INSEAD
The Business School for the World®

Working Paper Series
2018/31/STR
(Revised version of 2017/03/STR)

How CEO and CFO Regulatory Focus Interact to Shape the Firm's Corporate Strategy

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Existing research has documented the role that CEOs, and especially CEO regulatory focus, play in shaping firm strategy. Yet, the impact of CEOs is constrained by that of the other executives in the firm, and the strategic leadership literature has repeatedly called for more research that examines the interaction between the CEO and other executives, most notably the CFO. We respond to this call and examine how the CEO's and CFO's regulatory focus interact to shape the firm's corporate strategy and what happens in cases where they are misaligned. Making use of micro-data on the regulatory focus of CEOs and CFOs and their firms' corporate strategy actions, we find that both are important drivers of the firms' growth-oriented initiatives, and that this impact is even amplified if they align. In cases of misalignment, we find that on average CEOs prevail, but this effect depends on CEOs' power. Interestingly, misalignment between CEO and CFO regulatory focus has positive performance implications, suggesting important complementarities between CEOs and CFOs. Overall, our study contributes to the strategic leadership literature by explicating important interactions and complementarities between the CEO and CFO with regards to their regulatory focus in shaping firm strategic outcomes. We also contribute to the literature on corporate strategy by highlighting important executive-interaction based drivers of corporate strategic decisions. Finally, we also extend the literature on the microfoundations of strategy by showing how important characteristics of executives interact and aggregate to shape the firm's strategic initiatives and its performance.

Keywords: Strategic Leadership; Corporate Strategy; Regulatory Focus; Micro-foundations of Strategy

Electronic copy available at: http://ssrn.com/abstract=2891263

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INTRODUCTION

Several streams in the strategy literature have highlighted the central role that key executives, particularly CEOs, play in shaping firm strategy and ultimately performance (Helfat & Peteraf, 2015; Quigley & Graffin, 2017; Hambrick & Mason, 1984). Mechanisms by which key managers influence strategic choices and shape firm capabilities include human capital (Campbell, Coff, & Kryscynski, 2012; de Figueiredo, Meyer-Doyle, & Rawley, 2013), social capital (Moran, 2005), personal value, and psychology, such as narcissism and overconfidence (Chen, Crossland, & Luo, 2015; Zhu & Chen, 2015), or cognitive biases (Das and Teng, 2014). More recently, an emerging stream of literature has explored the role that CEOs' regulatory focus—the pursuit of their goals as a consequence of their promotion focus or prevention focus—plays in shaping firm strategy and capabilities (see Gamache, McNamara, Mannor, & Johnson, 2015; Weber & Mayer, 2011; Wowak & Hambrick, 2010). Executive regulatory focus is an important factor in the strategy research, because compared to other executive psychological attributes, it is more directly related to executives' motivation and behavior, and thus has a more direct effect on a firm's strategic decisions (Gamache et al., 2015; Wowak & Hambrick, 2010).

While the impact of CEOs—the top leaders—on firms is substantial, it is moderated and constrained by a number of factors, and several studies have documented how the impact of CEOs on firms is contingent on other key executives in the firm and their characteristics (Carpenter & Sanders, 2002; Haleblian & Finkelstein, 1993; Hambrick, 1995). CFOs, in particular, have been highlighted as an important counterpart to CEOs, playing a more critical role after passage of the Sarbanes-Oxley Act (Chava & Purnanandam, 2010; Datta & Iskandar-Datta, 2014; Gore, Matsunaga, & Yeung, 2011). However, extant research has thus far remained

relatively silent on the dynamics and interactions between the CEO and CFO as an important determinant of a firm's strategy. Yet, given the recently documented significance of regulatory focus as a key driver of the firm's strategy, knowledge of how the interaction, alignment, and misalignment of its CEO's and CFO's regulatory focus shapes the firm's corporate strategy is important. Indeed, in this regard the extant literature has explicitly called for future research to build knowledge on how the interaction of the CEO's regulatory focus with that of other executives shapes firm strategy (Johnson, Smith, Wallace, Hill, & Baron, 2015).

Our study aims to extend research on executive regulatory focus by studying how CEO and CFO regulatory focus interact and influence firm corporate strategy. We focus especially on the promotion focus of the CEO and CFO as explanatory factors in our theory development, keeping the level of the prevention focus status as a control variable, for multiple reasons as stated below. In particular, we examine how the promotion focus of both CEOs and CFOs shape the firm's focus on growth-oriented initiatives, and how the alignment and misalignment between their promotion focus further impact the firm's growth-oriented initiatives. We also examine how in cases of misaligned regulatory focus between the firm's CEO and the CFO, CEO power resolves the misalignment and strengthens the relative impact on firm strategy of the CEO's promotion focus over the CFO's, and what the performance implications of misaligned CEO and CFO promotion focus are.

We make use of micro-data on the regulatory focus of CEOs and CFOs, as well as the corporate strategic actions of the firms they manage. Our combined dataset has data on 2,117 U.S. firms that from 2002 to 2013 engaged in over 56,176 corporate strategic initiatives, including mergers and acquisitions, strategic alliances, and business expansion activities. We find that CEOs with a high level of promotion focus exhibit stronger focus on growth-oriented

initiatives, consistent with the idea that the CEO's regulatory focus is a key driver of the firm's corporate strategy. Similarly, our results also reveal that CFO promotion focus is positively associated with firms' focus on growth-oriented initiatives, suggesting that CFO promotion focus importantly shapes the firm's corporate strategic action as well. We also find that the alignment of CEO and CFO promotion focus positively predicts the firm's focus on growth-oriented initiatives. In cases of misalignment between the CEO's and CFO's level of promotion focus, we find that on average CEOs prevail over CFOs, so that firms where CEOs with a high level of promotion focus are misaligned with CFOs with a low level demonstrate a stronger focus on growth initiatives than firms where CFOs with a high level of promotion focus are misaligned with CEOs with a low level. In addition, this effect is moderated by the CEO's power. Interestingly, our analysis also suggests that misalignment between CEO and CFO regulatory focus has a positive effect on firm performance, consistent with the idea that there are important complementarities in CEO and CFO regulatory focus, such that strategic decisions of firms with misaligned CEO and CFO regulatory focus are more thoroughly vetted before firms commit to them, due to CEO and CFO disagreement.

Overall, our study makes several important contributions. First, it contributes to the strategic leadership literature that studies the influence of top executives' psychological attributes on firm decisions (Finkelstein, Hambrick, & Cannella, 2008). In particular, we extend the emerging literature on how the regulatory focus of executives shapes the strategy of the firm (Gamache, McNamara, Mannor, & Johnson, 2015; Weber & Mayer, 2011; Wowak & Hambrick, 2010; Johnson, Smith, Wallace, Hill, & Baron, 2015). We highlight that in addition to CEO regulatory focus, CFO regulatory focus is an important driver of firm strategy as it can amplify or dampen the effect of the CEO's regulatory focus on the firm's strategy. Further, we also

provide evidence for important complementarities between CEO and CFO regulatory focus. Moving beyond the pure focus on individual CEOs (e.g., Chatterjee & Hambrick, 2007; Zhu & Chen, 2015), our study underlines the need to study the dynamics between CEOs and other top management team (TMT) members (Hambrick, 1995; Shi, Zhang, & Hoskisson, forthcoming). By focusing on CEO-CFO interaction effects, we follow the call of Hambrick (2007), who proposed that the next frontier of upper echelons research should be TMT subteams because examining the interactions and dynamics within the subteams who are relevant in certain decision making (like CFOs in corporate strategy decisions) can improve the predictive strength of upper echelons theory (Hambrick, 2007).

Our study also extends the corporate strategy literature that thus far has largely focused on examining how firm-level factors shape the firm's corporate scope and diversification (Bowen & Wiersema, 2005; Castaner & Kavadis, 2013; Chatterjee & Wernerfelt, 1991; Shi, Connelly, & Cirik, forthcoming), by adding important individual-level drivers of the firm's corporate scope, namely the regulatory focus of CEOs and CFOs and their interaction. In addition, to the best of our knowledge, ours is one of the first few studies examining a relatively comprehensive list of the growth-oriented (vs. consolidation-oriented) initiatives adopted by companies. Given that firms have multiple options in pursuing growth strategies and that these options are not mutually exclusive, our study and measure are made more managerially relevant by their simultaneous examination in a single study.

Finally, our study also contributes to the micro-foundations of strategy literature (Barney, Wright & Ketchen, 2001; Foss, 2011; Helfat & Peteraf, 2015; Meyer-Doyle, Lee, and Helfat, 2018) by explicating how important characteristics of executives in the firm and the alignment or misalignment between them shape the firm's strategic initiatives and its subsequent performance.

Our study also provides insights into how individual-level effects interact to aggregate to the firm level and the role of complementarities in this aggregation.

CONCEPTUAL DEVELOPMENT

A substantial body of research has established the importance of resources in shaping a firm's strategy and performance (Barney et al., 2011; Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece, & Winter, 2006). While firm-level factors such as patents and products have traditionally been seen as critical resources (Barney, 1991; Crook, Ketchen, Combs, & Todd, 2008), human assets are increasingly seen as critical drivers of competitive advantage (Campbell et al., 2012; Hatch & Dyer, 2004; Meyer-Doyle, Mawdsley and Chatain, 2017). Individuals can not only shape firms through the assets they hold, such as human or social capital (Crook, Todd, Combs, Woehr, & Ketchen, 2011; Moran, 2005), but can also have an impact on the firm's strategy because of their different psychological attributes, such as overconfidence or narcissism, as this psychological heterogeneity influences the way they screen, interpret, and construct information in their decision making (Chen et al., 2015; Chatterjee & Hambrick, 2007). More recently, several studies have identified executive regulatory focus as a new important, direct, and distinct driver of firm strategy (Johnson et al., 2015). As a critical psychological attribute, regulatory focus may also influence executives' intention and direction in leveraging their skills and human capital as they make the strategic decisions that ultimately shape the firm's strategy and performance. In this regard, prior research has highlighted the importance of how individual-level resources, such as human capital, are deployed in the firm for shaping firm strategy and capabilities (Chatain and Meyer-Doyle, 2017) and a manager's regulatory focus may plausibly impact on the deployment of such resources.

Regulatory focus theory—a theory of self-regulation—posits that executives pursue goals

and make decisions on the basis of the motivational principles of promotion focus or prevention focus (Crowe & Higgins, 1997; Higgins, 1998). The constructs of promotion focus and prevention focus capture heterogeneity in individuals with regard to the type of goals they pursue—i.e., whether they are driven by growth and advancement as goals, or by consolidation and prevention (Brocker, Higgins, & Low, 2004). Capturing the heterogeneity in individuals with regard to the type of goals they tend to focus on is important because these ingrained tendencies will critically influence their behavior (Lanaj, Chang, & Johnson, 2012). We should note that the influence of regulatory focus on firm strategy is distinct from that of other widely studied executive traits such as high core self-evaluations, overconfidence, and hubris (see Gamache et al., 2015; Lanaj, Chang, & Johnson, 2012). In addition, regulatory focus has both dispositional as well as environmental origins (Gomez, Borges, & Pechmann, 2013; Foerster, Higgins, & Idson, 1998) and is directly related to executives' attention and motivation. Thus, compared with other executive traits, regulatory focus may have a more direct influence on strategic decisions.

