91)	-0.03439 (-0.90)		-0.03357 (-0.85)		-0.034304 (-0.90)
Log (Assets <sub>t</sub> )	-0.00203 (-1.33)	-0.0045 ** (-2.31)		-0.0038 ** (-1.94)		-0.005059 *** (-2.83)
R <sup>2</sup>	0.0437	0.0464	0.01	0.037	0.003	0.0461
n	852	852	852	852	852	852

**Table 11: Alternative Dissatisfaction Measures Descriptive Statistics and Trends**

The table presents descriptive statistics for the vote variables used in this study. The sample consists of 204 companies (913 CEO-years) for the period from 2002 to 2008. The sample covers some of the largest companies listed on the London Stock Exchange (LSE). Proxy voting instructions or poll voting data were obtained from either the firm's website or from the Regulatory Notice Service offered by the LSE. Where vote information is not available, the company's Secretary or Investor Relations professionals were contacted. *Dissatisfaction* is the ratio of 'against' vote to total vote cast ('for' vote + 'discretion' vote + 'against' vote + 'abstain' vote). *Dissatisfaction2* is the ratio of 'against' vote to (total vote cast- 'abstain' vote). *Dissatisfaction3* is the ratio of ('against' vote + 'abstain' vote) to total vote cast.

**Panel A: Dissatisfaction Measures Descriptive Statistics**

	Mean	Std Dev	P1	Q1	Median	Q3	P99
Dissatisfaction	0.0518	0.0766	0.0003	0.0097	0.0257	0.0617	0.3947
Dissatisfaction2	0.0547	0.0823	0.0003	0.0099	0.02631	0.0639	0.4271
Dissatisfaction3	0.085	0.0974	0.0008	0.0244	0.0531	0.1048	0.4936

**Panel B: Dissatisfaction Measures Time Trend**

Year	Dissatisfaction	Dissatisfaction2	Dissatisfaction3
2002	0.1055	0.113	0.1614
2003	0.0719	0.0772	0.1257
2004	0.0561	0.0595	0.0903
2005	0.0403	0.0422	0.0641
2006	0.0411	0.043	0.0684
2007	0.0416	0.0432	0.0702
2008	0.0452	0.0466	0.0705
2002-2008	0.0518	0.0547	0.085

**Table 12: Shareholders Response to the Excessiveness of the CEO's Compensation Package (Using Alternative Measures of Dissatisfaction)**

The table presents the results of running six pooled cross-sectional OLS regressions of dissatisfaction measures on compensation measures and other control variables. The sample consists of 852 observations of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. *Dissatisfaction2* is the ratio of 'against' vote to (total vote cast- 'abstain' vote), where total vote cast is 'for' vote + 'discretion' vote + 'against' vote + 'abstain' vote. *Dissatisfaction3* is the ratio of ('against' vote + 'abstain' vote) to total vote cast.  $ExpectedComp = \ln(Compensation) - ExcessComp$ . *Rei* is the firm annual return for the year t and t-1. *ROA* is the firm income before extraordinary items divided average total assets for the year t and t-1. *Log(Assets)* is the natural logarithm of the company's total assets as reported in the annual report for the year t. Column (1) repeat the results presented in Table (6) (provided for ease of comparison). Column (2) presents the results from running a regression of either *Dissatisfaction2 (Panel A)* or *Dissatisfaction3 (Panel B)* on parts of compensation, *ExpectedComp* and *ExcessComp*, in addition to the control variables listed above. Column (3) presents the results from running the same regression as in Column (2) without controls. Column (4) presents the results from running a regression of either *Dissatisfaction2 (Panel A)* or *Dissatisfaction3 (Panel B)* on *ExpectedComp* in addition to the control variables listed above. Column (5) presents the results from running the same regression as in Column (4) without controls. Column (6) presents the results from running a regression of either *Dissatisfaction2 (Panel A)* or *Dissatisfaction3 (Panel B)* on *ln(Compensation)* in addition to the control variables. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Panel A: Analysis Using Dissatisfaction2

