CEO Pay Is Indeed Decoupled from CEO Performance: Charting a Path for the Future

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We thank *Management Research* Editor Martin Larraza Kintana for his leadership and vision in compiling this special issue.

In Press

Management Research,
The Journal of the Iberoamerican Academy of Management

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Abstract

Purpose – The purpose is to set a research agenda so that future conceptual and empirical research can improve the understanding of *why* CEO pay and CEO performance are decoupled.

Design/methodology/approach – The paper compiles and adds to many of the explanations provided by this special issue's eight commentaries regarding why CEO pay and CEO performance are decoupled. These explanations were grouped into two categories: (1) economic (e.g., marginal productivity theory, agency theory, behavioral agency model) and (2) social-institutional-psychological (e.g., CEO individual differences and characteristics, CEO-organization interactions). Moreover, new analyses based on additional data were conducted to examine measurement-related explanations for the observed pay-performance decoupling.

Findings – Results based on alternative measures of pay and performance confirmed, once again, the existence of pay-performance decoupling.

Research limitations/implications – This paper will stimulate research pitting theoretical explanations against each other to understand their relative validity in different contexts.

Practical implications – The paper informs ongoing efforts to link CEO pay to performance.

Social implications – The paper also revisits the decoupling of CEO pay and firm performance from a normative and value-basedperspective (i.e., regarding whether pay and performance *should* be related).

Originality/value – The paper clarifies that the articles in this special issue largely concluded that CEO pay is decoupled from CEO performance.

Keywords – Chief executive officers (CEOs), executive compensation, firm performance, corporate governance, justice, power

Article classification – Research paper

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We are delighted with the reactions to our focal article in this special issue of *Management Research* on the two sides of CEO pay injustice (Aguinis *et al.*, 2018). We are extremely thankful to each of the following authors who have taken the time to write commentaries: Martin J. Conyon, Donald C. Hambrick, Michael A. Hitt, Katalin Takacs Haynes, Adam J. Wowak, Michael J. Mannor, Patrick M. Wright, Anthony J. Nyberg, Robert M. Wiseman, Hadi Faqihi, Albert A. Cannella, Jr., Valerie Sy, Gerald E. Ledford, Edward E. Lawler, James P. Walsh, B. Joseph White, and Jeffrey R. Edwards. Taken together, the work of these 17 researchers has received almost 300,000 Google Scholar citations, which is a clear indication of their influence and impact. So, we are truly honored that they have studied our article so closely and provided so many interesting and constructive insights and perspectives.

Clearly, the topic of CEO compensation is of importance not only for the organizations that employ them but also for society at large. A question that many people ask and that we addressed in our focal article is: "Is CEO pay fair?" First, our results showed that CEO performance and CEO pay distributions fit a heavy-tailed distribution better than a normal distribution, meaning that a minority of CEOs produce a disproportionate amount of value within their industries and also a minority of CEOs are paid a disproportionately large amount of money compared to others. Second, we found an extremely large non-overlap between the top earning and top performing CEOs—a non-overlap that is far greater in magnitude than previously suggested. These results point to a violation of distributive justice and offer little support for agency theory's efficient contracting hypothesis, which have important implications for agency theory, equity theory, justice theory, and agent risk sharing and agent risk bearing theories. Moreover, our results highlight that the typical approach to CEO compensation based on average levels of performance in an industry significantly underpays stars and overpays low performers.

The Jury Has Reached a Verdict:
CEO Pay and CEO Performance Do Not Go Hand in Hand

The commentaries included in this special issue include many different perspectives about our focal study, ranging from the fundamental issue of how to define and measure CEO pay fairness to the implications of our results for organizations and society more broadly. However, every single one of the commentaries—except for Walsh *et al.* (2018) who "do not recommend that anyone accept the current results at face value" (p. xxx)—agreed with our focal article's main conclusion that CEO pay and CEO performance do not go hand in hand. Specifically, in alphabetical order:

- "Fundamentally, they [Aguinis *et al.* (2018)] seek to answer the question 'do CEOs receive the pay they deserve?' Not surprisingly (but through some non-traditional methods) they conclude that CEOs do not typically deserve the pay they receive" (Cannella and Sy, 2018, p. xxx).
- "[Aguinis *et al.* (2018)] provide a refreshing and novel approach to these enduring and complex set of issues. Their use of power law distributions to explain CEO pay provides a new way to comprehend whether CEOs are over (or under) paid" (Conyon, 2018, p. xxx).
- "But here is the centerpiece finding from Aguinis and colleagues: *There is almost no overlap between the CEOs who are in the upper tail of the pay distribution and the firms that are in the upper tail of the performance distribution* [emphasis in the original]. We've known all along that the link between CEO pay and performance is slender, but this paper shows that at the extreme, where the numbers are very big, the link is nearly

non-existent" (Hambrick, 2018, p. xxx).