More specifically, a promotion focus stresses the importance of positive stimuli and gains, and as such alerts individuals to the presence of positive stimuli and gains as well as their absence (see Crowe & Higgins, 1997; Higgins, 1998). Such a focus expresses itself in behavior that pursues the attainment of positive stimuli and gains, and avoids omission errors—i.e., avoids missing out on opportunities that would have led to gains and accomplishment (Johnson et al., 2015). Hence, individuals with a strong promotion focus will endeavor to accumulate as many positive stimuli and gains as possible, while reducing the number of "missed opportunities." According to Gamache et al., (2015) and Higgins and Spiegel (2004), if individuals have a strong promotion focus, they will commit to strategic actions that are in pursuit of gains, in greater

quantities, with greater commitment, and with greater speed. Such individuals are also more likely to accept risk and more willing to experiment in pursuit of these goals. In the context of strategic behavior observed in organizations, a promotion focus leads individuals to commit to more aggressive risk-taking strategies aimed at growth and expansion.

Contrarily, a prevention focus stresses the importance of negative stimuli, safety, and security, and as such alerts individuals to the existence of losses or the lack of non-losses, respectively. A prevention focus manifests itself in behavior that is aimed at reducing risks and exposure to risks as much as possible, and at correctly identifying and choosing against or even abandoning strategies that might produce losses, and hence at avoiding commission errors—i.e., strategies that lead to losses (Crowe & Higgins, 1997). Hence, individuals with a strong prevention focus will try to commit actions that increase security and protection to minimize losses and are associated with prudence. Such individuals have also been found to value the accuracy over the speed of their decisions (Gamache et al., 2015; Higgins & Spiegel, 2004). In the context of strategic behavior observed in organizations, a prevention focus leads individuals to be more conservative and risk averse, and to commit to strategies aimed at consolidation and contraction as these avoid the risk of negative stimuli. While promotion and prevention focus appear to be juxtaposed, research has found that they are not exclusive of each other (Lanaj et al., 2012).

The most important individuals influencing a firm's strategy are its top executives, most notably the CEO. Existing studies have provided important insights into how characteristics of the CEO shape firm strategy (Finkelstein et al., 2008), and risk-taking (Meyer-Doyle and Schumacher, 2018; Shi, Connelly, & Sanders, 2016); more recently, research has examined the impact of the CEO's regulatory focus on firm strategy (Gamache et al., 2015; Wallace, Little,

Hill, & Ridge, 2010; Wowak & Hambrick, 2010). Yet the CEO is not the sole decision maker at the firm. In their original work, Hambrick and Mason (1984) emphasize the importance of studying the TMT because the predictive power of the team on organizational choices will be stronger than the individual CEO's alone. In other words, the CEO's impact on the firm interacts with and is dependent on that of the other top executives of the firm, and some recent studies have provided evidence for this (Buyl, Boone, Hendriks, & Matthyssens, 2011; Lo & Fu, 2016). However, little knowledge exists thus far on how the alignment, misalignment, and interaction between executives may shape the firm's strategic choices, particularly in the context of their regulatory focus. More recent work by Hambrick (2007) highlights the importance of studying the "subteam" and suggests focusing on the top executives who hold critical positions in making certain corporate decisions.

The firm's top executives play an important role *particularly* in the firm's corporate strategy, as the decision making in this domain is largely restricted to the most senior managers. Although firm-level characteristics are crucial determinants of the firm's corporate scope (Bowen & Wiersema, 2005; Castaner & Kavadis, 2013; Chatterjee & Wernerfelt, 1991), scholars have also demonstrated the importance of top executives in shaping it (e.g., Chen, Meyer-Doyle, and Huang, 2017; Jenter & Lewellen, 2015; Meyer-Doyle, 2012; Seo, Gamache, Devers, & Carpenter, 2015). Given the nature of corporate strategic decision-making, it appears important to better understand how the dynamics and interaction of executives shape the firm's corporate strategy and performance. It is especially important to study this in the context of the executives' regulatory focus, especially those of the two chief decision makers in corporate strategy, the CEO and CFO, as promotion and prevention focus directly relate to the growth of the firm's corporate scope. We choose the CFO as arguably the next most important TMT member after the

CEO (Datta & Iskandar-Datta, 2014), as the 2002 Sarbanes-Oxley Act requires that both the CFO and CEO certify the financial reports of public companies, elevating the importance of the CFO above other executives (Bedard, Hoitash, & Hoitash, 2014).

CEO and CFO regulatory focus and its impact on the corporate scope of the firm

We build on and integrate the above literature on regulatory focus, TMTs, and corporate strategy to develop hypotheses on how the promotion focus of the two top executives of the firm, and their alignment, misalignment, and interaction, shape its corporate strategy and performance. In our hypotheses and main empirical tests, we focus on the interactive effects of the CEO and CFO *promotion focus* (rather than on the interactive effects of BOTH their promotion AND prevention focus) on the firm's corporate strategy for multiple reasons: first, while we acknowledge that prevention focus is not the reverse side of promotion focus and all our empirical analyses indeed control for the prevention focus level, we are primarily interested in predicting the growth in the firm's corporate scope in the current study, and it is the promotion focus (rather than the prevention focus) that is more directly related to this key construct; second, if we were to develop hypotheses based on interactions of both CEO and CFO's promotion and prevention focus, we would need to develop and motivate four separate hypotheses for each effect we examine; hence for the four interactive effects we will examine in this study, we would need to develop, motivate and test 16 hypotheses altogether; instead, focusing on *only* promotion focus enables us to focus the study on more nuanced relationships rather than a narrower set of hypotheses to be replicated across both promotion and prevention focus.[1] Third, the interpretation of interaction effects involving two continuous variables, such as promotion focus and prevention focus, that have opposite predictions on the same dependent variable is problematic which encumbers any test of such interactions.[2] Fourth, given the data sources

available to measure regulatory focus, it is harder to accurately measure prevention focus than it is to measure promotion focus.[3] Nevertheless, we develop our hypotheses on the basis of keeping the prevention focus constant for both executives, and in our empirical analysis, we will not only control for the level of each executive's prevention focus but we will also run robustness checks with all four interactions involving CEO and CFO promotion and prevention focus to validate our findings.

A promotion focus leads executives to pursue positive stimuli (Higgins, 1998). In the context of corporate strategy, the attainment of positive stimuli is directly associated with growth strategies—strategies that are aimed at increasing corporate scope. The corporate scope of the firm can be enlarged in various dimensions—horizontally, vertically, and geographically (Colis & Montgomery, 2005). Strategies that are aimed at enlarging the corporate scope of the firm deploy three distinct modes of corporate development: acquisitions or alliances (inorganic means) or internal development (organic means) (see also Puranam & Vanneste, 2016).

A large body of literature has documented that CEOs and their characteristics are crucial drivers of a firm's corporate strategy (Chatterjee and Hambrick, 2007; Hayward & Hambrick, 1997; Zhu & Chen, 2015). CEOs are involved in critical aspects of strategic actions aimed at enlarging the scope of the firm: this starts with identifying growth opportunities and possible acquisition targets or alliance partners; continues with the strategic planning of the scope expansion, including transactional execution elements such as negotiations and investment decisions; and can also extend to the value creation phase, including the oversight of the post-merger integration (see also Bingham, Heimeriks and Meyer-Doyle, 2017), high-level strategic alliance management, or the value creation in organic growth.

Considering the substantial role that CEOs play in corporate strategy (see also Andrews,

1987), if a CEO has a strong promotion focus and hence wishes to pursue a corporate strategy aimed at expanding the scope of the firm commensurate with this focus, the CEO can impact the firm's corporate strategy in various ways: initiating more and larger scope expansion initiatives, such as acquisitions, alliances, or internal development, and facilitating the execution of the initiatives, bringing them from conception to implementation. Hence, applying regulatory focus theory to CEOs and corporate strategy, we propose a base-line hypothesis that CEOs with a strong promotion focus are more likely to announce initiatives that expand the firm's corporate scope relative to initiatives that contract it, controlling for the level of prevention focus.

Hypotheses 1: The CEO's promotion focus will have a positive impact on the firm's propensity to grow its corporate scope.

Several studies have emphasized the important influence of the firm's CFO for its corporate strategy (Braun, 2001; Datta & Iskandar-Datta, 2014; Heinz, Niebuhr, & Pettit, 2008), and the increasing prevalence of CFOs in firms in general (Zorn, 2004). Further, anecdotal evidence suggests that the importance of CFOs for firms' decision making is even increasing (Forbes, 2013).

Specifically, the CFO has become instrumental in the execution of corporate development activities such as acquisitions, alliances, and internal development initiatives. Aside from initation of the activities by sourcing and identifying opportunities and resources to pursue these opportunities, CFOs lead the structuring of these initiatives, including the negotiations, financing, and contractual arrangements (Nolop, 2012). In this regard, CFOs are also substantially involved in the resource allocation decision, which is critical for the formation of corporate strategic initiatives (Bower, 1986).

Applying the principles of regulatory focus theory to the above arguments with regard to

CFOs and their role in corporate strategy, those who have a strong promotion focus are more likely to initiate, successfully execute, and grant resources to strategic initiatives aimed at enlarging coporate scope and growing the firm due to the greater alignment of these strategies with the promotion focus of the CFO. Hence, we use a similar theoretical argument as H1, but it is the first time, to our best knowledge, to examine the implications of promotion focus for another critical position in the TMT - CFO. And we hypothesize the following:

> *Hypotheses 2: The CFO's promotion focus will have a positive impact on the firm's propensity to grow its corporate scope.*

Alignment in regulatory focus between CEOs and CFOs

Executive decisions are often joint outcomes of interactions among TMT members, and the extant literature has provided evidence that the impact of the CEO on the firm's strategy and capabilities is contingent on other top executives in the firm (e.g., Carpenter & Sanders, 2002; Haleblian & Finkelstein, 1993; Hambrick, 1995). Indeed, several studies have highlighted the interaction between the CEO and other non-CEO top executives as a key driver of the firm's strategic behavior and ultimately its capabilities and performance (e.g., Lo & Fu, 2016; Buyl, Boone, Hendriks, & Matthyssens, 2011; Shi, Zhang, & Hoskisson, forthcoming).

In most firms, the CFO is the most important top executive after the CEO (Datta & Iskandar-Datta, 2014), and studies have shown that CFOs are often powerful counterparts to CEOs and that there is an important interaction between the two in firm strategy formulation and governance (Chava & Purnanandam, 2010; Gore, Matsunaga, & Yeung, 2011). In this regard, practitioners see the CFO as well placed to guard the firm "against common decision-making biases," to control the CEO's decisions, and to serve as an "impartial, cool-headed advisor" to the CEO (McKinsey, 2011); this applies even more so to corporate strategic decisions and

growth or consolidation initiatives as they involve resource allocation decisions that are often part of the CFO's remit, and as the CFO's input is highly sought after in these decisions, given the relevant expertise.

If CEOs and CFOs misalign in their promotion focus (e.g., the CEO has a strong promotion focus and the CFO a weak promotion focus or vice versa), then there can be disagreement between them about which strategic action to favor. Conversely, if the CEO's and CFO's promotion focus align, then the impact of the CEO's promotion focus on the firm's strategy will be amplified by that of the CFO. In this regard, we expect the relationship between the CEO's and CFO's regulatory focus not to be merely additive but rather 'interactive,' such that both the lack of decision comprehensiveness and intra-team conflict as well as the groupthink behavior associated with executive alignment leads to the CEO/CFO alignment to amplify the effect of the CEO's promotion focus on the firm's growth initiatives (see also Lant, Miliken, & Batra, 1992; Fredrickson & Mitchell, 1984).

