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ABSTRACT

This dissertation examines the neglected role of social-psychological processes in constructing time for key corporate governance decision-makers. Time is what organizes decision-makers' interpretation of various events. Organizational actors do neither observe time in events nor arrange events sequentially but instead are in events of the past, present and future and construct time and events through social-psychological processes. Still, we know little about these processes and how their product, i.e., social-psychological time, affects strategic decision-making. An emerging body of research shows the distinct effects of decision-makers' subjective time in determining corporate outcomes such as R&D investment, acquisition formation, and human capital leverage. This suggests that the social-psychological time may disrupt the so-called "optimal decision-making" in corporate governance contrary to what is expected by the dominant view, which treats time as a universalistic, binding contextual factor. To this end, I investigate how the social-psychological time is formed and how it affects key corporate governance decision-makers.

Chapter 1

A Theory Of Social-Psychological Time In Corporate Governance

“Time is what prevents everything from happening at once” (*Wheeler 1962*). It orders our lives making it possible for us to learn and make decisions by comparing new information to our expectations that are formed using reference points of the past, the present, and the future. As such, everything not only is time-bounded, but also borrows its meaning from time. Therefore, our understanding of time is crucial for our understanding of various phenomena. In the organizational life, time is a substantial part of various phenomena. Time is central to strategy, performance, growth, and survival because it is primarily, the organizational human’s understanding of time that helps him/her to devise action plans, make sense of outcomes, and create projections of the future (*D’Aveni et al. 2010; Eisenhardt&Martin 2000*). Despite its importance, time has not received significant attention from management scholars. Part of the reason is that scholars have taken time for granted treating it as a constant contextual factor that can be simply reduced to panel data (*Reilly et al. 2016*). Consequently, researchers have rarely studied time explicitly. When it is studied, time is treated as an objective duration, which is deterministic and has a universal meaning. This would not cause any serious problem absent the time paradox. The time paradox refers to the idea that the future events cause the past events, which in turn cause the same future events (*Zimbardo&Boyd 2008*)! This happens because humans resist the constraining power of time and transcend the here and now in making decisions at each particular moment (*Lieberman&Trope 2008*). Reasons for transcending time are provided by psychologists and sociologists. Psychologists have long documented evidence showing that individuals live in different times while all being at the same actual moment (*Gevers et al. 2015; Burnes&Cooke*

2013; Lewin 1942). Sociologists alike, have proposed that socialization processes and social construction make humans live in different times from the actual time (Adam 2013; Berger & Luckmann 1966). This means that psychological and social attributes of a group of social actors interact in complex ways to create the social-psychological time for that group. Therefore, the limited dominant view of time is detrimental to the collective intelligence of management scholars. To address an important but under-investigated phenomenon, my dissertation focuses on corporate governance as my overall research context, and specifically examines corporate governance decisions from the perspective of the social-psychological time. I focus on corporate governance because it is an organization's governing body that through making the most critical organizational decisions regarding how the organization should behave (Westphal & Zajac 2013; Hambrick et al. 2008), constitutes time for the organization (Das 1991).

Behavioral governance researchers have already established the importance of key corporate governance players' social cognition. Research based on social cognitive theory of action in corporate governance, which focuses on social construction of key corporate governance decision-makers' agency, suggests that these decision-makers' understanding of time is shaped by their context, and "shapes their behavior through molding their expectations" (Das 2004; Wood & Bandura 1989; Bandura 1989; Das 1987; Bandura 1986). Behavioral theory of the firm, which is the dominant theory to analyze firms' decision-making, implicitly, acknowledges the importance of the social-psychological time in firms' decision-making based on performance feedback (Greve 1998; Cyert & March 1963).

However, the considerable development of research on decision-making based on performance feedback (Greve 2003), as well as a surge in research on key corporate governance players' social cognition (Westphal & Zajac 2013) did not see a significant common ground between these two

research streams. Put differently, researchers have not emphasized key corporate governance players' social cognition in decision-making based on performance feedback in corporate governance.