- "[Aguinis *et al.* (2018)] found…only a small number of CEOs were paid appropriately in accordance with their performance…these results suggest the failure of the boards of directors to enact effective governance of the top executives" (Hitt and Haynes, 2018, p. xxx).
- "The theoretical foundation they [Aguinis *et al.* (2018)] propose is important and we suspect that all of authors' hypotheses are correct" (Ledford and Lawler, 2018, p. xxx).
- "The study by Aguinis and colleagues (in this issue) affirms the hundreds of studies preceding it that CEO pay is largely decoupled from firm performance. Their novel approach examines the distributions of CEO pay and firm performance to find that there is little overlap between the extremes of firm performance and the extremes of CEO pay. That is, CEOs of the highest performing firms are not necessarily the highest paid. Conversely, CEOs of the lowest performing firms generally do not share the same fate as their firms when it comes to their compensation, and indeed may inhabit the high end of the pay spectrum" (Wiseman and Faqihi, 2018, p. xxx).
- "…the rank orderings of CEO performance (more specifically, CEO marginal product) and CEO pay level should be more or less overlapping…It is regarding this latter point where the results of Aguinis and colleagues are most striking. They find little overlap between the two distributions, an implication of which is that some CEOs are paid far too much, and others far too little, relative to what they actually deserve" (Wowak *et al.*, 2018, p. xxx).
- "Not surprisingly, the authors [Aguinis *et al.*, 2018] find that the overlap between the highest paid executives and highest performing organizations is small" (Wright and

Nyberg, 2018, p. xxx).

It is unusual for such a large group of distinguished scholars with different training and interests, ranging from organizational behavior and human resource management to strategy and including some who are focused on methodology and others who are primarily focused on conducting applied work, to agree on anything—let alone the contentious topic of CEO compensation. We could not be more pleased with what seems to be the emergence of a consensual paradigm, something that is rare and yet necessary for the advancement of management as a scientific discipline (Pfeffer, 1993).

Further supporting the conclusion of the commentaries, our results are also consistent with previously published meta-analytic studies (e.g., Tosi *et al.*, 2000) as well as narrative reviews (e.g., Gomez-Mejia, 1994; Gomez-Mejia and Wiseman, 1997). Moreover, Walsh *et al.* (2018) summarized meta-analytic results in van Essen *et al.* (2015) by noting that "an analysis of 219 studies on this topic found a significant .12 relationship between pay and performance. Wondering why the authors [Aguinis *et al*., 2018] do not replicate past work, we are interested to learn if it is because the 219 studies are flawed (their assumptions about a normal distribution may cripple their efforts) or if it is because the current work is flawed in some fashion" (p. xx). We were intrigued with this possible lack of replication particularly in light of a previously published meta-analysis by Tosi *et al.* (2000) showing that CEO pay and firm performance are decoupled (i.e., pay explained less than 5% of variance in firm performance). So, we read van Essen *et al.* (2015) very closely, given recent concerns about the lack of replicability in management and related fields (Aguinis *et al.*, in press). We found that results by van Essen *et al.* are also consistent with ours and Tosi *et al.*'s. Directly related to the results in our focal article, van Essen *et al.*'s Appendix D shows the meta-analysis for the relationship between pay and performance (including control variables). Results in van Essen *et al.*'s Appendix D show that the 25 partial correlations based on different types of pay (e.g., total cash, cash bonus) and performance measures (i.e., accounting and market) range between .05 and .10—with a median correlation of .07, a mean correlation of .075 (95% confidence interval ranging from .059 to .091), and 75% of correlations falling below .10. Based on the median correlation of .07, only .49% of pay (about *half of one percent*) is explained by performance, and *75% of correlations explain less than 1% of variance*. In sum, meta-analytic results by van Essen *et al.* (2015) replicated our own as well as those from the previous meta-analysis by Tosi *et al.* (2000) in showing that CEO pay and CEO performance are indeed decoupled.

The Present Article

Our intention is not to merely summarize the commentaries in this special issue. Also, our intention is not to offer a point-by-point rebuttal and justification regarding the methodological choices we made. In fact, despite some of the methodological challenges issued by Walsh *et al.* (2018), several of the commentary writers made strong assertions regarding the appropriateness of the methods used in the focal article. For example, Hambrick (2018) noted that "the analytic comprehensiveness of the study allows considerable confidence in the reported patterns" (p. xx). Hitt and Haynes (2018) concluded that "findings have important implications for research on executive compensation but also for corporate governance more generally" (p. xx). Conyon (2018) stated that "Aguinis et al (2018) perform formal statistical tests…[and] evaluate whether high CEO pay is earned by relatively few CEOs. This research design is a definite strength of the paper" (p. xx). Wowak *et al.* (2018) wrote that they "applaud the thoroughness and methodological sophistication of their study" (p. xx). And, Cannella and Sy (2018) asserted that "we find the study's focus on the power law distribution to be very beneficial, and hope other researchers will follow up on the lead provided" (p.xx).

The goal of our article is to focus on the future rather than the past. Specifically, we extract many of the excellent suggestions included in the commentaries and, together with additional ones of our own, set a research agenda so that future conceptual and empirical research can help us understand *why* CEO pay and CEO performance are decoupled. We also address the normative and value-based question of whether pay and performance *should* be related.