> *Hypotheses 3: The impact of the CEO's promotion focus on the firm's propensity to grow its corporate scope will be amplified by the CFO's promotion focus.*

Misalignment in regulatory focus between CEOs and CFOs

While alignment between executives is an important antecedent to strategic action, it is also important to study the effects of misalignment or disagreement between executives on strategic action, partly because such effects are more uncertain and ambiguous and can lead to multiple or even opposing outcomes (see also Voss, Cable, & Voss, 2006). Below we will develop hypotheses related to how the misalignment of executive regulatory focus shapes the firm's corporate strategy and performance. Given the ambiguity of the effects of disagreement between individuals, in cases of a misalignment between the CEO and CFO with regard to which strategic

initiatives to favor, there will be factors that can adjudicate the disagreement and lead to one executive prevailing over the other, as we will explore below.

Existing studies have documented that, on average, CEOs have greater influence on the firm's strategy and decision-making process than other executives (Mackey, 2008; Pfeffer, 1972) as the CEO is ultimately the key executive responsible for the strategic direction of the firm, and other executives, such as the CFO, often have a functional role that supports the CEO. Despite the CFO being substantially involved in the strategic decision-making, the CEO is mostly not formally dependent on the CFO's approval of proposed strategic initiatives, although in most cases they are subject to board approval. Further, CEOs are more likely than CFOs to have a board position in the firm, and in fact are often its chairman, thereby enabling them to vote directly for a particular strategy at the board level, to lobby other board colleagues for its approval, or to wield substantial influence over the outcomes of the board vote (see also Boyd, 1995; Tuggle, Sirmon, Reutzel, & Bierman, 2010).

Hence, in cases of misalignment of promotion focus, we expect that on average the CEO prevails over the CFO with regard to the adoption and implementation of a favored strategy. As a consequence, when the CEO's promotion focus is high and the CFO's is low, we expect the firm to engage in relatively more growth-oriented initiatives *compared to* when the CFO's promotion focus is high and the CEO's promotion focus is low, controlling for both executives' level of prevention focus. Therefore, we hypothesize:

> *Hypotheses 4: When the CEO's and CFO's promotion focus misalign, a firm will exhibit a greater propensity to grow its corporate scope if the CEO's promotion focus is high and the CFO's promotion focus is low than if the CFO's promotion focus is high and the CEO's promotion focus is low.*

A key factor that determines whether a CEO will prevail against other dissenting

executives on the board is the CEO's power vis-à-vis that of other executives (Westphal and Zajac, 1995; Finkelstein, 1992). The power of the CEO derives from various aspects, such as managerial discretion, managerial expertise and leadership qualities, voting rights, CEO duality, tenure, support in the organization, CEO equity ownership, etc. (Bigley and Wiersema, 2002; Finkelstein, 1992; Haynes & Hillman, 2010; Mintzberg, 1983).

CEO power manifests itself in the CEO's ability to exert his/her will against the will of other executives or members of the board (consistent with Blau, 1964). Hence, if the CEO and another executive such as the CFO disagree on a particular strategic initiative, then a powerful CEO could leverage the various aspects of power, as described above, to enact a favored strategy against the will of the CFO, or use his/her power to mute the opposition of the CFO, thereby enforcing the favored strategy. Furthermore, powerful CEOs often appoint many directors on the board who are similar to them (Westphal & Zajac, 1995); the appointed directors in turn often support the CEO out of loyalty and gratitude, thereby entrenching CEO power, and making any opposition to the CEO's favored strategy less salient (Ma & Khanna, 2016). Therefore, the greater the power of the CEO, the more likely the other executives and board members will support the CEO's decisions, making them thus more likely to be implemented.

Consequently, to have a more complete picture in our study, we hypothesize that in cases of misaligned promotion focus between the CEO and the CFO, the greater the power of the CEO, the more likely it is that the CEO's regulatory focus will have a stronger impact on the firm's focus on growth-oriented initiatives than the CFO's regulatory focus, controlling for both executives' level of prevention focus.

Hypotheses 5: The effect in Hypothesis 4 (CEO promotion focus prevails over CFO promotion focus in cases of misalignment) is greater if the CEO has greater power.

Thus far we have theorized about the impact that misalignment between executives' promotion focus has on the corporate strategic behavior of firms. It is also important to understand the performance implications that this misalignment has, since such executive misalignment can trigger processes that affect both sensing and seizing capacities that are important types of capabilities (Helfat and Peteraf, 2015; Teece, 2007). Below we further argue that misalignment between the CEO's and CFO's promotion focus has positive performance implications for several reasons:

First, the misalignment on the promotion focus between CEO and CFO are more likely to generate more options to consider at the first beginning. Because the CEO and CFO disagree on whether the firm should grow and/or how the firm should grow, the diversity in perspectives might lead to consideration of a broader range of alternatives, including both growth and consolidation options (consistent with Miliken & Martins, 1996), i.e. if the firm should pursue growth options, whether it should proceed with organic growth, alliance, or acquisition etc. If each option is evaluated on its merits, this broader range of options, on average, can in turn increase the likelihood that the firm picks the most suitable strategic option that will lead to greater performance.

Second, if disagreement exists between different executives about which growth option to favor, there will be more scrutiny of the relative merits of each such option, and each is more likely to be evaluated and vetted with more comprehensive considerations of pros and cons, and challenges on the viability of critical assumptions of each option, which eventually leads to higher decision quality (Amason, 1996; Fiol, 1994). In other words, the growth initiatives that the firm engages in will have undergone a more rigorous decision-making process with thorough debate and discussion, as they had to withstand the objections of some executives, and as a

consequence are more likely to make positive contributions to firm performance.

Relatedly, misalignment on the promotion focus is more likely to be related to diversity in opinions and decision background information, which can increase the creativity of the ensuing resolutions of organizational problems (consistent with Rindova, 1999). It has been documented in the literature that diversity can have positive impacts on innovation or exploration in many different contexts (Bantel & Jackson, 1989; Lazer & Friedman, 2007; Qian, Cao, & Takeuchi, 2013 etc.). This also explains why there is push toward more diversity in top management team and board of directors in recent corporate governance reform (see also Chen et al., 2016; Post & Byron, 2015). Applying the similar logic in prior research which suggests the benefits of diversity in TMT and directors' background (such as functional experience, industry experience, gender and education), we argue that the diversity of executive psychological orientation, such as the misalignment in CEO and CFO promotion focus, can give rise to more creative solutions that enhance the attractiveness and value creation of the proposed growth initiatives, positively contributing to firm performance.

Hence, we hypothesize that firms will perform better if the promotion focus of the CEO and that of the CFO are misaligned, keeping the level of prevention focus of both executives constant.

> *Hypotheses 6: Firms will exhibit greater performance the greater the difference between the CEO's and CFO's promotion focus is (i.e., the more their promotion focus is misaligned).*

METHODS

Sample and data

Our sample selection starts with all the conference call transcripts obtained from the Thomson Reuter StreetEvents database over the period 2002 to 2013. StreetEvents offers the largest

available archive of global transcripts, briefs, events, guidance, and filings. We used CEOs' and CFOs' speeches during conference calls to capture their promotion focus. To ensure that English was CEOs' and CFOs' native language, we only included firms headquartered in the United States in our sample. We included all the transcripts associated with public disclosure, including quarterly earnings conference calls, corporate conference calls, conference presentations, and analyst conference calls. We also required that both CEOs and CFOs were present during the same conference calls. We obtained accounting information from Compustat, and CEO and CFO compensation and demographic data from multiple resources, including Capital IQ – People Intelligence, MorningStar Governance, and BoardEx.

Prior research (Fanelli, Misangyi, & Tosi, 2009; Gamache et al., 2015; Kaplan, 2008) has used the letters to shareholders in annual reports to capture top managers' attributes, values, and cognitions. As noted, we rely on conference call transcripts to measure CEO and CFO promotion focus. Compared to letters to shareholders, top managers' speeches during conference calls are more spontaneous and can often better reflect their personalized communication (Bowen, Davis, & Matsumoto, 2002; Francis, Hanna, & Philbrick, 1997). Social psychology research suggests that language use provides important clues to individuals' thinking styles, psychological states, and personalities (Pennebaker & King, 1999; Slatcher et al., 2007). Put differently, CEOs' and CFOs' speeches during the conference calls offer important insights into their cognitive processes.

Measures

Dependent variables. The first dependent variable is *propensity to grow corporate scope*. This variable captures a firm's focus on growth-related strategic actions relative to other strategic actions. Data used in measuring the variable are obtained from Capital IQ's Key Developments

database. Capital IQ continuously monitors, aggregates, and tags information from over 20,000 news sources in addition to regulatory filings and company websites. Their Key Developments database provides structured summaries of material news and events that may influence the market value of securities. To measure this dependent variable, we identify corporate announcements related to growth initiatives: mergers and acquisitions, strategic alliances, seeking investments/acquisitions, and business expansion. We use the sum of these four types of corporate announcements to capture the number of growth initiatives.

In addition to growth initiatives, firms may engage in consolidation initiatives to enhance organizational efficiency. We use the sum of the number of announcements on seeking to sell/divest, discontinued operations/downsizing, spin-offs/split-offs, and business reorganizations to capture consolidation initiatives. To measure propensity to grow corporate scope, we use the ratio of the number of growth initiatives announced in a year to the total number of strategic actions announced in a year (both growth and consolidation initiatives). The ratio measure is advantageous to the count measure of the number of growth initiatives in a crucial way. The count measure assumes that top executives have unlimited attention that can be devoted to growing the company and improving organizational efficiency simultaneously. Yet, executives are constrained by their attention (Ocasio, 1997) and need to allocate it between growth-oriented initiatives and consolidation-oriented initiatives. The ratio measure—propensity to grow corporate scope—takes into consideration that executives need to allocate their attention between growth and consolidation activities.

The dependent variable for Hypothesis 6 is *firm performance*, for which we use the measure of return on assets (ROA). Our review of the strategy literatures suggests ROA to be the

most commonly used measure of firm performance (Cannella, Park, & Lee, 2008; Carpenter, 2002; He & Huang, 2011).

Independent variables. To test Hypotheses 1 and 2, we construct the two independent variables *CEO promotion focus* and *CFO promotion focus*. To measure them, we first extract CEO and CFO speeches separately from each conference call transcript and then content analyze them based on dictionaries developed by Gamache et al., (2015). Using linguistic approaches to capture the strength of people's regulatory focus has been used in prior research (Gamache et al., 2015; Johnson et al., 2015).

Gamache, et al. (2015) took the following steps to develop and validate dictionaries to measure top managers' promotion focus and prevention focus. First, they created a list of words associated with the motivations and attitudes pertaining to promotion focus and prevention focus. They then verified the content validity of their initial word sets by relying on judgments from 25 experts. Lastly, they evaluated the convergent and discriminant validity of their measures via correlation and regression analyses. To measure CEO and CFO promotion focus, we first context analyzed each CEO and CFO speech and calculated the percentage of promotion words to the total number of words spoken as our measure. We then used the weighted average of the percentage of CEO and CFO promotion words across all the transcripts in a year to measure respective CEO and CFO promotion focus. Our measure of CEO and CFO promotion focus is at the firm-year level. Although our study concentrates on CEO and CFO promotion focus, we control for CEO and CFO prevention focus. We followed the same approach to measure CEO and CFO prevention focus.

