Lenihan, O., & Brennan, N. M. (2023). Difficulty of Sustainability Performance Targets in CEO Bonus Plans. *Accounting, Finance & Governance Review, 31*. https://doi.org/10.52399/001c.90764

PUBLISHED RESEARCH ARTICLES

Difficulty of Sustainability Performance Targets in CEO Bonus Plans

Orla Lenihan[1], Niamh M. Brennan[2]

[1] Ollscoil na Gaillimhe – University of Galway, [2] University College Dublin

Keywords: target difficulty, sustainability performance, CEO bonus, goal-setting theory, motivation

https://doi.org/10.52399/001c.90764

Accounting, Finance & Governance Review

Vol. 31, 2023

Drawing on insights from goal-setting theory, we assert that performance targets are highly likely to be reached when they are set lower than prior performance. We hand-collect data on sustainability performance targets in S&P 500 CEO bonus plans. We find that these targets are set lower than prior performance, demonstrating that sustainability targets are not difficult for CEOs to achieve. We also compare the difficulty of sustainability performance targets in CEO bonus plans with that of financial performance targets, showing that sustainability targets are significantly less demanding. Furthermore, we observe that almost two-thirds of sustainability performance targets are realized at the end of the year, which creates a favorable impression of sustainability performance. By setting easy CEO sustainability performance targets, we contend that boards do not motivate high effort on sustainability performance. The implications of our findings are threefold: (1) boards should set more challenging sustainability performance targets in CEO pay to effectively govern corporate sustainability performance; (2) firm stakeholders should actively engage with boards to ensure CEO compensation appropriately incentivizes high performance on sustainability matters; (3) ESG (environmental, social, governance) investors should be cautious if comparing *ex post* realized sustainability performance to *ex ante* targets, as the information may be misleading.

1. Introduction

Sustainability issues have become an important focus of attention for governments, regulators, companies, investors, and the wider society. These issues comprise both social—for example, diversity, equity, and inclusion (DEI)—and environmental—for example, climate change—aspects. New and proposed disclosure regulations from global regulators and standard-setters including the Securities and Exchange Commission, the European Commission, and the International Sustainability Standards Board are forcing firms to publicly report on their sustainability performance. In addition, sustainability factors now play a major role in investment decision-making, with capital markets demanding high-quality, comparable disclosures of firms' social and environmental performance. The consequence of these external pressures is that boards must now include corporate sustainability performance in their oversight responsibilities (Burke et al., 2019; Yadav & Jain, 2023).

One approach that boards can take to effectively govern managerial performance on sustainability is to link executive performance-based compensation to sustainability performance targets. Optimal contracting theory suggests that the inclusion of relevant and informative performance measures in compensation plans incentivizes managerial effort on desirable actions (Bushman et al., 1996; Hölmstrom, 1979; Ittner et al., 1997). There has been a considerable increase in empirical research examining the practice of tying executive incentives to sustainability[1] performance targets. Sustainability-linked executive compensation is more prevalent in better-governed firms (Hong et al., 2016; Ikram et al., 2023), larger firms (Cohen et al., 2023; Lenihan & Brennan, 2023), high-emitting firms (Cohen et al., 2023), and heavily regulated firms (Lenihan & Brennan, 2023). Taken together, these findings suggest that boards believe sustainability-linked executive incentives are value-enhancing in cases where compliance with social and environmental regulations is important to create/maintain firm legitimacy.

Several studies have also examined the outcomes of using sustainability-linked performance targets in executive pay, with mixed results to date. Direct positive incentive effects from tying executive compensation to sustainability performance targets include an increase in social and environmental initiatives/activities (Flammer et al., 2019; Hong et al., 2016), a reduction in emissions (Flammer et al., 2019), and greater incentives to innovate (Tsang et al., 2021). However, Maas (2018) establishes that only quantitative social performance targets are effective at improving social performance results, with no impact from qualitative social performance criteria. The subjectivity within qualitative performance targets reduces managerial motivation due to uncertainty, inconsistency, bias, and a lack of clarity on what denotes good performance (Ittner et al., 2003). Consequently, corporate stakeholders may be concerned with Ikram et al.'s (2023) finding that two-thirds of firms include subjective CSR performance targets in compensation plans as opposed to objective targets.

Considered in totality, the existing findings on sustainability-based executive compensation highlight the need to extend current research beyond simply looking at the *use* of sustainability performance targets in pay plans. In particular, we are missing key insights on how difficult or challenging executive sustainability performance targets are in practice. When linked with incentive schemes, the difficulty of performance targets has strong motivational effects (Locke et al., 1981, 1988; Stedry & Kay, 1966). If targets are too easy, individuals can shirk their responsibilities and still receive a payout for minimal effort. If targets are too difficult, individuals will perceive them as unattainable and will not commit to them. In the budgeting literature, this has led to the commonly used phrase "targets should be tight but achievable" to maximize motivation (Merchant & Manzoni, 1989, p. 539).

While several studies have empirically examined the difficulty of executive performance targets in compensation plans (see, for example, Abernethy et al., 2015; D. S. Kim & Yang, 2012; Zakaria, 2012), prior research has focused solely on targets for income-based performance metrics (earnings per share (EPS) or net earnings). Quantitative sustainability performance targets are a more recent feature of CEO incentives, and we do not know the extent of stretch

1 We use the broad term 'sustainability' to capture the related terms 'corporate social responsibility (CSR)' and 'environmental, social, and governance (ESG)'.

in these targets. We believe the difficulty of sustainability performance targets is a pertinent topic to examine. Goal-setting theory suggests that rigorous and demanding performance targets maximize individual motivation to exert effort, thereby leading to superior performance (Locke et al., 1981, 1988; Locke & Latham, 2002, 2006, 2019; Stedry & Kay, 1966). Undemanding sustainability performance targets, then, will likely just lead to inflated CEO pay and no corresponding improvement in corporate sustainability performance. In such situations, boards are neglecting their governance responsibilities (Kay et al., 2015). It is important to determine whether boards are performing effectively by setting challenging sustainability performance targets in CEO bonus plans.