Independent Variable	Dissatisfaction2 (1)	Dissatisfaction2 (2)	Dissatisfaction2 (3)	Dissatisfaction2 (4)	Dissatisfaction2 (5)	Dissatisfaction2 (6)
Intercept	0.12276 *** (3.24)	0.03387 (0.40)	0.037881 (0.44)	0.04217 (0.50)	0.039 (0.46)	0.0006 (0.01)
ExcessComp <sub>t</sub> (+)	0.01437 *** (2.29)	0.01495 *** (2.75)	0.013609 ** (2.15)			
ExpectedComp <sub>t</sub>		0.0097 (1.32)	0.0013 (0.21)	0.0080 (1.09)	0.00118 (0.20)	
ln(Compensation <sub>t</sub> )						0.01317 *** (2.44)
Ret <sub>t</sub>	-0.0317 *** (-3.48)	-0.03141 *** (-3.48)		-0.03081 *** (-3.42)		-0.031211 (-3.46)
Ret <sub>t-1</sub>	-0.02497 *** (-3.35)	-0.02535 *** (-3.45)		-0.02532 *** (-3.49)		-0.025489 (-3.47)
ROA <sub>t</sub>	-0.01776 (-0.4)	-0.03268 (-0.79)		-0.0298 (-0.70)		-0.038071 (-0.92)
ROA <sub>t-1</sub>	-0.03338 (-0.87)	-0.03335 (-0.86)		-0.03251 (-0.81)		-0.03323 (-0.85)
Log (Assets <sub>t</sub> )	-0.00246 (-1.5)	-0.00469 ** (-2.3)		-0.00398 ** (-1.93)		-0.00546 *** (-2.89)
R <sup>2</sup>	0.0416	0.0435	0.0072	0.0349	0.00	0.0431
n	852	852	852	852	852	852

Panel B: Analysis Using Dissatisfaction3

Independent Variable	Dissatisfaction3 (1)	Dissatisfaction3 (2)	Dissatisfaction3 (3)	Dissatisfaction3 (4)	Dissatisfaction3 (5)	Dissatisfaction3 (6)
Intercept	0.18083 *** (3.88)	0.11453 (0.95)	0.117813 (1.02)	0.1239 (1.03)	0.1209 (1.03)	0.0533 (0.66)
ExcessComp <sub>t</sub> (+)	0.01651 ** (2.13)	0.01695 *** (2.66)	0.01553 ** (1.98)			
ExpectedComp <sub>t</sub>		0.00721 (0.67)	-0.002311 (-0.29)	0.0053 (0.49)	-0.0024 (-0.29)	
ln(Compensation <sub>t</sub> )						0.01366 ** (2.13)
Ret <sub>t</sub>	-0.03465 *** (-3.25)	-0.03442 *** (-3.24)		-0.03375 *** (-3.18)		-0.034 *** (-3.22)
Ret <sub>t-1</sub>	-0.03412 *** (-3.65)	-0.0344 *** (-3.73)		-0.0344 *** (-3.76)		-0.03466 *** (-3.76)
ROA <sub>t</sub>	-0.06854 (-1.42)	-0.07967 * (-1.74)		-0.07636 (-1.64)		-0.08958 ** (-2.00)
ROA <sub>t-1</sub>	-0.03558 (-1.0)	-0.03556 (-1.0)		-0.0346 (-0.95)		-0.03533 (-0.99)
Log (Assets <sub>t</sub> )	-0.00347 * (-1.7)	-0.00514 ** (-1.91)		-0.00433 (-1.58)		-0.00655 *** (-2.95)
R <sup>2</sup>	0.0502	0.051	0.0069	0.043		0.00
n	852	852	852	852		852

**Table 13: Analysis of Changes in Excess Compensation Following Shareholders' Vote on Directors' Compensation Report  
(Using Alternative Measures of Dissatisfaction)**