To test Hypothesis 3, we use an interaction between the variables *CEO promotion focus* and *CFO promotion focus.* Hypothesis 4 suggests that in cases of CEO and CFO promotion

focus misalignment, the firm will exhibit a stronger propensity to grow corporate scope if the CEO's promotion focus is high and the CFO's is low than if the CEO's promotion focus is low and the CFO's is high. To test this hypothesis, we need to identify firm-years when the CEO's and CFO's promotion focus is misaligned. Given that our purpose is to identify four groups with different levels of CEO promotion focus and CFO promotion focus, we use K-medians cluster analysis to partition our data into four clusters (Ketchen and Shook, 1996). K-medians cluster analysis first selects initial cluster centroids and then assigns each observation to the group with the nearest centroid. As CEOs and CFOs in certain industries may have higher promotion focus, we use the industry median values of CEO and CFO promotion focus as initial cluster centroids. As each new observation is allocated, the cluster centroids are recomputed. Multiple passes are made through a dataset to allow observations to change cluster membership based on their distance from the recomputed centroids (Ketchen & Shook, 1996). Based on cluster analysis results, we use two groups (high CEO-low CFO promotion focus and low CEO-high CFO promotion focus) to test Hypothesis 4: the group of *high CEO–low CFO promotion focus* receives a value of "1," and that of *low CEO–high CFO promotion* focus a value of "0."

To test Hypothesis 5, we interact the binary variable used to test Hypothesis 4 with a variable capturing *CEO power*. Executive power may stem from multiple sources (Finkelstein, 1992), such as structural power based on organizational structure and hierarchy, ownership based on the shareholdings of the manager (Zald, 1969), and expert power associated with the manager's relevant expertise (Mintzberg, 1983). Following existing research (Haynes & Hillman, 2010), we use CEO duality, CEO tenure, CEO equity ownership, board independence, and CEO-director tenure overlap to capture different sources of CEO power. CEO duality receives a value of "1" if a CEO is board chair and "0" otherwise. CEO equity ownership is the

ratio of the number of shares owned by the CEO to the total number of shares outstanding. Board independence is measured as the ratio of the number of independent directors to board size. Given that CEOs may have lower levels of power in the presence of high board independence, we reverse coded this variable. CEO-director tenure overlap is measured as the average number of years of common tenure between the CEO and all other board members. CEO tenure is measured as the number of years since a CEO took office. We standardize these five variables and sum them to measure CEO power.

The independent variable we construct to test Hypothesis 6 is *CEO-CFO promotion focus difference*. We take the absolute value of the difference between CEO promotion focus and CFO promotion focus to measure it (Chung, Singh, & Lee, 2000).

Control variables. We include the following firm-, CEO-, CEO-CFO dyad-, and board-level variables that may affect firms' propensity to grow corporate scope and their performance. At the firm level, we first control for *firm size* by taking the natural log of total assets, because firm size may confound the influence of executives' influence on strategic choices and firm performance. Second, we control for firm performance using ROA when testing H1 to H5, as firms with better financial performance may have more resources to focus on expanding corporate scope (Carper, 1990), but we do not control for it when testing Hypothesis 6. Third, we control for firm *cash holding ratio* and *debt ratio* because these two variables can influence the amount of financial resources available for growth-oriented initiatives and affect firm performance. We also control for industry dynamism as research suggests that external environments can influence firm strategic choices and firm performance (Simerly & Li, 2000). To measure industry dynamism, we followed Boyd (1995), creating a regression with total industry sales (based on four-digit SIC codes) as the dependent variable and time as an independent variable, based on the five years'

data immediately preceding the focal year of analysis. Dynamism is measured as the standard error of the slope of the regression coefficient of time divided by the mean value of total industry sales over the five preceding years.

At the CEO level, we first control for *CEO duality* and *CEO tenure* because CEOs who hold board chair positions or have a longer tenure can have higher levels of discretion in influencing their firms' strategic decisions and performance (Finkelstein, 1992).[4] In addition, we control for *CEO option pay ratio* and *CEO equity ownership* because managerial compensation structures are related to firm strategic decisions (Sanders & Hambrick, 2007), individual behavior (Lee and Meyer-Doyle, 2017) and firm performance (Carpenter, 2002). CEO option pay ratio is measured as the ratio of the total value of annual option awards to the total value of compensation, and CEO equity ownership is measured as the ratio of the number of shares owned by the CEO to the total number of shares outstanding.

We control for *CEOs with CFO background* because having a CFO background may shape the dynamics between such CEOs and their CFOs, and in turn influence firms' focus on expanding corporate scope and firm performance. This control variable receives a value of 1 if a CEO has been a CFO before and 0 otherwise. At the board level, *board independence* is controlled for because a more independent board may reduce the level of managerial discretion in focusing on growth initiatives and firm performance (Dalton, Hitt, Certo, & Dalton, 2007).

We include four CEO-CFO dyad-level variables relating to CEO-CFO demographic backgrounds. The first variable is *CEO-CFO age difference*, which we measure as the natural logarithm of the absolute value of the difference between CEO age and CFO age plus one. The second variable refers to *CEO-CFO same gender,* which receives a value of 1 if the two have the same gender and 0 otherwise. The third variable captures whether CEOs and CFOs have the

same educational level. We classify educational backgrounds into three levels: undergraduate degrees, master degrees, and doctoral degrees. If CEOs and CFOs have the same educational level, a CEO-CFO dyad receives a value of 1 and 0 otherwise. The fourth variable captures *CEO-CFO tenure difference*, which we measure as the natural logarithm of the absolute value of the difference between CEO tenure and CFO tenure plus one.

Our dependent variables are measured at *t+1* and independent variables and control variables are measured at *t*.

Estimation method

Our first dependent variable—the propensity to focus on corporate growth—is measured as the ratio of the number of growth initiatives to the total number of growth and consolidation initiatives. This variable is bounded between 0 and 1. Although fractional logit regressions are appropriate for analyzing data with a dependent variable bounded by 0 and 1 (Papke and Wooldridge, 1996), there is no statistical software that can implement firm fixed-effects factional logit regressions. We thus use firm fixed-effects OLS regressions to test our hypotheses. Firm fixed-effects control for time-invariant firm heterogeneity. In the context of our study, firm fixed-effects regressions capture how a change in CEO promotion focus and CFO promotion focus influences a change in a firm's propensity to focus on corporate growth.[5]

We use a subsample of observations to test Hypotheses 4 and 5, and this may introduce sample selection bias. In other words, unobservable heterogeneity may affect whether a firm belongs to a misalignment group (high CEO–low CFO or low CEO–high CFO promotion focus) or to an alignment group (high CEO–high CFO or low CEO–low CFO promotion focus), as well as its propensity to focus on corporate growth. To mitigate potential sample selection bias, we implement Heckman selection models (Heckman, 1979). In the first-stage probit regression, we

examine whether a CEO-CFO dyad belongs to the misalignment group (receiving a value 1) or the alignment group (receiving a value 0). Based on the first-stage regression, we calculate the inverse Mills ratio and control for it in the second-stage regressions.

To ensure identification of the model, we need an instrumental variable that influences whether a CEO's and CFO's promotion focus are misaligned but does not directly influence our two dependent variables. The instrument used in the first-stage probit regression is measured as follows:

$$\text{CEO-CFO word ratio} = \frac{\left| \text{N of words spoken by CEO - N of words spoken by CFO} \right|}{(\text{N of words spoken by CEO + N of words spoken by CFO})} \quad (1)$$

The instrument *CEO-CFO word ratio* captures the number of words spoken by the CEO relative to the number spoken by the CFO across all the transcripts in a year. When CEOs speak a similar number of words as CFOs, this may indicate that the two have a high level of cognitive alignment. Thus, CEOs and CFOs are less likely to have misaligned promotion focus. However, CEO-CFO word ratio may not exert a direct influence on a firm's propensity to focus on corporate growth and firm performance.

In the first-stage probit regression, in addition to this instrumental variable, we include all the firm-, CEO-, and board-level control variables. We also control for year fixed-effects and Fama-French 17 industry fixed-effects (Fama and French, 1997). We find that the coefficient estimate of CEO-CFO word ratio is negative and statistically significant ($\beta = -0.386$, $p < .01$), suggesting that our instrument is highly relevant. However, when we use CEO-CFO word ratio as a predictor along with all the other control variables to predict our two dependent variables, we do not find that the coefficient estimate of CEO-CFO word ratio is statistically significant.

RESULTS

Table 1 shows descriptive statistics for variables used in this study. Table 2 reports models used

in testing Hypotheses 1–3. Model 1 of Table 2 includes all control variables. In Model 1, the coefficient estimate of CEO prevention focus is negative (β = -0.065, $p < .10$) and the coefficient estimate of CFO prevention focus is negative (β = -0.019, n.s.).

[Insert Tables 1 and 2 here]

Model 2 of Table 2 is used to test Hypothesis 1, proposing that a CEO's promotion focus should be positively associated with a firm's propensity to grow its corporate scope. The coefficient estimate of CEO promotion focus is positive (β = 0.025, $p < .05$), supporting Hypothesis 1. In terms of economic magnitude, a 10% increase in CEO promotion focus will be associated with a 25% increase in a firm's propensity to grow corporate scope. Model 3 of Table 2 is used to test Hypothesis 2, proposing that a CFO's promotion focus should bear a positive relationship with a firm's propensity to grow corporate scope. The coefficient estimate of CFO promotion focus is positive (β = 0.019, $p < .01$), supporting Hypothesis 2. In terms of economic magnitude, a 10% increase in CFO promotion focus will be associated with a 19% increase in a firm's propensity to grow corporate scope.

In Model 4, we include both CEO promotion focus (β = 0.020, $p < .05$) and CFO promotion focus (β = 0.016, $p < .05$) as predictors, consistent with Hypotheses 1 and 2. Model 5 is used to test Hypothesis 3, proposing that the interaction between CEO promotion focus and CFO promotion focus should be positively associated with a firm's propensity to grow corporate scope. The coefficient estimate of the interaction term is positive (β = 0.022, $p < .05$), lending support to Hypothesis 3. Figure 1 shows the interaction between CEO promotion focus and CFO promotion focus. When CFO promotion takes its low value (mean minus one standard deviation; solid line), there is almost no change in a firm's propensity to grow corporate scope when CEO promotion increases. However, when CFO promotion takes its high value (mean plus one

standard deviation; dotted line), there is a strong positive relationship between CEO promotion focus and a firm's propensity to grow corporate scope.

[Insert Figure 1 here]

Table 3 is used to test Hypotheses 4–5. The table's Model 1 is used to test Hypothesis 4, proposing that high CEO–low CFO promotion focus firms will be associated with a higher propensity to grow their corporate scope than low CEO–high CFO promotion focus firms. The coefficient estimate of high CEO–low CFO promotion focus is positive ($\beta = 0.027$, $p < .10$, two-tailed test) in Model 1, consistent with Hypothesis 4. In terms of economic magnitude, a firm's propensity to grow corporate scope is 2.7% higher when it changes from a high CEO–low CFO promotion focus group to a low CEO–high CFO promotion focus group.