As a preview of the discussion that follows, Table 1 offers a summary of substantive explanations for the decoupling between CEO pay and CEO performance. As a way to organize the many factors involved, we group them into two categories: (1) economic (i.e., marginal productivity theory, agency theory, behavioral agency model, managerialism, and tournament theory) and (2) social-institutional-psychological (e.g., CEO individual differences and characteristics, CEO-organization interactions, ideology, board and other monitors' cognitive processes, and external factors). After discussing these theory-based explanations, we describe potential measurement-related explanations and also offer new analyses and results examining those explanations.

Insert Table 1 about here

The CEO Pay-Performance Relationship:
Economic and Social-Institutional-Psychological Explanations

Given the wide interest regarding CEO compensation across different fields, theories about the relationship between CEO (and firm) performance and pay are rooted in economics as well as in social, institutional, and psychological processes. There are measurement-related explanations as well. We describe each of these explanations next.

Economic Explanations

Marginal productivity theory. Most of the leading economic theories warn us not to expect a close linkage between CEO pay and firm performance and, among these economic theories, marginal productivity theory is probably the most classical one used to analyze CEO pay. For example, Roberts (1959) argued that the compensation of the CEO is not only a function of observed firm performance, but also the opportunity costs of having a particular CEO in command rather than someone else. Because it is impossible to know how well an alternative executive would perform in comparison to the incumbent, the pay of the CEO at the helm cannot be based only on observed firm performance (it might be that no one else can deliver better performance results). So, although firm performance is often used as a proxy for CEO performance, it is an imperfect indicator of the CEO's marginal contributions.

Also related to marginal productivity theory, part of the problem is that the board may make *poor hiring decisions* by ex-ante misjudging the executive's marginal productivity, as noted in Hitt and Haynes (2018). A CEO may be over or underpaid because the board of directors managed the hiring process for the CEO in a flawed manner (e.g., the board over or under-evaluated the CEO's capabilities prior to hiring him/her). Similarly, Wiseman and Faqihi (2018) noted that *bounded rationality in the contracting process* (when pay decisions are made) makes it difficult to anticipate the future performance of the CEO. Ledford and Lawler (2018) added that much of the *pay for the CEO is negotiated ex ante before full performance data are available* and thus the CEO may receive large compensation packages after the contract is signed in spite of demonstrably poor performance results. One specific example of this phenomenon concerns CEO Bob Nardelli, who was fired from Home Depot after disastrous performance results yet received $210 million on the way out the door (Wright and Nyberg, 2018). More generally, an explanation is the existence of *inadequately designed compensation plans*. Specifically, a CEO may be over or underpaid because the compensation committee of the board may have designed an ineffective compensation package for the CEO (e.g., using an average compensation package will overcompensate a CEO with below average performance or undercompensate a CEO with above average performance). Also, in the commentary by Wright and Nyberg (2018), the authors noted that when the board makes a miscalculation by hiring a CEO who appeared competent ex-ante but whose performance turned out badly ex-post, *fear of litigation and bad publicity* may induce the board to overcompensate the CEO as a means to break ties with the CEO with little fanfare. A related issue is the *Matthew effect,* which explains that pay patterns are established over a CEO's tenure when they first get hired. So, initial salary determines future pay more than their performance on the job, and "the rich get richer" (Aguinis *et al.*, 2016).

Agency theory. As a second conceptual framework, agency theory (Fama, 1980; Jensen and Meckling, 1976), with its roots in financial economics, has undoubtedly served as a major theoretical underpinning of much of the CEO pay literature since the 1970s (Gomez-Mejia *et al.*, 2010). While agency theory has often been used to justify the linkage between CEO pay and performance, or what is typically referred to as "incentive alignment," this theory does not predict a very strong relationship between CEO pay and firm performance. Specifically, a key premise is that agents are risk averse. As a result, if CEOs are made fully accountable for firm performance with their pay, and if performance is not under the complete control of the executive, CEOs are likely to pursue low-risk and low-return strategies that in the long run would be prejudicial to shareholders. So, on one hand, agency theorists espouse the notion that incentive alignment via an optimal contract can help manage agency problems at the top (by inducing CEOs to act on behalf of shareholders). The optimal contract is the focus of this research, which is intended to incentivize risk behavior and effort that minimizes agency costs imposed on shareholders, thereby mitigating the moral hazard problem created by delegation of decision making to CEOs by shareholders (Conyon, 2018). But, on the other hand, agency scholars warn us that a very close linkage between executive pay and firm performance may have unintended consequences, emphasizing the shortcomings of the "optimal" principal-agent contract (Eisenhardt, 1989). Thus, from the perspective of agency theory, if the CEO pay-performance link is too weak, there is opportunism consisting of the agent receiving high pay without delivering results. But, if the link is too strong, there can also be opportunism consisting of risk-averse agents avoiding "high risk/high return" strategies that might jeopardize both their compensation and their job security. While an efficient Goldilocks incentive alignment contract is difficult to achieve (neither too low nor too high pay-performance relations), especially given information asymmetries between principal and agent, most agency scholars tend to err on the side of advocating a stronger rather than a weaker tie between CEO pay and firm performance (Martin *et al.*, 2016).

