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Do Contracts Make Them Care? The Impact of CEO Compensation Design on Corporate Social Performance

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Abstract Using the behavioral agency model, we analyze how two compensation design characteristics, pay-performance sensitivity and duration of CEO compensation (taking into account multiple vesting periods), affect corporate social performance. We find that the performance sensitivity of CEO pay is negatively associated with poor social performance but also negatively affects strong social performance. These results suggest that pay-performance sensitivity increases the relevance of potential negative consequences of poor social performance. However, the 'insurance' benefits of strong social performance may also become less relevant. With respect to the duration of CEO compensation, we find that it reduces poor social performance. This finding confirms arguments that a long-term compensation time horizon increases the perceived threat that the negative effects of poor social performance will become visible. With our findings, we integrate behavioral agency theory with the traditional stakeholder views.

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Introduction

Compensation can serve to direct managers' attention to specific topics (Eisenhardt 1989; Jensen and Murphy 1990; Nyberg et al. 2010). Prior research has examined the relationship between compensation and firm decisions such as investments in research and development (Cheng 2004), mergers and acquisitions (Bliss and Rosen 2001; Datta et al. 2001; Sanders 2001; Souder and Shaver 2010), and corporate risk taking (Armstrong and Vashishtha 2012; Carpenter 2000; Devers et al. 2008). However, fewer studies have examined the relationship between executive compensation and corporate social performance (CSP) (for exceptions see Deckop et al. 2006; Jian and Lee 2015; Mahoney and Thorne 2005; McGuire et al. 2003). This lack of research may reflect Orlitzky et al. (2011)'s concerns regarding the lack of attention given the links between individual or microlevel phenomena (such as executive compensation) and CSP. Although many firms claim to consider 'sustainability' in awarding executive compensation, only a small percentage identifies specific sustainability targets (Cable 2014). However, using financial performance-based incentive compensation is nearly universal. Therefore, several prior studies have examined the relationship between the existence and the level of CEO incentive compensation and social performance. We add to these studies and propose that two dimensions of incentive compensation design, pay-performance sensitivity (the extent to which CEO compensation varies with firm financial performance), and the duration of CEO

compensation (vesting periods that are underlying the components of incentive compensation) have implications for social performance.

Prior research on the relationship between CEO compensation and social performance has focused on distinctions between short-term and long-term incentives taken from firm regulatory filings, which usually categorize equity-based compensation as long-term (Deckop et al. 2006; Mahoney and Thorne 2005; McGuire et al. 2003). However, this approach raises three issues. First, this approach actually captures two very distinct incentive mechanisms: greater proportions of equity-based compensation imply both greater pay-performance sensitivity and the duration of the compensation package. Second, specifically regarding pay-performance sensitivity, there is significant variation in the pay-performance sensitivity of executive equity ownership and options (Brick et al. 2012) by firm and across time periods as executives exercise options and firms adjust compensation awards (Core et al. 2003; Jensen and Murphy 1990), which may not be captured by an aggregate measure of equity-based compensation. Third, distinctions between long-term incentives and short-term incentives do not tap the actual time horizon of the CEO's compensation portfolio, which typically includes multiple option and equity awards with differing vesting periods and exercise restrictions (Gopalan et al. 2014). Studies suggest that these differing time frames are relevant to the implications of equity-based incentives (Matta and Beamish 2008; McGuire et al. 2003; Ofek and Yermack 2000). We therefore distinguish pay-performance sensitivity and compensation duration. This distinction has important theoretical implications.

This study is grounded in the behavioral agency model (BAM). This model builds upon both, agency theory and prospect theory. Similar to prospect theory, BAM argues that attitudes toward risk are a function of decision framing. Specifically, a decision framed in terms of loss avoidance (for example when a CEO is faced with poor financial performance, and hence loss to his/her incentive compensation) is associated to greater willingness to take risk in order to avoid such loss. In contrast, a decision framed in terms of gain preservation (protecting existing gains) is associated with risk aversion (Holmes et al. 2011; Wiseman and Gomez-Mejia 1998). Building upon agency theory, BAM argues that incentive compensation influences whether decisions are framed in terms of loss aversion or gain preservation. We propose that BAM is particularly appropriate to understanding the link between executive compensation and CSP in that strong and weak CSP are likely to be framed differently.

Weak CSP can be viewed as a risky strategy. Although it may bring short-term benefits (e.g., in terms of cost reductions), the possible negative consequences can be significant. We therefore argue that the avoidance of potential losses particularly shapes decisions against poor CSP. In contrast, the benefits of strong CSP have been viewed as a form of "insurance" or real option, which may prove valuable at a future time to preserve gains and cushioning losses (Husted 2005; Koh et al. 2014; Shiu and Yang 2017), suggesting a gain preservation framework. Thus, from the perspective of BAM, we suggest that strong and weak social performance are framed differently. Hence, we expect the effectiveness of pay-performance sensitivity and duration of CEO compensation to be different for strong CSP and for weak CSP.

We argue that pay-performance sensitivity of CEO compensation reduces both. CSP weaknesses and CSP strengths. High pay-performance sensitivity evokes a loss avoidance framing which discourages actions with significant downside risks such as weak CSP. In contrast, we propose that CEOs frame strong CSP in terms of gain preservation. In this context, high PPS would direct CEO attention to actions more likely to result improved performance than would strong CSP. Hence, pay-performance sensitivity reduces both, opportunistic behavior (specifically CSP weaknesses) and pursuit of potential gains from strong CSP. With respect to the duration of compensation packages we propose that it improves CSP overall by reducing CSP weaknesses and ameliorating CSP strengths. Theoretically, the link between compensation duration and social performance is rooted in the extent to which a shorter compensation duration increases incentives toward opportunism as manifested in socially questionable practices which may bring short-term performance benefits. A short compensation duration rewards the CEO for actions likely to increase short-term performance, including 'cutting corners' in ways that may increase CSP weaknesses. Further, a shorter duration may reduce the likelihood that poor social performance will be 'discovered' (Deckop et al. 2006), reducing perceived downside risk. For example, Volkswagen had installed software which defeated emission safeguards for at least 5 years before it was discovered in 2015, during which time the firm established itself as the leader in diesel vehicles in North America (Russel et al. 2015). With respect to strong social performance, we argue that the benefits of strong social performance are more likely to be manifested over a longer time period. Hence, greater compensation duration binds the CEO to the firm in terms of both gains and losses associated to CSP strengths and weaknesses. We will more fully explore how the pay-performance sensitivity and duration of executive compensation influence the framing of strong and weak social performance in our theoretical development.