Panel A of the table presents the results of running six pooled cross-sectional OLS regressions where the dependent variable is the change in the CEO's excess compensation from  $t+1$  to  $t+2$ ,  $\Delta ExcessComp$ . The sample consists of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. *Dissatisfaction2* is the ratio of 'against' vote to (total vote cast - 'abstain' vote), where total vote cast is 'for' vote + 'discretion' vote + 'against' vote + 'abstain' vote. *Dissatisfaction3* is the ratio of ('against' vote + 'abstain' vote) to total vote cast. *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants of compensation for year  $t$ . *Independent* is a ratio of the number of non-executive independent board members to the board size. Column (1) (Column (2)) presents the results from running a regression  $\Delta ExcessComp$  on *Dissatisfaction2* (*Dissatisfaction3*) measured at the end of year  $t$ . Column (3) (Column (4)) includes an interaction term between *Dissatisfaction2* (*Dissatisfaction3*) and *Independent*. Column (5) (Column (6)) includes an interaction term between *Dissatisfaction2* (*Dissatisfaction3*) and *Persistence*, where *Persistence* is 1 if *Dissatisfaction* for year  $t-1$  and year  $t$  for company  $i$  is above the mean of the dissatisfaction measure used for the same company, and zero otherwise. Panel B (Panel C) presents the results of running the same analysis for a sample of firms with CEOs with above (below) the mean of excess compensation. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Panel A: Analysis for the full sample

Independent Variable	Dependent Variable					
	$\Delta$ ExcessComp (1)	$\Delta$ ExcessComp (2)	$\Delta$ ExcessComp (3)	$\Delta$ ExcessComp (4)	$\Delta$ ExcessComp (5)	$\Delta$ ExcessComp (6)
Intercept	-0.01417 (-1.10)	-0.01679 (-1.08)	-0.00946 (-0.85)	-0.00941 (-0.85)	-0.00992 (-0.71)	-0.00992 (-0.71)
Dissatisfaction <sub>2,t-1</sub>	0.120537 (0.58)		0.142834 (0.69)		0.050804 (0.13)	
Dissatisfaction <sub>3,t-1</sub>	(-)	0.107887 (0.59)		0.138598 (0.74)		0.101421 (0.36)
Independent * Dissatisfaction <sub>2,t-1</sub>	(-)		2.411168 *** (2.78)			
Independent * Dissatisfaction <sub>3,t-1</sub>	(-)			1.609667 ** (1.96)		
Persistent * Dissatisfaction <sub>2,t-1</sub>	(-)				-0.27653 (-0.48)	
Persistent * Dissatisfaction <sub>3,t-1</sub>	(-)					-0.47578 (-0.90)
R <sup>2</sup>	0.00	0.007	0.005	0.0033	0.00	0.0012
n	576	576	576	576	376	376



Panel B: Above the mean of *ExcessComp* subsample

Independent Variable	Dependent Variable					
	$\Delta ExcessComp$ (1)	$\Delta ExcessComp$ (2)	$\Delta ExcessComp$ (2)	$\Delta ExcessComp$ (4)	$\Delta ExcessComp$ (5)	$\Delta ExcessComp$ (6)
Intercept	-0.0882 (-3.9)	-0.08887 (-3.5)	-0.11588 (-5.17)	-0.11527 (-5.16)	-0.13768 (-3.98)	-0.13278 (-4.28)
Dissatisfaction <sub>2,t-1</sub>	-0.57156 (-1.77)	**	-0.56532 (-1.74)	**	-1.82222 (-1.96)	**
Dissatisfaction <sub>3,t-1</sub>		-0.34259 (-1.53)	*	-0.34503 (-1.51)	*	-0.99683 (-2.26)
Independent *			0.232517 (0.15)			
Dissatisfaction <sub>2,t-1</sub>				-0.08706 (-0.07)		
Independent *					1.19821 (1.04)	
Dissatisfaction <sub>3,t-1</sub>						1.172887 (1.95)
Persistent *						**
Dissatisfaction <sub>3,t-1</sub>						
R <sup>2</sup>	0.0096	0.0055	0.0097	0.0055	0.0404	0.025
n	291	291	291	291	188	188