Behavioral agency model (BAM). A third conceptual framework is BAM (Gomez-Mejia *et al.*, 2000; Wiseman and Gomez-Mejia, 1998), which blends agency theory and prospect theory and replaces agency theory's premise of risk aversion with the assumption of loss aversion. According to BAM, heavy reliance on outcome performance criteria might be framed as a loss context (because agents seldom have full control over it) and this, in turn, may induce agents to take poor risks to avoid perceived losses. Further, poor firm performance and high executive pay in comparison to a historical or social referent point tempt CEOs to misrepresent the firm's financial outcomes. For example, Harris and Bromiley (2007) found that the incidence of accounting manipulation is higher when these framing conditions are present.

Managerialism. As a fourth conceptual framework, managerialism focuses on the ability of CEOs to use their power and position to neutralize incentive alignment and monitoring mechanisms, and this phenomenon is more likely to occur in publicly traded firms in which ownership is widely dispersed. Adam Smith, the intellectual father of capitalism, planted the seeds of this theory centuries ago: “Like the stewards of a rich man [managers of publicly traded firms], they are apt to consider attention to small matters as not for their master’s honor, and very easily give themselves a dispensation from having it [power]. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company” (Smith, 1901, p.112). About two centuries later, Berle and Means (1932, p.25) wrote a classical book on managerialism where they succinctly summarized the thesis of this conceptual framework as follows: “The separation of ownership from control produces a condition where the interests of owner and of ultimate manager may, and often do, diverge, and where many of the checks which formerly operated to limit the use of power disappear.” Thus, contrary to agency theorists, managerialists argue that incentive alignment and monitoring are less likely to be effective when they are needed the most: when ownership is dispersed and thus top executives enjoy more power. This is the most common situation in large publicly-traded firms such as those in our focal article of this issue. For this reason, Gomez-Mejia *et al.* (1987) and Tosi and Gomez-Mejia (1989) argued that agency theory represents a special case of managerialism, as agency theory assumes that executives cannot influence the control mechanisms (and this only holds in one specific instance: when owners rather than managers have the ability and motivation to exert control over the firm and its board).

While not explicitly using the label managerialism, several of the commentaries addressed managerialism's core premise, which is the capacity of top executives to use their power and position to act opportunistically and take advantage of shareholders. Hitt and Haynes (2018) discussed several explanations for the decoupling of CEO pay and performance that may be attributed to managerialist context and motive. As a specific explanation, as mentioned by Cannella and Sy (2018), the *CEO has discretion as to when options are exercised*. In particular, the value of stock and options depends on the fiscal year when the CEOs decide to convert them into cash. Some have noted, consistent with a managerialist interpretation, that the timing of awarding and cashing of stock options can be deliberately set to benefit the CEO. For instance, CEOs may be awarded stock options when stock prices are abnormally low (as they are more prone to rise) and cash them when they are abnormally high (Lie, 2005). CEOs may also manipulate company announcements in an attempt to artificially inflate the value of the shares they own right before selling them (Bergstresser and Philippon, 2006).

Tournament theory. Lastly, as mentioned by Walsh *et al.* (2018), tournament theory (Devaro, 2006; Lazear and Shaw, 2008; Scholtner, 2008) conceptualizes the CEO as the winner of a competitive race to reach the top of the firm. This way, the CEO's compensation represents a "trophy" rather than a reward for observed firm performance outcomes during the CEO's stewardship. Presumably, this will motivate those at lower ranks to work harder to obtain this trophy. If the process leading up to the CEO position is a competitive tournament, organizations may need to promise and deliver a very large prize at the end—in the form of excessively large CEO pay—to elicit performance from their managers and executives over time.

Social-Institutional-Psychological Explanations

A second class of explanations for the decoupling of pay and performance addresses the role of social, institutional, and psychological processes influencing agency relations, rewards, and motivation in a firm's top echelons. Most of this literature has originated outside of economics—primarily in corporate sociology and management—and tends to deemphasize the role of incentive alignment in influencing executive choices and firm performance-related consequences of those choices. The core idea across these explanations is that much of the behaviors of CEOs may be attributed to non-pecuniary factors. So, it would be naïve to prescribe policies whereby CEOs are rewarded primarily with pay and hope to achieve performance goals important to shareholders. Accordingly, this literature discusses a diverse set of "non-performance" factors affecting both behaviors and potentially rewards at the top. We group these non-performance factors into five broad categories: (1) CEO individual differences and characteristics, (2) CEO-organization interactions, (3) ideology, (4) board and other monitors' cognitive processes, and (5) external factors.

***CEO individual differences and characteristics*.** These include a host of individual differences that predisposes individual executives to perceive their job in a particular way, derive non-pecuniary satisfaction from it, and act accordingly. Stated differently, a variety of individual characteristics may explain why a CEO may not respond to financial incentives. Some examples of factors under this rubric include *CEO hubris* (Li and Tang, 2010; Malmendier and Tate, 2005), *CEO narcissism* (Chatterjee and Hambrick, 2007; Gerstner *et al.*, 2013), *CEO greed* (Hitt and Haynes, 2018), *CEO openness to experience* (Crossland *et al.*, 2014), *CEO identification with the firm* (Boivie *et al.*, 2011; Lange *et al.*, 2015; Reina *et al.*, 2014), *CEO emotional attachment to the firm* (Delgado-García and De La Fuente-Sabaté, 2010), *CEO anxiety* (Mannor *et al.*, 2016), and *congruence of CEO personality and values with firm culture* (Nadkarni and Herrmann, 2010).