Our study extends existing research by investigating the relevance of the BAM to social performance and its implications for the relationship between executive

compensation and CSP. We feel that BAM provides a superior framework than agency theory for analyzing the executive compensation–CSP relationship in that it better incorporates differential weighting of gains and losses (Wiseman and Gomez-Mejia 1998). This is particularly relevant in that we argue that the benefits and risks of strong and weak CSP are qualitatively different. Thus the implications of framing may be particularly critical. By distinguishing the effects of pay-performance sensitivity and compensation duration, we provide a more nuanced understanding of how and why CEO compensation influences social performance.

In the following sections, we first discuss the theoretical foundations of BAM that serve as our basis for our theoretical predictions. Next, we develop our hypotheses. We then describe our sample, data sources, and empirical approach. Finally, we present the results of our analysis and discuss the limitations of our study as well as areas of future research.

Theoretical Background

The Behavioral Agency Model

The behavioral agency model (BAM) builds on insights from prospect theory (Kahneman and Tversky 1979) and agency theory. According to agency theory the purpose of CEO compensation is to incentivize agents (Rutherford et al. 2007), and align their interests with those of shareholders (Nyberg et al. 2010) to shape CEOs' behavior (Carpenter 2000). Agency theory emphasizes the importance of managerial risk bearing to align principal and agent interests (Beatty and Zajac 1994; Devers et al. 2008; Gray and Cannella 1997). The BAM extends these assumptions about risk preferences and builds upon prospect theory by incorporating the moderating role of framing (Wiseman and Gomez-Mejia 1998). Decisions that are framed in terms of the need to improve performance to avoid loss are associated with a greater willingness to take risk to avoid such loss. In contrast, decisions framed in terms of gain preservation (protecting existing gains) are associated with risk aversion (Holmes et al. 2011; Wiseman and Gomez-Mejia 1998).

Wiseman and Gomez-Mejia (1998) and Martin et al. (2013) argue that most decisions made by a CEO can be viewed as 'mixed gambles' associated with both potential gains and potential loss. Thus, incentive compensation exposes the CEO to both potential gains and losses. Building upon these arguments, the authors argue that executives are likely to frame their accumulated equity compensation as gains even though it is technically 'at risk.' In other words, CEOs tend to view their stock options (even if unexercised) as part of their compensation wealth. However, since BAM proposes that executives are loss averse (in contrast to risk averse) (Wiseman and Gomez-Mejia 1998), BAM argues that agents prefer actions designed to protect current wealth, rather than risk that wealth in striving for adding additional wealth. Wiseman and Gomez-Mejia (1998) argued that the BAM can be applied to a number of strategic decisions, such as diversification and R&D expenditures. We argue that the BAM also has important consequences for CSP decisions.

BAM and CSP

Wood (1991a, p. 693) defines social performance as "a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs and observable outcomes as they relate to the firm's societal relationships." There is growing recognition that business and society are interwoven rather than distinct entities (Orlitzky et al. 2011; Wood 1991a, p. 695). In focusing on the link between incentive compensation and CSP, we argue that compensation incentivizes executives to make decisions or take actions that have strategic, financial, and social implications. In essence, business decisions, policies, and practices have implications for multiple outcomes, including social performance. Thus, social performance can be viewed as the outcome of firm policies, strategies, or decisions (Wood 1991b) that can be subject to influence by compensation.

Consistent with previous research, we distinguish between two CSP dimensions: weaknesses and strengths. The CSP weakness dimension comprises poor or undesirable social behavior. In contrast, the CSP strength dimension comprises the commendable social behavior of companies such as establishing special charitable programs or exemplary employee involvement. Congruent with Mattingly and Berman (2006) and McGuire et al. (2003), we argue that CSP strengths and weaknesses may be subject to different dynamics. In viewing adoptions of strong or weak CSP as a "mixed gamble," it is important to also consider the framing of strong and weak social performance in terms of avoidance of loss or preservation of gains. We argue that managers emphasize the potential risks and possible losses due to poor CSP. Lange and Washburn (2012) argue that the attributions of poor CSP are more salient and bring greater external reaction than those of strong CSP. Consequently, poor CSP leads to significant market reaction, a reduction of firm value and therefore a loss situation for CEOs that are incentivized with variables compensation. Conversely, the perhaps uncertain benefits of strong CSP have generally been viewed as a form of insurance or real option whose uncertain benefits are most likely to be manifest in cases of

performance shortfalls (Cassimon et al. 2016; Godfrey et al. 2009; Husted 2005). The following sections develop hypotheses regarding how pay duration and pay-performance sensitivity influence the framing of strong and weak CSP.

Hypothesis Development

In this study, we focus on two important characteristics of the CEO compensation contract design: pay-performance sensitivity (PPS) and compensation duration. As noted earlier, broad distinctions between equity and non-equity compensation do not differentiate these two compensation dimensions. We therefore distinguish PPS—the CEO wealth effect of stock price changes—and compensation duration—the actual time horizon of the equity and options in a CEO's compensation package that focuses managerial attention on the longer- or shorter-term implications of their decisions. Owing to the growing share of equity-based compensation in the recent years (Murphy 1999; Perry and Zenner 2001), CEO wealth has become substantially more sensitive to stock price (Coles et al. 2006; Hall and Liebman 1998). However, there is significant variation in the performance sensitivity of CEO pay (Jensen and Murphy 1990; Mishra et al. 2000) between firms and over time as executives exercise options and firm's award additional compensation over time. Similarly, CEO's portfolio of equity and option compensation consists of equity and option grants of varying time frames depending upon the date of award, vesting restrictions, and the like. Prior research has suggested that CEO's are well aware of the differing time frames of their incentive awards (Matta and Beamish 2008; McGuire et al. 2003; Ofek and Yermack 2000). It is therefore important to examine the actual time duration of the CEO's portfolio of equity-based compensation.

High PPS would focus managerial attention on achieving financial performance expectations and avoiding actions that may jeopardize performance. Compensation duration, conceptualized as the weighted sum of vesting periods of compensation parts (Gopalan et al. 2014), is another important element of compensation plan design relevant to understanding CSP. We argue that both elements of compensation have implications for CSP. We propose that high PPS evokes a loss avoidance framing that would emphasize the potential costs of poor social performance and to discount the potential benefits of strong social performance. We also propose that a longer compensation time horizon increases the salience of the downside risk of poor CSP and encourages CEOs to recognize the potential value of strong CSP. The following sections detail these issues.

