

# CEO Compensation: Evidence From the Field\*

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## Abstract

We survey directors and investors on the objectives, constraints, and determinants of CEO pay. 67% of directors would sacrifice shareholder value to avoid controversy on CEO pay, implying they face significant constraints other than participation and incentive compatibility. These constraints lead to lower pay levels and more one-size-fits-all structures. Shareholders are the main source of constraints, suggesting that directors and investors disagree on how to maximize shareholder value. Both directors and investors believe intrinsic motivation and reputation to be stronger motivators than incentive pay. They believe pay matters to CEOs not to finance consumption, but because it affects perceptions of fairness. The need to fairly recognize the CEO's contribution explains why flow pay responds to performance, even though CEOs' equity holdings already provide substantial incentives, and why peer firm pay matters beyond retention concerns. Fairness also matters to investors and stakeholders, with shareholder returns an important reference point. This explains why CEO pay is affected by external risks, in contrast to optimal risk sharing.

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## 1. Introduction

How to design executive pay is a first-order decision for every firm. Pay is critical for attracting and retaining the right CEO in a competitive labor market, as well as motivating her to maximize firm value. Pay affects the wider company beyond the CEO – high pay can demotivate employees and damage a company’s reputation among customers. Even more broadly, CEO pay across the economy influences the public’s perception of capitalism. As a consequence, CEO pay receives more attention than nearly every other routine corporate decision. Boards have dedicated remuneration committees, investors have a special “say-on-pay” vote, and pay is highly regulated.

Due to its importance, it is critical to understand how CEO pay is set. Academics typically study this question through theorists building models and empiricists testing the models’ predictions. While a great deal has been learned through these methods, they have limitations. First, data only documents the outcome of an optimization problem and not the underlying program that led to it. Even if archival data is consistent with a model, a very different model may have generated it. Second, many key ingredients of compensation models are difficult to measure and thus test.

This paper complements existing research by surveying non-executive directors and institutional investors on how they set or influence pay. Our first goal is to understand the *objectives* and the *constraints* of contract design, and thus the underlying program. Our second goal is to identify the *determinants* of observed contracts, by investigating factors that theories deem relevant but are unobservable, or that prior models have overlooked. We distributed the survey in November and December 2020, receiving responses from 206 non-executive directors of FTSE All-Share companies and 159 investors in UK equities. Most questions allowed respondents to add free-text comments, and we conducted 14 post-survey interviews of respondents. The answers reveal several interesting results, which we organize into four groups:

*Objective and constraints*

Our first question asks respondents to rank the importance of three goals when setting CEO pay. 65% of directors view attracting the right CEO as most critical, while 34% prioritize designing a structure that motivates the CEO. For investors, these figures are 44% and 51% respectively. This reversal reflects a theme that recurs throughout our survey – directors view labor market forces, and thus the participation constraint, as more important than investors, who prioritize the incentive constraint. Only 1% of directors’ and 5% of investors’ primary goal is to keep the level of pay down. This is consistent with CEO pay being a small percentage of firm value, while hiring a subpar CEO or failing to provide optimal incentives has potentially large effects.

However, boards feel restricted by far more than the participation and incentive constraints assumed by standard models. 67% of directors admit that they are willing to sacrifice shareholder value to avoid controversy on CEO pay. They perceive the need to avoid controversy with several parties, such as proxy advisors, employees, and customers. Surprisingly, the strongest constraint is the need to obtain investor support, even though this should be automatic if boards are setting pay optimally. Instead, directors believe that shareholder guidelines, paradoxically, harm shareholder value. 77% report that such constraints have forced them to offer a lower level of pay than they would have done otherwise, and 72% an inferior structure.

These results indicate that directors and investors disagree on the optimal contract. One interpretation is that boards better understand the CEO labor market, whereas shareholders push for changes that would violate the CEO’s participation constraint or demotivate her. A second interpretation is that directors overestimate the difficulties of attracting and retaining CEOs, and fail to adopt changes that would create value. To help disentangle these interpretations, we ask the 77% of directors that were forced to offer lower pay about the consequences. While 7% report that the CEO left, and 13% that they hired a less expensive CEO, 41% admit that there were no adverse effects. This result is meaningful, since any self-serving bias would discourage this response. Thus,

at least in some cases, boards overestimated the negative consequences of tough decisions on CEO pay. However, 42% reported that the CEO was less motivated, suggesting that the level of pay affects incentives, in contrast to standard theories.

These disagreements highlight a limitation of standard theories of CEO pay. Most models take the “shareholder value” view that pay is set by a single principal, a shareholder-aligned board. The main alternative is the “rent extraction” view, whereby CEOs dominate the pay-setting process to benefit themselves. Our results suggest a third perspective – directors aim to maximize shareholder value, but are misaligned with shareholders not because they are captured by the CEO, but because they view the world differently.

#### *Incentives and variable pay*

There is greater agreement on the second set of questions – the role of financial incentives in motivating CEOs. Both boards and shareholders believe they are relevant but of secondary importance. The CEO’s intrinsic motivation and personal reputation are seen as most important, even though they are absent from nearly all theories. Notably, directors view CEOs’ career concerns, which are the focus of a large literature, as third-order: fewer than 20% view the risk of being fired or a move to a larger firm as an important motivator.

Both boards and investors believe that motivating the CEO is the main reason for offering variable pay, despite viewing financial incentives as second-order. The free-text responses and post-survey interviews suggest that payoffs from financial incentives address the CEO’s concern for fairness and her reputation, thus reinforcing her intrinsic motivation. As one respondent stressed, “the retrospective acknowledgement of exceptional performance is important”; a CEO would view it as unfair if she has performed well but not been rewarded, eroding her intrinsic motivation. Separately, an increase in realized pay signals the CEO’s performance to outsiders, boosting her reputation.

These responses suggest that incentive pay may work through different channels to those featured in standard theories. In these models, the CEO will only improve firm value if her utility from consuming the resulting pay increment exceeds the effort required to do so – the contract offers sufficient *consumption incentives*. Our respondents suggest instead that variable pay provides *ex-post recognition*. A CEO does not need the extra pay to finance consumption, but believes it is fair to be recognized for a job well done.

The importance of ex-post recognition has two implications for compensation theories. First, it suggests that, according to our respondents' model of CEO behavior, CEOs assess their pay not only for the consumption utility that it provides, but also by how it compares to the CEO's expectation of her fair reward. This reference point, described by several respondents as the CEO's perception of her *worth* to the firm, is believed to be affected by at least two factors – the CEO's contribution to the company and the pay of her peers.

The second implication is that incentive pay plays a special role not provided by portfolio incentives. In standard theories, only total incentives matter – it is irrelevant whether they stem from changes in flow pay or in the value of existing equity holdings. Fairness models are similarly silent about whether a fair reward should come from flow pay or changes to wealth. Empirically, consumption incentives from the latter are much greater, so standard measures of CEO incentives ignore the former. However, changes in flow pay provide ex-post recognition, and so may be important even if the CEO holds significant equity. Changes in pay are an active acknowledgement of good performance, because they require a discretionary decision by the board and are voted on by shareholders. They are also publicly disclosed, and thus affect the CEO's reputation.

Two other reasons for variable pay that receive substantial support from both directors and investors are attracting or retaining a high-ability or hard-working CEO, and for the CEO to share external risks with investors and stakeholders. The second reason is surprising and contradicts

standard theories, since it implies inefficient risk-sharing. It is, however, consistent with a fairness model in which directors and investors also evaluate CEO pay relative to a set of reference points, which include shareholder returns and may differ from the one used by the CEO.

When asked about the split between fixed and variable pay, neither directors nor investors assign much relevance to CEO risk aversion and firm risk, the split's main determinants in standard models. Directors rank these two determinants as least important of seven choices – below, for example, investor or proxy advisor expectations, the behavior of peer firms, and the desire to avoid excessive pay outcomes. This indicates a wide gulf between the standard models and real-world practice.

### *Pay levels*

Our third set of results concerns the level of pay. We first ask what determines the pay of a new CEO. Both directors and investors view CEO ability as the most important factor. Unexpectedly, pay at peer firms is seen as more important than the new CEO's actual outside options, such as pay at her prior firm and pay at other firms she could move to. One explanation, supported by the post-survey interviews, is that peer compensation matters not only because it determines the CEO's alternatives, but because it is a reference point she uses to assess whether her pay is fair. This makes the pay at another company meaningful even if the new CEO cannot move to that company.

When asked about increases in expected pay for incumbent CEOs, both directors and investors state that the primary justification is good recent performance. This is surprising given the substantial equity holdings that CEOs have, but is consistent with changes in flow pay providing ex-post recognition of performance.<sup>1</sup> Other justifications receive only minor support. In the free text fields and interviews, directors emphasize the difficulty of increasing pay, particularly above the trend in employee pay, without a step-change to firm size or complexity, or shifts in the market.

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<sup>1</sup> The alternative explanation that higher pay is needed because good performance improves the CEO's outside options receives no support in the free text fields or interviews.

Directors also report that decreases in expected pay are rare, with 77% never having implemented one. Interestingly, while directors believe that good recent performance justifies pay increases, they do not believe that poor performance justifies decreases. In post-survey interviews, several voiced the concern that cuts in expected pay would demotivate the CEO and that, if performance were sufficiently poor to warrant a cut, they would likely fire her instead. The two justifications for pay decreases with the most director support are external pressure and financial constraints, likely because they are less detrimental to the CEO's sense of worth. These responses suggest that boards do not start with a blank sheet when setting the level of pay; last year's pay is a reference point that the CEO believes is fair (thus preventing substantial decreases) and that investors and stakeholders believe is fair (thus preventing substantial increases).

*“Suboptimal” pay practices*

Finally, we study the reasons for apparently suboptimal pay practices. The first is the limited use of relative performance evaluation. Directors support three explanations, absent from existing theories, why they do not filter out industry conditions from all performance measures. One is again fairness – CEOs should benefit from an upswing since investors and stakeholders do. The other two reasons are practical – it can be difficult to define an appropriate peer group, or to observe peer performance for some performance measures. Explanations proposed by existing models, such as keeping pay competitive with peers during upswings, receive little support.

A second apparently suboptimal practice is the short-term nature of many pay incentives. Here, directors' and investors' views differ sharply. 78% of investors believe the CEO would make better decisions if incentives were more long-term. Fewer than 6% agree with each of three potential concerns – that long-term incentives are less effective motivators, would jeopardize CEO retention or recruitment, or would require a costly adjustment in pay level. In contrast, directors view incentives

as already being sufficiently long-term, and only 21% believe that further lengthening would improve decisions. Instead, they view all three above concerns as important.

### *Contribution to the literature*

This paper builds on the theoretical and empirical literature on CEO compensation, recently reviewed by Murphy (2013), Edmans and Gabaix (2016), and Edmans, Gabaix, and Jenter (2017). It is also related to other corporate finance surveys, such as Graham and Harvey (2001), Graham, Harvey, and Rajgopal (2005), Brav et al. (2005), Ben-David, Graham, and Harvey (2013), and Graham, Harvey, and Puri (2013). A unique feature of our study is that it surveys both directors and investors, allowing us to investigate how their views differ. The above-cited papers study executives only; other surveys study investors only, such as McCahery, Sautner, and Starks (2016), Krueger, Sautner, and Starks (2020), and Gompers et al. (2020). CEO pay is arguably the decision on which investors have the greatest influence, given their say-on-pay votes, and thus an appropriate setting to compare the views of directors and investors.

This paper proceeds as follows. Section 2 describes the motivation for our survey and introduces a simple model to frame our tests. Section 3 discusses the advantages and limitations of the survey methodology, how we conduct the survey and aim to address the methodology's limitations, and the context of UK executive pay. Section 4 presents the results on the objectives and constraints of CEO pay design, Section 5 addresses the level of pay, and Section 6 turns to its structure. Section 7 explores who sets CEO pay in practice and Section 8 concludes.

## **2. Motivation: Standard Theory vs. Real-World Practice**

A key objective of the survey is to guide future executive compensation theories. Many assumptions have become sufficiently standard that they do not need to be explicitly stated (or, if stated, do not need to be justified). To illustrate these assumptions and the value in scrutinizing them,



and provide a framework to motivate some of our survey questions, we briefly review the classic model of Holmstrom and Milgrom (1987). Its key assumptions are inherent in almost all shareholder value theories, but we choose this one as it is particularly tractable.

The principal (board acting on behalf of shareholders) hires an agent (CEO); we use female pronouns for the CEO and male pronouns for survey respondents. Firm value is given by  $V = ba + \varepsilon$  where  $a \in [0, \infty)$  is an action (“effort”) taken by the CEO.  $b$  parametrizes the productivity of effort and  $\varepsilon \sim N(0, \sigma^2)$  is normally distributed noise. The CEO’s utility function is given by  $u(c, a) = -\exp(-\eta(c - g(a)))$ , where  $c$  is consumption,  $\eta$  is absolute risk aversion, and  $g(a)$  is the cost of effort. The CEO has a reservation utility of  $\underline{c} \geq 0$ , and Holmstrom and Milgrom (1987) assume a quadratic cost,  $g(a) = \frac{1}{2}ga^2$ . The firm pays the CEO a wage  $w$ , which she fully consumes. Thus, to simplify notation, we use  $c$  to denote both the firm’s payment and the CEO’s consumption in this section.

The principal chooses a contract  $c(V)$  and an effort level  $a$  to solve:

$$\text{Max } E[V - c] \tag{1}$$

$$\text{s.t. } E[-\exp(-\eta(c - \frac{1}{2}ga^2))] \geq -\exp(-\eta\underline{c}) \tag{2}$$

$$a \in \text{argmax}_a E[-\exp(-\eta(c - \frac{1}{2}ga^2))] \tag{3}$$

(1) is the principal’s objective function, expected firm value net of CEO pay. (2) is the participation or individual rationality (“IR”) constraint, which ensures that the CEO is paid at least her outside option. (3) is the incentive compatibility (“IC”) constraint, which ensures that the CEO exerts effort  $a$ . Under the optimal contract, both the IR and IC will bind. Holmstrom and Milgrom (1987) show that the optimal contract is linear in firm value, i.e.  $c = \varphi + \theta V$ , where incentives  $\theta$  and fixed salary  $\varphi$  are respectively given by:

$$\theta = (1/(1 + g\eta\sigma^2/b^2)) \quad (4)$$

$$\varphi = \underline{c} - \frac{1}{2}\theta^2 b^2/g + (\eta/2)\theta^2\sigma^2. \quad (5)$$

Incentives  $\theta$  are determined by a trade-off. When the benefit of effort  $b$  is higher and the cost of effort  $g$  is lower, it is optimal to induce more effort, so incentives are stronger. When the CEO's risk aversion  $\eta$  and firm risk  $\sigma^2$  are higher, incentives impose more risk on the CEO, so they are optimally lower. The fixed salary  $\varphi$  is chosen to keep the CEO at her reservation utility.

Models such as Holmstrom and Milgrom (1987) deliver predictions for the determinants of pay and incentives, and thus have been extensively tested. For example, a single implication – that risk  $\sigma$  reduces incentives  $\theta$  – has been studied by a large number of papers with mixed results.<sup>2</sup> Given the substantial empirical work that theories have spawned, and the mixed evidence, it is important to scrutinize whether their assumptions describe reality.

Starting with the objective function, (1) implicitly assumes that the only downside of paying the CEO more is that it directly reduces shareholder value. However, it may demotivate employees or harm the firm's customer reputation. Moreover, the board's objective function may not be shareholder value, but, for example, to avoid losing a say-on-pay vote. Turning to the participation constraint (2), it is not clear that it binds in practice. The magnitude of CEO salaries, and the rarity of CEOs being hired away or having their pay cut, suggests that they may not be at their reservation utility. The incentive constraint (3) also may not bind, if intrinsic motivation or reputational concerns are sufficient to motivate the CEO.

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<sup>2</sup> While Lambert and Larcker (1987), Aggarwal and Samwick (1999), and Jin (2002) indeed find a negative relationship, Demsetz and Lehn (1985), Core and Guay (1999), Oyer and Schaefer (2005), and Coles, Daniel, and Naveen (2006) document a positive relationship, and Garen (1994), Yermack (1995), Bushman, Indjejikian, and Smith (1996), Ittner, Larcker, and Rajan (1997), Conyon and Murphy (2000), Edmans, Gabaix, and Landier (2009), and Cheng, Hong, and Scheinkman (2015) show either no relationship or mixed results.

The CEO's preferences, reflected in (2) and (3), may be richer than a simple function of effort and consumption. Real-world CEOs are likely to also care, among other things, about their reputation, perceptions of fairness, and being appreciated by directors and investors. These objectives are likely to interact with incentives to determine the CEO's motivation.

Considering the entire program (1)-(3), it ignores many other potential constraints. Boards and CEOs do not negotiate pay in a vacuum. Norms on what investors and stakeholders deem acceptable may prevent boards from choosing the optimal contract, especially if it deviates from peer firm practices. For example, the public may object to high realized pay  $c$  even if firm value  $V$  is high.

Finally, an often overlooked assumption is the unbounded action space  $a \in [0, \infty)$ . In reality, there may be an upper limit  $\bar{a}$  on the actions that a CEO can take to improve firm value, such as a finite number of positive-NPV projects she can implement. If so, and if CEO effort has a sufficiently large effect on firm value, then the board wishes the CEO to implement  $\bar{a}$  irrespective of its cost. As we will explain in Section 4, the bounded action model leads to different predictions.