[Insert Table 3 here]

Model 2 is used to test Hypothesis 5, suggesting that the relationship proposed in Hypothesis 4 is stronger when CEOs have high power. The coefficient estimate of high CEO–low CFO promotion focus × CEO power is positive ($\beta = 0.009$, $p < .05$), consistent with Hypothesis 5. Figure 2 shows the interaction between misalignment and CEO power. When CEO power is high, there is a sharp increase in a firm's propensity to grow its corporate scope from a low CEO–high CFO promotion focus group to a high CEO–low CFO promotion focus group. However, there is a fall in a firm's propensity to grow corporate scope when CEO power is low.

[Insert Figure 2 here]

Model 3 is used to test Hypothesis 6, proposing that CEO-CFO promotion focus difference is positively associated with firm performance. The coefficient estimate of CEO-CFO promotion focus misalignment is positive ($\beta = 0.771$, $p < 0.01$), consistent with Hypothesis 6. In terms of economic magnitude, when CEO-CFO promotion focus misalignment increases by one

standard deviation, the firm's ROA increases by 0.77 percentage points (about 55% of the sample mean of 0.01).

Supplementary analyses

We conducted several robustness checks and supplementary analyses. First, our dependent variable is a ratio and captures a firm's propensity to focus on growth initiatives relative to consolidation initiatives. As alternative dependent variables to examine the robustness of our findings, we use the number of growth initiatives and the number of consolidation initiatives, both of which are count variables. Two methods commonly used to analyze count data are negative binomial regressions and Poisson regressions. We do not use fixed-effects negative binomial regressions because such regressions do not provide a true fixed-effects analysis (Allison, 2005; Allison & Waterman, 2002). We thus choose fixed-effects Poisson regressions to test Hypotheses 1–3, displayed in Table 4.

[Insert Table 4 here]

The dependent variable of Models 1-2 in Table 4 is the number of growth initiatives. In Model 1, we include CEO promotion focus and CFO promotion focus as predictors. The coefficient estimate of CEO promotion focus is positive ($\beta = 0.041$, $p < 0.01$), and that of CFO promotion focus is also positive ($\beta = 0.050$, $p < 0.01$), consistent with Hypothesis 1 and Hypothesis 2. In Model 2, we introduce the interaction between CEO promotion focus and CFO promotion focus. The coefficient estimate of the interaction is positive ($\beta = 0.028$, $p < .10$, two-tailed test), supporting Hypothesis 3.

The dependent variable of Models 3-4 in Table 4 is the number of consolidation initiatives. In Model 3, the coefficient estimate of CEO promotion focus is negative ($\beta = -0.054$, $p < .10$, two-tailed test). This suggests that CEOs high in promotion focus are less likely to

undertake consolidation initiatives. In Model 4, the coefficient estimate of the interaction term is negative and statistically significant ($\beta = -0.083$, $p < .05$) indicating the negative relationship between CEO promotion focus and the number of consolidation initiatives is stronger when CFOs are also high in promotion focus.

Second, it is possible that CEOs and CFOs are more likely to use promotion focus–related words when wishing to stress firm performance. Meanwhile, firms are more likely to focus on growth initiatives in the presence of desirable performance. To rule out such an alternative explanation, we use residual CEO promotion focus and residual CFO promotion focus to test our Hypotheses 1-3. To calculate residual CEO promotion focus, we first run an OLS regression with CEO promotion focus as the dependent variable and the following variables as predictors: ROA, firm size, debt ratio, cash holding ratio, year fixed-effects, and Fama-French 17 industry fixed-effects. We use residual from such an OLS regression to capture CEO promotion focus that cannot be explained by firm performance and other firm characteristics. We run a similar OLS regression to measure residual CFO promotion focus. Results from such analyses are reported in Models 5-6 of Table 4. In Model 5, the coefficient estimate of *CEO promotion focus (Residual measure)* is positive ($\beta = 0.020$, $p < .05$) and the coefficient estimate of *CFO promotion focus (Residual measure)* is positive ($\beta = 0.016$, $p < .05$), supporting Hypotheses 1-2. In Model 2, the coefficient estimate of *CEO promotion focus* × *CFO promotion focus* is positive ($\beta = 0.021$, $p < .10$, two-tailed test), supporting Hypothesis 3.

In addition to using the residual measure, we measure CEO promotion and CFO promotion using the first year data. Specifically, if a CEO (CFO) was covered from 2004 to 2009, we use his or her initial year - 2004 - data to measure his or her promotion focus. Such a measure assumes the promotion focus is a personality trait, and does not vary over the years. We

then conduct random-effects OLS regressions (because of time-invariant predictors), controlling for Fama-French 17 industry fixed-effects and other control variables used in our reported models, and find support for Hypotheses 1-3. Similarly, we measure CEO-CFO promotion focus difference using the first year data and find support for Hypothesis 6 using such a measure.

Lastly, we examine all the interactions between CEO regulatory focus and CFO regulatory focus. Results are presented in Model 7 of Table 4. We find the coefficient estimates of CEO promotion focus, CFO promotion focus, and CEO promotion focus × CFO promotion focus are positive and statistically significant, consistent with our hypotheses. In addition, the coefficient estimate of CEO promotion focus × CFO prevention focus is negative and statistically significant. This indicates that CFOs high in prevention focus can weaken the positive relationship between CEO promotion focus and focus on corporate growth. However, the coefficient estimates of the other two interaction effects are negative and statistically not significant.

DISCUSSION AND CONCLUSION

Despite the well-documented importance of executive-level factors shaping firm strategy, less is known about how the interaction between different executives of the firm as well as their alignment and misalignment shape its strategy and performance. This study advances our insight into the influence of top executives on firm strategic choices by examining how the regulatory focus of CEOs and CFOs interact to shape the corporate strategy of the firm.

Based on micro-data on the promotion focus of CEOs and CFOs, and the corporate strategic initiatives of the firms they manage, we have found that both CEOs' and CFOs' promotion focus are important drivers of a firm's initiatives aimed at growing its corporate scope, and that there is a positive interaction effect between both factors, such that when both

executives are aligned in a high promotion focus, the firms exhibit a stronger propensity to grow corporate scope. Our analyses also revealed that when CEOs' and CFOs' promotion focus is misaligned, on average CEOs prevail. Yet we also found that this effect is contingent on the CEO's power. Interestingly, we also found that firms whose CEO and CFO regulatory focus is misaligned achieve greater performance, suggesting there are important complementarities in CEO and CFO regulatory focus that can lead to executives more carefully vetting the strategic initiatives they engage in.

Our study makes several important contributions. First, it contributes to the emerging literatures on how executive regulatory focus shapes the firm's strategy (Gamache, McNamara, Mannor, and Johnson, 2015; Weber and Mayer, 2011; Wowak and Hambrick, 2010; Johnson, Smith, Wallace, Hill, and Baron, 2015) by highlighting that in addition to the CEO's regulatory focus, the CFO's regulatory focus is an important driver of the firm's strategy as it can reinforce the effect of the CEO's regulatory focus on it. In this regard, rather than looking at both effects in isolation, we show it is important to consider both alignment and misalignment between the two, as well as the factors resolving cases of misalignment, as crucial drivers of the firm's strategy. Our study also suggests that there are important complementarities between the CEO's and CFO's regulatory focus that can positively impact shape the firm's performance. Relatedly, our study contributes to the burgeoning literature in the upper echelons research that focuses on the effects of executive psychological attributes in the last decade.

Second, our study also extends to the corporate strategy literature, which thus far has focused on firm-level factors affecting corporate strategy and the scope of the firm (Bowen & Wiersema, 2005; Castaner & Kavadis, 2013; Chatterjee & Wernerfelt, 1991), by adding important individual-level drivers of corporate strategic action, namely the regulatory focus of

CEOs and CFOs. In addition, ours is one of the first few studies focusing on a relatively comprehensive list of growth-oriented initiatives in the corporate strategy decision by including the firm's multiple strategic actions such as mergers, acquisitions, alliances, etc.

Third, our study also contributes to the micro-foundations of strategy literature (Barney et al., 2011; Foss, 2011; Helfat & Peteraf, 2015) by explicating how important characteristics of executives in the firm, and the alignment or misalignment between them, shape the firm's strategy and its capabilities. As such, we contribute to the resource-based view by both highlighting important micro-foundational sources of firm capabilities and explicating how individual-level drivers of firm strategy aggregate and interact to shape the firm's strategy.

There are several limitations of our study that also present further avenues for research. First, our study has primarily focused on developing and testing hypotheses based on how the levels of *promotion focus* of CEOs and CFOs interact to shape the firm's corporate strategy. While our results are robust to accounting for the respective levels of *prevention focus* of the CEO and of the CFO, and while our hypotheses should also predict the relationship between the two on the firm's contraction or consolidation of its corporate scope, we did not find conclusive support for how the prevention focus of CEOs and of CFOs interact to shape the corporate scope of the firm in our robustness checks; as discussed, there are various reasons for this, including the potential measurement error in our measure for prevention focus as well as the specific domain of corporate scope, which is traditionally associated more with growth rather than contraction decisions. Nevertheless, further research is required based on more fine-grained data that enables a more accurate measurement of executives' prevention focus to build a better understanding of how they interact to shape the firm's strategy.

Second, while we are able to observe, based on our quantitative measures of the CEO's

and CFO's promotion focus, when there is a misalignment between the two, our data do not allow us to examine the processes as well as managerial actions that unfold following the misalignment to resolve it. Yet to better understand the factors that ultimately shape the firm's corporate strategy in such cases of misaligned regulatory focus, we would need detailed qualitative data that captures the actual behavior and interaction of individual executives; future research based on such qualitative data could refine the insights provided by our study.

Third, although our aggregated measure of growth-oriented initiatives has the benefit of being comprehensive, as firms typically consider multiple strategic actions simultaneously, our measure suffers from the weakness of not considering the weight of each growth initiative. It is possible that one major acquisition has a bigger impact than two medium-size strategic alliances, and our current measure does not capture this nuance.

Finally, we have chosen to examine how the interaction between the regulatory focus of the CEO and that of the CFO affects the firm's corporate strategy, as both are perceived to be the most impactful executives on this strategy. Yet ideally we would like to examine how the interaction of the regulatory focus of all C-level executives, and the alignment and misalignment between them, shape the firm's corporate strategy. Our data and the way we capture the regulatory focus of executives through conference calls, in which mainly the CEO and the CFO are involved, do not allow us to capture the regulatory focus of the firm's other important executives, and hence further research is needed to enable us to fully understand the comprehensive interaction of the regulatory focuses of *all* C-level executives of the firm and its impact on the firm's corporate strategy.

REFERENCES

Allison, P.D. (2005). *Fixed Effects Regression Methods for Longitudinal Data Using SAS*. Cary, NC: SAS Institute.

Allison, P.D., & Waterman, R.P. (2002). Fixed–effects negative binomial regression models. *Sociological Methodology, 32*(1): 247-265.

Amason, A.C. (1996). Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: resolving a paradox for top management teams. *Academy of Management Journal, 39*(1): 123–148.

Andrews, K.R. (1987). *The Concept of Corporate Strategy*. Homewood, IL: Irwin.

Bantel, K.A.., & Jackson, S.E. (1989). Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal, 10*(S1): 107-124.

Barney, J.B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management, 17*(1): 99-120.

Barney, J., Wright, M., & Ketchen, D.J. (2001). The resource-based view of the firm: ten years after 1991. *Journal of Management*, *27*(6): 625–641.

Bedard, J.C., Hoitash, R., & Hoitash, U. (2014). Chief Financial Officers as Inside Directors. *Contemporary Accounting Research*, *31*(3): 787-817.