Pay-Performance Sensitivity and Corporate Social Performance

The PPS–CSP relationship has received little attention and is theoretically complex. High PPS implies that a CEO's compensation is sensitive to changes in the firm's financial performance, thus increasing the relevance of the financial performance criteria in decision making. Agency theory suggests that CEOs maximize firm performance and shareholder wealth if their own wealth strongly depends on the firm's stock price performance (Jensen and Meckling 1976; Jensen and Murphy 1990). Empirically, however, research on the relationship between managerial incentive and firm risk suggests the complexity of this relationship (Brick et al. 2012; Coles et al. 2006; Guay 1999; Mishra et al. 2000). From the perspective of the BAM, researchers have shown that executives have different preferences with respect to potential losses or gains (Devers et al. 2007; Tversky and Kahneman 1991). The BAM holds that, in general, individuals prioritize loss avoidance and protecting current wealth over maximizing potential future wealth (Kahneman and Tversky 1979; Martin et al. 2013). Therefore, the extent to which PPS evokes loss aversion or wealth preservation is a critical issue regarding CSP and compensation.

Regarding weak social performance, we argue that high PPS would lead executives to view their compensation as more "at risk" (Coles et al. 2006; Guay 1999). Although high PPS implies that compensation is more sensitive to changes in the firm's market price (both increases and decreases), BAM suggests that avoiding potential loss would be more salient than seeking upside gain (Martin et al. 2013; Wiseman and Gomez-Mejia 1998). This is particularly relevant in that individuals tend to overestimate the probability of rare events, particularly negative events (Diemont et al. 2016; Holmes et al. 2011). As a result, the potential negative consequences of poor social performance may weigh more heavily in decision making. Such framing would encourage a more conservative "do no harm" orientation. Further, and congruent with Lange and Washburn (2012), empirical evidence suggests that the market reacts negatively to poor social performance (Bromiley and Marcus 1989; Flammer 2013), further reinforcing the potential negative consequences of poor social performance. Indeed, managers may give significant weight to the potential negative implications of weak CSP for market value (Lange and Washburn 2012; van der Laan et al. 2008). With increasing PPS, the potential negative consequences of such behavior would also increasingly affect the CEO's personal wealth. This argument is congruent with findings of a negative PPS-firm performance relationship when firm performance is more volatile (Mishra et al. 2000). We therefore believe that CEOs will

avoid risky strategies that involve actions with potentially risky social consequences and may spend more resources to prevent CSP weaknesses, both of which may have the potential to negatively influence stock price. These arguments are also congruent with Holmes et al. (2011) who note the importance of considering the perceived value of potential outcomes. Any reduced costs made possible by weak CSP may pale when compared to the negative reputational, product market, and financial market implications of poor CSP. For example, the market reaction to the BP Deepwater Horizon oil spill brought significant immediate and extended declines in the BP stock price (Fodor and Stowe 2010; Sabet et al. 2012). Other examples would be the negative reaction to triple-digit price hikes for the Mylan EpiPen and outcry regarding the unauthorized accounts opened by Wells Fargo Bank employees, both of which resulted in multiple congressional hearings and significant declines in firm market value. John Stumpf, CEO of Wells Fargo, faced a claw-back of 2 year's salary before his resignation from the firm without severance compensation (Burton 2016; Glazer 2016; Hayashi 2016). Therefore, CEOs may be unwilling to risk the negative implications of weak social performance.

Hypothesis 1a The PPS of CEO compensation is negatively related to CSP weaknesses, such that higher PPS is associated with lower CSP weaknesses.

Following McGuire et al. (2003), we view strong CSP as a more proactive stance toward social performance. CSP strengths may provide benefits should the firm encounter CSP difficulties or wish to benefit from stakeholder support during periods of financial downturn, in essence protecting gains. Therefore, one argument might be that strong CSP can be viewed as a means for building goodwill with stakeholders, which may become valuable over a longer-term time horizon (Husted 2005). Thus, strong CSP might be perceived as having instrumental or strategic benefits (Margolis and Walsh 2003; Orlitzky et al. 2003) that may be reinforced by high PPS. However, we feel that a stronger argument can be made for a negative relationship between PPS and CSP strengths. First, Lange and Washburn (2012) and Shiu and Yang (2017) suggest important limitations to the insurance or options benefits of CSP strengths. From the perspective of BAM (as well as prospect theory), the perceived or probable value of strong CSP may be reduced (Holmes et al. 2011). Although contradictory evidence exists (Flammer 2013), significant empirical evidence supports their arguments that market evaluation of strong CSP would be less than that of weak CSP (Doh et al. 2010; Mishra and Modi 2013). For example, viewing addition to or deletion from Calvert's social performance index as evidence of strong or weak social performance, Doh et al. (2010) found a negative market reaction to a firm's deletion from the index, but no significant market reaction to a firm being added. Shiu and Yang (2017) show that the insurance benefits of strong CSP are not long-standing. In the case of the BP Deepwater Horizon incident, although markets reacted favorably to positive information regarding the spill, these actions did not offset the overwhelmingly negative market reaction to the incident (Fodor and Stowe 2010). These declines would have had direct impact on the value of executive equity compensation and ownership, which would be reinforced in the context of high PPS. On the whole we believe that high PPS would provide limited incentives for CEO's to focus on strong CSP: High PPS may provide limited incentives to produce strong social performance that primarily serves to extract future gains perceived as uncertain.

In contrast, high PPS may encourage CEO's to weigh factors that are more likely to improve firm market performance in their decision making to preserve their wealth. In doing so, they may be less concerned about the social implications of their investment decisions than their potential financial implications. Thus, we feel that the overall effect of high PPS would be at best neutral regarding strong social performance. On the whole, however, we feel that it is more likely that PPS would make it less likely that CEO's would devote efforts to actions that build social strengths. Thus, we expect a negative association between PPS and actions improving CSP strengths. We, therefore, propose the following hypothesis:

Hypothesis 1b The PPS of CEO compensation is negatively related to CSP strengths, such that higher PPS is associated with lower CSP strengths.

Compensation duration and corporate social performance

Building on McGuire et al. (2003), who view avoiding CSP weaknesses as a "do no harm" orientation, we propose that a long CEO pay duration evokes loss avoidance framing, avoiding CSP weaknesses, which may have negative consequences for the firm and CEO (Martin et al. 2013). Avoidance of the possible downside risk of weak CSP would be particularly critical in that poor social performance is particularly salient to observers (Lange and Washburn 2012). Thus, from the perspective of BAM, the downside risk of taking actions that may lead to poor social performance would be particularly relevant.

A long compensation duration may also increase the risks that poor social performance would become observable. For example, in the cases of Volkswagen, BP, and Wells Fargo cited earlier, problematic behaviors had existed for several years before coming to the forefront of public attention. A long compensation time frame increases

the length of time an adverse event can impact executive compensation (for example protracted litigation or regulatory actions).[1] Particularly if we assume that poor social performance (in contrast to strong or 'neutral' social performance) is not the norm, executives may be particularly sensitive to the potential downside of poor social performance (in essence, taking a gain preservation framing). Therefore, CEO's may avoid decisions that may result in poor CSP.