### 3. Method and Context

#### 3.1 Surveys Versus Archival Research

The standard empirical methodology is archival research. This has several advantages, such as large datasets, objectivity, and the ability to control for multiple factors. However, it also has limitations. First, it is difficult to find empirical proxies for key theoretical determinants of CEO pay, such as the cost of effort  $g$ , benefit of effort  $b$ , and risk aversion  $\eta$ . Even if a proxy can be found, a statistical relationship could have multiple interpretations. For example, a finding that CEO pay is sensitive to performance could be because variable pay is used to incentivize effort, to screen out low-ability CEOs, or to ensure the CEO shares risks with investors and stakeholders. While archival research studies *what* drives pay, it is less able to investigate *why* these factors drive pay.

Second, archival research can only test the predictions of a model, not the validity of its assumptions or the realism of its mechanism. While this is an issue across all fields, it is particularly important in executive pay given the “shareholder value” vs. “rent extraction” debate. Many features of real-life contracts, such as pay-for-luck, contradict shareholder value models and thus were initially interpreted as rent extraction. This in turn invited theorists to write more complex models that can “explain” these controversial features as being consistent with shareholder value maximization. It is difficult to know whether these models actually capture the forces that lead to the pay practices we observe, or are instead “possibility theorems” reverse-engineered to fit known facts.

It is critical to acknowledge that the survey methodology itself has limitations, and we have endeavored to design the survey to attenuate, if not eliminate, them. First, respondents may interpret the questions differently to how we envisaged. We engaged in extensive beta-testing of the survey with practitioners and provide free-text fields after each question to establish whether there were persistent misinterpretations.

A second is the Friedman (1953) “as if” critique, that contract designers may be acting in accordance with a theory but be unable to articulate it. Conversely, they may give a high score to a response that sounds logical even if it does not describe their behavior. We reduce this risk by not explaining the logic behind the available responses. For example, when exploring the cross-sectional determinants of incentives  $\theta$ , we ask about the importance of “how risky the firm is” rather than “the riskier the firm is, the weaker are incentives as they expose the CEO to too much risk.” While the latter explanation might identify the mechanism more precisely, a respondent might score this option highly because the explanation seems sensible.

Third, respondents may misreport their answers, particularly on a controversial issue such as executive pay. In addition to guaranteeing anonymity, we tried not to ask questions that would likely

lead to misreporting. For example, we did not ask directors why pay is so high, as this may prompt rationalizations even if pay were excessive, but instead asked what would happen if pay were lower.

Finally, the questions that we ask may be limited by the “academic paradigm”, i.e. restricted to what academic literature suggests is relevant. We attempted to address this concern by having a practitioner coauthor, beta-testing the survey to see if we had omitted important factors, including free-text fields, and conducting interviews. If the free-text fields systematically suggested a response that was not in our set of options, we explored it in interviews.

### *3.2 The UK Context*

This section describes the motivation for studying executive pay in the UK, as well as institutional detail to provide context for the results. Online Appendix B provides additional information on UK executive pay and corporate governance more broadly, plus stylized facts on UK CEO pay.

We study executive pay in the UK for a number of reasons. The UK was the first country to adopt say-on-pay, introducing legislation in 2002. Therefore, UK investors have significant experience in evaluating, voting on, and engaging on CEO pay. The Investment Association (the trade body of the UK investment industry) has helped establish processes for investor engagement on CEO pay as well as guidelines summarizing the views of most shareholders, to provide clear direction to boards. As a result, UK directors have a significant understanding of investor views on CEO pay. On a practical level, the authors’ own networks are most established in the UK, increasing the likelihood of a good response rate.

We believe that our conclusions will generalize to other countries. Say-on-pay has become widespread throughout the world, with the EU Shareholder Rights Directive imposing a very similar regime to the UK. In both the US and Europe, major investors are setting expectations on pay and voting in an increasingly consistent manner, and many of those attitudes (e.g. on performance conditions or post-vesting holding periods) were formed in the UK market. In addition, there has been

growing convergence in both pay levels and structures around the world (Fernandes et al., 2013); while discrepancies remain, the UK lies in between the US and Europe in both the level and structure of pay, rather than being an outlier.<sup>3</sup>

A UK company must establish a Remuneration Committee (RemCo) of independent non-executive directors to set the pay of executive directors. The RemCo is required to hold two say-on-pay votes. At least every three years, it puts a remuneration policy to a binding “policy vote”. The policy sets the framework within which the RemCo must make pay decisions. Any deviation is illegal and creates a liability for the directors. Every year, the decisions the RemCo makes within the policy are put to a non-binding “implementation vote.”

Beyond say-on-pay, boards are also constrained by the 2018 revision of the UK Corporate Governance Code (the “Code”) and investor guidelines; violations can lead to significant voting opposition. For example, in response to concerns about fairness between executive and employee pay, the revised Code requires the pension contributions of executive directors to be aligned with the wider workforce. At the time, executive pension schemes had contribution rates of up to 40% of salary, while employee schemes were below 10%.<sup>4</sup> Investors put pressure on firms and were willing to vote against those not bringing pension benefits into alignment. UK financial firms are subject to additional regulation from European Union Directives, such as a maximum ratio between variable and fixed pay, and minimum levels and time frames for bonus deferral.

Firms are required to disclose total realized pay, known as the “single figure.” This includes salary, annual bonus, and cash and equity earned<sup>5</sup> as part of long-term award schemes – known as

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<sup>3</sup> Fernandes et al. (2013) report a median CEO pay of \$1.28 million in the UK, compared to \$1.23 million in 10 non-US countries (including the UK) and \$2.8 million in the US, based on data from 2002-9. 48% of total pay in the UK is salary and 26% is stock and options, compared to 53% and 19% outside the US and 30% and 42% in the US.

<sup>4</sup> While the Code is comply-or-explain, the Investment Association co-ordinated investor action to ensure that the alignment of pensions was implemented. Moreover, while the Code was focused on the pensions of new hires, investors ensured that pension alignment was applied to all CEOs, including incumbents.

<sup>5</sup> This is based on when performance conditions are tested. The equity earned may not yet be paid out, since there may be additional holding periods.

“long-term incentive plans” (LTIPs). New grants of equity are disclosed separately from the “single figure,” together with the performance conditions that will govern their vesting. However, as in most countries, firms need not disclose the revaluation of the CEO’s equity holdings (and very few voluntarily do), a point that will become relevant later.

The survey was carried out in the context of the COVID-19 pandemic, in which many firms reduced CEO pay either due to concerns of fairness with the wider workforce or financial difficulties. This allowed us to study the causes of pay reductions, which are typically rare.

### *3.3 Survey Design and Delivery*

We benefited from extensive feedback on our questions before launching the survey. We obtained feedback from academics by presenting early drafts at conferences and seminars, as well as sending them to leading researchers in CEO pay and/or survey methodology. We sent several drafts to the UK government’s department of Business, Energy, and Industrial Strategy, which has significant experience in administering surveys to guide government policy. We beta-tested the survey with directors, investors, and compensation consultants to ensure that they were interpreting the questions as we intended, check the survey was not too long (our target was 15 minutes), and explore if we were missing key dimensions. The first objective is particularly important since terms that are standard in academia (e.g. relative performance evaluation, utility, expected pay) may be rarely used by practitioners. Most of these beta tests occurred via Zoom, where the practitioner answered the questions “aloud” so we could see how they were interpreting them.

We launched the survey in November and December 2020. To encourage responses, we donated £100 for each completed survey (up to a total of £25,000) to the UK’s National Health Service COVID appeal, and offered respondents the option to receive a draft of the working paper before its

public release.<sup>6</sup> We administered the survey using the Qualtrics online platform, offering respondents a generic (rather than individualized) link to guarantee their anonymity. Except for the demographic questions, we randomized the order of responses within each question.

We surveyed two types of respondent. The first was non-executive directors of FTSE All -Share companies (excluding investment trusts), which we identified from CapitalIQ and BoardEx; we attempted to contact every director. The second was investors in UK equities. There are two relevant types: asset managers, who invest in companies, and asset owners (such as pension funds) who are their clients. Some asset owners vote directly on CEO pay; others give asset managers guidance on how they should vote.<sup>7</sup> Within an asset manager/owner, there are both fund managers and governance specialists (otherwise known as “stewardship” or “responsible investment” specialists). The latter coordinate voting and engagement across the asset manager/owner’s funds. How responsibilities are split between fund managers and governance specialists varies by firm.

We attempted to contact every fund manager of all UK equity funds listed on Trustnet, a well-known database of funds offered in the UK, as well as every Head of Responsible Investment of all asset managers and asset owners that are signatories to the UK Stewardship Code<sup>8</sup> or members of the UK Sustainable Investment and Finance Association. For some, the main contact for responsible investing was a Chief Investment Officer (“CIO”), fund manager, or stock analyst. Online Appendix A provides further details on our distribution procedure.

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<sup>6</sup> To opt in to receive the draft, after completing the survey, participants were invited to add their email address. This final step was optional; approximately half of respondents filled it in.

<sup>7</sup> Institutional asset owners in the UK are required to have a policy on governance and engagement. Many of these make reference to CEO pay, although the level of detail varies. For example, the Norwegian Sovereign Wealth Fund has a public statement of remuneration principles. The Association of Member Nominated Trustees is a professional body for pension fund trustees which has a set of “red line” voting principles, including on CEO pay. Pension funds can choose which principles they would like asset managers to adopt; doing so means that, if the red line is crossed, they expect the asset manager to vote against. Other asset owners work with a proxy advisor to develop a custom voting policy, usually based around the advisor’s standard policy, that is applied on their behalf.

<sup>8</sup> The UK Stewardship Code is a voluntary code that asset manager and asset owners sign up to, pledging to exert governance on their investee companies.



In total, we contacted 1,312 non-executive directors of 421 firms and 556 investors at 231 asset managers or asset owners. We obtained responses from 206 directors and 159 investors; 170 directors and 132 investors answered every question. This corresponds to a response rate of 14.9% for directors (or 12.5% counting only directors who answered every question) and 28.6% (23.7%) for investors. The results presented are based on all responses, but do not change if we only include respondents who answered every question. After receiving the survey results, we interviewed 14 respondents to explore the reasons behind their responses. The interviewees were a mix of investors and directors across industries; the investors included both asset managers and asset owners, and both fund managers and governance specialists.

Table 1 presents summary statistics on the director respondents. Panel A shows that 39% were from the FTSE 100, 36% from the FTSE 250 (the next 250 largest firms), and 22% from the FTSE Small Cap index (the 269 next largest firms). Panel B shows a broad industry representation, with financial services being the most common, consistent with the composition of the UK stock market. Panel C shows that 27% of respondents were board chairs, 33% were chairs of RemCos, and 24% were RemCo members. Panel D shows the distribution of the size of the largest shareholder. Interestingly, director responses varied little with firm size or whether the firm had a large blockholder.

Table 2 contains summary statistics for the investor respondents. Panel A shows that 80% were from asset managers, 8% from asset owners, and 13% from hybrid asset manager/owners such as pension funds. Panel B shows that 52% of respondents were governance specialists, 26% fund managers, 8% stock analysts, and 6% CIOs. Fund managers, stock analysts, and CIOs are primarily evaluated according to investment returns, and thus may be more concerned with the impact of pay on firm performance. (Where there is no confusion, we will use “fund managers” as an umbrella term to encompass these three categories). Governance specialists may be more sensitive to the societal

consequences of pay (e.g. its effect on social inequality) because they may reflect the concerns of asset owners. However, the responses from fund managers and governance specialists were generally similar, and we will highlight the few cases in which they differed.

Panel C shows that 61% of investors described their investment style as “wholly active” and 28% as “mainly active.” Only 7 respondents identified as working for “wholly index” or “mainly index” funds, thus preventing cross-sectional comparisons. This low number is not surprising, given there is a small number of investors that dominate that passive segment of the industry. Panel D shows the size distribution by assets under management. Results were generally similar across large and small managers and owners; we will again highlight the few cases in which they differed.

## **4. The Objectives and Constraints of CEO Pay Design**

### *4.1 Objectives*

Our first set of questions aims to study directors’ and investors’ objectives when setting or influencing CEO pay, and the constraints they believe they are operating under. In Section 2, the program of setting CEO pay involves three stages (assuming a given effort level): (1) minimizing the (expected) level of pay subject to (2) the structure inducing the required effort level (i.e. the IC being satisfied) and (3) the CEO accepting the contract (i.e. the IR being satisfied). Accordingly, our first question (Q1) asks the respondents to rank these three elements (“Rank the importance of the following goals when setting CEO pay”).

Table 3 illustrates the results. Both directors and investors view minimizing the level of pay (“Keep the quantum of pay down”) as least important, with 91% of directors and 85% of investors ranking it last.<sup>9</sup> This result is consistent with CEO pay being a small percentage of firm value for

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<sup>9</sup> “Quantum” is the term most commonly used by UK practitioners for the target level of pay, i.e. expected pay.

most firms. It is also consistent with “shareholder value” models where the CEO’s talent (Gabaix and Landier, 2008) and effort (Edmans and Gabaix, 2011b) have multiplicative effects on firm value, making it worthwhile to pay the level required to attract and incentivize a talented CEO. However, even though they see it as second-order, later responses show that many investors view CEO pay as too high and would like it to be reduced.

In contrast, 65% of directors and 44% of investors view hiring and retention (“Attract/retain the right CEO”) as most important, while 34% of directors and 51% of investors rank the structure of pay (“Design a structure that motivates the CEO”) most highly. This reversal is a theme that recurs throughout the survey – directors perceive labor market forces, and thus the participation constraint, as crucial, precluding decreases in the level of pay. Investors assign greater importance to the incentive constraint.

There are two potential reasons for this divergence. The first is that directors and shareholders may have different objectives. One possibility is that shareholders wish to maximize shareholder value but the board is captured by the CEO, does not wish to exert the effort required to restructure pay, or does not want to risk losing a say-on-pay vote – and cites competitive pressures as an excuse. Moreover, even if the CEO talent pool is deep, so little value is lost by a departure, recruiting a new CEO requires effort by the board. The board may also not maximize shareholder value because it is undiversified and thus concerned with idiosyncratic risk. As a result, it may not push for a contract that has a high probability of improving shareholder value but risks leading to a CEO departure. Since the board should be maximizing shareholder value, we use “weak boards” to capture all the above reasons for why it may not. A second possibility is that shareholders do not wish to maximize shareholder value. Asset managers may wish to maximize fund flows<sup>10</sup>, which may involve reflecting client concerns about CEO pay even if non-value-maximizing. Alternatively, investors may

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<sup>10</sup> See Dasgupta, Fos, and Sautner (2021) for a survey of the literature on flow-concerned asset managers.

maximize value across their portfolio and thus take externalities into account – such as the fact that lowering pay at one firm may make it easier to lower pay at other firms.

The second explanation is that both boards and investors have the same objective – shareholder value – but disagree about the best way to maximize it. This disagreement may stem from two sources. One is “uninformed investors.” Investors may underestimate the importance of the participation constraint due to being unaware of labor market pressures, the difficulty of the CEO job, or the value created by a CEO. Boards may better understand these issues, particularly since most directors have executive experience.

The free text responses contained several statements from directors supporting this view. As one director noted: “Good people are leaving the plc [public limited company] world for private equity in droves. Fund management companies should not throw stones.” Similarly, even if the participation constraint is slack, investors may be unaware that reducing the level of pay may demotivate the CEO by making her feel unfairly treated. Potentially suggestive of uninformed investors, particularly governance specialists, this is one of the few questions to which fund managers and governance specialists responded differently. 64% of fund managers ranked “Attract/retain the right CEO” as most important and 36% attached primary importance to “Design a structure that motivates the CEO” – almost exactly matching the result for directors.

The other potential source of disagreement is “uninformed boards” – directors may underestimate their latitude to restructure pay, or the depth of the CEO labor market in case a restructuring causes the CEO to leave. Later responses show that investors believe at least some boards to be weak or uninformed.<sup>11</sup>

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<sup>11</sup> Differences of opinion can stem from differences in information, or differences in beliefs. For example, investors and directors may agree on the probability that a pay cut leads to a CEO departure, but have different beliefs on the value consequences of such a departure. Since these differences in beliefs likely ultimately stem from differences in information (e.g. on the value contributed by a CEO and the depth of the CEO labor market), we use “uninformed boards” and “uninformed investors” to capture differences of opinion from both sources.

## 4.2 Constraints

Our next set of questions studies whether directors and investors perceive constraints over and above the IR and IC considered by standard theories. Q2 asked directors “how large a sacrifice in shareholder value would you make to avoid controversy on CEO pay?”, and investors the analogous question “how large a sacrifice in shareholder value would you tolerate firms making to avoid controversy on CEO pay?” (For brevity, for future questions we will not include the analogous wording for investors in the main text, but only in the results table).

Notably, 67% of directors (Table 4, Panel A) would sacrifice shareholder value to avoid controversy, and 56% of investors would tolerate directors doing so. This suggests that boards and investors feel restricted by far more than participation and incentive constraints. For example, they may be concerned about their own reputation – a controversial pay package could lead to public criticism of directors or investors’ clients withdrawing funds.

The survey next asked a series of questions about the sources of controversy and the consequences, if any, of avoiding it. To the respondents who would tolerate a sacrifice, we asked Q2b, “How important is it to avoid controversy with the following parties?” This question, and the majority of our remaining questions, is scored according to a Likert scale with -2 representing “not at all important”, 2 representing “very important”, and 0 being neutral.<sup>12</sup> We will often report results in the form “x%/y”, where x is the percentage of respondents who selected 1 or 2, i.e. important or very important, and y is the average rating. For some future questions, -2 represents “strongly disagree” and 2 represents “strongly agree”; the scale for each question is shown in the relevant table. For brevity, we will use “important” to refer to “important or very important”, “agree” to refer to “agree or strongly agree”, and so on. Also to avoid cumbersome prose, we will sometimes say “our results suggest that x” rather than “our results suggest that directors and investors believe that x”; however,

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<sup>12</sup> The original survey labelled the options 1 to 5, but we have rescaled them from -2 to 2 so that 0 is the neutral score.

it is important to bear in mind throughout that our survey only reports directors' and investors' perceptions.