We hand-collect data on sustainability performance targets from S&P 500 CEO bonus plans for the fiscal year 2014. We focus on CEO bonuses because sustainability targets are not common in long-term incentive plans, with most US firms incentivizing for sustainability through the annual cash bonus plan (Borneman et al., 2022). We offer two contributions to the prior literature on sustainability-linked CEO compensation. To the best of our knowledge, we are the first to analyze the difficulty of sustainability performance targets in CEO incentives. Our evidence demonstrates that sustainability performance targets in CEO bonus plans have considerable slack, being set 14.6% (19.8%) lower than prior one-year (three-year) realized performance, on average. Given that unchallenging performance targets tend to demotivate high managerial effort, our results imply that firms with easy CEO sustainability performance targets will likely not experience significant improvements in corporate sustainability. In addition, we observe that sustainability performance targets in CEO bonus plans are significantly less difficult than financial performance targets, suggesting weak governance of corporate sustainability. Furthermore, we report that boards of heavily regulated utilities and energy firms—who should be governing strongly on sustainability—set easy CEO sustainability performance targets relative to other industry sectors. Taken together, we argue two implications from these findings: (1) boards must set more demanding CEO sustainability performance targets if they wish to incentivize greater corporate sustainability performance; and (2) firm stakeholders should scrutinize CEO sustainability performance targets and challenge boards on how CEO pay is designed to incentivize improvements in corporate sustainability performance.

The second contribution from our paper is that we shed light on the *ex post* achievement of sustainability performance targets in CEO bonus plans, revealing that 65% of these targets are achieved. It is likely that ESG-conscious investors view the attainment of sustainability performance targets as positive news. For example, favorable firm stock price reactions to the meeting and beating of analysts' earnings targets are well established in the literature (Bartov et al., 2002; Kasznik & McNichols, 2002). ESG investing has become increasingly more prevalent in financial markets, with investors relying on firm ESG ratings to inform investment decisions (Christensen et al., 2022). If CEO sustainability targets are highly achievable *ex ante*, the *ex post* achievement of these targets misrepresents true sustainability performance and, potentially, firm ESG scores. Our findings imply that ESG investors should exercise caution when analyzing publicly disclosed information on corporate sustainability performance, as it may lead to a misallocation of capital.

The remainder of the paper is organized as follows. In the next section, we summarize the previous empirical findings on CEO performance targets and develop our research questions. Following that, we describe the sample, data sources, and target-difficulty measure. We then discuss the results. We conclude the paper by drawing final comments.

2. Theory and Research Questions

2.1 Performance Targets in CEO Compensation[2]

Studies examining the extent of difficulty or challenge in CEO performance targets compare targets with an appropriate benchmark such as prior performance or analyst expectations. For example, Kim and Yang (2012) analyze EPS growth targets in S&P 500 CEO annual incentive plans, finding that they are set lower than both prevailing analyst forecasts and historical EPS growth rates. They also find that firms with easy EPS targets perform better than firms with challenging targets, reporting a significantly higher actual to target EPS growth rate and, as a result, a higher *ex post* CEO payout. Furthermore, firms with non-busy boards and high governance indices set more challenging EPS targets in their annual incentive plans.

Similar evidence exists in UK incentive plans. Zakaria (2012) finds that executive EPS growth targets are set below both prior and analyst-forecasted EPS growth, signifying an element of attainability. Abernethy et al. (2015) find EPS targets for CEO stock option vesting to be slightly higher than both future performance expectations and the annual rate of inflation. However, they also report a significantly negative relationship between CEO power and target difficulty, suggesting that boards of firms with powerful CEOs attach easier targets to their stock option plans. Kim et al.'s (2023) study provides further confirmation of this negative association between CEO entrenchment and EPS target difficulty. Other target-difficulty determinants from Kim et al.'s (2023) study include market uncertainty and CEO retention concerns. Finally, target difficulty has been found to influence corporate risk taking, and boards set CEO performance targets to induce risk taking when it is value-enhancing (Chen et al., 2022).

Related to the discussion on target difficulty is a consideration of target-revision practices. The ratcheting approach to revising performance targets uses prior performance as a basis for determining current targets. While this

2 Consistent with our research setting, we restrict our literature review to empirical research examining performance targets in CEO compensation plans. For insights on the performance targets of lower-level managers and workers, refer to the following studies: Casas-Arce et al., 2020; Martin & Thomas, 2022; Matějka et al., 2022; Merchant et al., 2018. We also do not include the earnings-management literature (see, for example, Bartov et al., 2002; Bennett et al., 2017; Burgstahler & Dichev, 1997) that examines how executives manage reported performance *ex post* to beat pre-established targets; our study is focused on boards' *ex ante* setting of CEO performance targets.

naturally leads to performance targets with more stretch, Weitzman (1980) criticizes ratcheted targets for encouraging self-serving managers to intentionally withhold effort in the early period to avoid being held accountable to higher targets in the future. Indjejikian and Nanda (2002) argue that firms can avoid these adverse effects if they commit to disregard executives' prior performance information when setting current targets. Through compensation survey data, Indjejikian and Nanda (2002) find that executives are more likely to receive an above-target bonus in the current year if they also received an above-target bonus in the prior year. This suggests that boards discount prior performance when setting current targets to mitigate executives' incentives to intentionally perform poorly.

Indjejikian et al. (2014) extend this line of enquiry. They report that high-profitability firms revise earnings targets downwards when prior-year targets have been missed, but do not adjust targets upwards following prior-year performance exceeding target. This is consistent with boards committing to disregard prior performance information to reward their executives for truthfully reporting high profitability and for delivering high effort. Li et al. (2022) observe a similar occurrence with boards' target-revision practices in response to operating cash flows. They report a positive association between future EPS target achievability and current operating cash flows. Li et al. (2022) present evidence to suggest that boards choose not to fully incorporate high operating cash flow results when setting future targets to avoid managerial actions that forgo cash flows.

2.2 Goal-Setting Theory and Research Questions

The principal argument of goal-setting theory is that specific, challenging performance goals or targets lead to higher performance than easy targets (Locke et al., 1981, 1988; Locke & Latham, 2002, 2006, 2019). Difficult targets motivate more effort and additional rewards flow from the achievement of difficult targets (Locke & Latham, 2006, 2019). We apply the insights from goal-setting theory to the case of CEO-bonus performance targets. Boards typically establish one or more quantitative performance targets *ex ante,* against which CEO realized performance is assessed *ex post.* Goal-setting theory implies that boards should set challenging performance targets if they wish to generate higher levels of CEO performance. Given their overall leadership roles, CEOs likely possess sufficient ability, knowledge, skill, and commitment; qualities that are seen as essential to achieve difficult goals (Locke & Latham, 2005, 2013, 2019).