CEO-organization interactions**.** This set of explanations concerns the nature of the relationship between the CEO and other key parties within the firm. Examples include *social exchanges between the CEO and the top management team* (TMT) (Lin and Rababah, 2014), *perceptions of trust* within the top management team (Cruz *et al.*, 2010), *CEO ingratiating behaviors* to neutralize monitoring mechanisms (Westphal and Bednar, 2008; Westphal and Stern, 2006), *CEO impression management tactics* to mitigate monitoring mechanisms (García Osma and Guillamón-Saorín, 2011), *CEO behavioral integration within the firm* (Lange *et al.*, 2015), *CEO's ties to dominant owners* (Gomez-Mejia *et al.*, 2001, 2003, 2010, in press), and *congruence between CEO incentive system and compensation strategies for employees* (Gomez-Mejia, 1992; Werner *et al.*, 2005).

Ideology. This refers to the set of beliefs among key parties in the firm, including the CEO, concerning social issues, stakeholder management, and the appropriateness of firm actions. Examples include the *political ideology of the CEO, principal, and board* (Briscoe *et al.*, 2014; Chin *et al.*, 2013; Jost *et al.*, 2009), *how upper echelons often cohere around a distinct political ideology* (Christensen *et al.*, 2015; Gupta *et al.*, in press), and *fulfillment of altruistic motives* (e.g., corporate citizenship behaviors; Haynes *et al.*, 2015).

Board and other monitors' cognitive processes. These processes are cognitive factors that influence evaluators' judgment of CEO's performance. For instance, studies have examined *how the demographic composition of the board may affect its perceptions regarding the contributions of the CEO* (Walls *et al.*, 2012) and *how dominant family owners interpret the performance of the CEO based on non-financial factors* (Le Breton-Miller *et al.*, 2011).

External factors**.** This explanation concerns non-economic forces outside the firm that may influence agency relations. Examples include *CEO's desire to gain legitimacy* by conforming to accepted practices (Miller *et al.*, 2012); *social exchange* explanations for how CEOs support each other (Westphal *et al.*, 2012); *use of favor rendering, social obligations, and flattery* by CEOs to neutralize vigilance of external agencies (Park *et al.*, 2011; Westphal and Clement, 2008; Westphal and Shani, 2016); *CEO's attempts to deal with social pressures to garner a positive communal image* (Akerlof and Kranton, 2005; Pepper and Gore, 2015; Wright *et al.*, 2001); *interlocking directorates* that provide the focal CEO with a network of other supporting CEOs who share a community of interests (Zona *et al.*, in press); *external institutional shifts* as determinants of CEO motives and outlook (Hambrick and Wowak, 2012); *institutionalization of agency logic* in business schools, among consultants, and by business press shaping the training, socialization, and attitudes of senior management (Ferraro *et al.*, 2005; Ghoshal, 2005; Khurana, 2002); *influence of media on CEO's behaviors and strategic decisions* (Hayward *et al.*, 2004); *CEO incentives as a symbolic score card* in an executive labor market as opposed to being valued purely for their spending power (Finkelstein *et al.*, 2009); *social comparisons* as a determinant of pay dispersion at the top (Fredrickson *et al.*, 2010); and *influence of broader national culture* on CEO motives and behaviors (Elenkov *et al.*, 2005; Gomez-Mejia *et al.*, 2005; Han *et al.*, 2010).

It should be noted that most of these behaviors represent an "agency cost" in the parlance of financial economists because they sub-optimize the financial welfare of shareholders. Managerialists would warn us that CEOs are more prone to "get away" with these non-economically oriented behaviors when they have more power. For instance, the board is not vigilant when ownership is widely dispersed or when the CEO shares blood ties with dominant family owners. When non-financial motives are prevalent, one consequence would be an attenuated relationship between CEO pay and firm financial performance.

Measurement-related Explanations

In addition to the aforementioned theoretical explanations, there are measurement issues that may explain, in part, the decoupling of pay and performance. Consider the following three.

First, it has been suggested that it may be useful to *go beyond Tobin's Q or ROA to operationalize CEO performance* because doing so may result in a stronger observed relation between pay and performance (Ledford and Lawler, 2018). Alternative measures of CEO performance should refer to criteria that firms expect from CEOs based on the specific needs of the company, and examples include, but are not limited to, total shareholder return (TSR), return on invested capital (ROIC), earnings growth, and earnings per share.

A second measurement-related explanation is that decoupling may be due to the use of residual scores. Specifically, the observed decoupling may be present because of the use of *residual scores to assess CEO performance* in an attempt to distinguish CEO performance from firm performance (Walsh *et al.*, 2018).

Third, less decoupling may be observed if *alternate measures of compensation* are used (e.g., Conyon, 2018). One such possibility is a measure that does not include the value of options exercised (as used in our original study) but instead that includes the value of options granted during the year (Walsh *et al.*, 2018). It may be that the association between CEO pay and performance may differ depending on whether CEO pay is operationalized using value of options granted versus options exercised. Given such, if researchers are interested in how boards *design* compensation contracts to ensure firm performance, the more appropriate choice would be to use value of options granted. The value of options exercised captures a different issue—how CEOs work to achieve their self-interests (despite the boards' original intention/design).