Bigley, G.A., & Wiersema, M.F. (2002). New CEOs and corporate strategic refocusing: how experience as heir apparent influences the use of power. *Administrative Science Quarterly, 47*(4): 707–727.

Bingham, C.B., Heimeriks, K.H., & Meyer-Doyle, P. (2017). Commonalities in the Development of Dynamic Capabilities: Priorities and Proportions. *Academy of Management Proceedings 2017*, *1*: 12062.

Blau, P.M. (1964). *Exchange and Power in Social Life*. New York, NY: Wiley.

Bowen, R.M., Davis, A.K., & Matsumoto, D.A. (2002). Do Conference Calls Affect Analysts' Forecasts? *The Accounting Review*, *77*(2): 285-316.

Bowen, H.P., & Wiersema, M.F. (2005). Foreign-based competition and corporate diversification strategy. *Strategic Management Journal, 26*: 1153–1171.

Bower, J.L. (1986). *Managing the Resource Allocation Process: A Study of Corporate Planning and Investment*. Boston, MA: Harvard Business School Press.

Boyd, B.K. (1995). CEO duality and firm performance: A contingency model. *Strategic Management Journal, 16*(4): 301–312.

Braun, D.M. (2001). The CFO's changing role in acquisitions and divestitures. *Strategy & Leadership, 29*(5): 31–34.

Brocker, J., Higgins, E., & Low, M. (2004). Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing, 19*: 203-220

Buyl, T., Boone, C., Hendriks, W., & Matthyssens, P. (2011). Top management team functional diversity and firm performance: the moderating role of CEO characteristics. *Journal of Management Studies, 48*(1): 151–177.

Campbell, B.A., Coff, R., & Kryscynski, D. (2012). Rethinking sustained competitive advantage from human capital. *Academy of Management Review, 37*(3): 376–395.

Cannella, A.A. Jr., Park, J-H., & Lee, H-U. (2008). Top management team functional background diversity and firm performance: examining the roles of team member

colocation and environmental uncertainty. *Academy of Management Journal, 51*(4): 768–784.

Castaner, X., & Kavadis, N. (2013). Does good governance prevent bad strategy? A study of corporate governance, financial diversification, and value creation by French corporations, 2000–2006. *Strategic Management Journal, 34*(7): 863–876.

Carpenter, M.A. (2002) The implications of strategy and social context for the relationship between top management team heterogeneity and firm performance. *Strategic Management Journal, 23*(3): 275–284.

Carpenter, M.A., & Sanders W.M.G. (2002). Top management team compensation: the missing link between CEO pay and firm performance. *Strategic Management Journal, 23*(4): 367–375.

Carper, W.B. (1990). Corporate acquisitions and shareholder wealth: A review and exploratory analysis. *Journal of Management, 16*(4): 807-823.

Chatain, O., & Meyer-Doyle, P. (2017). Alleviating Managerial Dilemmas in Human-Capital-Intensive Firms Through Incentives: Evidence from M&A Legal Advisors. *Strategic Management Journal*, *38*(2), 232-254.

Chatterjee, A., & Hambrick, D.C. (2007). It's all about me: narcissistic CEOs and their effects on company strategy and performance. *Administrative Science Quarterly, 52*(3): 351–386.

Chatterjee, S., & Wernerfelt, B. (1991). The link between resources and type of diversification: theory and evidence. *Strategic Management Journal, 12*(1): 33–48.

Chava, S., & Purnanandam, A. (2010). CEOs versus CFOs: incentives and corporate policies. *Journal of Financial Economics, 97*(2): 263–278.

Chen, G., Crossland, C., & Luo, S. (2015), Making the same mistake all over again: CEO overconfidence and corporate resistance to corrective feedback. *Strategic Management Journal, 36*(10): 1513–1535.

Chen, G., Crossland, C., & Huang, S. (2016). Female Board Representation and Corporate Acquisition Intensity. *Strategic Management Journal, 37*: 303-313

Chen, G., Huang, S., & Meyer-Doyle, P. (2017). Generalist vs. Specialist CEOs: How CEO Human Capital Shapes the Firm Acquisition Behavior and Success. *Academy of Management Proceedings 2017*, *1: 11433.*

Chung, S., Singh, H., & Lee, K. (2000). Complementarity, status similarity and social capital as drivers of alliance formation. *Strategic Management Journal, 21*(1): 1–22.

Collis, D., & Montgomery, C. (2005). An introduction to corporate strategy. In *Corporate Strategy: A Resource-Based Approach.* New York, NY: McGraw Hill.

Crook, T.R., Ketchen, D.J., Combs, J.G., & Todd, S. (2008). Strategic resources and performance: a meta-analysis. *Strategic Management Journal, 29*: 1141–1154

Crook, T.R., Todd, S.Y., Combs, J.G., Woehr, D.J., & Ketchen, D.J. Jr (2011). Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. *Journal of Applied Psychology, 96*(3): 443–45.

Crowe, E., & Higgins, E.T. (1997). Regulatory focus and strategic inclinations: promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes, 69*: 117–132.

Dalton, D.R., Hitt, M.A., Certo, S.T., & Dalton, C.M. (2007) The fundamental agency problem and its mitigation: Independence, equity, and the market for corporate control. *Academy of Management Annals, 1*: 1-64.

Das, T.K., & Teng, B.S. (2014). Cognitive Biases and Strategic Decision Processes. In T.K. Das (Ed.), *Behavioral Strategy: Emerging Perspectives*. Charlotte, NC: Information Age Publishing.

Datta, S., & Iskandar-Datta, M. (2014). Upper-echelon executive human capital and compensation: generalist vs specialist skills. *Strategic Management Journal, 35*(12): 1853–1866.

Fanelli, A., Misangyi, V.F., & Tosi, H.L. (2009). In charisma we trust: The effects of CEO charismatic visions on securities analysts. *Organization Science, 20*(6): 1011-1033.

Fama, E.F., & French, K.R. (1997). Industry cost of equity. *Journal of Financial Economics, 43*(2): 153-193.

de Figueiredo, R., Meyer-Doyle, P., Rawley, E. (2013). Inherited agglomeration effects in hedge fund spawns. *Strategic Management Journal, 34*(7): 843–862.

Finkelstein, S. (1992). Power in top management teams: dimensions, measurement, and validation. *Academy of Management Journal, 35*: 505–538.

Finkelstein, S., Hambrick, D.C., & Cannella, B. (2008). *Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards*. Oxford, U.K: Oxford University Press.

Fiol, M. (1994). Consensus, diversity, and learning in organizations. *Organization Science,* I(3): 403–421

Foerster, J., Higgins, E.T., Idson, L.C. (1998). Approach and avoidance strength during goal attainment: regulatory focus and the "goal looms larger" effect. *Journal of Personality and Social Psychology, 75*: 1115–1131.

Forbes (2013). CFOs have bigger roles than ever before—and they like it that way. Forbes. 2 August.

Foss, N.J. (2011). Why micro-foundations for resource-based theory are needed and what they may look like [invited editorial]. *Journal of Management, 37*(5): 1413–1428.

Francis, J., Hanna, J.D., & Philbrick, D.R. (1997). Management Communications with Securities Analysts. *Journal of Accounting and Economics, 24*: 363-94.

Fredrickson, J.W., & Mitchell, T.R. (1984). Strategic decision processes: Comprehensiveness and performance in an industry with an unstable environment. *Academy of Management Journal, 27*(2): 399-423 .

Gamache, D.L., McNamara, G., Mannor, M.J., & Johnson, R.E. (2015). Motivated to acquire? The impact of CEO regulatory focus on firm acquisitions. *Academy of Management Journal, 58*(4): 1261–1282.

Gomez, P., Borges, A., & Pechmann, C. (2013). Avoiding poor health or approaching good health: Does it matter? The conceptualization, measurement, and consequences of health regulatory focus. *Journal of Consumer Psychology, 23*: 451-463.

Gore, A.K., Matsunaga, S., & Yeung, P.E. (2011). The role of technical expertise in firm governance structure: evidence from chief financial officer contractual incentives. *Strategic Management Journal, 32*(7): 771–786.

Haleblian, J., & Finkelstein, S. (1993). Top management team size, CEO dominance, and firm performance: the moderating roles of environmental turbulence and discretion. *Academy of Management Journal, 36*(4): 844–863.

Hambrick, D. (1995). Fragmentation and the other problems CEOs have with their top management teams. *California Management Review, 37*(3): 110–127.

Hambrick, D. (2007). Upper echelons theory: An update. *Academy of Management Review, 32*(2): 334-343.

Hambrick, D.C., & Mason, P.A. (1984). Upper echelons: the organization as a reflection of its top managers. *Academy of Management Review, 9*(2): 193–206.

Hatch, N.W., & Dyer, J.H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal, 25*(12): 1155–1178.

Haynes, K.T., & Hillman, A. (2010). The effect of board capital and CEO power on strategic change. *Strategic Management Journal, 31*(11), 1145–1163.

Hayward, M.L.A., & Hambrick, D.C. (1997). Explaining the premiums paid for large acquisitions: evidence of CEO hubris. *Administrative Science Quarterly, 42*(1): 103–127.

He, J.Y., & Huang, Z. (2011). Board informal hierarchy and firm financial performance: exploring a tacit structure guiding boardroom interactions. *Academy of Management Journal, 54*(6): 1119–1139.

Heckman, J.J. (1979). Sample Selection Bias as a Specification Error. *Econometrica, 47*(1): 153-161.

Heinz, I., Niebuhr, J., & Pettit, J. (2008). The role of CFOs in deal making. *Financial Executive, 24*(8): 20–23.

Helfat, C.E., & Peteraf, M.A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal, 36*(6): 831–850.

Helfat, C.E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D., & Winter, S.G. (2006). *Dynamic Capabilities: Understanding Strategic Change in Organizations*. New York, NY: Wiley.

Higgins ET. 1998. Promotion and prevention: Regulatory focus as a motivational principle. *Advances in Experimental Social Psychology, 30*: 1–46.

Higgins, E.T., & Spiegel, S. (2004). Promotion and prevention strategies for self-regulation: A motivated cognition perspective. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications*. New York, NY: Guilford Press.

Jenter, D., & Lewellen, K. (2015). CEO preferences and acquisitions. *Journal of Finance, 70*(6): 2813–2852.

Johnson, P.D., Smith, M.B., Wallace, J.C., Hill, A.D., & Baron, R.A. (2015). Review of multilevel regulatory focus in organizations. *Journal of Management, 41*(5): 1501–1529.

Kaplan, S. (2008). Cognition, capabilities, and incentives: assessing firm response to the fiberoptic revolution. *Academy of Management Journal, 51*: 672–695

Ketchen, D.J., & Shook, C.L. (1996). The application of cluster research in strategic management research: and Analysis and critique. *Strategic Management Journal, 17*(6): 441-458.

Lanaj, K., Chang, C.H., & Johnson, R.E. (2012). Regulatory Focus and Work-Related Outcomes:A Review and Meta-Analysis. *Psychological Bulletin, 138*(5): 998-1034.

Lant, T.K., Milliken, F.J., Batra, B. (1992). The Role of Managerial Learning and Interpretation in Strategic Persistence and Reorientation. *Strategic Management Journal, 13*(8): 585-608.

Lazer, D., & Friedman, A. (2007). The Network Structure of Exploration and Exploitation. *Administrative Science Quarterly, 52*: 667-694.