The question arises as to what constitutes a challenging or difficult performance target. While shareholders demand high levels of CEO performance, boards need to also ensure that CEO performance targets are attainable in order to motivate effectively. Goal commitment and managerial effort have been found to lessen as performance targets increase and the perceived chances of reaching them decline (Locke et al., 1988; Matějka & Ray, 2017). Consequently, performance targets should be moderately difficult (challenging, but achievable) to incentivize effort and performance (S. Kim et al., 2023). Stedry and Kay (1966) claim that when a performance goal is set at the same or lower amount as prior realized performance, there is a high probability that the goal will be achieved. This implies that moderately difficult performance targets should, at the very least, be set higher than prior realized performance. Thus, assuming that boards are governing effectively, we expect CEO performance targets in executive compensation plans to be set higher than prior realized performance. While many CEO-compensation studies provide insights on how current *financial* performance targets compare with prior realized performance (see, for example, Conyon et al., 2000; Indjejikian et al., 2014; D. S. Kim & Yang, 2012; Zakaria, 2012), similar knowledge of CEO *sustainability* performance targets is non-existent. We do not know the extent of challenge or difficulty in CEO sustainability performance targets. This motivates the first research question:

> *RQ1: Are sustainability performance targets in CEO bonus plans set at amounts higher than, lower than, or similar to prior realized performance?*

Annual cash bonus plans have long been criticized for over-emphasizing financial performance (Healy, 1985; Ibrahim & Lloyd, 2011; Ittner et al., 1997; Murphy, 2012; Murphy & Jensen, 2011). While integrating sustainability performance targets into CEO bonus plans helps to direct managerial attention away from financial results, sustainability targets will only be effective if they are as challenging as financial performance targets. Where boards set sustainability performance targets at levels easier than financial performance targets, high effort and greater performance on sustainability matters are unlikely to be realized. Thus, our second research question is:

> *RQ2: Are sustainability performance targets and financial performance targets in CEO bonus plans equally difficult?*

Sustainability matters should be of particular importance to firms in heavily regulated industries such as utilities and energy. Utilities firms are subject to specific environmental regulations and service reliability standards imposed by federal agencies. Given the nature of electricity and gas suppliers' operations, activities such as advancing environmentally friendly production and reducing service outages are considered value-enhancing. Energy firms that operate oil and gas exploration activities also face intense scrutiny from environmental and safety regulators. Improving performance in such areas will lead to reductions in penalties, clean-up costs, and liability claims (Klassen & McLaughlin, 1996). This suggests that boards of utilities and energy firms should incentivize compliance with regulatory requirements through the use of sustainability performance targets in CEO compensation. Previous findings indicate that utilities and energy firms place more weight on sustainability performance measures in CEO bonus plans (Lenihan & Brennan, 2023). However, while higher performance-measure weights suggest stronger incentive effects, overall managerial effort may remain unchanged if higher-weighted targets are set at lower rates of difficulty. Matějka and Ray (2017) find such a substitution effect within the financial performance targets of financial executives' bonus plans. This leads to our third question:

> *RQ3: Do utilities and energy firms set moderately difficult sustainability performance targets in CEO bonus plans?*

3. Research Design

3.1 Sample and Data

We examine all S&P 500 firms in the fiscal year 2014 to identify those that award CEO bonus payments based on the satisfaction of pre-established, quantitative[3] sustainability performance targets. Data on sustainability performance targets and prior realized performance outcomes are hand-collected from the Compensation Discussion and Analysis (CD&A) section of firms' annual SEC-filed proxy statements. Similar to other studies (Hong et al., 2016; Ikram et al., 2023; Maas, 2018), we code all performance measures that relate to customers, employees, environment, health and safety, diversity, community and people, quality, and ethics as sustainability targets. Some examples of sustainability performance targets in CEO bonus plans include: incident rate/serious event rate; call response time; customer satisfaction score; surveyed employees satisfied with job; workforce diversity percentage; number of spills into the environment; carbon emissions. We identify 73 firms that include at least one quantitative sustainability performance target in their CEO bonus plans. Each of these firms evaluates CEO performance using multiple performance targets, relying on both sustainability performance targets and financial performance targets. Across the 73 firms, a total of 460 performance targets are included in CEO bonus plans (211 sustainability performance targets and 249 financial performance targets).

3.2 Difficulty of Sustainability Performance Targets

The difficulty of performance targets is typically measured in one of two ways: (1) asking survey respondents for their estimated likelihood of achieving performance targets (Indjejikian et al., 2014; Matějka & Ray, 2017); and (2) comparing performance targets to relative benchmarks such as analyst earnings forecasts (Choi et al., 2021; D. S. Kim & Yang, 2012; Zakaria, 2012), the retail price index (Abernethy et al., 2015), and prior realized performance (Conyon et al., 2000; D. S. Kim & Yang, 2012; Zakaria, 2012). We do not administer a survey to gather S&P 500 CEOs' opinions on target difficulty, given the low chance of receiving a sufficient response rate. Analyst forecasts are not available for sustainability performance targets and the retail price index would not be a meaningful relative benchmark for most sustainability targets. Thus, we compare sustainability performance targets with prior realized performance

3 We do not include firms that only award CEO payments based on qualitative sustainability criteria because it is not possible to objectively measure the difficulty of qualitative performance criteria, which by their nature are subjective.

to measure the extent of challenge or difficulty in the targets. Where current targets are set higher than prior performance, this indicates a level of challenge in performance targets (Yukl & Latham, 1978); where current targets are set lower than prior performance, performance targets are considered highly achievable (Stedry & Kay, 1966). Our objective measure of target difficulty has the added benefit of not suffering from an upward or downward bias, depending on how easily survey respondents have met previous targets.

We identify current (i.e. the fiscal year 2014) CEO bonus performance targets from fiscal-year 2014 CD&As, as published in 2014 and 2015 SEC-filed proxy statements. We differ from previous target-difficulty studies (Conyon et al., 2000; D. S. Kim & Yang, 2012; Zakaria, 2012) in that we hand-collect the prior actual realized performance outcomes from prior firm CD&As as opposed to commercial databases.[4] We do so because firms typically use adjusted non-GAAP metrics for CEO performance evaluation (Curtis et al., 2021) and, consequently, actual realized performance outcomes for compensation metrics (as disclosed in firm CD&As) are different from GAAP measures as reported in financial-reporting databases.