New analyses and results. We collected additional data and conducted new analyses to understand whether these measurement-related explanations could be the source of the observed pay-performance decoupling. Specifically, we did the following. First, we examined two additional metrics of performance: TSR and ROIC. Second, we examined raw measures of firm performance as opposed to using residual scores that statistically control for factors for which the CEO is typically not responsible (e.g., firm size). Third, we examined alternative compensation measures as described above (i.e., value of options granted instead of exercised).

Results of these new analyses are included in Table 2. As shown in this table, results continue to follow a similar pattern to those in our focal article, once again pointing to the decoupling of CEO pay and firm performance. When we used alternate performance measures (i.e., TSR, ROIC, raw/non-residual performance scores) and/or compensation measures (i.e., value of options granted rather than exercised), the percentage of overlap between highly paid and high-performing CEOs did not improve by more than 4 percent, with only the following four exceptions. First, among the top 1% performers, use of Tobin's Q as performance and the alternate compensation measure resulted in an overlap of 10%. Second, among the top 10% performers, use of TSR as performance and the alternate compensation measure resulted in an overlap of 28%. Finally, among the top 20% performers, use of TSR and raw performance scores resulted in an overlap of 37%, and use of TSR and the alternate compensation measure resulted in an overlap of 43%. In sum, new results based on additional measures of both performance and pay provided further confirming evidence of the decoupling between these two constructs.

Insert Table 2 about here

A Normative and Value-based Perspective: *Should* Pay and Performance Be Related?

Based on our focal article, past meta-analyses, and commentaries included in this special issue, we can conclude with confidence that CEO pay and performance do not go hand in hand. Also, as described in the previous sections, there are several explanations for why this is the case.

But, from a normative and value-based perspective, the question is: *Should* CEO pay and performance be related? Answering this question may depend on the response to the question raised above related to marginal productivity theory: Do top executives make a difference on firm performance and, if so, how much? Regarding this empirical question, there is a large body of research that has examined the extent to which strategic choices (i.e., managerial decisions) or environmental forces (i.e., situational factors beyond executive control) determine organizational performance (Bergh *et al*., 2016). At one extreme, seminal works in strategic management (e.g., Chandler, 1977) argued that top executives have a great deal of influence on their firms' destinies. More recently, empirical research has suggested that CEOs may account for as much as 38.5% of variance in ROA (Hambrick and Quigley, 2014). At the other extreme, early proponents of population ecology (e.g., Hannan and Freeman, 1977) pointed to the primacy of environmental factors. Presently, scholars recognize that both sets of factors are important (see review by Wowak *et al.*, 2017). Hence, if this is the case, then CEOs *should* be rewarded to a significant degree based on firm performance outcomes (albeit not exclusively).

If we accept the premise that CEOs have some influence on firm performance, then it logically follows from a deservingness perspective that a significant portion of their pay, but not all, *should* be linked to that performance (Kolev *et al.*, 2017). But regarding the follow-up question of exactly how much pay and performance should be related, we have yet to find any scholars willing to provide a precise answer, at least in writing. Should there be 10% of variance in pay explained by performance? 30%? 90%? What we know based on the evidence accumulated thus far, as described in our focal article and meta-analyses (Tosi *et al.*, 2000; van Essen *et al.*, 2015), is that the relationship between these two constructs is slim, especially among the most highly performing or highly paid CEOs—regardless of the particular measures used to assess each construct. In the focal article of this special issue, we added to the literature by showing that both CEO pay and performance conform to a heavy-tailed distribution and the overlap between the two distributions is minimal. Hence, to an observer who believes that there should be a close link between pay and performance because CEOs have an important influence on firm performance, our findings are difficult to reconcile from a deservingness perspective.

As another way of answering the question about whether pay and performance should be related, the classical works in administrative management by Fayol (1949) alluded to the principle of "parity of authority and responsibility." This mantra is still often included in introductory management texts, referring to the notion that people at higher levels get paid for accepting the responsibility of the job. Thus, these high-ranking individuals are held accountable for the performance of their unit, whether or not performance outcomes can be directly attributed to those in charge. It may be that observed poor performance is the consequence of bad luck, incompetence of some subordinates, or bad decisions from prior managers. Yet, the person in charge is still held accountable for that performance. Fayol noted that it is generally very difficult to disentangle the many factors that may contribute to excellent or poor performance, and it is precisely for this reason (what we may now call "bounded rationality") that those who are in charge need to be held accountable for the performance of their unit and rewarded or penalized accordingly (Aguinis, 2019). Otherwise, one can always rationalize why performance outcomes are bad despite best intentions, strong effort, and good decisions. The popular phrase "this is why they get paid the big bucks" reflects this thinking. From this perspective, an effort to link pay to performance is needed in practice, even if we recognize that not all of observed organizational or unit performance can be unambiguously traced to the agentic actions of the executive in charge.