Studying decision-making based on performance feedback in corporate governance from the perspective of the social-psychological time is particularly intriguing because three important dimensions of key corporate governance players' social-psychological time are expected to have profound impacts on their decision-making based on performance feedback. These three dimensions include: (1) temporal depth that is anchored on the short-term temporal orientation on the one side and the long-term temporal orientation on the other, (2) future time perspective that is the remaining time in the future, and (3) temporal focus that is the time period—i.e., the past, the present, and the future—that is focused on (*Shipp et al. 2009*). Temporal depth is expected to affect the adoption of reference points in forming expectations. Future time perspective can affect the priority of expectations of different nature, e.g., financial expectations, legacy expectations, social respect expectations, remaining time expectations, etc.. Temporal focus is likely to affect the interpretation of expectations.

My dissertation examines the impact of key corporate governance players' social-psychological time on their decision-making based on performance feedback. Three questions focusing on the most important players in making critical corporate governance decisions direct the development of the three essays in the dissertation:

- 1) What is the impact of the social-psychological past on corporate governance decisions?
- 2) What is the impact of the social-psychological future on corporate governance decisions?
- 3) Can the social-psychological past and future be used strategically to affect corporate governance decisions?

By addressing these three inter-related questions, my dissertation examines the time paradox in corporate governance decision-making. Taken together, this dissertation depicts a coherent picture of the unique effects of the social-psychological time on key corporate governance outcomes. It first contributes to the emerging behavioral theory of governance (*Westphal&Zajac 2013*) by bringing the essence of the social-psychological time to the central stage, and suggests how to make governance reforms in order to reduce the biasing potential of the social-psychological time for decision-making in corporate governance. It also offers contributions to the CEO evaluation, the corporate risk-taking, and the impression management literature. The developed board's social identity-CEO evaluation outcome framework in the second chapter contributes to the literature on CEO evaluation by showing that high-status boards adopt longer-term reference points than low-status boards in evaluating CEOs, but, this course is reversed in the presence of negative performance cues. The developed dismissal ripples-symbolic risk-taking framework in the third chapter contributes to the literature on corporate risk-taking by showing that CEO career horizon is not necessarily negatively related to his/her risk-taking. In fact, if a focal CEO's tenure is greater than a dismissed CEO's tenure in another socially-relevant firm, the focal CEO engages in excessive risk-taking to extend his/her career horizon. Finally, the developed firm performance-corporate leaders' strategic framing-analysts' recommendations in the fourth chapter contributes to the literature on impression management by demonstrating how firms improve expected analysts' reactions following firm performance deviations through an unexplored impression management technique, i.e., temporal impression management, that works even in the absence of asymmetric information.

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Chapter 2

Higher, Longer And Shorter: Boards' Social Status And Their Temporal Orientation In Evaluating CEOs

INTRODUCTION

Boards of directors play a key role in good corporate governance by aligning managers' short-term and shareholders' long-term interests (*Westphal&Zajac 1994; Fama&Jensen 1983; Jensen&Meckling 1976*). In order to cope with such inter-temporal tension, shareholders delegate to boards the decision-making authority to reward and punish managers (*Lim&MacCann 2013; Williamson 1989*). However, recent evidence suggests that different boards have not been equally successful in making decisions which balance inter-temporal tensions (*The Economist 2014*). In fact, CEO evaluation outcome—compensation and retention decisions—varies widely (*Hambrick et al. 2015; Graffin et al. 2013; Zhang 2008; Felton&Fritz 2005; Shen&Cannella 2002*). In some firms, directors' unbalanced long-term orientation—i.e., directors' attention to long-term outcomes at the expense of ignoring short-term outcomes—has led to losing talented CEOs, while in some other firms, directors' unbalanced short-term orientation has led to retaining unfit CEOs (*Arthurs et al. 2008; Marginson&MacAulay 2008*). Consequently, both researchers and practitioners have tried to understand the determinants of CEO evaluation outcome.

The literature identifies a host of determinants of CEO evaluation outcome including institutional settings (*Roe 2013; Westphal&Zajac 1997; Lavery 1996*), capital markets (*Demirag 1998*), industry dynamism (*Henderson et al. 2006; Huber&Daft 1987*), market for directorships (*Boivie et al. 2016*), firm characteristics (*Fredrickson et al. 1988*), firm performance (*Finkelstein et al. 2009*), governance structure (*Crossland&Chen 2013*), ownership structure (*David et al. 2001*;

Hambrick&Finkelstein 1995), incentive structure (*Lim&Mccann 2013*), CEO characteristics (*Flickinger et al. 2015*), board-CEO dynamics (*Westphal 1999; Belliveau et al. 1996*), and board characteristics (*Gupta&Wowak 2016; Westphal&Bednar 2005*). Following the latter explanation, we build on research on high-status directors—directors who, regardless of their actual quality and based on the quality of their affiliates, occupy top positions in the socially-constructed ranking of corporate elite (*Certo 2003*)—to propose that board’s social status plays an important role in determining CEO evaluation outcome.