In contrast, a short compensation duration may focus managerial attention on achieving 'bottom line' results. Even if CEO's do not explicitly select less socially responsible actions, they may be less sensitive to the negative social implications of their decisions (Deckop et al. 2006; McGuire et al. 2003). Further, our measure of compensation time frame taps the extent to which the incentive component of compensation is accessible within a short time frame. Given that many CSP weaknesses are unlikely to be immediately discovered (Deckop et al. 2006) the executive would have the opportunity to reduce risk exposure (for example through exercise of stock options or equity sales) before poor social performance comes to light. Indeed, McGuire and Matta (2003) found that CEO's tended to exercise options and sell equity prior to performance declines. Thus, a shorter compensation duration would serve to limit downside risk. Rather executives may emphasize any potential benefit of poor social performance to achieve their performance objectives. We therefore, argue that longer pay time horizons increase the incentive to avoid CSP weaknesses, and that a shorter-term pay time horizon is positively associated with weak CSP.

Hypothesis 2a The duration of CEO compensation is negatively related to CSP weaknesses, such that longer duration is associated with lower CSP weaknesses.

We expect a positive association between CEO pay duration and "exemplary" social performance in terms of CSP strengths. Although reducing CSP weaknesses can be viewed as a form of "risk avoidance" over the longer term, longer compensation duration will encourage CEOs to also take actions that increase CSP strengths as a form of insurance or real option in the case of subsequent need (Husted 2005). As noted earlier, although the eventual benefits of strong social performance may be uncertain, their value would only be tapped over a longer time frame. From the perspective of the BAM, long compensation duration may encourage CEOs to maintain and build their reputation for strong social performance as a form of 'insurance.' Thus, any costs of CSP would more likely be viewed in terms of wealth preservation. It is also congruent with the resource-based view and stakeholder theory that argue for the relevance of stakeholder relations as a resource that is nurtured and developed over the long term.

In contrast, compensation design with short durations may provide incentives for CEOs to devote resources to activities that better promote short-term performance targets. Arguments for the benefits of strong CSP rest on its long-term benefits. Viewing incentive compensation as a mixed gamble, a short duration may encourage CEOs to discount any potential benefits to strong CSP and focus on actions more likely to bring shorter-term returns. Strong social performance may therefore suffer if CEO priorities shift toward actions perceived as more likely to benefit the firm's more immediate financial performance. From the perspective of the BAM, a short-term pay horizon would mitigate both the gain preservation and loss avoidance implication of strong social performance. We therefore expect CEOs to minimize CSP investments.

Hypothesis 2b The duration of CEO compensation is positively related to CSP strengths, such that longer duration is associated with greater CSP strengths.

Data and Methods

Sample and Data Sources

Our study sample comprises all 84 non-financial firms that were part of Standard & Poor's 100 (S&P 100) in 2006.[2] We collected firm data from 2006 to 2011. We chose 2006 as the base year for our analyses because of the improved compensation transparency following the 2006 Securities and Exchange Commission (SEC) overhaul of proxy disclosure rules (Murphy 2013). Missing data for 37 firm years[3] resulted in a final sample of 467 observations.

Since the information needed to calculate our compensation variables is not provided in common compensation databases such as Execucomp, we hand-collected all compensation related data from firm proxy statements. We then used the published information to compile a unique dataset containing in-depth information on CEO compensation design (e.g., vesting periods, time-to-maturity for previously granted option packages, and present values of

[1] Firms often cite a desire to bring closure to an incident as a reason for settling litigation or regulatory action.

[2] We excluded financial firms as they are only partially comparable with industrial enterprises, for example, in terms of accounting measures or corporate governance (Adams and Mehran 2003). Although using the S&P 100 limited our sample size, it increased the liklihood that complete data would be available from all of our sources, most importantly KLD. Furthermore, calculating compensation duration and PPS was extremely time consuming.

[3] For some companies, data could not be collected for all six years of the time period as they became insolvent or were taken over by another company.

grants). We used the Kinder, Lydenberg, and Domini (KLD) dataset to measure CSP. The KLD dataset has been extensively used in premier management journals over the past several years (Coombs and Gilley 2005; Hillman et al. 2001; Hillman and Keim 2001; Surroca et al. 2010; Waddock and Graves 1997) and is regarded as "the largest multidimensional corporate social performance database available to the public" (Deckop et al. 2006, p. 334). Independent KLD researchers use various sources, such as financial statements, government reports, as well as press and academic journal articles, to assess a company's social performance along seven major dimensions—environment, community, human rights, employee relations, diversity, product, and governance—in a given year (Deng et al. 2013; Kim et al. 2012). These two primary datasets are complemented with financial information from Compustat (accessed through DataStream) and governance data from BoardEx.[4]

Dependent Variables

KLD assesses firm social performance along the aforementioned seven dimensions. We constructed indices of strong and weak CSP for all firm-year combinations. In line with prior studies, we excluded the governance dimension from our analysis (Hong and Kostovetsky 2012; Kim et al. 2012) since "corporate governance is perceived as a distinct construct from CSR" (Kim et al. 2012, p. 11), which we controlled for using other variables.

The use of the KLD measures requires several methodological choices. One of these involves the consistency of KLD CSP dimensions over time and the weighting of specific items. Since the number of indicators of each KLD dimension varies over time, it is important to ensure the comparability of the CSP scores across years. This is particularly important given that the 2010 KLD rating methodology changes because of the acquisition of KLD by RiskMetrics, subsequently acquired by Morgan Guaranty Trust Company (MSCI) (Demos 2010). Several indicators were consolidated, newly introduced, or eliminated. Deng et al. (2013) argued that normalizing the CSP scores by the respective number of indicators helps overcome the issue of the considerably varying number of indicators each year. Nevertheless, the use of Deng's methodology resulted in a marked increase in the average CSP score across the S&P 500 firms after 2010. Therefore, we calculated the annual industry-median CSP indices for the Fama–French (1997) 12 industries[5] across the S&P 500 firms and subtracted these from the respective individual firm scores. By using the relative CSP scores, we could improve comparability across years and account for possible industry effects (Erhemjamts et al. 2013; Johnson and Greening 1999). To further account for potential time effects in the KLD measure after 2009, we assess the robustness of our findings using a recalculated CSP index that only includes indicators available over the entire sample period (both before and after 2009). This change in the dependent variable resulted in qualitatively similar results. While this approach would improve comparability across years, we prefer the previously discussed approach with CSP indices that are based on significantly more assessments of indicators. Finally, to ensure that time effects do not bias our results, all models include year dummies.