We measure target difficulty for each CEO-bonus performance target by comparing current performance targets with prior actual realized performance in the previous one (*DIFF_ONE*) and three (*DIFF_THREE*) years (similar to D. S. Kim & Yang, 2012 and Zakaria, 2012). Where boards change the performance metrics used in CEO bonus plans from the previous three years (2011 to 2013), the prior realized performance data is not available. Consequently, from our initial sample of 460 performance targets, we can only calculate *DIFF_ONE* for 154 performance targets (48 sustainability, 106 financial) and *DIFF_THREE* for 114 performance targets (31 sustainability, 83 financial). The difference between current performance targets and prior realized performance (one-year and three-year average) is scaled by prior realized performance to calculate how much higher or lower current performance targets are, relative to prior realized performance. Higher values indicate more difficult targets.

4. Results

4.1 Descriptive Findings

Figure 1 displays the frequency distribution of sustainability performance targets in CEO bonus plans across industry sectors for the sample. Consistent with previous findings (Cohen et al., 2023; Flammer et al., 2019; Ikram et al., 2023), we observe that sustainability performance targets are more prevalent in the CEO bonus plans of utilities and energy firms. Such firms operate emission-intensive processes and potentially hazardous activities, with performance on environmental and safety criteria being particularly important for these firms.

4 While ISS Incentive Lab holds data on performance targets, the coverage does not include data on actual realized performance outcomes.

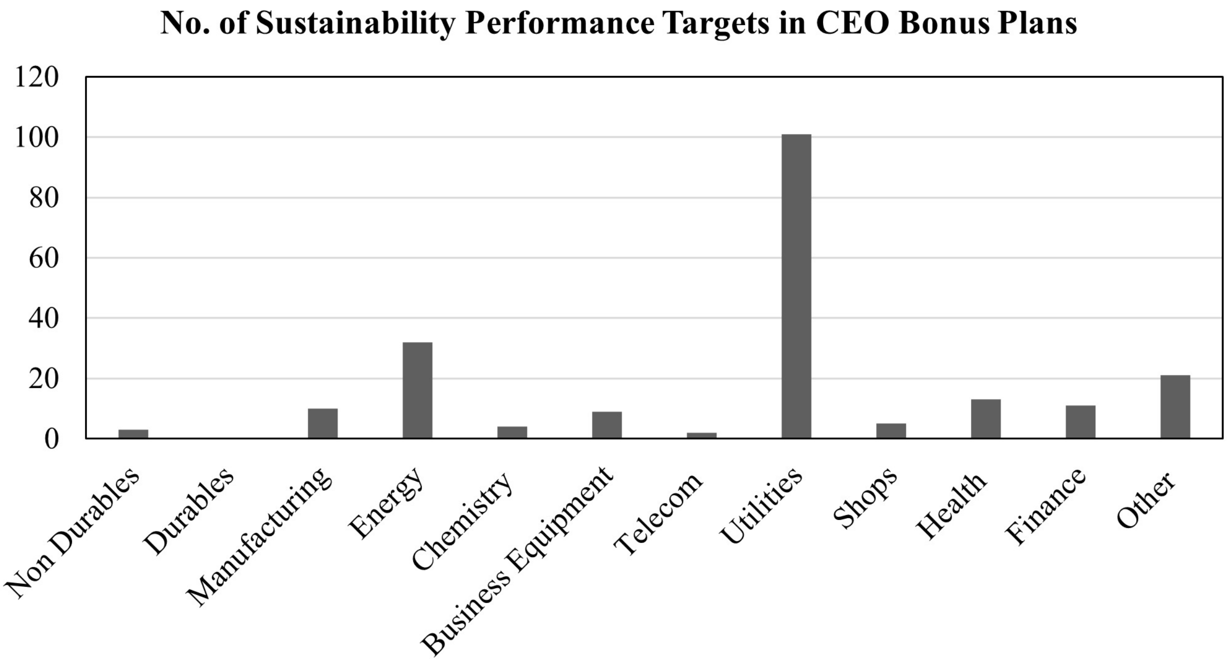

Figure 1. Sustainability Performance Targets in CEO Bonus Plans for the Sample by Industry Sector

4.2 Empirical Findings

4.2.1 Sustainability Performance Targets in CEO Bonus Plans and Prior Realized Performance (RQ1)

Table 1 reports the descriptive statistics for the difficulty of performance targets in CEO bonus plans. Positive (negative) values of *DIFF_ONE* and *DIFF_THREE* represent performance targets that are set higher (lower) than prior realized performance. The mean value of *DIFF_ONE* for sustainability performance targets is –0.146. This indicates that sustainability performance targets in CEO bonus plans are set 14.6% lower than prior-year realized performance, on average. A similar observation is noted for *DIFF_THREE*, with sustainability performance targets set 19.8% lower than prior three-year realized performance, on average. To our knowledge, we are the first to present descriptive evidence of the extent of challenge in CEO sustainability performance targets. Previous research (Stedry & Kay, 1966) suggests that performance targets are highly likely to be reached when they are set lower than prior performance. In light of our finding that sustainability performance targets in CEO bonus plans are set lower than prior realized performance, we conclude that such targets are not challenging or difficult to achieve. Goal-setting theory argues that easy performance targets do not motivate high effort and high performance (Locke & Latham, 2002, 2006, 2019). By setting easy-to-achieve sustainability performance targets for CEOs, we contend that boards are not effectively overseeing corporate sustainability performance.

Table 1. Difficulty of Sustainability and Financial Performance Targets in CEO Bonus Plans

Variable	N	Mean	Std. dev.	Min	Max	Median
DIFF_ONE						
Sustainability performance targets	48	−0.146	0.761	−3.563	1.800	0.000
Financial performance targets	106	0.092	0.795	−1.449	6.844	0.014
Total	154					
DIFF_THREE						
Sustainability performance targets	31	−0.198	1.425	−6.300	4.000	−0.009
Financial performance targets	83	0.108	0.749	−1.486	4.522	0.059
Total	114					

DIFF_ONE is the difference between target and prior-year realized performance, divided by prior-year realized performance. *DIFF_THREE* is the difference between target and prior 3-year average realized performance, divided by prior 3-year average realized performance.