Table 4, Panel B shows that 88% of directors view it as important to avoid controversy with investors; this response also received the by far highest average rating (1.24 compared to the next highest, 0.69, for employees). This result is surprising. With symmetric information and objectives, controversy with investors would be avoided by maximizing, not sacrificing, shareholder value. Instead, paradoxically, directors believe they have to sacrifice shareholder value to satisfy shareholder requirements. One director said that “shareholders appoint RemCos and then often seek to micromanage their duties.” An interviewee pointed out that it is difficult even for directors, with unfettered access to information, to fully understand a company – thus, it is even more difficult for investors to do so.

Directors rated employees as the second most important source of controversy (63%/0.69), consistent with concerns about internal equity, which we will revisit later. The third highest was proxy advisors (48%/0.45), consistent with research showing that they significantly affect say-on-pay outcomes (Malenko and Shen, 2016). Like the “investors” result, this high score is surprising, as proxy advisors should be acting in shareholders' interest. Instead, in many directors' opinion, proxy advisors may not be maximizing shareholder value, e.g., because they impose one-size-fits-all rules (Iliev and Lowry, 2015; Cabezon, 2020; Jochem, Ormazabal, and Rajamani, 2021).

Shareholders, on the other hand, believe the main sources of controversy to be employees (82%/1.26), customers (75%/1.14) and policymakers (65%/0.92), which differs significantly from directors.<sup>13</sup> For investors, we replaced the option of “investors” with “other investors”, since investors are unlikely to admit that they themselves pressure boards to sacrifice value. While below that for

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<sup>13</sup> Unsurprisingly, most investors do not perceive proxy advisors (30%/-0.12) as reducing value, likely because they view their recommendations as informative, and/or believe they know when to deviate if they are uninformative (see Iliev and Lowry (2015) for consistent evidence).

directors, the average response of 44%/0.24 is non-trivial, and implies that investors think that other shareholders cause boards to depart from value maximization. This is consistent with recent evidence on shareholder disagreement (e.g., Li, Maug and Schwartz-Ziv (2020)).

#### 4.3 *Constraints and the Level of Pay*

We next drill down into the consequences of the constraints from avoiding controversy, studying the level and structure of CEO pay separately. These next two questions concern the contract actually offered, and thus we ask them to directors only.

Q12a (“Have any of the following ever caused you to offer a lower quantum of CEO pay than you would like?”) studies whether constraints affect the level of pay. In addition to external constraints, we also include two internal ones. The first is “restrictions from our existing approved pay policy,” given investors’ binding policy vote. The second is “unwillingness to deviate substantially from how we have paid in the past,” given the potential influence of history.

77% of directors report that at least one of these non-standard constraints has forced them to offer lower pay than they would like (Table 5, Panel A). 60% of directors offered less pay to avoid the “risk of investor opposition,” and 53% to avoid the “risk of ‘vote against’ recommendation from a proxy advisor.” The third-highest response, “restrictions from our approved pay policy”, is not captured by standard models. This suggests that the triennial policy vote creates constraints that subsequently restrict directors’ flexibility to adapt to changing circumstances – greater shareholder power may reduce shareholder value. Alternatively, the binding policy vote may be achieving its desired outcome, by leading to restraint on pay that would not have otherwise arisen due to weak or uninformed boards. Relatively few directors feel constrained by the need to avoid controversy with employees, the media, customers, or policymakers (37%) or by past pay practices (28%).

To the 77% of directors who answered “Yes” to at least one constraint, Q12b asked “did this lower quantum ever lead to the following consequences?” In many “shareholder value” models, CEOs

are at their participation constraint, so the only possible outcomes are that the current CEO leaves or the firm hires a different CEO. However, only 7% report that the CEO left, and 13% that they hired a less expensive CEO.

By far the most popular responses are not predicted by standard theories. 42% of directors reported that “the CEO was less motivated.” In standard models, motivation depends only on the sensitivity  $\theta$ , and not the level of pay  $\varphi$ . Instead, this response is consistent with the “gift exchange” efficiency wage model of Akerlof (1982) – if a CEO is given a gift of fair pay, she will reciprocate by providing discretionary effort.<sup>15</sup> Alternatively, and in line with the free text contributions and the responses to later questions, it is also consistent with Herzberg’s (1959) view that fair pay is a “hygiene factor” that demotivates if not provided.<sup>16</sup>

Thus, pay may matter *per se*, not just for the extra consumption that it can buy. When the CEO chooses whether to work, she may not calculate the marginal disutility of effort ( $g'(a)$ ) and compare it to the marginal increase in pay ( $u'(c)$ ) from increasing effort (or act “as if” she solved this optimization). Instead, she compares her pay  $c$  to what she believes is fair; if she believes she is being paid unfairly, she may be demotivated and reduce effort. As one director said about the consequences of a lower quantum of pay, “[the CEO] was navigating in a highly volatile and complex situation. He still did the job, but his morale was affected negatively.” Another wrote: “There is first a test of pay fairness by the CEO, then after that, for most CEOs, it is about building reputation for the company and latterly themselves” – reputational concerns incentivize CEOs to perform, but only if they first believe their pay to be fair.

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<sup>15</sup> Brown, Falk, and Fehr (2004) show experimentally that such gifts have a much stronger effect on effort in a repeated game than a one-shot game, and the former characterizes the CEO employment relationship. This model still applies even if CEOs are overconfident about their own ability and view high pay as being deserved rather than a gift – if a CEO is paid less than what she believes she deserves, she will deem it unfair and may withhold effort.

<sup>16</sup> Herzberg’s two-factor (or motivation-hygiene) theory proposes that employees have higher-order psychological needs (“motivators”), such as achievement, recognition, and responsibility, which cause job satisfaction, and lower-order needs (“hygiene factors”), such as fair pay and comfortable conditions, which cause dissatisfaction and demotivate if not given.



Formally, the CEO's utility function may be of the form  $U(w - f(\mathbf{X}))$ , where  $w$  represents the CEO's wage,  $\mathbf{X}$  is a vector of reference points that represent what she believes to be fair, and  $U(\cdot)$  exhibits a discontinuity at zero. One potential functional form for  $f$  is  $\max(x_1, x_2 \dots)$  in which case the CEO's pay must exceed all reference points, else she perceives it as unfair. The dependence on the wage  $w$  rather than consumption  $c$  highlights how the CEO's utility depends on the wage per se, rather than the consumption utility it provides. Future questions will shed light on what these reference points might be.

The second-most reported effect of having to offer lower pay was "there were no adverse consequences" (41%). This high frequency is meaningful – response bias would work against directors admitting that external pressures led them to taking a value-creating action that they would not have done otherwise. Thus, in a non-trivial proportion of cases, directors had greater latitude to cut pay than they thought, consistent with weak or uninformed boards. For example, even if the CEO is unhappy about lower pay, intrinsic motivation or reputation may ensure she remains incentivized.

There are two important caveats to the above interpretation. One is that some reductions in pay were caused by the COVID-19 pandemic or by coordinated pressure on executive pensions (see Section 3.2), which reduced CEO pay across the market. It may be that reducing pay in isolation would have led to the CEO departing or being less motivated. A second is that uncertainty may have made boards' unwillingness to cut pay ex ante optimal due to the high ( $100\% - 41\% = 59\%$ ) likelihood of adverse consequences. This is particularly the case if retaining and motivating the right CEO are more important than the level of pay, as reported in Table 3.

#### 4.4 Constraints and the Structure of Pay

We next investigate how these non-standard constraints affect the structure of pay. Q13a asked "Have any of the following ever caused you to offer an inferior structure of CEO pay to what you would like?" Table 6, Panel A presents the results. Similar to Q12a on pay levels, boards perceive

binding constraints. 72% of directors report that they were forced to offer an inferior pay structure, mostly because of proxy advisors (54%) or investors (54%). Restrictions from the approved pay policy (40%), risk of controversy with other parties (29%), and pay history (16%) also received similar response rates to Q12a. We offered two additional options specific to the structure of pay. One is restrictions from regulation or governance codes (36%), since the Code requires executives to hold equity for at least five years, including beyond retirement, and to have malus and clawback on incentives. The second is “adverse tax, accounting, or disclosure implications” (10%). Murphy (2013) argues that these factors influence pay structures in the US, but UK directors do not view them as important, likely because UK rules are generally applied consistently across all forms of pay.

To the 73% of respondents who selected “Yes” to at least one constraint, we ask Q13b, “Was the structure inferior in the following ways?” Table 6, Panel B shows that 69% reported that they had to “follow market practice more.” For example, one director said that his board “could have used more creative non-standard vehicles but didn’t.” This result echoes Cabezon (2020), who shows that US pay packages have trended towards one-size-fits-all in recent years.<sup>17</sup>

The second most common consequence was offering less upside for good performance (65%). This is surprising since investors, the main source of constraints, view motivating the CEO as important (Table 3). One interpretation is that investors believe that too much upside may have perverse consequences. A second is that these constraints come from other sources. The media or customers may object to pay above a certain level, even if justified by performance, and regulation in the financial sector caps the ratio of variable pay to fixed pay.

57% of directors were forced to use more performance conditions, perhaps because investors and stakeholders demand that pay be linked to particular measures. One director reported that “complexity

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<sup>17</sup> In an interview, a director explained how, even within the same company, different CEOs had different motivations and the package should have been tailored accordingly; even for a given CEO, changes in economic conditions (e.g. COVID) should have led to a change in the contract but the board’s flexibility was constrained.

is undermining rem packages but to balance all the stakeholders it creeps in.” An interviewee complained that different investors have different objectives and each asks for a performance condition to reflect theirs.

In free-text entries and interviews, several directors and investors explained that they would prefer to pay CEOs like owners, providing large equity stakes, small annual bonuses, and no LTIPs. This means unlimited upside for good performance and no performance conditions, violating some of the above constraints. One director, when interviewed, pointed out that large equity stakes are used successfully within private firms. However, when a company goes public, it immediately gets benchmarked against other public firms, and thus has to offer the model of bonuses and (capped) LTIPs “because this is what everyone else does.” Another wrote that “we have held off changing from LTIPs to share award schemes for some of the above reasons.” Several investors stated that they would like CEOs to be paid in restricted shares to achieve maximum alignment, but that other investors or proxy advisors would object because such a scheme does not fit their standard models.

#### 4.5 *Summary*

Our questions on the objectives and constraints of pay yield the following conclusions:

1. Directors view attracting and retaining the CEO (satisfying the IR constraint) as the most important goal of pay, while investors believe that motivating the CEO (satisfying the IC constraint) is more important. Both view reducing the level of pay as least important.
2. Boards feel constrained by far more than just IR and IC. 67% of directors would sacrifice shareholder value to avoid controversy on CEO pay, and 56% of investors would tolerate directors doing so.
3. Directors view avoiding controversy with investors as the main constraint, suggesting that boards and shareholders disagree on the contract that maximizes shareholder value. Directors

also view proxy advisors as a significant constraint; both directors and especially investors view avoiding controversy with employees as important.

4. These additional constraints matter. 77% of directors reported that constraints led to them offering a lower level of pay. 41% of directors admitted that being forced to pay less had no adverse consequences, while 42% stated that it reduced the CEO's motivation. The latter is inconsistent with many contracting models, but is consistent with pay being a hygiene factor and unfair pay being a demotivator.
5. 72% of directors report that constraints led to them offering an inferior pay structure. This typically involved less tailoring and reduced upside for good performance.

## 5. The Level of Pay

This section studies the determinants of the level of pay. We investigate the pay of a new CEO upon appointment (Section 5.1) separately from subsequent increases (Section 5.2) and decreases (Section 5.3). Section 5.4 analyzes whether boards and investors believe the level of pay can be cut.

### 5.1 Pay of a New CEO

Q3 asks: “How important are the following factors in determining the target quantum of pay for a new CEO?”, and aims to capture the determinants of the ex-ante expected value  $E[c]$ .<sup>18</sup> The results are in Table 7. “The new CEO's ability” is the most popular response for both directors (85%/1.29) and investors (90%/1.49), consistent with talent-based models such as Gabaix and Landier (2008) and Terviö (2008). Potentially more surprising are the high responses to “how attractive our firm is to run

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<sup>18</sup> In an economic model, the level of pay refers to the ex-ante expected value  $E[c]$ , but this concept is not straightforward to translate into practitioner terminology. In beta-testing, the “level” of pay was interpreted as realized pay, in which case it is mechanically linked to factors such as CEO ability, as a high-ability CEO will hit bonus thresholds. “Expected pay” was interpreted as the amount of pay that the CEO expects to receive, i.e., believes she deserves. The beta-testing revealed that “target quantum” best captured  $E[c]$ . In addition, at the start of the “Level of Pay” section, we stated “In this survey, the quantum of pay should be taken to refer to the target level of total remuneration set by the remuneration committee.”

(e.g. prestige, risk, complexity),” where prestige and complexity aim to capture both the non-pay benefits and difficulties, i.e. the net disutility, of the CEO’s job. Many critics of high pay believe that the CEO job involves little disutility, or that any differences in disutility between firms are negligible compared to the typical CEO salary, so it should not be a significant driver of pay. In contrast, this response was the second most popular option for investors (61%/0.61) and third for directors (68%/0.76). In several free-text fields and interviews, directors stressed how difficult the CEO job is – involving extremely long hours, being constantly in the media, and facing additional pressures not faced by other executives (such as having to waive bonuses during COVID). Both free-text fields and interviews only referred to prestige and complexity, not risk. This is consistent with the empirical finding of Albuquerque, Albuquerque, Carter, and Dong (2020) that risk has little effect on the level of pay.

“CEO pay at peer firms” was the second most popular response for directors (66%/0.82) and third highest for investors (49%/0.46). Notably, both sets of respondent ranked it higher than “the new CEO’s pay in their previous position” (42%/0.26 for directors and 23%/-0.21 for investors) and “the new CEO’s other employment options” (58%/0.55 and 43%/0.26). If participation (IR) were the only constraint on the level of pay, then pay only needs to be enough to persuade the new CEO to leave her prior position and choose the firm over alternative opportunities. Instead, the results suggest that pay at peer firms is relevant even if the CEO could not get a job at these firms, e.g. due to there being no vacancies. Several interviewees argued that peer pay affects what a CEO believes she is “worth.” One noted that a CEO interacts with CEOs of competitors, customers and suppliers, and her sense of worth is eroded if she is paid much less. Thus, peer pay may determine what the CEO views as fair and therefore is a reference point included in  $X$ . Notably, investors viewed all three of the above determinants as less important than directors, consistent with them viewing the talent pool as deep and placing less weight on labor market conditions.

The free-text fields highlighted an additional determinant of pay absent from most models – internal equity considerations. One director highlighted the importance of “the multiple of the CEO pay to the average within the company”; another responded that “The CEO sits at the top of a pyramid where at each level pay must be externally competitive and internally proportionate. At the top there is not really a well-functioning labor market, so internal proportionality is most important.” Several investors made similar statements.

## 5.2 *Increases in Pay for an Incumbent CEO*

Q4 asks “What causes you to increase the target quantum of pay for an incumbent CEO?”<sup>19</sup> Table 8 illustrates the results; as with the prior question, there is general agreement between directors and investors. Both rated “good recent CEO performance” the highest, with support of 76%/0.98 from directors and 75%/1.05 from investors. While intuitive, it may seem unnecessary to reward high performance with increased target pay, given that almost all CEOs have substantial equity holdings. Empirically, the incentives from changes in the level of pay are so small compared to those provided by CEOs’ equity holdings (Jensen and Murphy, 1990; Hall and Liebman, 1998) that they are typically ignored when calculating incentives.

The free text responses and interviews suggest that pay rises are not used to provide ex-ante incentives but to deliver *ex-post recognition*. A fund manager explained in an interview that pay rises are important to acknowledge good performance, and that no talented person stays in a job where she does not feel appreciated by her employer. Another pointed out that a pay rise is so small compared to firm value that it costs the company very little. Thus, if the CEO is denied it, she infers that the

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<sup>19</sup> We specified that “In this survey, the quantum of pay should be taken to refer to the target level of total remuneration set by the remuneration committee”, i.e. the questions were explicitly referring to expected pay, not realized pay. This ensures that there is no mechanical link between performance and the quantum of pay. Beta-testing showed that “target quantum” was the best way to translate the academic concept of expected pay  $E(c)$ , which is the expected value of salary, bonus, and newly-granted LTIPs.

board and shareholders do not value her highly. A director noted that a positive performance appraisal by the board is viewed as meaningless unless it is accompanied by an increase in CEO pay: “pay is putting your money where your mouth is.”<sup>20</sup>

Thus, according to directors, CEOs believe it is fair to be rewarded for good performance, and if they are not, their motivation may suffer or they may leave. This role of pay increases can be interpreted as a (reversed) version of Akerlof’s (1982) “gift exchange” model. Here, it is the CEO who first gives a gift (good performance) and views it as unfair if she is not repaid with a gift of higher pay.

These findings help us to refine the notion of fairness used by CEOs. Existing research on perceptions of fairness typically does not differentiate between flow pay and changes in wealth. For example, in experimental settings, subjects have no pre-existing wealth and only receive flow pay; researchers do not study whether changes in wealth would have the same effect.<sup>21</sup> If flow pay and changes in wealth are fungible, even a CEO concerned with fairness would not need to be rewarded with pay increases, since the value of her equity already rises upon good performance.