Following Mattingly and Berman (2006) and McGuire et al. (2003), we calculated separate measures for CSP strengths and weaknesses. Given the reduced number of weakness or strength indicators in certain dimensions after the change in the 2010 KLD methodology, the calculation of the KLD indices as the weighted averages of the remaining six KLD dimension sub-scores depends solely on the score of very limited indicators when only considering weaknesses or strengths. Thus, we constructed the CSP weaknesses and CSP strengths indexes as the sum of all KLD scores for the indicators identified as weaknesses or strengths, divided by the total number of indicators in a given year. The indices were adjusted by the respective industry-median CSP scores. In the robustness tests, we found that the results were qualitatively similar when calculating the CSP scores as the weighted average of the six KLD dimension sub-scores, giving equal weighting to each dimension.

Independent Variables

Pay Duration

We calculated the executive pay duration according to Gopalan et al.'s (2014) approach. They developed a measure to allow for "quantify(ing) the mix of short-term and long-term executive pay" by computing "the weighted average of the vesting periods of the different components of executive pay" (Gopalan et al. 2014, p. 2). This pay duration measure explicitly takes into account vesting schedules instead of using the stock-based bonuses in total compensation (long-term pay focus) (Deckop et al. 2006). However, while Gopalan et al. (2014) incorporated the vesting schedules of stock-based compensation, we argue that it is increasingly important to also consider the time horizon of cash bonuses with long-term vesting schedules. According to Li and Wang (2013), a large share of cash

[4] We hand-collected data from annual reports to fill in missing entries, wherever possible.

[5] http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_12_ind_port.html.

bonuses is long-term oriented, and ignoring them could lead to a biased understanding of executive incentives. Thus, we expanded Gopalan et al.'s (2014) executive pay time horizon measure by including the vesting schedules of cash bonuses:

$$Duration = \frac{Salary * 0 + \sum_{i=1}^{n_b} Bonus_i * t_i + \sum_{j=1}^{n_s} Restrictedstock_j * t_j + \sum_{k=1}^{n_o} Option_k * t_k}{Salary + \sum_{i=1}^{n_b} Bonus_i + \sum_{j=1}^{n_s} Restrictedstock_j + \sum_{k=1}^{n_o} Option_k},$$

where i denotes a cash bonus grant, j represents a restricted stock grant, and k is an option grant. While most variables are defined in line with Gopalan et al. (2014),[6] we made a few modifications in reference to the variables t_i, t_j, and t_k, which represent the time horizon in years of the corresponding compensation components. Gopalan et al. (2014) used the total vesting period (in case of cliff vesting schedules) or assumed equally distributed vesting from the grant date (in case of graded vesting schedules) to calculate the time horizon of each compensation component. Instead of using these simplifying assumptions, we calculated the average vesting periods for t_i, t_j, and t_k, which reflect the exact vesting schedules as outlined in the proxy statements, and included them in our hand-collected dataset. The difference becomes apparent when considering, for example, that some companies use grants that only start vesting from the second year after the grant date, or that the vesting share over years is not always equally distributed. Furthermore, our hand-collected dataset allows us to consider the holding requirements that some companies impose after vesting stock-based compensation components. We believe that these modifications lead to a more precise measure of the executive pay duration.

Pay-Performance Sensitivity

We calculated PPS as the sum of the expected changes in the CEO's stock and option wealth corresponding to a 1% change in the firm's stock price.[7] While the CEO's stock wealth changes dollar-for-dollar with the stock price, calculating the sensitivities of CEO option wealth is slightly more difficult. We used a modified Black–Scholes model to calculate the PPS of current option grants and options granted prior to the current fiscal years (Brick et al. 2012; Core and Guay 2002).[8] While Brick et al. (2012) and Core and Guay (2002) split the previously granted options into groups of unexercisable and exercisable options and estimated the exercise price and time to maturities for both groups (e.g., assuming that unexercisable options have a three-year longer time to maturity than exercisable options), we hand-collected the exercise price and the remaining time to maturity for each previously granted option package for all firm-year combinations. Then, we calculated the exercise price and time to maturity as a weighted average of all option packages. This enabled us to derive a more precise measure of PPS using the real exercise price, option maturity, and corresponding yield to the maturity of treasury securities for both newly and previously granted options. In line with Brick et al. (2012), we used the log of PPS to account for high skewness and kurtosis.

Control Variables

We included numerous variables in the model to control for firm, board, CEO, owner, and industry characteristics that are detailed below. Each of the control variables has a potential link to CSP and has been commonly specified in previous studies.

Company size and prior financial performance have often been linked to CSP (Deckop et al. 2006; Hillman and Keim 2001; Johnson and Greening 1999; Waddock and Graves 1997). We controlled for size measured by the log of total assets and used the mean return on equity (ROE) over the past 3 years as a control variable for prior financial performance. Socially responsible activities may also be affected by a company's ability to meet financial obligations and business risks (McGuire et al. 2003; Waddock and Graves 1997). We used leverage, defined as the total debt divided by total assets, to measure financial strength and measured risk as the standard deviation of ROE, divided by the mean ROE

[6] In short, time horizon is calculated relative to the year end, so *Salary* has a vesting period of zero. *Salary*, $Bonus_i$, $Restricted\ stock_j$, and $Option_k$ refer to the respective dollar values of the corresponding grants (in our analysis, *Salary* includes base salary and fringe payments, and we use the *Option* value as stated in the companies' proxy statements). The variables n_b, n_s, and n_o refer to the total number of grants. Please refer to Gopalan et al. (2014) for more details.

[7] According to Hall and Liebman (1998) and Murphy (1999), PPS is primarily driven by changes in stock price affecting stock and option values, and not by other forms of compensation.

[8] As employees might choose to exercise options before reaching their maturity date, we tested our results by reducing the time-to-maturity by a constant percentage of 30%. All results were robust to this modification.

over the last three years. McWilliams and Siegel (2001) argued that the CSP activities of companies depend on the growth stage of an industry's lifecycle. We included in our model a company's long-term sales growth over the past 3 years as a proxy for the growth stage and a control variable. Authors have also stressed the positive correlation between R&D spending and CSP (McWilliams and Siegel 2001). Thus, we included relative R&D spending measured as total R&D expenses divided by total assets as the control variable.

Besides these accounting-based control variables, we included typical CEO and governance control variables that might influence CSP. We controlled for CEO characteristics by including CEO tenure, measured as time in the company, and CEO age (Coombs and Gilley 2005; Shin 2016). Johnson and Greening (1999) argued that outside director representation affects CSP. Further, (Hafsi and Turgut 2013) note the influence of board size. We therefore controlled for board size and board outsiders. Furthermore, ownership characteristics might influence companies' social activities. Therefore, we controlled for the accumulated voting rights proportion for institutional owners with voting rights above 1%. We also controlled for blockholders, measured by dummy variables taking the value of 1 if the largest investor has more than 10% of the company's voting rights, or 0 otherwise.