It is important to focus on the role of board’s social status for atleast two reasons. First, as discussed in the prominent business press, general public view board’s high social status as a good asset for the firm because high-status directors bring more resources and opportunities to the firm (*The Economist 2010*). Consequently, directors’ social status is increasingly being used to justify their compensations and their nominations for boards (*Bloomberg 2013,a*). Therefore, the importance of directors’ social status goes beyond CEO evaluation. It also informs the practice of and the literature on boards’ compensation (*Graffin et al. 2008*), and the practice of and the literature on boards’ nominations (*Westphal&Graebner 2010*). Second, and more important, in face of increasing importance of board’s social status, the way it affects CEO evaluation outcome is not clear. On the one hand, the literature recognizes that high-status actors are perceived to have an old historical superiority over low-status ones (*Piazza&Castellucci 2014; Washington&Zajac 2005*). Therefore, high-status directors are expected to emphasize their historical legacy and adopt an infinitely long-term orientation with boundaryless expectations. On the other hand, it is neglected that high-status directors may evaluate CEO with a short-term orientation because social consensus on their high quality regardless of their actual performance motivates them to view

themselves positively as they are in the short-term while avoiding potential inconsistency inherent in a long-term orientation (*Pettit&Sivanathan 2012; Shipp et al. 2009; Certo 2003*).

We investigate the effects of directors' social status on CEO evaluation outcome. On the top of contributing to practice, we contribute to both the literature on directors' social status and the literature on board efficacy by delineating and addressing the theoretical tension among the explanations of the relationship between directors' social status and CEO evaluation outcome. We argue that board's social status has a negative direct relationship with CEO evaluation outcome. Yet, in accordance with behavioral theory of the firm (*Cyert&March 1963*), we argue that the effects of board's social status on CEO evaluation outcome can be reversed if there is discrepancies between firm's distant past performance and current performance. More precisely, board's social status has a negative relationship with CEO evaluation outcome, however, it has a positive relationship with CEO evaluation outcome when firm performance falls below its expectations. We draw from social identity theory which posits that as individuals need to feel attached to their identities in order to see themselves in positive lights and enhance their self-concepts, they would try to cognitively distance themselves from negative feedbacks that threaten their identities (*Hogg&Terry 2014; Cinnirella 1998; Tajfel&Turner 1979*). Given that high social status hinges on a superior historical quality (*Washington&Zajac 2005*), and that beliefs regarding high historical quality are attached to an identity encompassing high social status (*Jensen et al. 2011*), we posit that high-status boards have an unbalanced long-term orientation which decreases CEO evaluation outcome. However, identity threats can force high-status boards to distance themselves from socially-constructed infinitely distant past, adopting a short-term orientation, which in turn increases CEO evaluation outcome. In our context, identity threats can take two shapes. The first identity threat can be activated when the outcome of evaluation involves disassociating with the

evaluated partner (*Jensen 2006*)—in our case a CEO. The second identity threat can be activated when firm performance falls below its temporal expectations (*Jordan&Audia 2012*). Finally, taking into account the collective nature of board decision-making, we argue that heterogeneity of a focal board’s directors with respect to social status reinforces the proposed relationships because it creates status competition among directors within the board, which in turn forces high-status directors to put more emphasis on the categorical beliefs inherent in their social identity (*Ashforth&Mael 1989*). The results provide strong support for our hypotheses.

Our core contribution adds to the behavioral perspectives on corporate governance (*Westphal&Zajac 2013*) by demonstrating that although social status, as an intangible organizational asset, provides better access to resources and rewards, it at the same time, impedes organizational decision-making (*Castellucci&Podolny 2016; Jensen 2008*). We test our hypotheses in a sample of firms listed in S&P 1500 between 2005 and 2014. Our sample includes 7246 firm-year observations.