Our results therefore suggest that flow pay plays a special role in addressing CEOs’ concerns for fairness due to providing *recognition*. A pay increase provides internal recognition because, unlike the revaluation of equity by the market, it requires a discretionary decision by the board and must be approved by shareholders in the implementation vote. Moreover, all shareholders benefit from a higher stock price, even though most played no part in it; one investor stated that the revaluation of equity is a reward for contributing capital, but a pay rise is a reward for effort. A pay increase also provides external recognition because it is observed by the market and thus boosts the CEO’s

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<sup>20</sup> A separate reason for increasing pay is to retain the CEO if good performance increases her outside options. However, the support for “increased threat of CEO leaving” (43%/0.25 for directors and 30%/-0.06 for investors) was much lower.

<sup>21</sup> Fehr, Goette, and Zehnder (2009) survey the experimental and field evidence for the importance of fairness in employee pay.

reputation. Several interviewees explained that a pay rise is a more public endorsement for good performance than the revaluation of equity holdings, since it is disclosed as part of the “single figure”.

Thus, another potential reference point included in  $X$  depends on the CEO’s perception of her contribution to her firm. Our results also imply that changes in pay and portfolio incentives are not fungible, in contrast to standard models where total financial incentives matter. This is also a potential micro-foundation for why CEOs might have higher discount rates than shareholders – not because CEOs need pay for consumption, but because changes in current pay lead to perceptions of fairness and recognition.

All other responses received less than 50% support from both directors and investors. The second most common response from directors was “increases in firm size” (46%/0.37; 45%/0.17 from investors). In Gabaix and Landier (2008), an increase in firm size does not lead to an increase in pay if the firm retains the same CEO and her talent has not changed – since her outside option is unaffected, pay should not rise. Some free-text comments and interviewees argued that size matters because of complexity, consistent with the empirical findings of Gayle and Miller (2009). Others explained that CEOs benchmark their pay against peers of similar size to assess whether their pay is fair. Thus, if a firm ascends from the FTSE-250 to the FTSE-100, the CEO expects to be paid similarly to other FTSE-100 CEOs. As one director argued, “benchmarking gives comfort that there’s fairness, transparency, and objectivity to the level of pay.” One potential reason is that firm size and peer firm pay are more observable than other determinants of pay in standard theories (e.g. CEO talent and disutility), and so linking pay to them gives the CEO comfort that pay is set fairly.

Directors ranked “increases in pay at peer firms” (44%/0.26) significantly higher than investors (27%/-0.17), again consistent with directors perceiving labor market pressures to be stronger. Some investors were strongly opposed to responding to increases in peer firm pay. Both sets of respondent considered peer firm pay a far less important determinant of changes in pay for an incumbent than for



the pay of a new CEO. This is consistent with Kahneman, Knetsch, and Thaler's (1986) evidence on the reference point employees use to assess whether pay is fair – peer firm pay for new hires, and last year's pay for incumbents.

“Changes in attractiveness (e.g. prestige, risk, complexity) of CEO job at your firm” received more support (44%/0.23 from directors, 45%/0.25 from investors) than “changes in attractiveness (e.g. prestige, risk, complexity) of CEO job at other firms” (19%/-0.28 and 16%/-0.37). In most models, what matters is the disutility of the CEO job at one firm compared to others, not in isolation. One interpretation is that changes in the prestige or difficulty of her own job affect the CEO's view of fair pay more than similar changes in peer firms.

The final response was “other changes that reduce the attractiveness of the pay package (e.g. adding holding periods”). This received low support (28%/-0.11 from directors and 30%/0.01 from investors), even though it should be the total value of the pay package that matters. CEOs, however, might assess the fairness of their pay package mostly based on the level of pay, potentially because it is easier to compare and/or because it provides external recognition. Alternatively, an interviewee explained that the components of CEO pay are negotiated in isolation, consistent with narrow framing. The board and CEO negotiate base salary first, then the incentive components, and then restrictions such as holding periods. Consequently, longer holding periods may not be compensated for by an increase in the already-negotiated base salary.

What came out of the free-text fields is that significant increases in the level of CEO pay are surprisingly difficult. Director explained that “It is pretty much impossible to increase the target pay of an incumbent CEO in the UK. It might be possible with a large acquisition that changes the scale and complexity substantially”; “substantial increases would only come if the job gets markedly bigger/more complex, or there is large market shift in the way such jobs are valued” and “basically only when ‘the market moves’ and/or when the job has become obviously more demanding.” Hence,

many directors believe that large pay increases risk controversy, unless there has been a visible change to the size or complexity of the firm.

In the same vein, and consistent with the free-text entries for Q3 (Table 7), several free-text responses argued that it was difficult to increase CEO pay significantly faster than overall workforce pay. This suggests that fairness concerns also matter for directors and investors, not just the CEO. Thus, their perceived cost of compensation may be not only the direct cost  $c$ , but  $c + g(c, Y)$  where  $Y$  is a vector of potentially different reference points to  $X$ , such as worker pay, CEO pay in peer firms, or last year's pay, and  $g$  is a function. These fairness concerns may arise either because directors and investors are concerned about fairness themselves, or believe that other stakeholders (such as employees, customers, and – for investors – their clients) are.

### 5.3 *Decreases in Pay for an Incumbent CEO*

We now turn to decreases in pay. We first asked directors, in Q5a, “Have you ever significantly decreased the target quantum of pay for an incumbent CEO?” Table 9, Panel A shows that only 23% of directors responded “Yes.” Combined with the difficulty in significantly increasing pay, it suggests that directors' main decision variable is the change in pay rather than the level, analogous to the findings of Lintner (1956) and Brav et al. (2005) for dividend policy. We interviewed directors to understand why pay cuts are so infrequent. One explained that a pay cut communicates that the board has downgraded its assessment of the CEO's worth. Another said that, as a consequence, cutting a CEO's pay is effectively firing her. Thus, another factor influencing  $x$  may be her prior year's pay. A third stated that if there were ever a justification for cutting the CEO's target level of pay, you would instead fire her.

65% of investors responded “Yes” to the analogous question “Have you ever requested significant decreases to the target quantum of pay for an incumbent CEO?”<sup>22</sup> To the respondents who answered “Yes”, Q5b asked “What caused you to decrease the target quantum of pay for an incumbent CEO?”. Here, unlike for increases in pay, there are significant discrepancies between investors and directors. The five factors that theories predict should drive changes in pay (poor CEO performance, decreases in firm size, changes in attractiveness at your firm, changes in attractiveness at other firms, decreases in pay at peer firms) are the five least popular options for directors, with all average ratings being negative. In contrast, the investor responses to these five factors are very similar as for increases in pay. Investors believe that these factors should drive both increases and decreases in pay symmetrically, just as theory predicts. Note that this is the only question for which investors believe labor market forces are more important than directors – if they can be used to rationalize decreases in pay, which they generally view as too high.

Figure 1 illustrates this asymmetry. Panel A displays how directors believe these five factors should affect increases (on the x-axis) and decreases (on the y-axis). All factors lie significantly below the 45 degree line, suggesting that they should have a greater effect on increases. This asymmetry is striking since directors are only posed this question if they have answered “Yes” to Q5a, i.e. they do view it as possible to decrease pay. Panel B plots the results for investors, and all factors lie close to the 45 degree line.

One potential explanation for this asymmetry is the motivational or retention consequences of pay cuts. Investors’ most popular response was poor CEO performance (70%/0.96), but a cut for such reasons may demotivate the CEO if last year’s pay is a reference point and, as directors pointed out in free text fields and interviews, may be tantamount to firing the CEO. CEOs may also see a pay cut

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<sup>22</sup> This 65% is not directly comparable to the 22% response from directors, since investors hold stakes in many companies and so are more likely to have requested decreases in at least one firm

for changes in market conditions (e.g. pay and attractiveness at peer firms), or her own job getting easier, as being unfair as these changes are out of her control. Recall, however, how directors view that improvements in market conditions or the job getting harder are valid justifications for pay increases. This echoes Garvey and Milbourn (2006), who find that CEOs are rewarded for good luck outside their control but not penalized for bad luck.

Instead, the three most common responses for directors had no analogy in the question about increases (Q4). The most popular response (46%/0.15, versus 27%/-0.28 for investors) was “external pressure to reduce pay”. The free-text field highlighted two recent external pressures – the COVID-19 pandemic, and the downward pressure on pensions. A second reason was “your firm encountering financial constraints” (51%/0.07 for directors, versus 58%/0.53 for investors). This was one of the few responses that differed according to firm size (35%/-0.50 for directors in the FTSE 100 versus 78%/1.00 for FTSE Small Cap firms), consistent with financial constraints being more binding in smaller firms and CEO pay being a larger fraction of profits. A third, and surprising, justification was “the CEO requesting it” (41%/-0.37).<sup>23</sup> While contrary to almost any theory model, it can be justified by either the CEO having a sense of fairness, or believing that investors and stakeholders view fairness as important and wanting to pre-empt controversy. One director wrote: “I was the incumbent CEO at the time and asked for a reduction in pay to reflect reduced complexity and intensity of role.” Another director said that it should not be up to the board to be tough on pay; a CEO should be tough on her own pay because this shows that she is sensitive to the environment. Taking these three reasons together, if a pay cut can be attributed to external pressures or financial constraints, or is requested by the CEO, it does not affect her sense of her worth. This may explain why these are seen as plausible reasons for reducing pay.

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<sup>23</sup> We did not ask this question to investors as the CEO would make such a request to the board, not to them.

In their free-text responses, investors stressed two justifications for pay decreases absent from standard models. The first is that pay is simply too high, and thus pay decreases are justified even without any change in underlying circumstances: “the total compensation is unreasonably high”, “the quantum of pay was insanely high relative to anything – a formula gone wrong”. In shareholder value models, pay is always set optimally, and so it should only change when parameters change. In contrast, many investors believe that pay was not optimal to begin with. The second is that pay should decline if it is out of line with average employee pay, consistent with investors’ response in Table 4 that it is most important to avoid controversy with employees. There are no similar free-text responses from directors.

#### 5.4 *Why Is CEO Pay So High?*

Our final questions on the level of pay aims to understand why CEO pay is so high. This is a difficult question to ask directly, as many formulations might lead to directors claiming that high pay is justified due to CEO ability or market forces. We thus asked “If your firm reduced the target quantum of pay of its next CEO by 1/3 compared to its current CEO, what might happen?”<sup>24</sup> We focused on CEO transitions as this is when a board has greatest flexibility to reset CEO pay, while employment contracts may prevent a board from cutting the pay of an incumbent CEO. We chose a reduction of 1/3 in target total pay because it is materially greater than voluntary reductions that have occurred, such as the temporary 20% salary reductions due to COVID-19 (some of which were to salary only, not variable pay) or the 5% to 10% reductions in total pay due to the downward pressure on pensions. This question thus allows us to study a change that could not be analyzed using actual

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<sup>24</sup> Another formulation might be “If your firm reduced the fixed salary of your next CEO ...” to focus on  $\varphi$  without changing incentives  $\theta$ . However, most incentive components of pay are driven off fixed salary. Thus, some respondents may interpret this as changes in only  $\varphi$ , and others as changes in  $\theta$  also. In beta-testing, we tried adding “while keeping variable components unchanged”, but respondents were confused, as some were unsure about how you could cut salary while keeping variable components unchanged since they are typically multiples of salary.

out-turns. However, the reduction is not so large to be implausible. In the vast majority of companies, a 1/3 reduction would still lead to the CEO being the highest-paid employee.

Table 10 illustrates the results, and again indicates a significant disparity between directors and investors. Only 10% of directors agreed that “there would be no adverse consequences” (average score -0.96). The strongest concern was “we would recruit a lower quality CEO” (59%/0.66). This suggests that they believe that the CEO talent pool is not deep; multiple responses in the free-text field warned that the firm would hire a significantly less experienced candidate. These responses are consistent with the empirical findings of Bennedsen, Perez-Gonzalez, and Wolfenzon (2020) and Jenter, Matveyev, and Roth (2018) that CEOs matter for firm value.

Respondents also warned that reducing the pay of one firm in isolation would be dangerous without corresponding reductions in the market. This also reconciles our results with Table 5, Panel B, where only 13% of directors stated that constraints that lowered pay led to them hiring a less expensive CEO. Some boards recently reduced pay due to market-wide constraints (COVID-19 and the pressure on pensions), and the decreases were much smaller than 1/3.

These responses suggest that economic downturns may represent an opportunity to reset the level of CEO pay. Even if CEO pay is too high (i.e. significantly above the utility that the CEO could obtain from non-CEO positions or leisure), a firm cannot unilaterally lower it if other firms do not follow suit. However, economic downturns that legitimize pay decreases may allow for such market-wide reductions, particularly if prompted by investors who own stakes in multiple firms.

The second greatest concern was “the CEO would be less motivated” (46%/0.38). This is consistent with Table 5, Panel B, and suggests that the level of pay has important motivational consequences missing from standard models. Just over half agreed that “it would create undesirable pay compression between the CEO and other executives” (51%/0.36). This concern is also absent from most CEO pay models, which focus on the pay of the CEO in isolation. One reason is that

compression reduces tournament incentives, as documented empirically by Kale, Reis, and Venkateswaran (2009). Second, it may be optimal to pay the CEO more highly if her effort induces effort from other executives due to complementarities (Edmans, Goldstein, and Zhu (2013)). However, other than one response (“risks being perceived as a disincentive to the rest of the executive team”), neither reason was cited in either free-text fields or interviews.

The free-text fields and interviews instead suggested that pay disparity is need for fairness – the CEO is worth more to the firm or suffers more disutility. Starting with the former, one interviewee explained that “the more you do for the company, the more you should be paid; if the CEO isn’t doing more, she shouldn’t be CEO”. Moving to the latter, another highlighted that CEOs are under even more pressure and public scrutiny than other top executives. A third interviewee explained that pay disparity would “disrupt the natural order of things and the hierarchies within the organization”, and this concern applies beyond the CEO. If a CFO were paid less than the commercial director, even if this were dictated by market forces, the finance function would view itself as being less important. Similarly, a reduction in the CEO’s pay might cause all other executives to be concerned about the implications for their own pay. Thus, while prior results suggest that pay should not exceed certain reference levels, fairness concerns also imply that pay should not fall short of other reference levels. Thus, one potential functional form for  $g(c, Y)$  may be  $g_1(c - y_1) + g_2(c - y_2)$  where  $g_1(\cdot)$  exhibits a discontinuous increase at  $y_1$  (firm value falls if CEO pay exceeds worker pay or shareholder returns by a certain amount) and  $g_2(\cdot)$  exhibits a discontinuous decrease at  $y_2$  (firm value falls if CEO pay does not exceed the pay of other top executives by a certain amount).

Two other concerns received modest director support – “we would have a strained relationship with the CEO” (45%/0.32) and “it would send a negative signal about CEO quality to the market” (49%/0.29). The first response differed between directors in the FTSE 100 (41%/0.15) and the FTSE Small Cap index (57%/0.70), potentially because pay levels are lower in the latter and so decreases

in pay constrain the CEO's consumption by more, or the greater prestige of running a FTSE 100 company may outweigh pay factors to some degree. The investor responses were markedly different. The most popular response was that "there would be no adverse consequences" (33%/-0.02, with 35% neither agreeing nor disagreeing). Many investors believe that, even if the board ends up recruiting a different CEO, she would be less materialistic rather than less capable. A fund manager claimed that "CEOs should not just be motivated by quantum of compensation – that suggests they have the wrong person"; a governance specialist stated that "[the CEO] might have a hissy fit ... then the board should reconsider if this person is appropriate for the role".

Fewer than a quarter of investors agreed with each of the negative consequences. Many investors thus believe that a change in CEO provides the opportunity to reset the level of pay: "Where things have previously escalated to an unsustainable/inappropriate level it seems irrational to continue embed the problem with successive CEOs"; "this race to the bottom has to stop". While one director responded "Really stupid question unless you are implying that current pay levels are totally unjustified" and another that "this is a rather naïve question", investors do believe that pay levels might be unjustified in some firms and that very significant reductions are possible.

A separate question that we asked investors was Q15a: "do you believe the overall level of CEO pay is too low, too high, or about right". (We did not ask this question to directors due to concerns about biased reporting). Results are given in Table 11. 77% of respondents believe that it was too high (Panel A). We then asked these 77% "How strongly do you agree with the following statements for why the overall level of CEO pay is too high?" Panel B shows that 86% agreed that "boards are ineffective at lowering it even though they should" (average score of 1.22).<sup>25</sup>

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<sup>25</sup> We included "even though they should" to capture ineffectiveness due to weak or uninformed boards, rather than there being a tight labor market for CEOs.



56% agreed that “investors have insufficient power over boards to lower it” (average score of 0.48). This is surprising given that shareholders have a binding policy vote, which places legal constraints on directors’ freedom to set pay contracts. Indeed, the pension reductions in 2019-20 shows that co-ordinated shareholder action can cause boards to lower pay. We explored the perception of limited power in interviews. One reason given was that directors frequently interact with the CEO face-to-face, but their contact with investors is only occasional and by email – thus, they may naturally be more influenced by the CEO. Another was that making the implementation vote binding, rather than advisory, would give shareholders more power. Only 36% agreed that “investors focus their engagement on more important topics than the level of pay” – i.e. that investors have to pick their battles. As one wrote, “pay is always engaged upon. It’s a staple of AGM season”.