Since corporate social behavior may vary across industries (Hillman and Keim 2001; McGuire et al. 2003), we controlled for industry effects by specifying dummy variables on the basis of the Fama–French 12 industry classification. This classification was developed to provide industry classifications appropriate to academic researchers (e.g., Bhojraj et al. 2003) and has been commonly used in academic research (e.g., Jo and Harjoto 2012). We also included a year-dummy variable to control for year-specific effects.

Estimation Methods

As previously discussed, we measured CSP weaknesses and strengths by indices taking values between zero and one depending on the degree of a company's social performance. Since a significant fraction of the observations was zero, we tested our hypotheses using censored regression models (Tobit) (Greene 2008).

Given the limited scope of the sample, comprising between 75 and 84 companies per year,[9] typical panel regression methods had to be used with caution. However, as a robustness test, we used random effects Tobit panel regression models, which led to qualitatively similar results.

In the regression analyses, we used Huber–White robust standard errors to account for heteroscedasticity. Some variables, such as PPS, firm size, growth, and performance, were winsorized at the 5% level in response to extreme outliers in the dataset. Finally, we lagged the CEO and governance control variables.

Results

Table 1 displays the means, standard deviations, and pairwise correlations for all variables included in our study. On average, the companies have a CSP weaknesses index of 0.21 and a CSP strengths index of 0.30. Moreover, a positive correlation (0.28) exists between the CSP weaknesses index and the CSP strengths index. This correlation supports the argument for the separation of social strengths and weaknesses. It also confirms the reality that firms can exhibit both social strengths and social weaknesses. For example, both McDonald's and Wal-Mart have been criticized for certain practices—McDonalds in terms of the health of their products and labor practices and Wal-Mart for their labor practices and possible impact on local businesses; however, they are also known to have strong commitments toward philanthropic activities (e.g., Ronald McDonald houses and Wal-Mart's contribution to local charities). Indeed, a firm can exhibit both strengths and weaknesses within the same dimension. For example, KLD identifies IBM's environmental communication efforts as a strength but its treatment of hazardous waste as a weakness. Although initially counterintuitive, this result confirms the complexity of CSP in that firms can exhibit both strengths and weaknesses. It also suggests that the use of the combined measure of strengths and weaknesses may mask the important aspects of a firm's social performance. The correlation matrix and the results of the variance inflation factor (VIF) analyses (all values are less than 5.19), do not suggest a problem with multicollinearity (Hair et al. 2006).

Table 2 presents the regression models for the hypotheses testing regarding the CSP weaknesses index (models 1.1 and 1.2) and the CSP strengths index (models 2.1 and 2.2). Models 1.1 and 2.1 contain all accounting-based, CEO, and governance control variables. On the basis of these control variables, models 1.2 and 2.2 investigate the effect of PPS and pay duration on the different CSP measures.

Hypothesis 1a predicted a negative relationship between CEO PPS and CSP weaknesses. In agreement with this hypothesis, we find a significant, negative relationship between PPS and the CSP weaknesses index

[9] The sample comprises 2006–2011 data for all non-financial firms that were part of the S&P 100 in 2006. Due to insolvency or takeovers, the number of firms included in the sample decreased over time from 84 in 2006 to 75 in 2011, leading to a total sample size of 467 firm years.

Table 1 Descriptive statistics and correlations[a]

	Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	CSP (overall)[b]	0.54	0.11																
2.	CSP weaknesses[b]	0.21	0.13	−0.42*															
3.	CSP strengths[b]	0.30	0.19	0.69*	0.28*														
4.	Time horizon	1.37	0.82	0.02	0.14*	0.11*													
5.	PPS[c]	7.04	1.16	0.01	−0.02	0.01	−0.06												
6.	Size[c]	17.42	0.95	0.09*	0.55*	0.37*	0.28*	0.18*											
7.	Prior financial performance [d]	21.96	16.24	0.15*	−0.11*	0.05	0.02	0.16*	−0.17*										
8.	Leverage	0.26	0.14	−0.05	−0.00	−0.08	−0.06	−0.32*	−0.07	0.01									
9.	Risk[d]	0.12	0.72	0.02	−0.06	−0.04	0.03	0.06	0.01	0.20*	−0.03								
10.	Sales growth[d]	0.22	0.18	−0.06	−0.10*	−0.11*	−0.01	0.12*	0.05	−0.10*	−0.07	−0.04							
11.	R&D	0.03	0.04	0.30*	−0.06	0.28*	−0.07	0.11*	−0.13*	0.12*	−0.29*	0.05	−0.01						
12.	CEO tenure	17.18	11.96	0.08*	0.02	0.10*	0.04	0.11*	−0.02	0.18*	0.11*	0.14*	−0.14*	−0.01					
13.	CEO age	56.98	5.24	0.00	0.08*	0.07*	0.12*	0.01	−0.04	−0.00	−0.00	−0.05	−0.03	−0.05	0.27*				
14.	Board size	10.63	1.93	0.10*	0.26*	0.32*	0.06	−0.07	0.33*	−0.04	0.23*	−0.03	−0.02	−0.27*	0.04*	0.19*			
15.	Board outsiders	0.88	0.10	−0.04	0.09*	0.02	0.02	0.03	−0.06	−0.01	−0.10*	0.05	0.00	−0.21*	−0.04*	0.12*	0.14*		
16.	Institutional owners	0.33	0.13	−0.10*	−0.22*	−0.29*	−0.24*	−0.21*	−0.46*	−0.38*	0.13*	−0.14*	0.07	−0.08	0.02	−0.05*	−0.20*	0.08*	
17.	Blockholders	0.23	0.42	−0.04*	−0.08*	−0.10*	−0.10*	0.06	−0.26*	0.03	0.13*	−0.13*	0.01	0.03	−0.05*	−0.01	−0.05*	−0.04*	−0.05*

* $p < 0.05$

[a] This table reports the summary statistics and pairwise correlations for the variables used in the analyses. $N = 467$

[b] Means and standard deviations are shown for uncentered CSP measures. Correlations refer to centered (industry-adjusted) measures as used in the regression analyses

[c] Logarithm

[d] Mean value over the past three years

Table 2 Results of regression analysis for different CSP measures[a]