Panel C: Below the mean of *ExcessComp* subsample

Independent Variable	Dependent Variable					
	$\Delta$ ExcessComp (1)	$\Delta$ ExcessComp (2)	$\Delta$ ExcessComp (2)	$\Delta$ ExcessComp (4)	$\Delta$ ExcessComp (5)	$\Delta$ ExcessComp (6)
Intercept	0.086201 *** (3.78)	0.083772 *** (3.07)	0.096718 *** (4.81)	0.09718 *** (4.86)	0.095797 *** (3.82)	0.09438 *** (3.77)
Dissatisfaction <sub>2,t-1</sub>	0.254228 (1.07)		0.2565 (1.09)		0.272496 (0.62)	0.241321 (0.70)
Dissatisfaction <sub>3,t-1</sub>		0.195295 (0.82)		0.22281 (0.91)		
Independent *			2.494643 ** (2.23)			
Dissatisfaction <sub>2,t-1</sub>				1.942805 ** (1.87)		
Independent *						
Dissatisfaction <sub>3,t-1</sub>						
Persistent *						
Dissatisfaction <sub>2,t-1</sub>					-0.61005 (-0.92)	
Persistent *						
Dissatisfaction <sub>3,t-1</sub>						-0.85389 (-1.25)
R <sup>2</sup>	0.0037	0.003	0.0113	0.0086	0.0039	0.0066
n	285	285	285	285	188	188

**Table 14: Analysis of CEO Turnover Following Shareholders Vote on Directors' Compensation Report (Using Alternative Measures of Dissatisfaction)**

Panel A (Panel B) presents the results of running three logit models where the dependent variable is 1 if the CEO was forced out of office in year  $t+1$  and zero otherwise on *Dissatisfaction2* (*Dissatisfaction3*) and other controls. The sample consists of 204 of the largest companies that are listed on the London Stock Exchange and belong to the FTSE 350 index. *Dissatisfaction2* is the ratio of 'against' vote to (total vote cast – 'abstain' vote), where total vote cast is 'for' vote + 'discretion' vote + 'against' vote + 'abstain' vote. *Dissatisfaction3* is the ratio of ('against' vote + 'abstain' vote) to total vote cast. *ExcessComp* is the residual from an expected compensation model that controls for standard economic determinants of compensation for year  $t$ . *IndAdjRet* is the industry adjusted firm annual return for the year  $t$ . *IndAdjROA* is the industry adjusted firm return on assets for the year  $t$ . *Log(Assets)* is the natural logarithm of the company's total assets as reported in the annual report for the year  $t$ . *Founder* is 1 if the CEO is a member of the founding family. *Log(Age)* is the natural logarithm of the CEO age at the end of year  $t$ . *Log(Tenure)* is the natural logarithm of the number of years the CEO spent in office at the end of year  $t$ . *Independent* is a ratio of the number of non-executive independent board members to the board size. *Holdings* is the ratio of the CEO current stock holdings to the holdings of the entire board. Column (2) includes either *Dissatisfaction2* (Panel A) or *Dissatisfaction3* (Panel B) interacted with *Independent*. Column (3) includes an interaction term between *Dissatisfaction2* (Panel A) or *Dissatisfaction3* (Panel B) and *Persistence*, where *Persistence* is 1 if the dissatisfaction measure for year  $t-1$  and year  $t$  for company  $i$  is above the mean of *Dissatisfaction2* (Panel A) (or *Dissatisfaction3* (Panel B)) for the same company, and zero otherwise. T-statistics using firm cluster adjusted standard errors are presented in parentheses below coefficient estimates. \*, \*\*, and \*\*\* indicate two tailed statistical significance at the 10, 5, and 1 percent levels, respectively.