## 5.5 *Summary*

Our questions on the level of pay yield the following conclusions:

1. Directors believe that significant cuts to the level of pay would markedly worsen the quality and motivation of the CEO. The level of pay affects motivation through affecting perceptions of fairness, in contrast to standard models where it plays no role.
2. In contrast, many investors believe that there would be few adverse consequences of pay cuts, even if made to one firm in isolation. Instead, they view a CEO transition as an opportunity to reset the level of pay. 77% of investors believe that pay is too high, mainly because they view boards as weak.
3. Both investors and directors believe that good recent performance should increase pay, even though most CEOs have substantial consumption incentives from their equity holdings. This is consistent with the importance of ex post recognition for fairness and reputation.
4. Directors view themselves as not starting from a blank sheet of paper. It is difficult to increase pay, and even more difficult to decrease pay, in response to firm-specific changes or changes

in the outside option. In contrast, investors believe that such factors should drive both increases and decreases in pay.

5. Ability is the most important determinant of a new CEO's pay. The (dis)utility of a CEO job is another important driver, suggesting significant cross-sectional variation.
6. Pay in peer firms affects new CEO pay even more than the pay at the new CEO's prior position and alternative employment options. This suggests that peer firm pay matters because it affects what is viewed as fair, rather than for recruitment considerations.
7. The level of pay is affected by internal considerations. There should be a gap with other top executives, but the gap to the wider workforce should not be too high.

## **6. The Structure of Pay**

This section studies the structure of pay. While most theory models assume that financial incentives are the only motivator, in Section 6.1 we first ask what directors and investors believe motivates a CEO. Section 6.2 asks why companies offer variable pay and Section 6.3 explores the determinants of the split between fixed and variable pay. Sections 6.4 and 6.5 explore why two key predictions of contract theory are not always implemented in practice – long-term incentives and relative performance evaluation.

### *6.1 What Motivates a CEO?*

Q7 asks “what motivates your CEO to perform strongly?”. Table 12 shows the results, which are generally consistent between directors and executives. Most models focus on explicit contractual incentives; we combine these with the implicit incentives from future pay rises. While the responses to “incentives from bonuses, LTIPs, equity, or future pay increases” were high (76%/0.98 for directors and 68%/0.83 for investors), this was only the third highest-rated response for both groups.

Other theories point to labor market incentives, such as “the potential to move to a bigger firm” (Gibbons and Murphy (1992)) or the “risk of being fired”. The responses were markedly lower, particularly among boards: 18%/-0.53 for directors and 46%/0.37 for investors for the former, and -11%/-0.88 and 25%/-0.20 for the latter. The lack of incentive from a potential move is consistent with Cziraki and Jenter’s (2021) finding that incumbent CEOs rarely move to other firms. Indeed, incidence is so low that a director may never have experienced his CEO moving to another firm, potentially explaining the lower response than for investors. In relation to firing risk, one interviewee explained that boards hire CEOs that are confident in their ability to succeed at the company, and so should not be motivated by firing risk. Another pointed out that CEOs are typically overconfident and do not fear being fired.

Instead, by far the strongest perceived drivers of effort were “intrinsic motivation” (92%/1.55 for directors and 91%/1.50 for investors) and “personal reputation” (91%/1.40 and 96%/1.60). Neither factor is explicitly analyzed by the vast majority of contract theories, with Carlin and Gervais (2009) and Bettignies and Robinson (2018) being rare exceptions.<sup>26</sup> It is noteworthy that personal reputation scored very highly even though we have separate responses for the financial benefits of a superior reputation (pay increases and labor market consequences). This suggests that the intrinsic prestige of being seen to do a good job is an important aspect of reputation. An investor said that “there is a common misperception that pay or career progression motivates CEOs to do a good job. [Performance] comes from intrinsic motivation, passion for the job, and maybe a concern with reputation.”

The free-text responses suggest that financial incentives may overlap with ex post recognition, and thus intrinsic motivation and reputational concerns (we will use “intrinsic incentives” as an

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<sup>26</sup> Under a broad interpretation of the cost of effort  $g(a)$ , a lower cost of effort could capture high intrinsic motivation. Bénabou and Tirole (2003) study how extrinsic incentives affect intrinsic motivation, but not the reverse.

umbrella term for these two motivators). The CEO values pay not so much because she needs it to afford consumption – as one investor stressed, “all CEOs are going to take care of most human needs in terms of finances” – but because it is recognition that she has performed well. One director stated that “primary motivation comes from inside, but pay is important as a signal to the CEO and the market of the value placed on them by the board”. Another wrote that “relative competition (why does he earn more than me?) is very significant as an issue of pride”.

61% of directors (average rating of 0.62) and 67% of investors (0.82) agree that “industry competition” is a motivator. We are unaware of any models which study how industry competition affects the optimal contract. “The quantum of pay” (55%/0.55 for directors, 37%/0.21 for investors) is a reasonably important motivator, inconsistent with most theory models. This likely underestimates the effect of the level of pay on effort, since the question focused on strong performance. If pay is indeed a hygiene factor, a low quantum of pay could cause the CEO’s performance to fall from average to weak, but high pay would not increase her performance from average to strong. One director pointed out that “most CEOs want to be paid fairly, so it’s a demotivator if they aren’t as opposed to a motivator”, and another that “principle and sense of fairness tends to matter a lot.”

## 6.2 *The Motivation for Variable Pay*

In Q8, we ask “Why do you offer the CEO variable pay?”. Note that practitioners interpret variable pay as elements of flow pay that are sensitive to performance, and do not include the CEO’s existing equity holdings.

Table 13 illustrates the results. The most popular response was “to motivate the CEO to improve long-term shareholder value” (89%/1.46 for directors and 87%/1.36 for investors). This is interesting since both directors and investors believe that intrinsic incentives are the primary motivators. It suggests that, even though financial incentives are of secondary importance, they are still important. Free-text fields and interviews suggest that this is for two reasons. First, even though intrinsic

incentives are powerful, they still may not be sufficient. As one interviewee explained, only a “superhuman” CEO would be willing to perform at her very best without financial incentives. The second is that intrinsic incentives may lead to the CEO taking actions that may not increase firm value. Examples given by interviewees include increasing the scale of the business, engaging in R&D for scientific curiosity even if not commercially motivated, or designing the highest-quality product even if a low-cost strategy would be more effective.

The popularity of the above response is interesting because many CEOs already have substantial equity holdings. Thus, even if financial incentives are needed because intrinsic incentives are insufficient, it is not clear why they need to be provided by variable pay. One reason is that pay incentives are different from portfolio incentives because they provide recognition.<sup>27</sup> Two directors explained in free-text fields that variable pay is used “so the CEO would directly and quickly feel the impact of good and (where relevant) poor short-term performance” and “to recognize achievement – the retrospective acknowledgement of exceptional performance is important”. A third director stated in an interview that “if you’ve created value, it’s only fair that you share in it”. Turning to investors, a fund manager wrote that “I don’t think many execs wake up and say ‘I’ll work better/harder today, because there might be another £500k in it for me. I think people work because they enjoy the challenge and getting rich is a pleasant side effect.”

A second reason why variable pay is needed is because employees are offered variable pay. One director pointed out that “variable pay is organization wide practice ... difficult to think of CEO scheme in isolation from executive board and firm as a whole.” Another noted that “a high proportion of variable pay runs through all levels of the organization (commission at lower levels, annual bonuses at higher levels) and it therefore feels appropriate and a cultural alignment for the CEO to have a high

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<sup>27</sup> A complementary explanation is that a pay increase provides greater recognition because it is immediately received and the CEO enjoys “realization utility” (Barberis and Xiong, 2012). Even though the CEO’s equity holdings rise immediately with good current performance, the CEO cannot realize this gain for many years due to vesting and holding periods.

mix of variable pay.” While internal equity comparisons are typically seen as concerning the level of pay (e.g. the recent disclosure of pay ratios), the comparison of pay structures receives less attention.

Third, while the value of the CEO’s equity is tied to the stock price, variable pay can be based on other performance criteria. One director explained how CEOs are set business plans with key performance indicators (“KPIs”), and tying pay to these KPIs holds management accountable. He pointed out that the CEO’s actions have a greater effect on these KPIs than the stock price, which is affected by factors outside her control. This is reminiscent of the theory of Paul (1992), who shows that pay should be tied to the value added of the manager rather than the value of the firm’s assets. When asked whether intrinsic incentives would be sufficient to motivate the CEO to achieve publicly-announced KPIs, he explained that “my world is one where you set targets and pay according to whether you hit them. It has always been my world and I’ve never questioned it.”

Another director pointed out that the company’s key performance indicators (“KPIs”) may only be credible to employees and investors if they are incorporated into the CEO’s contract. Thus, even if KPIs ultimately improve the stock price, and so the stock price is a “sufficient statistic”, there is value to including KPIs in the contract to create a performance culture within the firm. He thus used the term “variable pay” rather than “incentives”, since pay is not used to provide ex ante incentives for the CEO (although it may be for the rest of the organization). He also explained that non-C-level employees are paid according to KPIs, since they have little effect on the stock price. The CEO should be paid according to the same KPIs so that the whole firm is working towards the same goals.

The second rationale for incentive pay studied by standard models is screening (e.g. Lazear (2005)), which we tested with “To attract/retain a high-ability or hard-working CEO”. This also received good support (87%/1.19 for directors and 69%/0.85 for investors). However, even more popular among investors (79%/1.14) and equally popular among directors (84%/1.16) was a response strongly contradicted by theory: “so that the CEO shares risks with investors and stakeholders, even

if out of the CEO's control." While this represents inefficient risk-sharing, respondents believe it is unfair to insulate CEOs from a downturn while others are suffering. While theoretically a board could argue "we're not cutting the CEO's pay in the pandemic because she's risk-averse; by insulating her from downturns outside her control, we were able to pay her less in expected value terms," investors and stakeholders are unlikely to accept such an argument – particularly since they do not see the counterfactual contract that would have been offered without this insurance. Thus, one reference point in  $Y$ , the vector that directors and investors use to assess fairness, may depend on shareholder returns.

Indeed, many free-text fields emphasized the importance of "shareholder alignment" or "to mirror shareholder experience," which is affected by external factors. One investor, in an interview, said that CEOs should be co-owners with other shareholders as they will be "there for the journey"; in a downturn, "it's not fair that I have to take the pain and you don't." He argued that a board that wishes to insulate the CEO from a downturn views the CEO as an employee, not a co-owner. A director emphasized the importance of sharing risk with stakeholders – "in distress ... the execs must lead by example and step up to take cuts, or smaller base pay rises than the rest of staff." Even though the CEO's equity holdings will already decline in a downturn, respondents believe that CEO pay should also fall due to its salience.

We also included a response of "to motivate the CEO to improve outcomes other than long-term shareholder value". This broadens the concept of "variable pay" to metrics other than shareholder value, such as environmental, social, and governance ("ESG") targets. Interestingly, there was only modest support (52%/0.46 for directors and 53%/0.47 for investors), despite ESG becoming increasingly important at the time of the survey. The modest support may be because respondents believe that alignment with long-term shareholder value already causes the CEO to take stakeholders into account, or that intrinsic incentives are sufficient to improve stakeholder performance. One investor wrote "what kind of outcomes, other than long-term shareholder value? Do CEOs really need

incentives to ‘do the right thing?’ ” An interviewee said that ESG targets would backfire as no set of targets can capture the totality, or even majority, of ESG performance; another argued that including such targets would cause the CEO to improve only the ESG dimensions in the contract.

Directors (49%/0.37) and investors (15%/-0.45) disagreed on whether it is important “to match peer firm practice.” This is an interesting paradox – while investors say they would prefer more tailoring and contracts to be designed from first principles, directors view themselves as having to follow market norms. Indeed, recall from Table 6 that directors report that investors and their advisors (proxy agencies) force them to follow market practice more than they would like. One stated that the question was “the current pay structure is now so firmly entrenched (salary, bonus, LTIP) that it is almost impossible to say why we now have it. It is more about fitting in motivational and fair reward elements into an increasingly restrictive, illogical and politicized framework.”

### 6.3 *The Determinants of Variable Pay*

In Q9, we ask “What determines the split between variable and fixed pay?” This question aims to test theoretical predictions on the level of incentives  $\theta$ . Table 14 illustrates the results. The lowest responses were “CEO personal risk appetite<sup>28</sup>” (22%/-0.46 for directors and 20%/-0.45 for investors) and “how risky our firm is” (16%/-0.44 for directors and 47%/0.29 for investors) – even though these variables are predicted by equation (4). In theory, the higher the firm’s risk  $\sigma^2$  and CEO’s risk aversion  $\eta$ , the greater the compensating differential the CEO requires if given variable pay. However, if the main motivation for rewarding good performance is fairness, this trade-off is moot; instead, pay variability is driven by what is perceived to be a fair reward for performance.

The low importance attached to firm risk by directors is consistent with the mixed empirical evidence for the link between risk and incentives summarized in Section 2, as well as models

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<sup>28</sup> “Risk appetite” was viewed as the best way to translate “risk aversion” into a practitioner setting.



predicting no link such as Prendergast (1992) and Edmans and Gabaix (2011b). The low importance attached to risk aversion by both types of respondent is consistent with the weak relationship with incentives documented by Becker (2006).<sup>29</sup>

The highest response was to “how much the CEO can affect firm performance” (62%/0.66 for directors and 75%/0.98 for investors), which corresponds to  $b$  in equation (4). While consistent with the model of Section 2, in that model the mechanism is that a lower  $b$  means that the principal wishes the CEO to induce lower effort as it is not worth it compared to the risk premium required to incentivize the CEO to do so; thus,  $\theta$  falls. This mechanism is inconsistent with the low responses to the relevance of risk, and also the results of Table 3 that directors and investors consider incentives to be much more important than keeping the level of pay down. None of the interviews pointed to this mechanism but instead a different one – if the CEO has a greater effect on performance, it is fair to reward her more for good performance.

The next two most popular responses for directors are not predicted by equation (4): “investor or proxy advisor expectations” (60%/0.55), and “the split between fixed and variable pay in peer firms” (49%/0.37). Thus, directors do not set  $\theta$  entirely from first principles but partially follow market practice. Free-text responses included “The benchmark seemed to be set at roughly a third for each of salary, bonus & shares. ‘This is what everyone else does’ ”; “RemCos are being increasingly forced to ‘fit’ genuine motivational adjustments to pay into a rigid framework which is essentially governed by superficial numerical comparisons with other companies”; and “The ‘rules’ are very clear and laid out by external parties”. Again, this is surprising given that investors state that they dislike benchmarking and do not consider peer practices as relevant.

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<sup>29</sup> Becker (2006) uses data on CEO wealth as a negative proxy for risk aversion, and finds that wealth is positively related to incentives, but significant at only the 10% level. In addition, wealth can affect incentives through channels other than risk aversion. In the Edmans and Gabaix (2011b) fixed action model, the contract is not driven by a trade-off with risk aversion. Higher wealth reduces the CEO’s marginal utility from money, and so greater incentives are required to induce her to work.

50% of directors (average score 0.24) and 47% of investors (0.30) stated that the desire to avoid excessive pay outcomes is an important determinant. This is consistent with Table 6, Panel B, where a majority of directors reported that constraints caused them to offer less upside for good performance.<sup>30</sup> Several respondents pointed out in the free-text field that regulation caps variable pay at 200% of fixed pay in the financial services sector. “CEO intrinsic motivation” (49%/0.30 for directors and 39%/0.12 for investors) received only modest support. Carlin and Gervais (2009) show that it is efficient to offer a smaller financial upside for good performance to an intrinsically motivated CEO. However, fairness would suggest rewarding good performance even if the CEO would have delivered it anyway.

#### 6.4 *Long-Term Incentives*

Classic theories of managerial myopia (e.g. Stein (1988, 1989)) highlight the erosion of shareholder value that arises if CEO pay is tied to the short-term stock price. A natural solution is to pay the CEO according to long-term performance (Edmans et al., 2012; Marinovic and Varas, 2019). Even if the CEO demands a compensating differential for the greater risk, this may be outweighed by the benefits of superior decisions (see Table 3); in addition, the CEO may not be able to negotiate such a differential if each component of the pay package is agreed in isolation (Table 8). However, horizons are short in practice (Gopalan et al. 2014) and lead to CEOs taking actions to boost short-term profits and thus the stock price (Edmans, Fang, and Lewellen, 2017; Ladika and Sautner, 2020). Q10 studies the reasons for this apparent disconnect between theory and practice, asking “What would happen if you made the CEO’s incentives more long-term?”

Table 15 illustrates the results. By far the most popular response with investors was “the CEO would make better decisions” (78%/1.14). In contrast, the three responses that suggest negative

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<sup>30</sup> This is also one of the few questions where governance specialists (0.61/58%) responded differently to fund managers (-0.26/26%), consistent with fund managers potentially being more concerned with performance rather than pay.

consequences – “the incentives would lose their effectiveness”, “we would have to pay the CEO more, which would outweigh any benefits”, and “we would be unable to attract/retain the CEO we want” – all scored below -0.8, with at most 6% agreeing with each concern. As one fund manager wrote, “This would be a win win win win win. It would weed out CEOs that are in it for a quick buck, it would focus on long-term outcomes, and it would align CEOs with shareholders. If I could have a single bullet to improve corporate governance, this would be it.” Another said that “we would get better alignment between CEO and owners. It is ridiculous that industries with a 5, 10, 15 year business/product cycle have a 1 and 3 year incentive program.” Two investors stated that the CEO would need to be paid more, but the benefits would outweigh the costs.