4.2.2 Sustainability Performance and Financial Performance Targets in CEO Bonus Plans (RQ2)

Table 1 reports the mean difficulty of sustainability and financial performance targets in CEO bonus plans. Across both measures of difficulty (one-year and three-year average), sustainability performance targets are set considerably lower than financial performance targets, on average. We run two-sample *t* tests to examine if the differences in mean difficulty across the two performance-target types are statistically significant. For both measures of difficulty, we reject the null hypothesis of equal means (*DIFF_ONE*: $p<0.05$; *DIFF_THREE*: $p<0.10$). We find evidence in support of the alternative hypothesis that sustainability performance targets are significantly less difficult than financial performance targets. While boards appear to motivate high CEO effort on financial performance through challenging targets, the easy sustainability targets in bonus plans likely do not motivate superior performance on aspects of corporate sustainability. This finding is more concerning when considered together with Lenihan and Brennan's (2023) observation that sustainability performance measures are not heavily weighted in CEO bonus plans. Boards appear to include sustainability performance targets in CEO bonus plans that are both less challenging and less heavily weighted than financial performance targets. This implies that boards emphasize financial performance in CEO bonus plans, a practice that incentivizes short-termist, value-destroying, earnings-management behavior (Healy, 1985; Murphy, 2012; Murphy & Jensen, 2011).

4.2.3 Utilities and Energy Firms' Sustainability Performance Targets in CEO Bonus Plans (RQ3)

Figure 2 displays the mean difficulty of CEO sustainability performance targets in utilities and energy firms. On average, utilities and energy firms set sustainability performance targets 18% and 39% lower than prior one-year and three-year realized performance, respectively. It is not clear from the target-setting literature what constitutes a *moderately difficult* performance target. Perceptions of performance-target difficulty vary depending on many contextual factors including current economic environment, peer-firm performance, and future performance expectations. In general, however, we

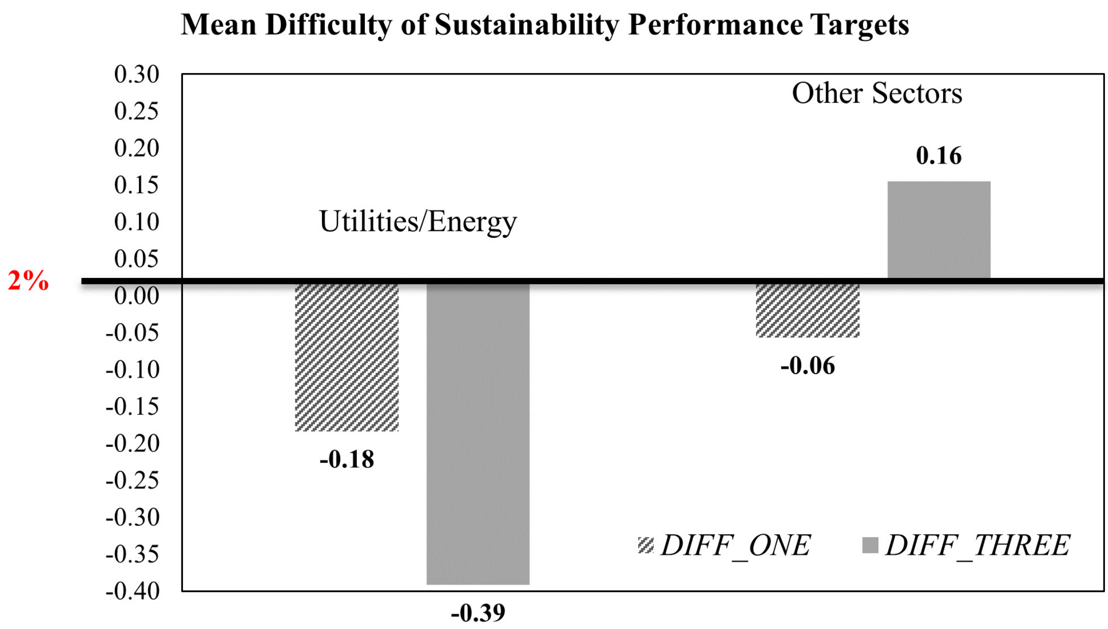

Figure 2. Mean Difficulty of Sustainability Performance Targets in CEO Bonus Plans

expect boards to set CEO performance targets higher than prior realized performance if they are to motivate improvements in performance. For instance, previous research finds that CEO stock options require a 2% real growth in EPS per annum before the options become exercisable (Conyon et al., 2000). We include a 2% benchmark line in Figure 2 to facilitate a comparison between sustainability performance targets and EPS performance targets in CEO compensation. Applying this target-difficulty benchmark of 2%, we conclude that utilities and energy firms do not set moderately difficult sustainability performance targets in CEO bonus plans.

Figure 2 also reveals that sustainability performance targets in utilities and energy firms are less challenging than sustainability targets in other industry sectors. Prior research has observed a higher *use* of sustainability performance targets in the CEO incentives of utilities and energy firms, implying strong governance by the boards of these firms (Cohen et al., 2023; Flammer et al., 2019; Ikram et al., 2023). However, including more sustainability performance targets in CEO compensation will not be effective at improving corporate sustainability performance if these targets are highly achievable. Investors and stakeholders of utilities and energy firms expect boards to incentivize strong performance on sustainability criteria. Compliance with environmental and safety regulations is essential for firms in these industries to avoid sanctions and legal costs. Furthermore, poor corporate sustainability performance is especially damaging to the reputation of utilities and energy firms (Arora & Lodhia, 2017). Contrary to the previous studies on sustainability-linked executive compensation, our evidence of highly attainable sustainability performance targets in CEO bonus plans implies a failure of governance in utilities and energy firms.

Table 2. Achievement of Sustainability Performance Targets in CEO Bonus Plans

Target-achievement category	Frequency	Percentage
(1) Meet target	8	6%
(2) Exceed target	74	59%
(3) Miss target	44	35%
Total	126	100%

4.2.4 Additional Analysis: Ex post Target Achievement

As further analysis, we identify *ex post* actual realized performance outcomes in the fiscal year 2014 to ascertain whether *ex ante* sustainability performance targets are challenging or easy. However, we advise caution in interpreting this data. Boards set performance targets at the start of the year *ex ante* based on performance expectations at that time. *Ex post* actual realized results are affected by macroeconomic and industry conditions during the year, which can be volatile. Given that *ex post* actual realized performance depends on both CEO effort and macroeconomic conditions, *ex post* results can be noisy indicators of target difficulty. Nevertheless, we include this data to provide additional insights on target achievement. We hand-collect *ex post* actual realized performance outcomes from fiscal-year 2014 CD&As. Contrary to our measures of target difficulty, where the unavailability of prior realized performance data reduced our sample sizes, data for our measure of target achievement is more readily available. Consequently, we can measure target achievement for a larger sample of sustainability performance targets (n = 126).