THEORY DEVELOPMENT

CEO evaluation outcome as balancing inter-temporal tensions by directors

Modern corporations are governed based on the logic of “managerial professionalism”, which requires the separation of ownership and control (*Berle&Means 1932*). Managers as agents, maximize their personal gain over a short period, while shareholders as owners, do so over a long period (*Jensen&Meckling 1976*). In order to balance the inherent inter-temporal tension in the separation of ownership and control, boards of directors assume the responsibility to evaluate CEOs and design rewards and punishments consistent with how aligned is CEOs’ behaviors with shareholders’ interests (*Lim&MacCann 2013; Williamson 1989*). There are two different major

perspectives on the explanation of CEO evaluation outcomes, namely, the economic perspective and the behavioral perspective.

Economic perspectives dominate in explaining CEO evaluation outcomes. Economic perspectives such as agency theory CEO evaluation is about boards' rational evaluation of CEOs' quality (*Jensen & Murphy 1990; Murphy 1986*). Rational perspectives assume that boards efficiently use public and private information to evaluate CEOs. The main information that boards obtain about CEOs is firm performance (*Warther 1998*). From a rational perspective, boards can make sense of absolute values (*Jenter & Kanaan 2015*). However, majority researches drawing from a rational perspective find mixed results about the link between firm performance and CEOs' compensation packages or dismissals in the recent two decades (*Jenter & Kanaan 2015; Wowak et al. 2011; Wiersema & Zhang 2011*).

The alternative behavioral perspective on corporate governance challenges the certainty and clarity of information used by boards to evaluate CEOs (*Westphal&Zajac 2013*). From a behavioral perspective, CEO evaluation process is an uncertain and ambiguous process. Uncertainty stems from the fast-changing markets' landscape, which makes it difficult for boards to know what piece of information is relevant for evaluating CEOs (*Khurana 2002*). Moreover, although, boards can look at outcomes to evaluate CEOs' unobservable quality, firm performance is an ambiguous signal which incorporates both internal and external factors other than CEOs' quality (*Meindl et al. 1985*), given the temporal lag inherent in the linkage between a firm's strategy and its performance (*Jenter & Kanaan 2015*).

A key tenet of behavioral perspectives on CEO evaluation is that boards as the key decision-makers in evaluating CEOs, use reference points in order to make sense of information (*Pepper&Gore 2015*). The logic is that whether a CEO is performing well hinges on whom he/she

is compared to—be it the same CEO three years ago or a CEO in another firm. Particularly, even non-behavioral corporate governance scholars argue that performance history is the critical factor in boards' evaluations of CEOs (*Fama 1980*). Thus, CEO evaluation outcome varies substantially when boards' temporal reference points change (*Wowak et al. 2011*).

Extant research shows that organizations change their course if their performance falls below their temporal reference points. For instance, firms engage in format change (*Greve 1998*), acquisitions (*Iyer & Miller 2008*), organizational structure change (*Gaba & Joseph 2013*), and R&D expenditure (*Keum & Eggers 2015*) when they fall below their temporal expectations. Also, the literature on CEO evaluation outcomes identifies that negative change in firm performance influences behavioral decision-making by boards (*Haleblian&Rajagopalan 2006; Lant et al. 1992*). For instance, it is shown that CEOs who perform worse than expected are more likely to be dismissed (*Puffer&Weintrop 1991*). In the pay context, it is shown that when firm performance falls below its prior values, CEO pay will be cut (*Tosi et al. 2000*).

As strategic corporate decision-makers, directors' social-psychological characteristics affect their reference points in CEO evaluation process, including their temporal or historical reference points. This is in line with the core tenet of upper echelons perspective and the soul of the behavioral perspectives on corporate governance, which posit that top corporate decision-makers' personal characteristics influence corporate outcomes (*Hambrick&Mason 1984*). For instance, it is shown that directors' political ideologies affect CEO pay, in that more conservative boards pay higher amounts to a CEO when firm performance goes beyond its historical expectations because conservative directors have higher reference points in CEO evaluation process due to such directors' propensity "to make person-based versus situation-based attributions" (*Gupta&Wowak 2016*). This finding talks to the biasing potential of directors' sociopolitical beliefs. Other studies

find that CEOs can bias directors' decision-making through inter-personal influence behaviors, which in turn change the directors' social reference points in evaluating CEOs because CEOs' involvement in persuasion tactics can lower boards' expectations (*Westphal 1998*). Also, *Westphal and Bednar (2005)* find that boards with demographically-similar directors don't have effective CEO evaluation decisions when firm performance falls below its historical expectations because each director lowers his/her expectations due to underestimating the extent to which other directors share his/her concerns.