Directors view the world very differently. “The CEO would make better decisions” obtained the weakest response (21%/-0.40), while the three other responses scored between 0.1 and 0.2, with 38-44% agreeing with the concern. Some directors already view incentives as being sufficiently long-term and thus further lengthening would reduce their effectiveness: “the current vesting and holding periods mandated by the governance bodies are already onerous”. This is consistent with the importance of ex post recognition.<sup>31</sup> Others argued that shareholders would object to longer-term incentives: “problem is also that investors [are] still watching ST returns”; “a preference for short term cash rewards runs through our industry sector”. This mismatch between investors’ stated preferences and directors’ assumptions over investor preferences is interesting, and echoes the mismatch on investors’ preferences for tailoring.

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<sup>31</sup> Others pointed to the shortening CEO tenures as a barrier: “The global average tenure of the CEO is maybe 5 years(?). Long-term does not make any sense, if the right to dismiss is exercised”; “Shareholders have driven a reduction in CEO tenure. If the incentives do not match the tenure, then they lose reality.” However, it is not clear why this barrier cannot be addressed by requiring the CEO to retain equity beyond her tenure and paying the CEO for the extra risk, given that Table 3 showed that respondents are much more concerned with incentives than the level of pay; the Code requires all firms to develop a policy for post-departure holding periods. Indeed, the director who pointed out the five-year average tenure also advocated clawback provisions; just as clawbacks can be applied post-departure, so can holding restrictions.

## 6.5 *Relative Performance Evaluation*

Holmstrom (1982) showed that performance should be benchmarked against peers, to filter out fluctuations caused by external factors. Doing so would reduce the CEO's risk, allowing the board to lower the cost of compensation. While recent studies show that the use of relative performance evaluation ("RPE") is greater than in the past (see the survey of Edmans, Gabaix, and Jenter (2017)), the prevalence is much less than the ubiquity advocated by Holmstrom (1982). Indeed, in their critique of CEO pay, Bebchuk and Fried (2004) highlighted the lack of RPE as a prime piece of evidence for rent extraction.

In Q11, we thus study this practice. Table 16 illustrates the results. Q11a asks "do you filter out industry conditions from all performance measures (e.g. by benchmarking against peers)?" 63% of directors and 75% of investors responded "No". To those respondents, Q11b asks why they believe universal benchmarking is undesirable. The most popular answer among directors (43%/0.44, versus 33%/0.05 for investors) is that "the CEO should benefit from an industry upswing, since investors and stakeholders do." This response contradicts efficient risk-sharing, but is consistent with notions of fairness in two ways. First, if investors have benefited from windfalls due to good market conditions, it is deemed fair for the CEO to also benefit. Second, not benchmarking on the downside (see Table 13) means it is fair not to do so on the upside. One director explained that "the opportunity to give normal rewards in upturns provides some cushion for lesser rewards in downturns"; another noted that "shareholder alignment requires you to reduce pay in cyclical downswings ... fairness requires a mirror image on the upside." Several shareholders expressed the same sentiment. As mentioned previously, one interviewee argued that CEOs should be co-owners who are "there for the journey", and thus should bear the same upswings and downturns as investors.

The next two highest responses for directors were "it is too difficult to define an appropriate peer group" (43%/0.20, versus 29%/-0.06 for investors) and "we don't have information on peer

performance for some measures” (47%/0.17, versus 34%/-0.12 for investors). These are considerations absent from all models, which assume that a peer group exists and peer performance is observable. One director explained that “for a large firm, there are few if any comparators which are similar enough.” An interviewee gave the example of the mining sector, where there are only three large players (BHP, Anglo American, and Rio Tinto) with very different portfolios. Turning to the observability of peer performance, one director wrote that “particularly non-financial measures are hard to benchmark.”<sup>32</sup> Some investors stressed the desirability of tailored performance measures specific to the company and not shared by peers, echoing the preference for tailoring expressed in Tables 8 and 9. One said “appropriate to have some strategic/operational targets which are linked to LT strategy and not explicitly measured against peers”; another noted that “to insist on all measures being relative in all cases risk losing the flexibility to tailor incentives to the peculiarities of a particular company’s current set of strengths, weaknesses, and opportunities.”

Investors responded most positively to “benchmarking all performance measures would lead to the CEO mimicking peers” (41%/0.14), but directors did not (27%/-0.23). The model of Zwiebel (1995) showed that benchmarking could lead to the CEO taking insufficient good risk, but the free-text responses pointed out that mimicry could lead to firms taking excessive bad risk (such as over-leveraging if peers were over-leveraging to boost their EPS performance) or short-termist actions (cutting investment to boost margins if peers are doing so).

We also tested other theories for the lack of RPE – “relative performance measures are less motivating for the CEO” (Dittmann, Maug, and Spalt, 2013)<sup>33</sup>, “in an industry upswing, not

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<sup>32</sup> Another, in an interview, pointed out that some measures of peer performance are only observable with a lag in the peer’s annual report. While, theoretically, the board can wait until peer performance is disclosed and pay the CEO with a lag, practically this is challenging. First, for good performance to be reinforced, it should be rapidly reflected in pay outcomes. Second, other employees are often paid according to the same metrics as the CEO and they cannot wait several months to be paid a bonus, due to being more financially constrained.

<sup>33</sup> The intuition is as follows (Dittmann, Maug, and Spalt (2013) consider indexed options but the intuition applies to other instruments with a performance threshold, such as LTIPs). Since an indexed option is in the money only if the stock price

benchmarking performance keeps our pay competitive with peers” (Oyer, 2004), and “the CEO is responsible for choosing which industries our firm operates in” (Gopalan, Milbourn, and Song, 2010) but these theories received less support.

Note that there are further theories explaining pay-for-luck, which we did not test due to the “as if” critique. For example, Axelson and Baliga (2009) consider the design of renegotiation-proof long-term contracts. To prevent interim renegotiation, the manager must have private information that causes him to have a different view from the board on the value of his long-term pay. Industry prospects are an example of such private information, and so it can be efficient to make the contract contingent upon them. Even if this mechanism is a significant reason for pay-for-luck, it may be that it is so intricate that boards and investors are not aware that it is a driver and thus give it a low score; conversely, they may give it too high a score because the argument sounds sophisticated. It may indeed be the case that these alternative theories explain the lack of universality for RPE. However, applying Occam’s razor, the inability to define an appropriate peer group or observe performance may be the most important reason for many firms.

## 6.6 *Summary*

Our questions on the structure of pay yield the following conclusions:

1. Directors and investors consider intrinsic motivation and personal reputation to be the most important sources of incentives for CEOs.
2. While the primary reason for variable pay is to motivate the CEO to improve long-term shareholder value, the main channel is unlikely to be that the CEO obtains utility from consuming the additional pay from good performance. Instead, she views it as fair to be

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rises high enough to outperform the benchmark, indexation is tantamount to increasing the strike price of the option and reducing the drift rate of the underlying asset. Both effects reduce the option’s delta and thus incentives.

rewarded for good performance, and such rewards provide ex post recognition and boost her personal reputation.

3. How much the CEO can affect firm performance is the main determinant of pay variability. However, directors view peer firm practice and investor or proxy advisor expectations as important constraints, hindering them from tailoring pay to the specifics of their company – even though investors themselves do not consider following peer practice as important. Firm risk and CEO risk aversion are less important determinants.
4. In general, investors strongly believe that lengthening the horizon of CEO incentives would improve decision making, with few adverse consequences. Directors disagree. Some directors are concerned about the attraction/retention effects of making such a change in isolation; others believe that incentives are already sufficiently long-term and further lengthening would reduce their effectiveness.
5. The majority of directors and, in particular, investors, believe that benchmarking of CEO performance measures should not be universal. One reason is that it is fair for CEO pay to mirror the shareholder experience. A second is that, for some companies, it is practically difficult to define an appropriate peer group or obtain information on peer performance.

## **7. Who Sets CEO Pay?**

Our final questions ask respondents who sets CEO pay. We asked investors Q16: “How much influence do you believe investors have on CEO pay?”<sup>34</sup>, with -2 representing no influence and 2 representing high influence. Table 17 illustrates the results. Fewer than 5% of investors view themselves as having high influence, despite having a legally binding vote on policy, with 35%

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<sup>34</sup> An earlier formulation of this question was “How much influence do you believe you have on CEO pay?” However, in beta-testing, investors typically responded “it depends” to this answer – the amount of influence hinges on their stake in the firm, the quality of their dialog with management, and so on. Thus, we asked this about investors in general.

selecting 1 and 40% choosing 0.<sup>35</sup> An interviewee argued that the board is not an owner; UK directors are not required to hold substantial stakes in the firm. He argued that the board often views itself as the agent of regulators concerned with fulfilling its legal requirements, rather than to be an agent of shareholders – hence being unwilling to take the risk of aligning the CEO with shareholders through long-term equity.

Q14 broadens the question out to other parties than the CEO, board, and investors. We ask “how much do the following influence CEO pay compared to the optimal level?”, where -2 represents “much less than they should”, 0 “about right”, and 2 “much more than they should”.<sup>36</sup> Table 18 illustrates the results. Directors believe that proxy advisors’ influence is more excessive than investors’ (72%/1.00 versus 37%/0.38). Even though earlier responses (e.g. Table 4) suggested that investors have greater influence on CEO pay than proxy advisors, directors view investors’ influence as more legitimate as they own shares in the company. Thus, compared to the optimal level, directors view proxy advisors as having greatest influence.

Interestingly, while directors view investors’ advisors (proxy agencies) as having the most excessive influence, investors think the same about directors’ advisors (compensation consultants) – rating them 70%/0.97. The free text fields suggest that each blames the other’s advisors for similar behavior – excessive benchmarking to peers and insufficient tailoring to a particular situation. Starting with director concerns about proxy advisors, one argues that “the proxy advisors have a disproportionate amount of power in the market and in some cases are rules based in their approach which makes it challenging to risk controversy if the shareholder register follows them blindly, as a number of investors do.” Turning to investor concerns about consultants, responses include:

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<sup>35</sup> One explanation is that investors do not wish to have high influence, because they view pay as less important than other engagement topics. This is contradicted by the answer to Q15 in Table 11.

<sup>36</sup> We ask how the different players affect pay compared to the optimal level, rather than in absolute terms, as the former can be studied with archival research (e.g. Malenko and Shen (2016) for proxy advisors).



“Compensation consultants have built a business on this needless benchmarking”; “As an investor, it is hard to get a board to pay less for a CEO. They hide behind the pay consultants”.

Unsurprisingly, both directors and investors think that they themselves have less influence than they should, giving themselves negative average ratings. Directors rated the board at 10%/-0.06 (with 76% believing their influence is “about right”) while investors rated investors as a whole as 8%/-0.65 (with 62% believing their influence is “less” or “much less” than it should be). This low rating is, in part, because shareholders view other shareholders as not influencing pay in the way they should. To continue the prior investor’s free-text response: “They hide behind the pay consultants ... and the fact that shareholders have different views. Investors have surprisingly little influence over CEO pay in my experience. The biggest ones – the index investors – are even worse as they try and force a one size fits all approach to all companies.” This result echoes Table 3, where 44% of investors agree that other investors lead to firms offering contracts that sacrifice shareholder value.

Both directors and investors also think that the CEO has more power than they should, with investors giving higher ratings (64%/0.80 versus 27%/0.24 for directors) – consistent with earlier investor responses suggesting they view boards as weak. Investors noted that “CEOs generally influence the increment received more than they should. Boards tend to be weak in this regard” and “[boards] don’t use their power responsibly.”

Finally, both sets of respondents gave the HR director and “employees, the media, customers, or policymakers” average ratings of around 0. One director lamented that “our HRD is not involved in exec reward at all which seems incongruent with setting it in the context of the organization as a whole.” Indeed, the role of the HR director, and internal equity more generally, is typically underexplored in academic research.

Overall, investors’ general dissatisfaction with boards’ setting of CEO pay seems surprising since average say-on-pay support consistently exceeds 90% in the UK. For example, in 2020, average

support for the implementation vote exceeded 93% for both the FTSE 100 and FTSE 250.<sup>37</sup> We explored this discrepancy in interviews. Several investors responded that say-on-pay is often viewed as a vote on the CEO's performance, rather than the CEO's pay, since it is the vote most related to the CEO (other votes are related to directors, auditors, and special resolutions). Thus, if the CEO has performed well, the investor will support her pay even if it is high. If governance specialists recommend voting against, fund managers may oppose this if the CEO has performed well.

A second reason is that many investors generally follow proxy advisors, and will almost automatically vote for if the proxy advisor recommends it; due to resource constraints, they will focus their attention on the cases with negative recommendations. Third, long-term investors wish to have a constructive relationship with management. Voting against is seen as “kicking off” and may sour that relationship. Indeed, some investors may prefer to address concerns with pay through engagement rather than voting against. Fourth, if an investor has voted against, the company will repeatedly ask to meet with the investor in the future to seek its approval before proposing a pay package, imposing a significant time cost. This concern is the opposite of the problem typically voiced in the literature – that voting against management may restrict investor access.

### *7.1 Summary*

Our questions on who sets CEO pay yield the following conclusions:

1. Fewer than 5% of investors believe that shareholders as a whole have high influence on CEO pay. 37% of directors believe that investors have more influence than they should. Some shareholders view their fellow shareholders as not influencing pay in the right direction.

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<sup>37</sup> Equiniti's Annual Review of AGM Trends 2020.

2. Both directors and investors believe that each other's advisors (compensation consultants and proxy agencies, respectively) have more influence than they should – in part due to excessive benchmarking and insufficient tailoring to company specifics.
3. Investors view the CEO as having excessive influence on pay, as do directors, albeit it to a lesser degree. Both sets of respondents believe that the HR director, and employees, the media, customers, and policymakers (collectively) have approximately the right level of influence.
4. Investors view the say-on-pay vote as partly an evaluation of the CEO's performance, and thus may be reluctant to vote against packages if performance has been good.

## **8. Conclusion**

This paper surveyed directors and investors on the objectives, constraints, and determinants of CEO pay, to help evaluate existing models and to guide future theoretical and empirical research. Our results show that many standard assumptions of executive pay models do not describe how CEO pay is actually set, and we suggest alternative assumptions to bring them closer to reality.

Boards face a much broader set of constraints than participation and incentive compatibility, frequently causing them to offer lower levels of pay and more one-size-fits-all structures than they would prefer. The strongest constraint is the need to obtain shareholder approval, suggesting that directors and investors disagree on how to maximize shareholder value. Investors in particular perceive the need to avoid controversy with employees, customers, and policymakers as important additional constraints. It may be that investors face constraints due to their own objectives, such as reputation and fund flows, that are not aligned with shareholder value.

Even for the standard constraints of participation and incentive compatibility, there is significant disagreement on their importance. Investors believe that the incentive constraint can be tightened but the participation constraint is slack. They wish boards to take tougher stances on the level of pay and

align the structure more to long-term shareholder value. In contrast, directors believe that the participation constraint is close to binding. They feel that investors underestimate the difficulties of attracting and retaining CEOs in the managerial labor market, and that implementing investors' wishes would demotivate the CEO or precipitate her departure.

Turning to the determinants of pay, we find that fairness concerns play an important role in both the level and structure of CEO pay. Starting with the level of pay, investors and especially directors believe that the CEO should be paid at competitive levels, even absent any recruitment or retention concerns, because the failure to do so may be viewed as unfair and undermine intrinsic motivation. Some free-text responses suggest that the level of and changes in employee pay should be taken into consideration when determining the level of and changes in CEO pay – even though the CEO and employees compete in different labor markets.

Moving to the structure of pay, both directors and investors argue that pay should be linked to performance, even though they also believe that financial incentives are less important drivers than intrinsic motivation and personal reputation. One explanation is that financial incentives interact with these other motivators – visibly rewarding the CEO for good performance improves her reputation, but not doing so may be seen as unfair and undermine intrinsic motivation. This channel implies that incentive pay is valuable because it provides not only consumption incentives, but also ex post recognition. This in turn suggests that pay incentives may play a special role over and above portfolio incentives, since they lead to greater recognition, whereas existing research views them as fungible. In addition, while consumption incentives depend on the utility of pay, recognition depends on the level of pay relative to a set of reference points.

In addition to the need for ex post recognition, two other fairness considerations justify the link between pay and performance. One is that CEOs are expected to share external shocks with investors and stakeholders, in contrast to optimal risk-sharing. A second is that, if employees' pay is linked to

their performance, it is fair for the CEO's pay to be similarly sensitive. Overall, our results suggest that CEOs evaluate their pay relative to a set of reference points, such as the pay of other CEOs, their past pay, and their perceived contribution to the firm. Directors and investors evaluate CEO pay relative to a set of potentially different reference points, such as the pay of other CEOs, their past pay, the pay of employees and other top executives, and shareholder returns.

Our results point towards a considerably more complex but also more interesting model of CEO pay than currently used in the academic literature. A more realistic model of CEO pay needs to account for the numerous constraints faced by boards and for the complex relationship between boards and investors as well as broader fairness criteria that they apply. It needs to be based on more realistic understanding of how CEOs value pay. As a result, our findings suggest a number of potential directions for future research.

Starting with theoretical research, the standard assumption of a single principal – a shareholder-aligned board – does not capture the complexity of the pay-setting process. The opposite assumption of the board maximizing pay, implicit in the “rent-extraction” view, also seems unrealistic. Instead, pay is set by a board that aims to maximize shareholder value, but also must obtain the approval of shareholders who have different information or beliefs. Our results also provide a foundation for developing models where pay is influenced by fairness concerns, felt by investors, directors, and CEOs, with a multitude of potential reference points. Separately, the perceived difficulty of changing contracts due to history or pay policy restrictions suggests the value of research on “detail-free” incentive contracts, that are robust to variations in the environment (e.g. Chassang, 2013).