Variables	CSP weaknesses		CSP strengths	
	Model 1.1	Model 1.2	Model 2.1	Model 2.2
Independent variables				
Time horizon		−0.01*		0.00
		(−2.02)		(0.43)
PPS		−0.02***		−0.02***
		(−4.80)		(−3.87)
Accounting-based control variables				
Size	0.07***	0.07***	0.07***	0.08***
	(9.41)	(10.51)	(7.77)	(7.98)
Prior financial performance	−0.00	0.00	0.00	0.00
	(−0.24)	(0.45)	(0.14)	(0.80)
Leverage	0.01	−0.02	0.04	0.00
	(0.27)	(−0.52)	(0.75)	(0.06)
Risk	−0.01	−0.01	−0.02**	−0.02**
	(−1.48)	(−1.60)	(−2.76)	(−2.77)
Sales growth	−0.08***	−0.07***	−0.10**	−0.08**
	(−3.85)	(−3.58)	(−3.04)	(−2.59)
R&D	0.06	0.06	1.23***	1.24***
	(0.39)	(0.42)	(4.20)	(4.26)
CEO and governance control variables				
CEO tenure	−0.00*	−0.00	0.00	0.00
	(−2.11)	(−1.78)	(0.29)	(0.53)
CEO age	−0.00	−0.00	−0.00	−0.00
	(−1.13)	(−1.03)	(−1.44)	(−1.49)
Board size	0.01*	0.00	0.01*	0.01*
	(2.32)	(1.92)	(2.54)	(2.58)
Board outsiders	0.03	0.05	0.13*	0.15*
	(0.79)	(1.19)	(2.09)	(2.45)
Institutional owners	−0.01	−0.03	0.06	0.05
	(−0.29)	(−0.62)	(0.78)	(0.66)
Blockholders	0.02*	0.03**	−0.02	−0.01
	(2.02)	(2.78)	(−1.31)	(−0.73)
Method	Tobit	Tobit	Tobit	Tobit

[a] This table reports the test results for the effect of key compensation contract design variables on different CSP measures. Models 2.1 and 2.2 refer to the overall CSP, models 3.1 and 3.2 refer to CSP weaknesses only, and models 4.1 and 4.2 refer to CSP strengths only. The t-statistics reported in parentheses are calculated using standard errors adjusted for heteroskedasticity. Industry and year dummies are included in the regressions, but not listed in this table. Variables with extreme outliers are winsorized at 5% in both tails. $N = 467$

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

($b = -0.02$, $p < 0.001$ in model 2.2). Hence, hypothesis 1a is strongly supported. Hypothesis 1b suggested that CEO PPS has a negative effect on CSP strengths. Indeed, we find that PPS appears to be significantly negatively related to the CSP strengths index ($b = -0.02$, $p < 0.001$ in model 2.2). Thus, hypothesis 1b is strongly supported.

Hypothesis 2a stated that CEO pay duration has a negative effect on CSP weaknesses. The results in model 1.2 suggest a significant negative effect of duration on the CSP weaknesses index ($b = -0.01$, $p < 0.05$). Thus, hypothesis 1a is supported.

Hypothesis 2b suggested that CEO pay duration has a positive effect on CSP strengths. However, while the

coefficient is positive, the results indicate that duration is not significantly related to the CSP strengths index (model 2.2). Thus, hypothesis 1b is not supported.

Regarding control variables, the lack of significance of prior performance may reflect our sample of large generally profitable firms, which may reduce the sensitivity of CSP to firm financial performance. Further, there is a lack of sensitivity of the CSP of sample firms to CEO characteristics. Interestingly, we observe that two accounting-based control variables, namely, size and sales growth, have a significant influence in the same direction for both CSP weaknesses and strengths (comparable to the findings of McGuire et al. 2003). These findings support the arguments that weaknesses and strengths often follow different dynamics, which supports those that CSP weaknesses and strengths should be analyzed separately.

Robustness Checks

As a robustness test, we estimated our models using ordinary least squares (OLS) regressions that produced almost identical results. Moreover, since our dataset contained multiple observations of the same firm, we also tested random effects Tobit models. As mentioned before, typical panel regression methods must be used with caution, given the limited number of firms per year in our dataset. However, random effects Tobit models lead to qualitatively similar results. In particular, while leading to slightly lower p-values, the qualitative results are the same in all models, except duration loses its significance when analyzing the impact on the CSP weaknesses index (compare to model 1.2).

As mentioned before, we also tested various adaptations of key variables. Regarding the dependent variables, we controlled for a potential bias owing to the changing number of CSP indicators per year by calculating CSP indices that only include indicators with constantly available KLD assessments during the time period. In another test, we used the CSP scores as the weighted average of the six KLD dimension sub-scores with equally weighted KLD dimensions to calculate the CSP weaknesses and strengths indexes. Furthermore, we tested the adaptations of the PPS measure using a reduced time to maturity to account for the possibility that options could be exercised before reaching their maturity date. All results were robust to these modifications.

Regarding potential reverse causality concerns, we referred to Coombs and Gilley (2005), who looked at the CEO compensation–CSP relationship from a different angle and tested the effect of CSP on different CEO compensation elements. Coombs and Gilley (2005) found that only CEO base salaries are substantially affected by CSP. As salary levels do not influence PPS and only play a negligible role in calculating pay duration,[10] we believe that we can partly allay potential endogeneity concerns. Nevertheless, as in many corporate governance studies, endogeneity remains a potential concern. Therefore, we adopt Fich and Shivdasani's (2006) reverse logit approach to provide some additional empirical indication that our results are not affected by endogeneity or reverse causality. We estimate the logit regression that explains above-median time horizon and PPS and show that these above-median compensation characteristics are not driven by the previous year's CSP weaknesses or strengths. These findings further suggest that our results are not driven by endogeneity or reverse causality.

Discussion and Conclusions

In this study, we investigated the impact of CEO compensation design on corporate social behavior. In general, we provide evidence that CEO compensation design is significantly related to CSP. Results confirm our assertion that pay-performance sensitivity and compensation duration exhibit differing relationships to CSP, suggesting that the two compensation design characteristics differ in their impact on how decisions are framed. This may explain prior conflicting results and adds insight on the relationship between executive compensation and CSP.

Our results indicate that high PPS incentivizes CEOs to avoid CSP weaknesses. These findings are congruent with the BAM (Martin et al. 2013; Wiseman and Gomez-Mejia 1998). In the context of high PPS, the potential negative consequences of poor social performance may dominate. Thus, PPS increase the relevance of the potential risk of poor CSP. As hypothesized, we also found high PPS to be associated with reduced CSP strengths, suggesting that PPS discourages exemplary social performance. This finding supports our arguments that PPS directs managerial priorities towards actions more likely bring performance benefits that preserve existing gains. Thus, in the context of social performance, PPS represents a 'double edged sword' which may imply a more neutral CSP profile (fewer weaknesses, but also reduced exemplary social performance). Regarding compensation duration, we found that a long-term time horizon is associated with fewer CSP weaknesses. It is intriguing that while compensation duration had no significant relationship with CSP strengths, the association with PPS was negative. One possible

[10] Pay duration is calculated as the weighted average time horizon of the different CEO pay components (see above for more details). As the time horizon of salaries is always zero, and as salaries account for less than 10% of the total CEO compensation (on average across our sample), the effect of salary levels on pay time horizon is small.

explanation is that PPS provides stronger incentives for executives to focus on actions which 'do no harm', rather than building strong social performance—a strategy which brings only uncertain performance benefits.