We create a new categorical variable with three categories as follows: (1) meet target (*ex post* realized performance outcome equals *ex ante* performance target); (2) exceed target (*ex post* realized performance outcome is greater than *ex ante* performance target); (3) miss target (*ex post* realized performance outcome is less than *ex ante* performance target). Although there is no consensus on how to measure challenging but achievable targets, some authors suggest such targets should be achievable less than 50% of the time (see Merchant & Manzoni (1989) for a full discussion of this budgeting literature). Following this line of reasoning—and assuming that boards set challenging but achievable targets—we expect less than 50% of the sustainability performance targets in CEO bonus plans to fall into categories one and two.

Table 2 reports the frequencies of sustainability performance targets in each target-achievement category. We observe that 65% of sustainability performance targets in CEO bonus plans are achieved (Categories 1 and 2). One interpretation of this finding is that high levels of CEO effort are leading to high levels of corporate sustainability performance. An alternative view is that sustainability performance targets are not sufficiently challenging for CEOs, thus leading to high levels of attainment. Given our original findings on the lack of stretch in CEO sustainability performance targets, we contend that the second interpretation is more likely. Therefore, our target-achievement analysis supports our previous assertion that boards are not governing strongly on corporate sustainability performance.

5. Summary and Conclusion

In their governance role, one of the key functions of boards is to align executive pay with firm performance (Kay et al., 2015). Part of this undertaking is to set challenging performance targets in executive incentive plans that motivate strong performance and meet stakeholder expectations. While prior research has provided many insights on the difficulty of financial performance targets in CEO compensation, our knowledge of the difficulty of CEO sustainability performance targets is scarce. Applying insights from goal-setting theory, we formulate three research questions for empirical testing. We hand-collect target and realized-outcome data from S&P 500 CD&As for the fiscal year 2014. We find that sustainability performance targets in CEO bonus plans are set lower than prior realized performance. CEOs are likely to reach these targets without exerting high effort. Recent studies indicate that boards are now placing more reliance on sustainability performance targets in CEO compensation as a means of encouraging strong corporate sustainability performance (Cohen et al., 2023; Flammer et al., 2019; Ikram et al., 2023; Lenihan & Brennan, 2023; Tsang et al., 2021). However, our findings demonstrate that the incentive effects from sustainability performance targets in CEO bonus plans are likely to be weak.

This leads us to contemplate why boards include sustainability targets in CEO bonus plans if such targets are not incentivizing high effort. One possible suggestion is that boards wish to avoid the type of myopic, short-sighted behavior that difficult targets can encourage. For example, some concerns have been expressed that specific, challenging performance targets can lead to unethical behavior including overstatement or misrepresentation of performance and falsifying financial statements (Latham & Locke, 2018; Ordóñez et al., 2009). However, this explanation seems unlikely when we consider our observation that financial performance targets in CEO bonus plans are significantly more difficult than sustainability performance targets. If boards were concerned about managerial overstatement of corporate performance, we would expect financial performance targets to also be undemanding. A more plausible explanation for linking CEO compensation to sustainability performance is that boards include sustainability criteria for symbolic rather than substantive reasons (Haque & Ntim, 2020). Ikram et al. (2023) observe that the inclusion of sustainability performance targets in executive compensation plans tends to improve firms' corporate social standing, as measured through CSR ratings. Boards may try to gain legitimacy in the eyes of their environmental and social stakeholders by linking executive pay to sustainability performance targets. However, by not challenging CEOs to consistently enhance corporate sustainability performance year-on-year, we argue that boards neglect their oversight responsibilities.

We also find that easy CEO sustainability performance targets lead to high rates of attainment, with 65% of sustainability targets achieved at the end of the year. A favorable impression is created when firms publicly disclose actual sustainability performance exceeding target. ESG rating providers rely on publicly reported sustainability data to calculate ESG scores and investors rely on this information to make investment decisions (Christensen et al., 2022; Marquis & Qian, 2014). Investors are likely to be misled about firms' true sustainability performance in cases where sustainability targets are easy to achieve.

Finally, in contrast to previous research that suggests boards of utilities and energy firms perform well on the governance of corporate sustainability, we discover that CEO sustainability performance targets in utilities and energy firms are less challenging, relative to other industry sectors. Our evidence on the achievability of sustainability performance targets in CEO bonus plans demonstrates the importance of undertaking more in-depth studies on the design features of CEO incentives. For example, much of the previous research on sustainability-linked executive pay simply codes the use of sustainability performance targets through a binary variable (Cohen et al., 2023; Flammer et al., 2019; Ikram et al., 2023). Such approaches to analyzing sustainability-based executive compensation fail to capture the critical insights we present in our paper.

Our paper is subject to several caveats. First, we acknowledge the limitation of our dataset to one fiscal year. This limitation is imposed by the hand-collection of a large dataset that contains unique data on sustainability performance targets and, in particular, matching realized performance outcomes; data that are not accessible in commercial-database format. The rich knowledge gained from our finer dataset is at the expense of multiple years of data on broader facets of CEO compensation. Second, despite using three alternative indicators of target difficulty (comparing targets with prior one-year, three-year, and *ex post* realized performance), we acknowledge that the measurement of target difficulty remains imperfect. Other studies have compared earnings performance targets with relative benchmarks such as analyst forecasts or the retail price index. However, these approaches are not appropriate for sustainability performance targets. Third, due to the small number of firms in our sample (n = 73) that include sustainability performance targets in CEO bonus plans, we confine our analysis to the performance-target level. The additional hand-collection of further data would generate a larger firm-level dataset, allowing for research into the influence of firm-level variables on the difficulty of sustainability performance targets. This analysis would reveal which firms set more (or less) challenging CEO sustainability performance targets and we believe that this area is promising for future research. Despite these potential limitations, our study demonstrates that boards fail to set challenging sustainability performance targets in CEO bonus plans.