It may be that theorists consider some of the practices we document here – such as following peer practice rather than designing contracts from first principles, as being suboptimal and would like to study how pay “should” be set. If so, they should acknowledge that models that do not feature key

practices may be more normative than positive. As a result, it may not be appropriate to evaluate them according to their empirical consistency.

Our results also suggest that certain inefficient features of observed contracts may not be as puzzling as previously believed, and so may not need to be “solved” by future research. For example, if pay-for-luck is indeed determined, at least in part, by fairness considerations and the difficulty of defining a peer group and observing peer performance, then there is less need for models justifying pay-for-luck as part of an optimal contract. Similarly, if variable pay is driven by the need to provide recognition rather than consumption incentives, the mixed evidence on the link between incentives and risk is less puzzling.

Future empirical analyses might further distinguish between the “weak/uninformed boards” and “uninformed investors” explanations for the disagreement between directors and investors. For example, researchers could study how deep the labor market for CEOs actually is, and what are the consequences (for either CEO retention or performance) of changes to the level or structure of pay that make the contract less attractive. These consequences might differ according to whether these changes are made to one firm in isolation, or across the board. Another implication is that pay incentives and portfolio incentives may not be fungible and thus should be separated out in empirical analyses. Relatedly, it may be fruitful to study how important fairness is in executive pay, and the best ways to measure it.

Turning to practitioner implications, our survey highlights the underlying differences of opinion that may be the root cause of disagreements on pay packages. Investor engagement often focuses on the aspects of the contract itself, but initiating dialogues on the deeper disagreements may ultimately lead to more fruitful conversations on executive pay – such as the depth of the CEO labor market, the span of the CEO’s outside options (including private firms, which a number of directors referenced as being increasingly important), the drivers of CEO motivation; the need for pay to provide

recognition as well as financial incentives; and the role played by the respective principals' advisers. Moreover, even though our survey does uncover differences of opinion, there may be more consensus on some aspects than otherwise thought, pointing to potential paths forward. For example, directors are concerned that investors prevent them from tailoring the contract and have a preference for short-term returns, yet investors would like directors to tailor more and make incentives more long-term. There is support from both investors and some directors for paying the CEO like a long-term owner, i.e. with restricted shares rather than bonuses and LTIPs. Another consensus is that, while directors are concerned about reducing CEO pay at their firm in isolation, they are more open to doing so in response to market-wide shifts.

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**Table 1****Demographics of non-executive directors**

<b>Panel A: What size is your firm?</b>		
	%	N
FTSE 100	38.83%	80
FTSE 250	35.92%	74
FTSE Small Cap	21.84%	45
FTSE Fledgling	0.00%	0
Don't know	3.40%	7
Total	100.00 %	206
<b>Panel B: What sector is your firm in?</b>		
	%	N
Retail/Wholesale	10.19%	21
Mining/Construction	7.28%	15
Manufacturing	10.68%	22
Transportation/Energy	8.25%	17
Communication/Media	2.91%	6
Banking/Finance/Insurance	24.76%	51
Tech (Hardware/Software)	7.77%	16
Service/Consulting	3.88%	8
Healthcare/Pharmaceutical/Biotech	4.37%	9
Property/Real Estate	4.37%	9
Other	15.53%	32
Total	100.00%	206
<b>Panel C: What best describes your role at the firm?</b>		
	%	N
Chair	26.96%	55
Remuneration Committee Chair	32.84%	67
Remuneration Committee Member	24.02%	49
Other Non-Executive Director	16.18%	33
Total	100%	204
<b>Panel D: What stake does your largest shareholder have?</b>		
	%	N
>25%	17.65%	36
10-25%	26.96%	55
5-10%	40.69%	83
<5%	14.22%	29
Don't know	0.49%	1
Total	100.00%	204

**Table 2****Demographics of investors**

<b>Panel A: What type of institutional investor are you?</b>		
	%	N
Asset manager	79.87%	127
Asset owner	7.55%	12
Both	12.58%	20
Total	100.00 %	159
<b>Panel B: What best describes your role?</b>		
	%	N
Governance, stewardship or responsible investment	51.57%	82
Stock analyst	8.18%	13
Fund manager	26.42%	42
Chief investment officer	5.66%	9
Other	8.18%	13
Total	100%	159
<b>Panel C: What is your investment style?</b>		
	%	N
Wholly index	0.63%	1
Mainly index	3.77%	6
Mainly active	28.30%	45
Wholly active	61.01%	97
Other	6.29%	10
Total	100.00%	159
<b>Panel D: How large are your global equity assets under management?</b>		
	%	N
More than £100b	47.17%	75
Between £50b and £100b	8.18%	13
Between £10b and £50b	19.50%	31
Less than £10b	25.16%	40
Total	100.00%	159

**Table 3**

**Q1: Rank the importance of the following goals when setting CEO pay, by dragging the options below (1=most important, 3=least important)**

	Mean	1	2	3	N
Attract/retain the right CEO	1.39	64.53%	31.53%	3.94%	203
	<i>1.64</i>	<i>44.03%</i>	<i>47.80%</i>	<i>8.18%</i>	<i>159</i>
Design a structure that motivates the CEO	1.70	34.48%	60.59%	4.93%	203
	<i>1.56</i>	<i>50.94%</i>	<i>42.14%</i>	<i>6.92%</i>	<i>159</i>
Keep the quantum of pay down	2.90	0.99%	7.88%	91.13%	203
	<i>2.80</i>	<i>5.03 %</i>	<i>10.06%</i>	<i>84.91%</i>	<i>159</i>

**Table 4**

**Q2(a): How large a sacrifice in shareholder value would you make to avoid controversy on CEO pay? (1=none, 2=small sacrifice, 3=moderate sacrifice, 4=large sacrifice)**

*Investors: How large a sacrifice in shareholder value would you tolerate firms making to avoid controversy on CEO pay?*

**Q2(b): How important is it to avoid controversy with the following parties? (-2=not at all important, 2=very important)**

<b>Panel A</b>							
	Mean	1	2	3	4	N	
How large a sacrifice in shareholder value would you make to avoid controversy on CEO pay?	1.92	32.99%	44.16%	20.30%	2.54%	197	
<i>How large a sacrifice in shareholder value would you tolerate firms making to avoid controversy on CEO pay?</i>	<i>1.74</i>	<i>44.44%</i>	<i>39.87%</i>	<i>13.07%</i>	<i>2.61%</i>	<i>153</i>	
<b>Panel B</b>							
	Mean	-2	-1	0	1	2	N
Investors	1.24	0.00%	2.34%	9.38%	50.00%	38.28%	128
<i>Other investors</i>	<i>0.24</i>	<i>5.95%</i>	<i>22.62%</i>	<i>27.38%</i>	<i>29.76%</i>	<i>14.29%</i>	<i>84</i>
Employees	0.69	3.91%	7.03%	26.56%	41.41%	21.09%	128
	<i>1.26</i>	<i>0.00%</i>	<i>5.95%</i>	<i>11.90%</i>	<i>32.14%</i>	<i>50.00%</i>	<i>84</i>
Proxy advisors	0.45	2.34%	11.72%	38.28%	34.38%	13.28%	128
	<i>-0.12</i>	<i>9.52%</i>	<i>32.14%</i>	<i>28.57%</i>	<i>20.24%</i>	<i>9.52%</i>	<i>84</i>
Customers	0.20	9.38%	25.00%	21.88%	24.22%	19.53%	128
	<i>1.14</i>	<i>1.19%</i>	<i>7.14%</i>	<i>16.67%</i>	<i>26.19%</i>	<i>48.81%</i>	<i>84</i>
Policymakers	0.00	5.47%	30.47%	32.03%	22.66%	9.38%	128
	<i>0.92</i>	<i>2.38%</i>	<i>4.76%</i>	<i>27.38%</i>	<i>29.76%</i>	<i>35.71%</i>	<i>84</i>
Media	-0.05	6.25%	27.34%	37.50%	23.44%	5.47%	128
	<i>0.17</i>	<i>8.33%</i>	<i>21.43%</i>	<i>27.38%</i>	<i>30.95%</i>	<i>11.90%</i>	<i>84</i>

**Table 5**

**Q12(a): Have any of the following ever caused you to offer a lower quantum of CEO pay than you would like? (Y/N)**

**Q12(b): Did this lower quantum ever lead to the following consequences?**

<b>Panel A</b>			
	Yes	No	N
Risk of investor opposition	59.88%	40.12%	172
Risk of “vote against” recommendation from a proxy advisor	52.91%	47.09%	172
Restrictions from our existing approved pay policy	44.19%	55.81%	172
Risk of controversy with employees, the media, customers, or policymakers	36.63%	63.37%	172
Unwillingness to deviate substantially from how we have paid in the past	28.49%	71.51%	172
<b>Panel B</b>			
	Yes	No	N
The CEO was less motivated	42.42%	57.58%	132
There were no adverse consequences	40.91%	59.09%	132
We hire a less expensive CEO	12.88%	87.12%	132
The CEO left	6.82%	93.18%	132

**Table 6**

**Q13(a): Have any of the following ever caused you to offer an inferior structure of CEO pay to what you would like? (Y/N)**

**Q13(b): Was the structure inferior in the following ways?**

<b>Panel A</b>			
	Yes	No	N
Risk of “vote against” recommendation from a proxy advisor	54.12%	45.88%	170
Risk of investor opposition	54.12%	45.88%	170
Restrictions from our approved pay policy	40.00%	60.00%	170
Restrictions from regulation or governance codes	36.47%	63.53%	170
Risk of controversy with employees, the media, customers, or policymakers	29.41%	70.59%	170
Unwillingness to deviate substantially from how we have paid in the past	16.47%	83.53%	170
Adverse tax, accounting, or disclosure implications	10.00%	90.00%	170
<b>Panel B</b>			
	Yes	No	N
We followed market practice more	69.11%	30.89%	123
We offered less upside for good performance	65.04%	34.96%	123
We used (more) performance conditions	56.91%	43.09%	123
We made incentives more long-term	39.84%	60.16%	123
We made incentives more short-term	13.01%	86.99%	123



**Table 7**

**Q3: How important are the following factors in determining the target quantum of pay for a new CEO? (-2=not at all important, 2=very important)**

	Mean	-2	-1	0	1	2	N
The new CEO's ability	1.29	4.26%	1.60%	9.04%	30.85%	54.26%	188
	<i>1.49</i>	<i>0.00%</i>	<i>3.45%</i>	<i>6.90%</i>	<i>26.90%</i>	<i>62.76%</i>	<i>145</i>
CEO pay at peer firms	0.82	1.06%	7.98%	24.47%	40.96%	25.53%	188
	<i>0.46</i>	<i>4.83%</i>	<i>8.97%</i>	<i>37.24%</i>	<i>33.10%</i>	<i>15.86%</i>	<i>145</i>
How attractive our firm is to run (e.g. prestige, risk, complexity)	0.76	3.72%	6.91%	21.81%	45.21%	22.34%	188
<i>How attractive the firm is to run (e.g. prestige, risk, complexity)</i>	<i>0.61</i>	<i>3.45%</i>	<i>9.66%</i>	<i>26.21%</i>	<i>43.45%</i>	<i>17.24%</i>	<i>145</i>
The new CEO's other employment options	0.55	5.85%	10.64%	25.53%	38.30%	19.68%	188
	<i>0.26</i>	<i>6.21%</i>	<i>15.86%</i>	<i>34.48%</i>	<i>32.41%</i>	<i>11.03%</i>	<i>145</i>
The new CEO's pay in their previous position	0.26	4.79%	15.43%	37.77%	32.98%	9.04%	188
	<i>-0.21</i>	<i>10.34%</i>	<i>26.21%</i>	<i>40.69%</i>	<i>20.00%</i>	<i>2.76%</i>	<i>145</i>
How financially motivated the new CEO is	0.07	8.51%	19.68%	35.11%	29.79%	6.91%	188
	<i>-0.23</i>	<i>14.48%</i>	<i>22.76%</i>	<i>38.62%</i>	<i>19.31%</i>	<i>4.83%</i>	<i>145</i>
The outgoing CEO's pay	-0.02	6.91%	25.53%	35.11%	27.66%	4.79%	188
	<i>-0.55</i>	<i>17.93%</i>	<i>37.24%</i>	<i>30.34%</i>	<i>11.03%</i>	<i>3.45%</i>	<i>145</i>

**Table 8**

**Q4: What causes you to increase the target quantum of pay for an incumbent CEO? (-2=strongly disagree, 2=strongly agree)**

*Investors: What causes you to support increases to the target quantum of pay for an incumbent CEO?*

	Mean	-2	-1	0	1	2	N
Good recent CEO performance	0.98	2.69%	6.99%	14.52%	41.40%	34.41%	186
	<i>1.05</i>	<i>0.00%</i>	<i>4.93%</i>	<i>19.72%</i>	<i>40.85%</i>	<i>34.51%</i>	<i>142</i>
Increase in firm size	0.37	3.76%	15.05%	34.95%	32.80%	13.44%	186
	<i>0.17</i>	<i>9.15%</i>	<i>15.49%</i>	<i>30.28%</i>	<i>39.44%</i>	<i>5.63%</i>	<i>142</i>
Increase in pay at peer firms	0.26	3.23%	16.13%	37.10%	38.17%	5.38%	186
	<i>-0.17</i>	<i>12.68%</i>	<i>20.42%</i>	<i>40.14%</i>	<i>24.65%</i>	<i>2.11%</i>	<i>142</i>
Increased threat of CEO leaving	0.25	4.84%	16.67%	35.48%	34.95%	8.06%	186
	<i>-0.06</i>	<i>7.75%</i>	<i>23.94%</i>	<i>38.03%</i>	<i>27.46%</i>	<i>2.82%</i>	<i>142</i>
Changes in attractiveness (e.g. prestige, risk, complexity) of CEO job at your firm	0.23	6.45%	16.67%	33.33%	34.41%	9.14%	186
<i>Changes in attractiveness (e.g. prestige, risk, complexity) of CEO job at their firm</i>	<i>0.25</i>	<i>8.45%</i>	<i>12.68%</i>	<i>33.80%</i>	<i>35.92%</i>	<i>9.15%</i>	<i>142</i>
Other changes that reduce the attractiveness of the pay package (e.g. adding holding periods)	-0.11	8.06%	25.81%	38.17%	25.27%	2.69%	186
	<i>0.01</i>	<i>7.04%</i>	<i>23.24%</i>	<i>40.14%</i>	<i>21.13%</i>	<i>8.45%</i>	<i>142</i>
Changes in attractiveness (e.g. prestige, risk, complexity) of CEO jobs at other firms	-0.28	10.22%	29.57%	41.40%	15.59%	3.23%	186
	<i>-0.37</i>	<i>9.86%</i>	<i>33.80%</i>	<i>40.14%</i>	<i>15.49%</i>	<i>0.70%</i>	<i>142</i>

**Table 9**

**Q5(a): Have you ever significantly decreased the target quantum of pay for an incumbent CEO?**  
*Investor: Have you ever requested significant decreases to the target quantum of pay for an incumbent CEO?*

**Q5(b): What caused you to decrease the target quantum of pay for an incumbent CEO? (-2=strongly disagree, 2=strongly agree)**  
*Investor: What caused you to request decreases to the target quantum of pay for an incumbent CEO?*

<b>Panel A</b>							
		Yes	No	N			
Have you ever significantly decreased the target quantum of pay for an incumbent CEO?		22.58%	77.42%	186			
<i>Have you ever requested significant decreases to the target quantum of pay for an incumbent CEO?</i>		65.49%	34.51%	142			
<b>Panel B</b>							
	Mean	-2	-1	0	1	2	N
External pressure to reduce pay (e.g. from investors, the media, policymakers)	0.15	19.51%	9.76%	24.39%	29.27%	17.07%	41
	-0.28	19.35%	20.43%	33.33%	22.58%	4.30%	93
Your firm encountering financial constraints	0.07	31.71%	12.20%	4.88%	19.51%	31.71%	41
<i>The firm encountering financial constraints</i>	0.53	12.90%	8.60%	20.43%	29.03%	29.03%	93
The CEO requesting it*	-0.37	48.78%	0.00%	9.76%	21.95%	19.51%	41
Poor recent CEO performance	-0.41	41.46%	9.76%	14.63%	17.07%	17.07%	41
	0.96	6.45%	6.45%	17.20%	24.73%	45.16%	93
Decrease in firm size	-0.90	46.34%	19.51%	17.07%	12.20%	4.88%	41
	-0.31	22.58%	18.28%	35.48%	15.05%	8.60%	93
Decrease in pay at peer firms	-1.15	56.10%	17.07%	14.63%	9.76%	2.44%	41
	-0.74	29.03%	27.96%	32.26%	9.68%	1.08%	93
Change in attractiveness (e.g. prestige, risk, complexity) of CEO job at your firm	-1.20	56.10%	17.07%	17.07%	9.76%	0.00%	41
<i>Change in attractiveness (e.g. prestige, risk, complexity) of CEO job at their firm</i>	-0.51	21.51%	27.96%	34.41%	11.83%	4.30%	93
Change in attractiveness (e.g. prestige, risk, complexity) of CEO jobs at other firms	-1.41	63.41%	19.51%	12.20%	4.88%	0.00%	41
	-0.80	27.96%	35.48%	27.96%	5.38%	3.23%	93

\*Only directors are asked this question.