Panel A: Analysis Using Dissatisfaction2

Independent Variable		Dependent Variable:		
		Turnover <sub>t+1</sub> (1)	Turnover <sub>t+1</sub> (2)	Turnover <sub>t+1</sub> (3)
Dissatisfaction2 <sub>t</sub>	(+)	6.5014 *** (5.63)	6.5049 *** (5.51)	6.1093 *** (3.41)
ExcessComp <sub>t</sub>		-1.02171 *** (-3.44)	-1.02152 *** (-3.44)	-1.41374 *** (-3.77)
Ind Adj Ret <sub>t</sub>		-0.5867 *** (-2.60)	-0.58739 *** (-2.59)	-0.67085 ** (-2.22)
Ind Adj ROA <sub>t</sub>		-0.97849 (-1.10)	-0.98145 (-1.12)	-3.09048 (-1.61)
Log (Assets) <sub>t</sub>		0.112844 (1.49)	0.112902 (1.49)	0.125446 (1.09)
Founder		-0.24969 (-0.34)	-0.25221 (-0.34)	0.248957 (0.27)
Log(Age) <sub>t</sub>		3.332783 *** (2.72)	3.331189 *** (2.77)	2.24973 (1.52)
Log(Tenure) <sub>t</sub>		-0.19508 (-1.00)	-0.19478 (-1.03)	-0.23526 (-0.74)
Holdings <sub>t</sub>		-0.4361 (-0.63)	-0.43539 (-0.63)	-0.50244 (-0.65)
Independent <sub>t</sub>		0.87125 (0.71)	0.843498 (0.6)	1.251842 (0.73)
Independent * Dissatisfaction2	(+)		0.27399 (0.0486)	
Persistence * Dissatisfaction2	(+)			0.088283 (0.06317)
R <sup>2</sup>		0.1435	0.1435	0.1299
n		809	809	560

Panel B: Analysis Using Dissatisfaction3

Independent Variable		Dependent Variable:		
		Turnover <sub>t+1</sub> (1)	Turnover <sub>t+1</sub> (2)	Turnover <sub>t+1</sub> (3)
Dissatisfaction3 <sub>t</sub>	(+)	6.2075 *** (6.00)	6.1511 *** (5.86)	6.5618 *** (4.47)
ExcessComp <sub>t</sub>		-1.01961 *** (-3.46)	-1.02451 *** (-3.44)	-1.44121 *** (-3.83)
Ind Adj Ret <sub>t</sub>		-0.89859 * (-1.70)	-0.52698 ** (-2.45)	-0.55997 ** (-1.96)
Ind Adj ROA <sub>t</sub>		-0.5547 (-0.65)	-0.88949 (-0.93)	-3.30959 * (-1.66)
Log (Assets) <sub>t</sub>		0.117512 (1.57)	0.121244 (1.62)	0.135802 (1.16)
Founder		-0.06369 (-0.09)	-0.13544 (-0.18)	0.285525 (0.3)
Log(Age) <sub>t</sub>		2.963788 ** (2.43)	3.065893 ** (2.48)	1.653336 (1.07)
Log(Tenure) <sub>t</sub>		-0.11022 (-0.54)	-0.14823 (-0.73)	-0.17178 (-0.51)
Holdings <sub>t</sub>		-0.51173 (-0.75)	-0.47865 (-0.69)	-0.36305 (-0.46)
Independent <sub>t</sub>		1.117575 (0.92)	0.979773 (0.69)	0.987736 (0.56)
Independent * Dissatisfaction3	(+)		0.351031 (0.05343)	
Persistence * Dissatisfaction3	(+)			-3.26122 (-0.22213)
R <sup>2</sup>		0.1509	0.1506	0.1544
n		809	809	560

## VITA

Walid Alissa grew up in Jeddah, Saudi Arabia. After graduating from Al-Thagher Model School, Walid attended King Fahad University of Petroleum and Minerals where he earned his Bachelor of Science in Electrical Engineering degree with honors. After college, he worked with Saudi Petrochemical Company (SADAF) for about three years. Walid then attended the University of California, Los Angeles where he earned his M.B.A. He completed his Ph.D. in Business Administration with a concentration in accounting at the Pennsylvania State University. Walid is currently an assistant professor at HEC School of Management, and lives in Paris, France with his wife, Gaida and his three children, Tala, Khalid, and Nawaf.