References

Abernethy, M. A., Kuang, Y. F., & Qin, B. (2015). The influence of CEO power on compensation contract design. *The Accounting Review*, *90*(4), 1265–1306. https://doi.org/10.2308/accr-50971

Arora, M. P., & Lodhia, S. (2017). The BP Gulf of Mexico oil spill: Exploring the link between social and environmental disclosures and reputation risk management. *Journal of Cleaner Production*, *140*, 1287–1297. https://doi.org/10.1016/j.jclepro.2016.10.027

Bartov, E., Givoly, D., & Hayn, C. (2002). The rewards to meeting or beating earnings expectations. *Journal of Accounting and Economics*, *33*(2), 173–204. https://doi.org/10.1016/s0165-4101(02)00045-9

Bennett, B., Bettis, J. C., Gopalan, R., & Milbourn, T. (2017). Compensation goals and firm performance. *Journal of Financial Economics*, *124*(2), 307–330. https://doi.org/10.1016/j.jfineco.2017.01.010

Borneman, J., Teefey, J., & Mazzoni, M. (2022). *ESG + Incentives 2022 Report*. https://corpgov.law.harvard.edu/2022/08/22/esg-incentives-2022-report/

Burgstahler, D., & Dichev, I. (1997). Earnings management to avoid earnings decreases and losses. *Journal of Accounting and Economics*, *24*(1), 99–126. https://doi.org/10.1016/s0165-4101(97)00017-7

Burke, J. J., Hoitash, R., & Hoitash, U. (2019). The heterogeneity of board-level sustainability committees and corporate social performance. *Journal of Business Ethics*, *154*(4), 1161–1186. https://doi.org/10.1007/s10551-017-3453-2

Bushman, R. M., Indjejikian, R. J., & Smith, A. (1996). CEO compensation: The role of individual performance evaluation. *Journal of Accounting and Economics*, *21*(2), 161–193. https://doi.org/10.1016/0165-4101(95)00416-5

Casas-Arce, P., Indjejikian, R. J., & Matějka, M. (2020). Bonus plan choices during an economic downturn. *Journal of Management Accounting Research*, *32*(2), 85–105. https://doi.org/10.2308/jmar-52548

Chen, C. X., Kim, M., Li, L. Y., & Zhu, W. (2022). Accounting performance goals in CEO compensation contracts and corporate risk taking. *Management Science*, *68*(8), 6039–6058. https://doi.org/10.1287/mnsc.2021.4173

Choi, S., Kim, S., Kwon, S., & Shin, J. Y. (2021). Analyst forecasts and target setting in executive annual bonus contracts. *Journal of Management Accounting Research*, *33*(2), 19–42. https://doi.org/10.2308/jmar-18-075

Christensen, D. M., Serafeim, G., & Sikochi, A. (2022). Why is corporate virtue in the eye of the beholder? The case of ESG ratings. *The Accounting Review*, *97*(1), 147–175. https://doi.org/10.2308/tar-2019-0506

Cohen, S., Kadach, I., Ormazabal, G., & Reichelstein, S. (2023). Executive compensation tied to ESG performance: International evidence. *Journal of Accounting Research*, *61*(3), 805–853. https://doi.org/10.1111/1475-679x.12481

Conyon, M. J., Peck, S. I., Read, L. E., & Sadler, G. V. (2000). The structure of executive compensation contracts: UK evidence. *Long Range Planning*, *33*(4), 478–503. https://doi.org/10.1016/s0024-6301(00)00054-6

Curtis, A., Li, V., & Patrick, P. H. (2021). The use of adjusted earnings in performance evaluation. *Review of Accounting Studies*, *26*(4), 1290–1322. https://doi.org/10.1007/s11142-021-09580-1

Flammer, C., Hong, B., & Minor, D. (2019). Corporate governance and the rise of integrating corporate social responsibility criteria in executive compensation: Effectiveness and implications for firm outcomes. *Strategic Management Journal*, *40*(7), 1097–1122. https://doi.org/10.1002/smj.3018

Haque, F., & Ntim, C. G. (2020). Executive compensation, sustainable compensation policy, carbon performance and market value. *British Journal of Management*, *31*(3), 525–546. https://doi.org/10.1111/1467-8551.12395

Healy, P. M. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics*, *7*(1–3), 85–107. https://doi.org/10.1016/0165-4101(85)90029-1

Hölmstrom, B. (1979). Moral hazard and observability. *The Bell Journal of Economics*, *10*(1), 74–91. https://doi.org/10.2307/3003320

Hong, B., Li, Z., & Minor, D. (2016). Corporate governance and executive compensation for corporate social responsibility. *Journal of Business Ethics*, *136*(1), 199–213. https://doi.org/10.1007/s10551-015-2962-0

Ibrahim, S., & Lloyd, C. (2011). The association between non-financial performance measures in executive compensation contracts and earnings management. *Journal of Accounting and Public Policy*, *30*(3), 256–274. https://doi.org/10.1016/j.jaccpubpol.2010.10.003

Ikram, A., Li, Z., & Minor, D. (2023). CSR-contingent executive compensation contracts. *Journal of Banking & Finance*, *151*, 105655. https://doi.org/10.1016/j.jbankfin.2019.105655

Indjejikian, R. J., Matějka, M., Merchant, K. A., & Van der Stede, W. A. (2014). Earnings targets and annual bonus incentives. *The Accounting Review*, *89*(4), 1227–1258. https://doi.org/10.2308/accr-50732

Indjejikian, R. J., & Nanda, D. (2002). Executive target bonuses and what they imply about performance standards. *The Accounting Review*, *77*(4), 793–819. https://doi.org/10.2308/accr.2002.77.4.793

Ittner, C. D., Larcker, D. F., & Meyer, M. W. (2003). Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard. *The Accounting Review*, *78*(3), 725–758. https://doi.org/10.2308/accr.2003.78.3.725

Ittner, C. D., Larcker, D. F., & Rajan, M. V. (1997). The choice of performance measures in annual bonus contracts. *The Accounting Review*, *72*(2), 231–255.