Lee, S., & Meyer-Doyle, P. (2017). How Performance Incentives Shape Individual Exploration vs. Exploitation: Evidence from Micro-data. *Organization Science*, *28*(1), 19-38

Lo, F.Y., & Fu, P.H. (2016). The interaction of chief executive officer and top management team on organization performance. *Journal of Business Research, 69*(6): 2182–2186.

Ma, J., Khanna, T. (2016). Independent directors' dissent on boards: evidence from listed companies in China. *Strategic Management Journal, 37*(8): 1547–1557.

Mackey, A. (2008). The effect of CEOs on firm performance. *Strategic Management Journal, 29*(12): 1357–1367.

McKinsey (2011). How CFOs can keep strategic decisions on track. *McKinsey Quarterly*, Feb. 2011.

Meyer-Doyle, P. (2012). *How individuals shape the capabilities of firms: Evidence from corporate acquisitions and entrepreneurial spawning*. Dissertation, University of Pennsylvania, Philadelphia. USA.

Meyer-Doyle, P., Lee, S., & Helfat, C.E. (2018). Disentangling the Microfoundations of Dynamic Capabilities: Evidence from Microdata on Acquisitions. *INSEAD Working Paper*.

Meyer-Doyle, P., Mawdsley, J.K., & Chatain, O. (2017). Always Change a Winning Team? Resource Re-Configuring in Human Asset Intensive Firms. *Academy of Management Proceedings 2017*, 1: 11703.

Meyer-Doyle, P., & Schumacher, C. (2018). CEO Human-Capital-Based Microfoundations of Risk Management Capabilities. *INSEAD Working Paper.*

Milliken, F.J., & Martins, L.L. (1996). Searching for common threads: understanding the multiple effects of diversity in organizational groups. *Academy of Management Rev*iew, *21*: 402–433.

Mintzberg, H. (1983). *Power In and Around Organizations*. Englewood Cliffs, NJ: Prentice-Hall.

Moran, P. (2005). Structural vs. relational embeddedness: social capital and managerial performance. *Strategic Management Journal, 26*(12): 1129–1151.

Nolop, B.P. (2012). *The Essential CFO: A Corporate Finance Playbook.* New York, NY: Wiley.

Ocasio, W. (1997). Towards and attention-based view of the firm. *Strategic Management Journal, 18*(S1): 187-206.

Papke, L.E., & Wooldridge, J.M. (1996). Econometric methods for fractional response variables with an application to 401(k) plan participation rates. *Journal of Applied Econometrics, 11*(6): 619-632.

Pennebaker, J.W., & King, L.A. (1999). Linguistic styles: Language use as an individual difference. *Journal of Personality and Social Psychology, 77*(6): 1296-1312.

Pfeffer, J. (1972). Size and composition of corporate boards of directors. *Administrative Science Quarterly, 17*: 218–228.

Post, C., & Byron, K. (2015). Woman on Boards and Financial Performance: A Meta-Analysis. *Academy of Management Journal, 58*(5): 1546-1571

Puranam, P., & Vanneste, B. (2016). *Corporate Strategy: Tools for Analysis and Decision Making*. Cambridge, U.K: Cambridge University Press.

Qian, C., Cao, Q., & Takeuchi, R. (2013). Top management team functional diversity and organizational innovation in China: The moderating effects of environment. *Strategic Management Journal, 34*(1): 110-120.

Quigley, T.J., & Graffin, S.D. (2017). Reaffirming the CEO effect is significant and much larger than chance: A comment on Fitza (2014). *Strategic Management Journal*, *38*(3): 793-801

Rindova, V.P. (1999). What corporate boards have to do with strategy: a cognitive perspective. *Journal of Management Studies, 36*(7): 953–975.

Sanders, W.M.G., & Hambrick, D.C. (2007). Swinging for the fences: The effects of CEO stock options on company risk taking and performance. *Academy of Management Journal, 50*(5): 1055-1078.

Seo, J., Gamache, D.L., Devers, C.E., & Carpenter, M. (2015). The role of CEO relative standing in acquisition behavior and CEO pay. *Strategic Management Journal, 36*(2): 1877–1894.

Simerly, R.L., & Li, M. (2000). Environmental dynamism, capital structure, and performance: a theoretical integration and an empirical test. *Strategic Management Journal, 21*(1): 31–49.

Shi, W., Connelly, B., & Cirik, K. Forthcoming. Short seller influence on firm growth: A threat-rigidity perspective. *Academy of Management Journal*.

Shi, W., Connelly, B., & Sanders, W.G. 2016. Buying bad behavior: Tournament incentives and securities class action lawsuits. *Strategic Management Journal*, *37*(7): 1354–1378.

Shi, W., Zhang, Y., & Hoskisson, R. Forthcoming. Examination of CEO-CFO social interaction through language style matching: Outcomes for the CFO and the organization. *Academy of Management Journal*.

Slatcher, R.B., Chung, C.K., Pennebaker, J.W., & Stone, L.D. (2007). Winning words: Individual differences in linguistic style among U.S. presidential and vice presidential candidates. *Journal of Research in Personality, 41*: 63-75.

Teece, D.J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13): 1319–1350.

Tuggle, C.S., Sirmon, D.G., Reutzel, C.R., & Bierman, L. (2010). Commanding board of director attention: investigating how organizational performance and CEO duality affect board members' attention to monitoring. *Strategic Management Journal, 31*(9): 946–968.

Voss, Z.G., Cable, D.M., Voss, G.B. (2006). Organizational identity and firm performance: what happens when leaders disagree about "who we are"? *Organization Science, 17*(6): 741–755.

Wallace, J.C., Little, L.M., Hill, A.D., & Ridge, J.W. (2010). CEO regulatory foci, environmental dynamism, and small firm performance. *Journal of Small Business Management, 48*: 580–604.

Weber, L, & Mayer, K.J. (2011). Designing effective contracts: exploring the influence of framing and expectations. *Academy of Management Review, 36*: 53–75.

Westphal, J.D., & Zajac, E.J. (1995). Who shall govern? CEO/Board power, demographic similarity, and new director selection. *Administrative Science Quarterly, 40*(1): 60–83.

Wowak, A.J., & Hambrick, D.C. (2010). A model of person-pay interaction: how executives vary in responses to compensation arrangements. *Strategic Management Journal, 31*: 803–821.

Zald, M.N. (1969). *Power in Organizations*. Nashville, TN: Vanderbilt University Press.

Zhu, D., & Chen, G. (2015). CEO narcissism and the impact of prior board experience on corporate strategy. *Administrative Science Quarterly*, *60*(1): 31–65.

Zorn, D.M. (2004). Here a chief, there a chief: the rise of the CFO in the American firm. *American Sociological Review*, *69*(3): 345–364.

NOTES

[1] If we hypothesized on both promotion focus and prevention focus, each single effect in our study would need to be developed and tested for two different executives (CEO and CFO), and for two different explanatory variables (promotion focus and prevention focus), resulting in 4 hypotheses for each effect.

[2] For instance, we expect CEO promotion focus to have a positive impact on the firm's propensity to engage in growth initiatives and CFO prevention focus to have a negative impact. We then expect the positive relationship between CEO promotion focus and the firm's propensity to engage in growth initiatives to be negatively moderated by the CFO's prevention focus, and the negative relationship between CFO prevention focus and the firm's propensity to engage in growth initiatives to be positively moderated by the CEO's promotion focus. Yet, both moderation effects would need to be tested with the same interaction term (CEO's promotion focus * CFO's prevention focus) which by design would mean that both hypotheses, although entirely consistent with each other, cannot be both supported. We avoid this problem by focusing only on the CEO promotion focus and the CFO's promotion focus and the interaction thereof in our main analysis.

[3] The data sources used to measure promotion and prevention focus are content analysis applied to executive letters to shareholder/ executive written statements or executive calls with analysts. The communication of executives in these sources is carefully vetted as much as possible to avoid negative language; as such even when describing a negative development for the company, executives might avoid the language which have traditionally been associated with a prevention focus but rather choose neutral words, resulting in measurement error for prevention focus; the

same problem is less likely to affect the measures of promotion focus, making this measure comparably more accurate.

[4] We do not control for CEO tenure, CEO duality, CEO equity ownership, and board independence when testing the moderating effect of CEO power, as we use these variables to create the CEO power index.

[5] We also check the robustness of our findings using fractional logit regressions. As there is no statistical software available for modeling firm fixed-effects fractional logit regressions, we control for industry fixed-effects instead of firm fixed-effects and find similar results.

ACKNOWLEDGEMENTS

All three authors contributed equally and are listed in alphabetical order of their surnames.

TABLES AND FIGURES

Table 1. Descriptive statistics

	Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	Focus on growth initiatives	0.64	0.43	1.00																					
2	CEO promotion focus (%)	1.15	0.51	0.03	1.00																				
3	CFO promotion focus (%)	1.33	0.69	0.06	0.33	1.00																			
4	CEO prevention focus (%)	0.13	0.14	-0.07	-0.06	-0.09	1.00																		
5	CFO prevention focus (%)	0.21	0.25	-0.15	-0.08	-0.09	0.34	1.00																	
6	Misalignment	0.01	0.01	-0.02	0.07	0.45	-0.01	-0.03	1.00																
7	CEO power	0.36	2.96	0.02	-0.03	0.01	-0.02	-0.07	0.05	1.00															
8	Firm size	7.39	2.02	0.16	0.05	0.04	0.12	-0.15	-0.01	-0.01	1.00														
9	Firm performance	0.01	0.15	0.14	0.17	0.19	-0.13	-0.34	0.08	0.10	0.29	1.00													
10	Cash holding ratio	0.18	0.20	-0.04	-0.14	-0.08	0.04	0.18	-0.04	0.00	-0.42	-0.25	1.00												
11	Debt ratio	0.22	0.20	0.02	-0.05	-0.08	-0.03	-0.09	-0.04	0.00	0.23	-0.07	-0.35	1.00											
12	CEO duality	0.52	0.50	0.02	0.03	0.03	0.01	-0.07	0.02	0.64	0.14	0.08	-0.11	0.05	1.00										
13	CEO tenure	6.17	6.22	0.01	-0.04	-0.01	0.00	-0.03	0.04	0.69	-0.01	0.06	0.00	-0.02	0.27	1.00									
14	CEO option pay	0.15	0.24	0.06	-0.05	-0.01	0.01	0.02	-0.05	-0.08	0.10	-0.05	0.13	-0.04	-0.05	-0.03	1.00								
15	CEO equity ownership	0.01	0.03	-0.02	-0.04	0.02	-0.03	0.01	0.03	0.55	-0.19	0.01	0.07	-0.07	0.15	0.24	-0.06	1.00							
16	CFO background	0.16	0.36	-0.01	-0.02	0.00	0.02	0.03	0.03	-0.10	0.06	0.00	-0.05	0.03	-0.06	-0.09	0.03	-0.06	1.00						
17	Board independence	0.70	0.13	-0.05	0.01	0.02	0.05	0.12	-0.02	-0.43	-0.15	-0.15	0.03	-0.02	-0.14	-0.11	0.03	-0.01	0.02	1.00					
18	Industry dynamism	2.43	4.64	-0.01	-0.09	-0.09	0.14	0.12	-0.01	-0.02	0.14	-0.06	-0.02	-0.03	-0.01	0.01	-0.02	-0.02	0.01	0.06	1.00				
19	CEO-CFO age difference	1.93	0.79	-0.02	-0.01	-0.03	0.00	0.03	0.01	0.02	-0.07	-0.02	0.04	-0.02	-0.03	0.01	-0.03	0.04	-0.05	-0.03	-0.01	1.00			
20	CEO-CFO same gender	0.87	0.34	0.03	-0.01	-0.02	0.00	-0.01	-0.03	0.06	0.00	0.00	-0.03	0.03	0.04	0.03	-0.02	0.06	0.01	-0.02	0.01	0.03	1.00		
21	CEO-CFO same educational level	0.42	0.49	0.02	-0.01	0.00	0.01	-0.03	0.01	-0.03	0.03	0.03	-0.01	0.02	0.00	-0.04	0.01	-0.03	0.04	0.00	0.02	-0.01	0.05	1.00	
22	CEO-CFO tenure difference	1.36	0.84	0.00	-0.02	-0.01	0.00	-0.02	0.04	0.42	-0.01	0.04	0.02	-0.04	0.17	0.62	-0.01	0.14	-0.08	-0.07	0.01	0.03	0.02	-0.05	1.00

Note: Absolute value of correlations greater than .02 statistically significant at p<.05.