However, behavioral governance researchers have paid little attention to the influence of directors' social status on CEO evaluation outcomes. Therefore, in order to add to the emerging behavioral governance research, the influence of directors' social status on their temporal reference points in evaluating CEOs should be investigated. Although, few prior researches' findings suggest that directors' social status plays a role in determining CEO evaluation outcomes (*Flickinger et al. 2015; Belliveau et al. 1996*), such findings are mixed and inconclusive. In other words, prior researches treat social status as purely structural and political at the cost of ignoring its potential for creating cognitive biases in decision-making. A holistic investigation of the effects of directors' social status on CEO evaluation outcome is specifically important because few other constructs than social status can represent social-psychological characteristics of individuals (*Piazza&Castellucci 2014*). Moreover, directors' social status is playing a unique role in the modern corporate governance, in that corporate leaders' social status is being used as a proxy for their competence (*The Economist 2010*). We extend these studies by proposing that there are two sides to directors' high social status. In doing so, we use social-psychological research's findings which suggest that directors' social status can change their temporal expectations in ways that help

high-status directors to view themselves in positive lights (*Pettit&Sivanathan 2012; Cinnirella 1998*).

Cognitive and behavioral consequences of directors' social status

Directors' social status

Social status is “socially-constructed, intersubjectively, agreed-upon and accepted ordering or ranking of individuals and organizations” (*Washington&Zajac 2005*). High-status individuals are perceived as more competent in strategic decision-making (*Graffin et al. 2013*). Therefore, scarce resources and opportunities are accrued to high-status individuals (*Certo 2003; Merton 1968*). For example, high-status directors receive higher payments (*Ertug&Castellucci 2013; Graffin et al. 2008*) and more outside directorships (*Davis 1993*). Social status becomes a relevant signal of unobserved quality when uncertainty is high (*Podolny 2010*), particularly, in the market for directorships where the joint production and the loose linkage between directors' input and firm's outcomes make it difficult to assess directors' quality (*Boivie et al. 2016*). Although, social status may or may not be correlated with the actual quality of an individual because it is granted to him/her based on the quality of his/her affiliates (*Piazza & Castellucci 2014; Graffin et al. 2008*), high-status individuals are believed to have a historical legacy in that they are considered to have been superior to low-status individuals in infinitely-distant past (*Washington&Zajac 2005*).

Even if it is rooted in the actual quality of individuals, once achieved, high social status brings individuals disproportionate rewards for their performance (*Merton 1968*) and more respect and attention (*Berger et al. 1998*). The performance-free, positive external reaction to high-status individuals, can color their perceptual judgments through stimulating their expectations below the level that is justified by their actual long-term merit (*Pettit&Sivanathan 2012*). For instance, high-

status directors attribute much of their firms' success to themselves and destroy their advice network (*Keeves&Westphal 2015*). They also expect to have high collaborative attractiveness and consider small switching cost for changing a particular CEO (*Johnson et al. 2012*). Moreover, high-status individuals expect more effort from their partners (*Castellucci&Ertug 2010*). While directors' social status is used to explain relational dynamics and outcomes, we extend prior works by exploring its biasing potential in decision-making, which is less explored.

Social identity theory and an identity encompassing high social status

Social identity theory posits that individuals define their self-concept by seeking membership in social categories (*Tajfel&Turner 1979*). Social categories can be created based on religion, ethnicity, career, social class, etc. Individuals categorize social actors, locating actors with similar attributes in the same category (*Turner 1982*). Based on their perceptions of the emotional meaning of different categories, individuals try to enhance their self-concept by internalizing the defining attributes of those categories that they perceive as being desirable (*Hogg&Terry 2014*). Membership in desired categories gives individuals a positive sense of distinctiveness (*Tajfel&Turner 1979*). Any evidence which negatively affects an individual's identity will be detrimental to the individual's desire to view himself/herself positively (*Hogg&Terry 2014*). For this reason individuals deal with threats to their identity through temporally distancing themselves from such threats (*Cinnirella 1998*).