At a broader level our findings of a negative relationship between compensation duration and weak CSP suggests that extending vesting periods or increasing the relative share of long-term focused compensation components may reduce incentives for actions with potentially risky social consequences. Taken in the context of an insignificant relationship between pay duration and the CSP strengths index, our findings suggest that while executives may believe that CSP weaknesses may jeopardize future performance and negatively impact their incentive compensation, the long-term benefits of CSP strengths may be less clear. This perspective is congruent with Lange and Washburn's (2012) argument that external observers (and implicitly the market) react more strongly to poor social performance than to strong social performance, as well as overweighing the probability of negative outcomes. In essence, the downside of poor social performance would be more significant than the benefits of strong social performance. This would be particularly relevant given that our measure of duration taps the time frame in which the executive may be able to limit exposure to downside risk. It is also congruent with the literature on CEO career horizons (Heyden et al. 2015) as well as time discounting, which suggests that gains are discounted to a greater extent than are losses over the long term (Frederick et al. 2002). In encouraging a short-term time perspective, a short-term compensation duration focuses CEO attention on actions that are likely to bring short-term payoffs, rather than longer-term benefits of strong CSP. In essence, a short compensation duration appears to incentivize CEOs in avoiding the downside risk of poor CSP, rather than encouraging strong social performance. The benefits of strong social performance—either in terms of wealth preservation or loss avoidance—would be unlikely to manifest in a short-term time frame.

Our study also has limitations. While the KLD dataset has been extensively used in premier journals and is considered to be among the most comprehensive and prominent CSP index (Coombs and Gilley 2005; Deng et al. 2013; Hillman et al. 2001; Johnson and Greening 1999; Kim et al. 2012; Surroca et al. 2010; Waddock and Graves 1997) other researchers have raised several criticisms (Entine 2003; Griffin 2000; Griffin and Mahon 1997). KLD has been criticized for the extent to which it emphases (or does not emphasize) specific dimensions of CSP, and for methodological choices regarding how scores are calculated (Griffin 2000; Griffin and Mahon 1997). Indeed, Chatterji et al. (2016) compare six social responsibility ratings, including KLD, and note that they offer divergent evaluations of CSP. Most fundamentally, each measure is based on implicit or explicit theorizations of social performance. This theorization is reflected in the scope of dimensions used and the weight given specific dimensions of social performance such as environmental issues, broader social concerns, or relations with specific stakeholders such as employees or the local community. For example, certain ratings (such as KLD) give more weight to social issues, whereas others places more emphasis on issues relating to employees, while others emphasize environmental concerns (Chatterji et al. 2016). Further, measurement of CSP implies judgment regarding what represents accepted or acceptable actions regarding a particular dimension of social performance. For example, what criteria should be included in measuring environmental responsibility or employee relations, and what constitutes 'acceptable' performance along each dimension (Griffin 2000)? As a result, development of a 'universal' measure of CSP is unlikely. However, as Griffin (2000, p. 483) notes "Universal measures suggest that time, culture, industry, and contextual variables do not make a difference. In doing so it suggests a common set of preferences for various stakeholders of the firm … A universal measure potentially oversimplifies this incredibly complex construct rather than relishing the complexity" of social performance. Thus, we acknowledge that our findings may be influenced by the theorization of social performance implicit in the KLD measure. Thus, we encourage future research that makes use of alternative measures of social performance to further explore the implications of different conceptualizations and operationalizations of CSP.

In focusing on the effects of executive compensation our study does not investigate one important influence on CSP: Managerial values. Managerial values are often an important driver of social performance as illustrated by Indra Nooyi of PepsiCo, John Makay of Whole Foods, and Anita Roddick of The Body Shop. For example, Chin et al. (2013) found CEO political ideology to be related to CSP such that firms led by more 'liberal' CEO's exhibited higher CSP. From a theoretical perspective it has been argued that characteristics such as authentic leadership and the manager's personal values are often driers of CSP (Hemingway and Maclagan 2004; Walumbwa et al. 2008). There is also evidence for the CSP implications of leadership characteristics such as transformational leadership and ethical values (Groves and LaRocca 2011). In addition, the recognition of leading a firm widely regarded as socially responsible can be an important motivation for strong CSP. Future research can examine the implications of leadership characteristics in several ways. For example, leadership characteristics may moderate the relationship between executive compensation and social performance such that authentic or value-driven leaders may be less

subject to influence by executive compensation. In contrast, compensation may be more relevant when these values are less prominent. Building upon these arguments, strong social performance may bring potentially significant reputational benefits to both the CEO and the firm. Future research can examine whether the reputational benefits of strong CSP (to either the firm or the CEO) moderate the incentive-CSP relationship. Such reputational incentives may be particularly strong for value-driven CEO's or those with authentic leadership styles.

We noted that most compensation plans do not explicitly target social issues. However, an increasing number of firms are beginning to incorporate social objectives in their compensation metrics (Berrone and Gomez-Mejia 2009; Eccles et al. 2014; Singer 2012; Zyglidopoulos and Fleming 2011), with some evidence for the effect of sustainability policies and targets on social performance (Eccles et al. 2014). Debate regarding the implications of rewarding social performance (see Berrone and Gomez-Mejia 2009 for a discussion of these issues) suggest this as another important area of future research. For example, specific dimensions of CSP or strategic decisions may have different implications for the evaluations of potential losses or gains. Future research can also address whether inclusion of social criteria in compensation plans focuses executive attention to these issues (perhaps to the exclusion of other dimensions of social performance) or promotes a more generalized sensitivity to social issues.

Finally, research can explore issues of framing in more detail. For example, some dimensions of social performance may bring more certain gains or losses. Dimensions more easily observed or evaluated may be framed differently from those less easily observed. Such research can contribute to the application of the BAM to social performance and provide important insights into CSP-related decision processes. Such research would contribute to a finer grained understanding of CSP and to our understanding of decision making from the perspective of the BAM.

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Compliance with Ethical Standards

Human and Animal Rights This article does not contain any studies with human participants or animals performed by any of the authors.

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