Table 2. Firm fixed-effects OLS regressions used to test Hypotheses 1-3

Variables	Model 1 Propensity	Model 2 Propensity	Model 3 Propensity	Model 4 Propensity	Model 5 Propensity
CEO promotion focus		0.025**		0.020**	0.017*
		[0.010]		[0.010]	[0.010]
CFO promotion focus			0.019***	0.016**	0.014*
			[0.007]	[0.007]	[0.007]
CEO promotion focus x CFO promotion focus					0.022**
					[0.011]
CEO prevention focus	-0.065*	-0.063*	-0.061*	-0.060*	-0.059
	[0.036]	[0.036]	[0.036]	[0.036]	[0.036]
CFO prevention focus	-0.019	-0.019	-0.019	-0.019	-0.018
	[0.023]	[0.023]	[0.023]	[0.023]	[0.023]
Firm size	-0.038***	-0.037***	-0.038***	-0.037***	-0.036***
	[0.011]	[0.011]	[0.011]	[0.011]	[0.011]
Firm performance	0.330***	0.322***	0.320***	0.315***	0.318***
	[0.039]	[0.039]	[0.039]	[0.039]	[0.039]
Cash holding ratio	0.243***	0.246***	0.242***	0.245***	0.243***
	[0.049]	[0.049]	[0.049]	[0.049]	[0.049]
Debt ratio	-0.182***	-0.180***	-0.178***	-0.177***	-0.178***
	[0.041]	[0.041]	[0.041]	[0.041]	[0.041]
CEO duality	-0.016	-0.016	-0.016	-0.016	-0.016
	[0.011]	[0.011]	[0.011]	[0.011]	[0.011]
CEO tenure	-0.000	-0.000	-0.000	-0.000	-0.000
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
CEO option pay	-0.006	-0.005	-0.005	-0.004	-0.004
	[0.018]	[0.018]	[0.018]	[0.018]	[0.018]
CEO equity ownership	-0.095	-0.085	-0.101	-0.091	-0.098
	[0.182]	[0.181]	[0.182]	[0.182]	[0.182]
CFO background	0.003	0.004	0.002	0.003	0.002
	[0.017]	[0.017]	[0.017]	[0.017]	[0.017]
Board independence	-0.015	-0.017	-0.015	-0.017	-0.017
	[0.051]	[0.051]	[0.051]	[0.050]	[0.050]
Industry dynamism	-0.001	-0.001	-0.001	-0.001	-0.001
	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]
CEO-CFO age difference	0.003	0.003	0.003	0.003	0.003
	[0.006]	[0.006]	[0.006]	[0.006]	[0.006]
CEO-CFO same gender	0.032**	0.032**	0.032**	0.032**	0.032**
	[0.015]	[0.015]	[0.015]	[0.015]	[0.015]
CEO-CFO same educational level	0.012	0.012	0.012	0.012	0.012
	[0.010]	[0.010]	[0.010]	[0.010]	[0.010]
CEO-CFO tenure difference	0.003	0.003	0.003	0.003	0.003
	[0.007]	[0.007]	[0.007]	[0.007]	[0.007]
Constant	0.775***	0.734***	0.748***	0.720***	0.758***
	[0.091]	[0.092]	[0.092]	[0.093]	[0.091]
Observations	14,784	14,784	14,784	14,784	14,784
Firm FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Adjusted R-squared	0.344	0.345	0.345	0.345	0.345

Note: We demean CEO promotion focus and CFO promotion focus in Model 5. Standard errors clustered by CEO-CFO dyad in brackets. Two-tailed tests. *** p<0.01, ** p<0.05, * p<0.1.

Table 3. Firm fixed-effects OLS regressions for Hypotheses 4-6

Variable	Model 1 Propensity	Model 2 Propensity	Model 3 ROA
High CEO-Low CFO promotion focus	0.027*	0.024*	
	[0.014]	[0.014]	
High CEO-Low CFO promotion focus		0.009**	
x CEO power		[0.005]	
CEO-CFO promotion focus difference			0.771***
			[0.168]
CEO power		-0.003	
		[0.004]	
CEO prevention focus	-0.108*	-0.110*	-0.027***
	[0.059]	[0.059]	[0.009]
CFO prevention focus	-0.060	-0.057	-0.030***
	[0.038]	[0.038]	[0.006]
Firm size	-0.027	-0.023	-0.010***
	[0.019]	[0.019]	[0.003]
Firm performance	0.243***	0.238***	
	[0.074]	[0.074]	
Cash holding ratio	0.210**	0.216**	-0.047***
	[0.085]	[0.085]	[0.014]
Debt ratio	-0.165**	-0.162**	-0.000
	[0.075]	[0.074]	[0.012]
CEO duality	-0.004		-0.001
	[0.018]		[0.002]
CEO tenure	0.002		0.000
	[0.002]		[0.000]
CEO option pay	-0.005	-0.005	-0.008*
	[0.029]	[0.029]	[0.005]
CEO equity ownership	-0.230		-0.033
	[0.321]		[0.042]
CFO background	0.029	0.027	0.004
	[0.026]	[0.026]	[0.003]
Board independence	-0.094		0.001
	[0.081]		[0.010]
Industry dynamism	-0.001	-0.001	0.000
	[0.003]	[0.003]	[0.000]
CEO-CFO age difference	-0.008	-0.009	0.001
	[0.009]	[0.009]	[0.001]
CEO-CFO same gender	0.004	0.003	-0.003
	[0.023]	[0.023]	[0.004]
CEO-CFO same educational level	0.008	0.009	0.003
	[0.015]	[0.015]	[0.002]
CEO-CFO tenure difference	0.005	0.009	0.000
	[0.010]	[0.009]	[0.001]
Inverse Mills ratio	-0.106	-0.125	
	[0.138]	[0.132]	
Constant	0.871***	0.797***	0.177***
	[0.194]	[0.181]	[0.024]
Observations	7,301	7,301	13,893
Firm FE	YES	YES	YES
Year FE	YES	YES	YES
Adjusted R-squared	0.432	0.433	0.797

Note: Standard errors clustered by CEO-CFO dyad in brackets. Two-tailed tests. We do not control for CEO duality, board independence, CEO equity ownership, and CEO tenure in Model 2 because we use these variables to measure CEO power. *** p<0.01, ** p<0.05, * p<0.1

Table 4. Supplementary Analyses

Variables	Model 1 Growth Initiatives	Model 2 Growth Initiatives	Model 3 Consolidation Initiatives	Model 4 Consolidation Initiatives	Model 5 Propensity	Model 6 Propensity	Model 7 Propensity
CEO promotion focus	0.041***	0.033**	-0.054*	-0.041	0.020**	0.018*	0.017*
	[0.013]	[0.014]	[0.028]	[0.028]	[0.010]	[0.010]	[0.010]
CFO promotion focus	0.050***	0.049***	0.017	0.017	0.016**	0.014**	0.014**
	[0.010]	[0.010]	[0.022]	[0.022]	[0.007]	[0.007]	[0.007]
CEO prevention focus	-0.037	-0.035	0.188**	0.180**	-0.060*	-0.059*	-0.053
	[0.047]	[0.047]	[0.090]	[0.091]	[0.036]	[0.036]	[0.038]
CFO prevention focus	-0.037	-0.035	-0.054	-0.059	-0.019	-0.019	-0.020
	[0.037]	[0.037]	[0.071]	[0.071]	[0.023]	[0.023]	[0.024]
CEO promotion		0.028*		-0.083**		0.021*	0.021*
× CFO promotion focus		[0.014]		[0.033]		[0.011]	[0.011]
CEO promotion focus							-0.058*
× CFO prevention focus							[0.033]
CEO prevention focus							-0.020
× CFO promotion focus							[0.037]
CEO prevention focus							-0.031
× CFO prevention focus							[0.078]
Observations	14,390	14,390	10,650	10,650	14,784	14,784	14,784
Firm FE	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES
Chi-squared	1177	1181	1301	1306			
Control	YES	YES	YES	YES	YES	YES	YES
Adjusted R-squared					0.345	0.345	0.345

Note: Standard errors clustered by CEO-CFO dyad in brackets. Two-tailed tests. *** p<0.01, ** p<0.05, * p<0.1.

Figure 1: Moderating effect of CFO promotion focus

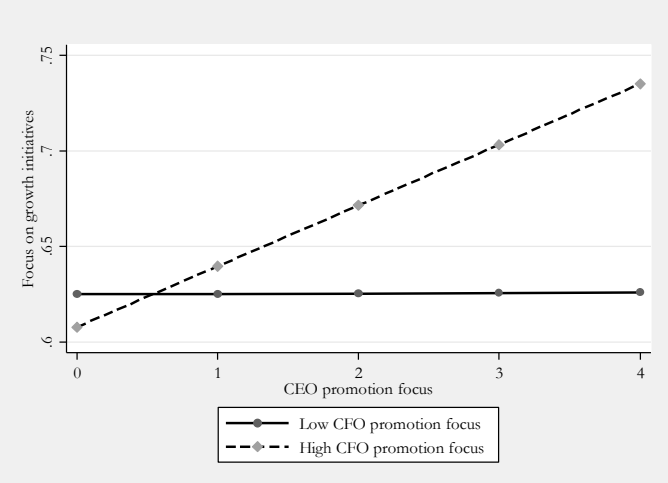
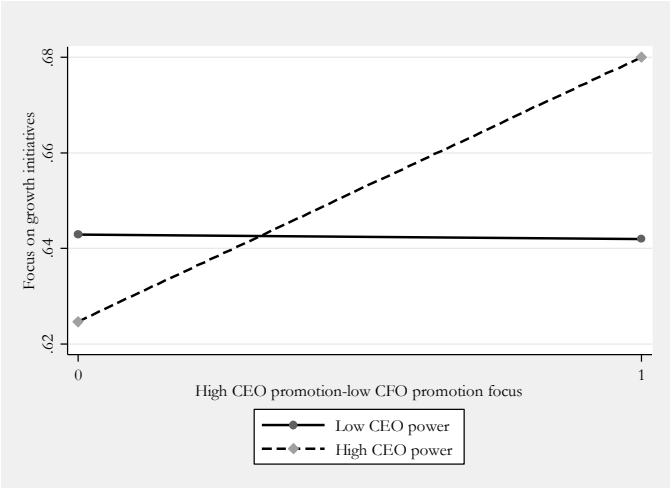


Figure 2: Moderating effect of CEO power



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