Kasznik, R., & McNichols, M. F. (2002). Does meeting earnings expectations matter? Evidence from analyst forecast revisions and share prices. *Journal of Accounting Research*, *40*(3), 727–759. https://doi.org/10.1111/1475-679x.00069

Kay, I., Friedman, S., Lane, B., Martin, B., & Meischeid, S. (2015). *Are companies setting challenging target incentive goals?* https://corpgov.law.harvard.edu/2015/04/18/are-companies-setting-challenging-target-incentive-goals/

Kim, D. S., & Yang, J. (2012). *Behind the scenes: Performance target setting of annual incentive plans* [Unpublished working paper]. https://doi.org/10.2139/ssrn.1361814

Kim, S., Matějka, M., & Park, J. (2023). Economic determinants and consequences of performance target difficulty. *The Accounting Review*, *98*(2), 361–387. https://doi.org/10.2308/tar-2021-0319

Klassen, R. D., & McLaughlin, C. P. (1996). The impact of environmental management on firm performance. *Management Science*, *42*(8), 1199–1214. https://doi.org/10.1287/mnsc.42.8.1199

Latham, G. P., & Locke, E. A. (2018). Goal setting theory: Controversies and resolutions. In D. Ones, N. Anderson, C. Viswesvaran, & H. Sinangil (Eds.), *The SAGE Handbook of Industrial, Work & Organizational Psychology* (Vol. 2, pp. 145–166). Sage. https://doi.org/10.4135/9781473914957.n8

Lenihan, O., & Brennan, N. M. (2023). Do boards effectively link firm objectives to CEO bonus performance measures? *Journal of Management and Governance*. https://doi.org/10.1007/s10997-023-09690-9

Li, L. Y., Wang, S., & Zhu, W. (2022). Operating cash flows and earnings target revision: Evidence from annual cash bonus plans for CEOs. *Journal of Management Accounting Research*, *34*(2), 181–199. https://doi.org/10.2308/jmar-19-037

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, *57*(9), 705–717. https://doi.org/10.1037/0003-066x.57.9.705

Locke, E. A., & Latham, G. P. (2005). Goal setting theory: Theory building by induction. In K. G. Smith & M. A. Hitt (Eds.), *Great minds in management: The process of theory development* (pp. 128–150). Oxford University Press. https://doi.org/10.1093/oso/9780199276813.003.0007

Locke, E. A., & Latham, G. P. (2006). New directions in goal-setting theory. *Current Directions in Psychological Science*, *15*(5), 265–268. https://doi.org/10.1111/j.1467-8721.2006.00449.x

Locke, E. A., & Latham, G. P. (2013). Goal setting theory: The current state. In E.A. Locke & G. P. Latham (Eds.), *New developments in goal setting and task performance* (pp. 623–630). Routledge. https://doi.org/10.4324/9780203082744

Locke, Edwin A., & Latham, G. P. (2019). The development of goal setting theory: A half century retrospective. *Motivation Science*, *5*(2), 93–105. https://doi.org/10.1037/mot0000127

Locke, Edwin A., Latham, G. P., & Erez, M. (1988). The determinants of goal commitment. *Academy of Management Review*, *13*(1), 23–39. https://doi.org/10.2307/258352

Locke, Edwin A., Shaw, K. N., Saari, L. M., & Latham, G. P. (1981). Goal setting and task performance: 1969–1980. *Psychological Bulletin*, *90*(1), 125–152. https://doi.org/10.1037/0033-2909.90.1.125

Maas, K. (2018). Do corporate social performance targets in executive compensation contribute to corporate social performance? *Journal of Business Ethics*, *148*, 573–585. https://doi.org/10.1007/s10551-015-2975-8

Marquis, C., & Qian, C. (2014). Corporate social responsibility reporting in China: Symbol or substance? *Organization Science*, *25*(1), 127–148. https://doi.org/10.1287/orsc.2013.0837

Martin, R., & Thomas, T. (2022). Target setting with compensation discretion: How are ex ante targets affected when superiors have ex post discretion? *Accounting, Organizations and Society*, *97*, 101295. https://doi.org/10.1016/j.aos.2021.101295

Matějka, M., Mahlendorf, M. D., & Schäffer, U. (2022). The ratchet effect: Theory and empirical evidence. *Management Science*. https://doi.org/10.1287/mnsc.2022.4641

Matějka, M., & Ray, K. (2017). Balancing difficulty of performance targets: Theory and evidence. *Review of Accounting Studies*, *22*(4), 1666–1697. https://doi.org/10.1007/s11142-017-9420-4

Merchant, K. A., & Manzoni, J.-F. (1989). The achievability of budget targets in profit centers: A field study. *The Accounting Review*, *64*(3), 539–558.

Merchant, K. A., Stringer, C., & Shantapriyan, P. (2018). Setting financial performance thresholds, targets, and maximums in bonus plans. *Journal of Management Accounting Research*, *30*(3), 55–73. https://doi.org/10.2308/jmar-52116

Murphy, K. J. (2012). Executive compensation: Where we are, and how we got there. In G. Constantinides, M. Harris, & R. Stulz (Eds.), *Handbook of the economics of finance* (pp. 211–356). Elsevier.

Murphy, K. J., & Jensen, M. C. (2011). CEO bonus plans: And how to fix them. *Harvard Business School NOM Unit Working Paper*, 12–022. https://doi.org/10.2139/ssrn.1935654

Ordóñez, L. D., Schweitzer, M. E., Galinsky, A. D., & Bazerman, M. H. (2009). Goals gone wild: The systematic side effects of overprescribing goal setting. *Academy of Management Perspectives*, *23*(1), 6–16. https://doi.org/10.5465/amp.2009.37007999

Stedry, A. C., & Kay, E. (1966). The effects of goal difficulty on performance: A field experiment. *Behavioral Science*, *11*(6), 459–470. https://doi.org/10.1002/bs.3830110605

Tsang, A., Wang, K. T., Liu, S., & Yu, L. (2021). Integrating corporate social responsibility criteria into executive compensation and firm innovation: International evidence. *Journal of Corporate Finance*, *70*, 102070. https://doi.org/10.1016/j.jcorpfin.2021.102070

Weitzman, M. L. (1980). The "ratchet principle" and performance incentives. *The Bell Journal of Economics*, *11*(1), 302–308. https://doi.org/10.2307/3003414

Yadav, P., & Jain, A. (2023). Sustainability disclosures and corporate boards: A stakeholder approach to decision-making. *Journal of Applied Accounting Research*, *24*(5), 1027–1047. https://doi.org/10.1108/jaar-10-2022-0279

Yukl, G. A., & Latham, G. P. (1978). Interrelationships among employee participation, individual differences, goal difficulty, goal acceptance, goal instrumentality, and performance. *Personnel Psychology*, *31*(2), 305–323. https://doi.org/10.1111/j.1744-6570.1978.tb00449.x

Zakaria, I. (2012). Performance measures, benchmarks and targets in executive remuneration contracts of UK firms. *The British Accounting Review*, *44*(3), 189–203. https://doi.org/10.1016/j.bar.2012.07.005