Meanwhile, in traditional performance management and compensation theories, fairness is seen as the main driver of the compensation structure. Fairness in this literature is generally conceptualized as equitable rewards that are proportionate to contributions (Aguinis, 2019; Milkovich *et al.*, 2013). The centrality of equity in compensation is reflected in the following statement by Wallace and Fay (1983, p.69): “The critical theme that exists at the center of all compensation theory and practice is equity.” This equity is generally analyzed along three dimensions (see Berger and Berger, 2015, for extended discussions of various equity pay forms). *Internal equity* is based on the complexity, impact, and human capital associated with a particular position. Thus, CEOs would logically get paid more than lower level employees given that the CEO’s job demands are higher. *External equity* concerns a match between the compensation established for the position and “the going rate” in the labor market for similar positions. In the case of the CEO, the compensation received should be high enough to attract qualified executives from the labor market and prevent the CEO from accepting a more attractive offer elsewhere. *Individual equity* concerns the allocation of rewards to particular incumbents based on their personal contributions. So, while internal and external equity are more structural in nature and more tied to the position rather than the contributions of a particular incumbent, individual equity is clearly related to an individual’s contributions.

Finally, we would be remiss to discuss the normative implications of incentive alignment without referring to stewardship theory (Davis *et al.*, 1997). In stark contrast to agency theory and related economic formulations (where agents are assumed to be individualistic, opportunistic, and self-servingly driven by extrinsic rewards), stewardship theorists argue that most top managers are collectivists, pro organizational, and trustworthy individuals who try their best to maximize firm performance (Gomez-Mejia and Wiseman, 2007). Hence, the pay received by CEOs is actually a by-product of those well-meaning efforts, rather than the result of a principal's attempt to link their pay to performance outcomes in order to constrain and control their behaviors (Wowak *et al*., 2017). In this sense, performance and the extrinsic rewards based on them are a manifestation of CEOs' intrinsic drives to do their best for the firm they lead. It is true that outcomes other than firm performance may be important (for instance, employee satisfaction), but in the private sector few would question the criticality of firm performance as an indicator of organizational success and long-term firm survival. Whether or not one agrees with the stewardship perspective, the fact that CEO pay is decoupled from performance should also be troublesome to those who hold this normative view because the decoupling suggests that CEOs who are intrinsically driven to make their firm successful are not being recognized for their efforts.

Conclusions

We are delighted that 17 highly influential scholars have read and commented on our original article. Based on the evidence we have so far, there is a consensual paradigm that CEO pay and performance do not go hand in hand. Consensual paradigms are rare in management research, and an emergence of one points to a level of scientific maturity not frequently observed in the social sciences (Pfeffer, 1993). In this article, our purpose was to facilitate future research seeking to further advance our understanding of the consensual paradigm that CEO pay and performance are decoupled. Specifically, we provided a review of theoretical explanations for why pay and performance are decoupled. These theoretical explanations, as summarized in Table 1, are not mutually exclusive and can exist concurrently. We also provided measurement-related explanations. Although refinements in measures take place on an ongoing basis and can help calibrate results, our new data and analyses showed that results in our original article are robust in terms of the substantive conclusion that the pay-performance link is very weak. Moving forward, a direction for future empirical research is to adopt a strong inference approach whereby researchers pit theoretical explanations against each other to understand their relative validity in different contexts. This type of strong inference research will require interdisciplinary perspectives and methodological tools that examine several levels of analysis concurrently (e.g., Aguinis *et al.*, 2013; Aguinis and Molina-Azorin, 2015). Such research is likely to yield results that are rigorous as well as relevant to organizations, policy making, and society in general given ongoing questions about CEO compensation worldwide.

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TABLE 1
Summary of Theories and Conceptual Frameworks that Explain the Decoupling between CEO Pay and CEO Performance

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Economic Explanations

1. *Marginal productivity theory*: The compensation of the CEO is not only a function of observed firm performance, but also the opportunity costs of having a particular CEO in command rather than someone else. Some specific explanatory factors:
    a. Poor hiring decisions: A CEO may be over or underpaid because the board of directors managed the hiring process for the CEO in a flawed manner.
    b. Bounded rationality in the contracting process: The CEO pay-performance link is expected to be weak because a wide variety of psychological and social factors prevent optimal contracting.
    c. Pay for the CEO is negotiated ex ante before full performance data are available: CEOs may thus receive large compensation packages in spite of demonstrably poor performance results after the contract was signed.
    d. Inadequately designed compensation plans: A CEO may be over or underpaid because the compensation committee of the board may have designed an ineffective compensation package for the CEO.
    e. Fear of litigation and bad publicity: Boards may end up overcompensating CEOs that they fired if those boards offer extraordinarily generous severance packages as a means to prevent expensive litigation and negative publicity from the departing CEOs.
    f. Matthew effect: Pay patterns are established over a CEO's tenure when they first get hired, and thus initial salary determines future pay more than their performance (i.e., "the rich get richer").
2. *Agency theory*: Agents are risk averse. So, if CEOs are made fully accountable for firm performance with their pay, and if performance is not under the complete control of the executive, CEOs are likely to pursue low-risk and low-return strategies that in the long run would be prejudicial to shareholders.