**Table 10**

**Q6: If your firm reduced the target quantum pay of its next CEO by 1/3 compared to its current CEO, what might happen? (-2=very unlikely outcome, 2=very likely outcome)**

**Investor: If a firm reduced the target quantum pay of its next CEO by 1/3 compared to its current CEO, what might happen?**

	Mean	-2	-1	0	1	2	N
We would recruit a lower quality CEO	0.66	6.59%	9.34%	24.73%	30.22%	29.12%	182
<i>The firm would recruit a lower quality CEO</i>	-0.32	11.43%	30.00%	40.71%	15.00%	2.86%	140
The CEO would be less motivated	0.38	3.85%	19.23%	31.32%	25.82%	19.78%	182
	-0.31	15.00%	27.14%	34.29%	21.43%	2.14%	140
It would create undesirable pay compression between the CEO and other executives	0.36	6.59%	15.93%	26.37%	36.81%	14.29%	182
	-0.50	16.43%	35.71%	31.43%	14.29%	2.14%	140
We would have a strained relationship with the CEO	0.32	6.59%	19.23%	29.12%	25.82%	19.23%	182
<i>The board would have a strained relationship with the CEO</i>	-0.48	14.29%	34.29%	39.29%	9.29%	2.86%	140
It would send a negative signal about CEO quality to the market	0.29	7.69%	19.23%	23.63%	35.71%	13.74%	182
	-0.36	14.29%	32.86%	32.14%	15.71%	5.00%	140
There would be no adverse consequences	-0.96	41.21%	26.37%	22.53%	6.59%	3.30%	182
	-0.02	9.29%	22.86%	35.00%	26.43%	6.43%	140

**Table 11**

**Q15(a): Do you believe the overall level of CEO pay is too low, too high, or about right? (-2=far too low, 0=about right, 2=far too high)**

**Q15(b): How strongly do you agree with the following statements for why the overall level of CEO pay is so high? (-2=strongly disagree, 2=strongly agree)**

<b>Panel A</b>							
	Mean	-2	-1	0	1	2	N
Do you believe the overall level of CEO pay is too low, too high, or about right?	0.95	0.00%	3.79%	19.70%	54.55%	21.97%	132
<b>Panel B</b>							
	Mean	-2	-1	0	1	2	N
Boards are ineffective at lowering it even though they should	1.22	0.99%	1.98%	10.89%	46.53%	39.60%	101
Investors have insufficient power over boards to lower it	0.48	5.94%	15.84%	21.78%	37.62%	18.81%	101
Investors focus their engagement on more important topics than the level of pay	-0.07	8.91%	38.61%	16.83%	21.78%	13.86%	101

**Table 12**

**Q7: What motivates your CEO to perform strongly? (-2=not at all important, 2=very important)**

*Investor: What motivates CEOs to perform strongly?*

	Mean	-2	-1	0	1	2	N
Intrinsic motivation	1.55	2.21%	1.10%	4.42%	24.31%	67.96%	181
	<i>1.50</i>	<i>0.00%</i>	<i>0.72%</i>	<i>8.63%</i>	<i>30.94%</i>	<i>59.71%</i>	<i>139</i>
Personal reputation	1.40	2.76%	0.55%	5.52%	35.91%	55.25%	181
	<i>1.60</i>	<i>0.00%</i>	<i>0.00%</i>	<i>3.60%</i>	<i>33.09%</i>	<i>63.31%</i>	<i>139</i>
Incentives from bonuses, LTIPs, equity, or future pay increases	0.98	1.66%	5.52%	16.57%	45.86%	30.39%	181
	<i>0.83</i>	<i>0.72%</i>	<i>7.91%</i>	<i>23.74%</i>	<i>42.45%</i>	<i>25.18%</i>	<i>139</i>
Industry competition	0.62	1.66%	13.26%	23.76%	43.65%	17.68%	181
	<i>0.82</i>	<i>0.72%</i>	<i>6.47%</i>	<i>25.90%</i>	<i>43.88%</i>	<i>23.02%</i>	<i>139</i>
The quantum of pay	0.55	2.21%	11.60%	30.94%	39.78%	15.47%	181
	<i>0.21</i>	<i>2.88%</i>	<i>17.27%</i>	<i>42.45%</i>	<i>30.94%</i>	<i>6.47%</i>	<i>139</i>
The potential to move to a bigger firm	-0.53	18.78%	34.81%	28.73%	16.02%	1.66%	181
	<i>0.37</i>	<i>3.60%</i>	<i>12.95%</i>	<i>37.41%</i>	<i>34.53%</i>	<i>11.51%</i>	<i>139</i>
Risk of being fired	-0.88	30.39%	40.88%	17.68%	8.84%	2.21%	181
	<i>-0.20</i>	<i>10.79%</i>	<i>27.34%</i>	<i>36.69%</i>	<i>21.58%</i>	<i>3.60%</i>	<i>139</i>

**Table 13**

**Q8: Why do you offer the CEO variable pay? (-2=strongly disagree, 2=strongly agree)**

*Investor: Why should CEOs be offered variable pay?*

	Mean	-2	-1	0	1	2	N
To motivate the CEO to improve long-term shareholder value	1.46	1.68%	2.33%	7.26%	25.70%	63.13%	179
	<i>1.36</i>	<i>1.46%</i>	<i>3.65%</i>	<i>8.03%</i>	<i>31.39%</i>	<i>55.47%</i>	<i>137</i>
To attract/retain a high-ability or hard-working CEO	1.19	2.23%	2.23%	8.38%	48.60%	38.55%	179
	<i>0.85</i>	<i>4.38%</i>	<i>7.30%</i>	<i>18.98%</i>	<i>37.23%</i>	<i>32.12%</i>	<i>137</i>
So that the CEO shares risks with investors and stakeholders, even if out of the CEO's control	1.16	3.35%	2.23%	10.06%	43.58%	40.78%	179
	<i>1.14</i>	<i>3.65%</i>	<i>3.65%</i>	<i>13.87%</i>	<i>32.85%</i>	<i>45.99%</i>	<i>137</i>
To motivate the CEO to improve outcomes other than long-term shareholder value	0.46	8.94%	12.85%	26.26%	26.82%	25.14%	179
	<i>0.47</i>	<i>10.22%</i>	<i>13.14%</i>	<i>23.36%</i>	<i>26.28%</i>	<i>27.01%</i>	<i>137</i>
To match peer firm practice	0.37	5.03%	13.97%	32.40%	36.31%	12.29%	179
	<i>-0.45</i>	<i>15.33%</i>	<i>31.39%</i>	<i>38.69%</i>	<i>11.68%</i>	<i>2.92%</i>	<i>137</i>
Because investors or proxy advisors require it*	-0.17	18.44%	19.55%	30.73%	23.46%	7.82%	179
So that the quantum of pay can be justified	-0.42	22.35%	29.61%	21.23%	21.23%	5.59%	179
	<i>-0.34</i>	<i>23.36%</i>	<i>25.55%</i>	<i>26.28%</i>	<i>10.95%</i>	<i>13.87%</i>	<i>137</i>

\*Only directors are asked this question.

**Table 14**

**Q9: What determines the split between fixed and variable pay? (-2=not at all important, 2=very important)**

*Investor: What should determine the split between fixed and variable pay?*

	Mean	-2	-1	0	1	2	N
How much the CEO can affect firm performance	0.66	7.30%	8.99%	21.35%	35.39%	26.97%	178
	<i>0.98</i>	<i>1.48%</i>	<i>5.19%</i>	<i>18.52%</i>	<i>43.70%</i>	<i>31.11%</i>	<i>135</i>
Investors or proxy advisor expectations*	0.55	7.30%	6.74%	26.40%	42.70%	16.85%	178
The split between fixed and variable pay in peer firms	0.37	6.18%	10.11%	34.83%	38.20%	10.67%	178
	<i>-0.49</i>	<i>16.30%</i>	<i>28.15%</i>	<i>45.19%</i>	<i>8.89%</i>	<i>1.48%</i>	<i>135</i>
CEO intrinsic motivation	0.30	8.43%	13.48%	29.21%	37.08%	11.80%	178
	<i>0.12</i>	<i>12.59%</i>	<i>16.30%</i>	<i>31.85%</i>	<i>25.19%</i>	<i>14.07%</i>	<i>135</i>
The desire to avoid excessive pay outcomes	0.24	9.55%	19.10%	21.35%	37.64%	12.36%	178
	<i>0.30</i>	<i>7.41%</i>	<i>20.74%</i>	<i>24.44%</i>	<i>29.63%</i>	<i>17.78%</i>	<i>135</i>
How risky our firm is	-0.44	16.85%	29.21%	38.20%	12.36%	3.37%	178
	<i>0.29</i>	<i>7.41%</i>	<i>13.33%</i>	<i>31.85%</i>	<i>37.78%</i>	<i>9.63%</i>	<i>135</i>
CEO personal risk appetite	-0.46	19.66%	31.46%	26.97%	18.54%	3.37%	178
	<i>-0.45</i>	<i>18.52%</i>	<i>29.63%</i>	<i>31.85%</i>	<i>18.52%</i>	<i>1.48%</i>	<i>135</i>

\*Only directors are asked this question.

**Table 15**

**Q10: What would happen if you made the CEO's incentives more long-term? (-2=very unlikely outcome, 2=very likely outcome)**

*Investor: What would happen if companies made CEO incentives more long-term?*

	Mean	-2	-1	0	1	2	N
The incentives would lose their effectiveness	0.20	5.65%	25.42%	24.86%	31.07%	12.99%	177
	<i>-0.98</i>	<i>30.37%</i>	<i>43.70%</i>	<i>20.74%</i>	<i>3.70%</i>	<i>1.48%</i>	<i>135</i>
We would have to pay the CEO more, which would outweigh any benefits	0.14	7.34%	18.08%	36.72%	28.81%	9.04%	177
<i>The CEO would need to be paid more, which would outweigh any benefits</i>	<i>-0.81</i>	<i>19.26%</i>	<i>51.11%</i>	<i>23.70%</i>	<i>3.70%</i>	<i>2.22%</i>	<i>135</i>
We would be unable to attract/retain the CEO we want	0.13	7.34%	19.21%	34.46%	31.07%	7.91%	177
<i>The board would be unable to attract/retain the CEO it wants</i>	<i>-0.95</i>	<i>28.15%</i>	<i>45.19%</i>	<i>21.48%</i>	<i>3.70%</i>	<i>1.48%</i>	<i>135</i>
The CEO would make better decisions	-0.40	21.47%	25.42%	31.64%	14.69%	6.78%	177
	<i>1.14</i>	<i>1.48%</i>	<i>4.44%</i>	<i>16.30%</i>	<i>34.07%</i>	<i>43.70%</i>	<i>135</i>

**Table 16**

**Q11(a): Do you filter out industry conditions from all performance measures (e.g. by benchmarking against peers)?**

*Investor: Do you believe that industry conditions should be filtered out from all performance measures (e.g. by benchmarking against peers)?*

**Q11(b): Why don't you filter out industry conditions from all performance measures? (-2=strongly disagree, 2=strongly agree)**

*Investor: Why don't you believe that industry conditions should be filtered out from all performance measures?*

<b>Panel A</b>							
		Yes	No	N			
Do you filter out industry conditions from all performance measures		37.14%	62.86%	175			
<i>Do you believe that industry conditions should be filtered out from all performance measures?</i>		25.19%	74.81%	135			
<b>Panel B</b>							
	Mean	-2	-1	0	1	2	N
The CEO should benefit from an industry upswing, since investors and stakeholders do	0.44	1.87%	9.35%	45.79%	28.97%	14.02%	107
<i>CEOs should benefit from an industry upswing, since investors and stakeholders do</i>	0.05	8.16%	19.39%	39.80%	24.49%	8.16%	98
It is too difficult to define an appropriate peer group	0.20	12.15%	21.50%	23.36%	20.56%	22.43%	107
	-0.06	9.18%	25.51%	36.73%	19.39%	9.18%	98
We don't have information on peer performance for some measures	0.17	17.76%	14.02%	21.50%	27.10%	19.63%	107
<i>The board doesn't have information on peer performance for some measures</i>	-0.12	14.29%	25.51%	26.53%	25.51%	8.16%	98
Investors don't want us to filter out industry conditions*	0.11	8.41%	14.02%	45.79%	21.50%	10.28%	107
Benchmarking all performance measures would lead to the CEO mimicking peers	-0.23	12.15%	28.97%	31.78%	24.30%	2.80%	107
	0.14	10.20%	19.39%	29.59%	27.55%	13.27%	98
Relative performance measures are less motivating for the CEO	-0.26	11.21%	31.78%	32.71%	20.56%	3.74%	107
<i>Relative performance measures are less motivating for CEOs</i>	-0.46	18.37%	35.71%	24.49%	16.33%	5.10%	98
In an industry upswing, not benchmarking performance keeps our pay competitive with peers	-0.32	17.76%	22.43%	35.51%	22.43%	1.87%	107
<i>In an industry upswing, not benchmarking performance keeps the pay competitive with peers</i>	-0.17	10.20%	21.43%	46.94%	18.37%	3.06%	98
The CEO is responsible for choosing what industries our firm operates in	-1.07	53.27%	21.50%	10.28%	8.41%	6.54%	107
	-0.42	18.37%	32.65%	28.57%	13.27%	7.14%	98

\*Only directors are asked this question.

**Table 17**

**Q16: How much influence do you believe investors have on CEO pay? (-2=no influence, 2=high influence)**

	Mean	-2	-1	0	1	2	N
How much influence do you believe investors have on CEO pay? (1=no influence, 5=high influence)	0.21	2.27%	18.18%	40.15%	34.85%	4.55%	132

**Table 18**

**Q14: How much do the following influence CEO pay compared to the optimal level? (-2=much less than they should, 0=about right, 2=much more than they should)**

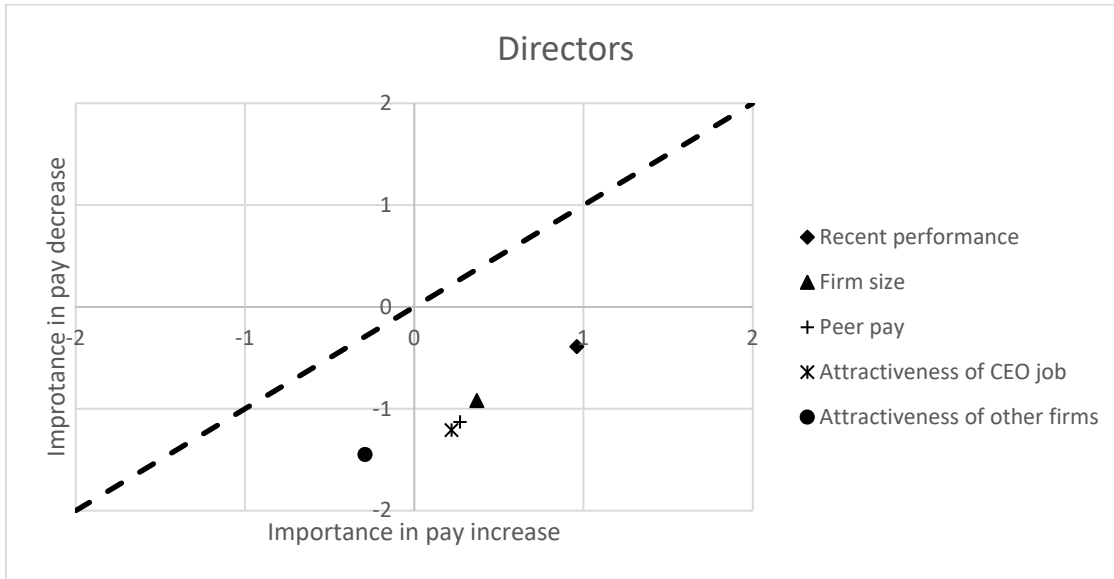
	Mean	-2	-1	0	1	2	N
Proxy advisors	1.00	1.18%	5.88%	21.18%	35.29%	36.47%	170
	<i>0.33</i>	<i>0.76%</i>	<i>17.42%</i>	<i>38.64%</i>	<i>34.09%</i>	<i>9.09%</i>	<i>132</i>
Investors	0.38	1.76%	4.12%	57.06%	28.82%	8.24%	170
	<i>-0.65</i>	<i>11.36%</i>	<i>50.76%</i>	<i>30.30%</i>	<i>6.82%</i>	<i>0.76%</i>	<i>132</i>
Pay consultants	0.32	1.76%	4.12%	63.53%	21.76%	8.82%	170
	<i>0.97</i>	<i>2.27%</i>	<i>3.79%</i>	<i>23.48%</i>	<i>35.61%</i>	<i>34.85%</i>	<i>132</i>
CEO	0.24	1.18%	3.53%	68.24%	24.12%	2.94%	170
	<i>0.80</i>	<i>0.76%</i>	<i>2.27%</i>	<i>32.58%</i>	<i>45.45%</i>	<i>18.94%</i>	<i>132</i>
Employees, the media, customers, or policymakers	0.08	2.35%	14.71%	59.41%	19.41%	4.12%	170
	<i>-0.11</i>	<i>8.33%</i>	<i>26.52%</i>	<i>37.88%</i>	<i>22.73%</i>	<i>4.55%</i>	<i>132</i>
Board	-0.06	4.12%	9.41%	76.47%	8.24%	1.76%	170
	<i>-0.11</i>	<i>2.27%</i>	<i>30.30%</i>	<i>47.73%</i>	<i>15.15%</i>	<i>4.55%</i>	<i>132</i>
HR director	-0.18	5.88%	12.35%	75.88%	5.29%	0.59%	170
	<i>0.04</i>	<i>5.30%</i>	<i>13.64%</i>	<i>59.85%</i>	<i>14.39%</i>	<i>6.82%</i>	<i>132</i>



**Figure 1**

**Comparison of selected responses to Q4 and Q5(b) for directors and investors**

**Panel A**



**Panel B**