3. *Behavioral agency model (BAM):* Heavy reliance on outcome performance criteria might be framed as a loss context (because agents seldom have full control over it) and this, in turn, may induce agents to take poor risks to avoid perceived losses.
4. *Managerialism*: Focuses on the ability of CEOs to use their power and position to neutralize incentive alignment and monitoring mechanisms, and this phenomenon is more likely to occur in publicly traded firms when ownership is widely dispersed. Illustrative explanatory factor:
    a. CEO has discretion as to when options are exercised. So, the value of stock and options depend on the fiscal year when the CEOs decide to convert them into cash.
5. *Tournament theory*: Conceptualizes the CEO of the firm as the winner of a competitive race to reach the top. This way, the CEO's compensation represents a "trophy" rather than a reward for observed firm performance outcomes during the CEO's stewardship.

Social-Institutional-Psychological Explanations

6. *CEO individual differences and characteristics*. Individual difference factors that predispose executives to perceive their job in a particular way, derive non-pecuniary satisfaction from it, and act accordingly. Specific explanatory factors:
    a. CEO hubris
    b. CEO narcissism
    c. CEO greed
    d. CEO openness to experience
    e. CEO identification with the firm
    f. CEO emotional attachment to the firm
    g. CEO anxiety
    h. Congruence of CEO personality and values with firm culture
7. *CEO-organization interactions.* The nature of the relationship between the CEO and other key parties within the firm. Specific explanatory factors:
    a. Social exchanges between the CEO and the top management team
    b. Perceptions of trust within the top management team
    c. CEO ingratiating behaviors to neutralize monitoring mechanisms
    d. CEO impression management tactics to mitigate monitoring mechanisms
    e. CEO behavioral integration within the firm

   f. CEO’s ties to dominant owners
   g. Congruence between CEO incentive system and compensation strategies for employees

8. *Ideology*. The set of beliefs among key parties in the firm, including the CEO, concerning social issues, stakeholder management, and the appropriateness of firm actions. Specific explanatory factors:
   a. Political ideology of the CEO, principal, and board
   b. How upper echelons often cohere around a distinct political ideology
   c. Fulfillment of altruistic motives
9. *Board and other monitors’ cognitive processes*. Cognitive factors that influence evaluators’ judgment of CEO’s performance. Specific explanatory factors:
   a. How the demographic composition of the board may affect its perceptions regarding the contributions of the CEO
   b. How dominant family owners interpret the performance of the CEO based on non-financial factors
10. *External factors*. Non-economic forces outside the firm that may influence agency relations. Specific explanatory factors:
   a. CEO’s desire to gain legitimacy by conforming to accepted practices
   b. Social exchange explanations for how CEOs support each other
   c. Use of favor rendering, social obligations, and flattery by CEOs to neutralize vigilance of external agencies
   d. CEO’s attempts to deal with social pressures to garner a positive communal image
   e. Interlocking directorates that provide the focal CEO with a network of other supporting CEOs who share a community of interests
   f. External institutional shifts as determinants of CEO motives and outlook
   g. Institutionalization of agency logic in business schools, among consultants, and by business press shaping the training, socialization, and attitudes of senior management
   h. Influence of media on CEO’s behaviors and strategic decisions
   i. CEO incentives as a symbolic score card in an executive labor market as opposed to being valued purely for their spending power

j. Social comparisons as a determinant of pay dispersion at the top
k. Influence of broader national culture on CEO motives and behaviors

TABLE 2
Percent of Top 1%, 5%, 10%, and 20% of the Most Highly Performing CEOs based on Performance Measures (Tobin's Q, ROA, TSR, and ROIC) Who Are Also in the Same Percent of Top Earners (Using Total Pay)

	Top 1% Performers	Top 5% Performers	Top 10% Performers	Top 20% Performers
Tobin's Q[a]	5%	14%	20%	29%
Return on Assets (ROA)[a]	4%	11%	17%	27%
Total Shareholder Returns (TSR)[b]	0%	6%	18%	28%
Return on Invested Capital (ROIC)[c]	8%	8%	15%	23%
Using raw performance scores as opposed to residuals				
Tobin's Q	0%	3%	9%	23%
ROA	0%	2%	8%	24%
TSR	0%	6%	20%	37%
ROIC	6%	10%	17%	29%
Using alternative compensation measure (i.e., value of options granted)[d]				
Tobin's Q	10%	14%	15%	22%
ROA	2%	9%	13%	26%
TSR	5%	13%	28%	43%
ROIC	5%	12%	15%	25%

[a] As reported in this special issue's focal article (Aguinis *et al.*, 2018).

[b] We calculated total shareholder returns (TSR) as capital appreciation and total dividends received during the year, divided by the share price at the beginning of the year.

[c] Return on invested capital (ROIC) is calculated as net income before extraordinary items divided by total assets less short-term liabilities.

[d] In our alternative measure of compensation, we used the total compensation variable from Execucomp that is calculated as Salary, Bonus, Other Annual, Total Value of Restricted Stock Granted, Total Value of Stock Options Granted (using Black-Scholes), Long-Term Incentive Payouts, and All Other Total. This measure of compensation differs only slightly from the one used in our focal article by replacing value of stock options exercised with value of options granted.

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