Social identity theory is used to explain a range of firms' outcomes from the perspective of inter-group competitions. For instance, stakeholders are found to give negative social performance feedback—i.e., performance with respect to social responsibility plans—to their firm in order to emphasize their shared identity encompassing a cause (*Ashforth&Mael 1989*). Also, it is argued that a firm responds to social performance feedback expressed by stakeholders substantively if the

commonalities between the firm's identity and the stakeholders' identity are high—for example, if the firm is a social enterprise it would respond substantively to the stakeholders' negative feedback.

Although, social identity theory was initially developed in order to explain inter-group competition (*Tajfel 1974*), the theory was later extended to include cognitive and individual differences (*Tajfel&Turner 1986*). For instance, it is shown that CEOs who are subject to greater board control identify themselves with corporate elite less and provide other CEOs less strategic help (*McDonald&Westphal 2010*). Also, CEO's organizational identification is found to increase his/her opportunistic behavior in the presence of narcissism (*Boivie et al. 2011*).

Due to its salience, social status is frequently used for attribute-based categorization in the corporate elite (*Mills 1959*). Social status taps into actors' social identity because it is essentially the actors' position defined at the intersection of vertical and horizontal categories within a social system—i.e., vertical categories are based on the difference between how socially-respected the actors are, while the horizontal categories are based on the differences between what actors do—under different social identities (*Jensen et al. 2011*). An identity centered around high social status is akin to beliefs regarding high historical quality and performance (*Jensen 2006*). Thus, performance-related cues are expected to make an identity encompassing high social status more salient.

Although, social identity theory has been employed by researchers to explain CEOs' behaviors, its potential for explaining the effects of directors' social-psychological characteristics on boards' decision-making processes has not been fully exploited. We next theorize on the role that directors' social status plays in balancing temporal tensions inherent in CEO evaluation process, taking into

account of how performance cues comply with directors' social identity and their self-enhancement needs.

HYPOTHESES

The direct effect of board's social status on CEO evaluation outcome

Our theorizing draws on the notion that boards' approach to CEO evaluation process should be in ways that satisfy their directors' self-enhancement and identity attachment needs. In situations such as performance evaluation, an identity centered around social status prevails. Categorical beliefs inherent in an identity encompassing high social status are about high quality, high performance, disproportionate rewards for joint productions and so for about being the most attractive collaborators (*Jensen et al. 2011*). This external perceptions in turn create similar internal beliefs (*Stryker 2008*).

Directors with an identity encompassing high social status should try to rationalize their evaluation decisions based on the categorical beliefs inherent in their identity. For instance, *Keeves and Westphal (2015)* show that high-status directors may also evaluate CEO while overestimating their own contribution to firm's outcomes because they are disproportionately praised for joint production. Similarly, for CEOs and based on the identity control theory, it is shown that CEOs with high social status avoid risk in paying acquisition premiums because it is against the categorical beliefs inherent in their high-status identity (*Cho et al. 2016*).

A board's decision-making process is a collective process which reflects the collective cognition of its directors (*Haleblian&Rajagopalan 2006*). In other words, as is argued by the upper echelon perspective, a board makes decisions that are consistent with the central beliefs of its directors (*Finkelstein et al. 2009; Hambrick&Mason 1984*). Thus, we conceptualize board's social status as

the board's average social status. A board whose directors have relatively high social status¹ make decisions based on the categorical beliefs attached to an identity encompassing high social status. We elaborate on the effect of status distribution within boards later on.

We propose that high-status boards' social identity makes them adopt an infinitely long horizon in CEO evaluation because social status is essentially based on superior performance at some far point in the history, which needs not actually exist. Infused by high historical esteem attached to them by virtue of their high social status, high-status boards overestimate their own contribution to positive firm's outcomes, while attributing lower values to CEOs' contributions. Contrary to high-status boards, low-status boards are more conservative in attributing firm's good outcomes to themselves because they don't have a vague distant glorious past.

This theoretical prediction is consistent with social-psychological research suggesting that based on historical external beliefs about their superiority, high-status individuals are more likely to have biased perceptions that resembles "believing is seeing" notion (*Pettit&Sivanathan 2012*). Because high-status boards have a long history of easy access to collaborators (*Johnson et al. 2012*), they attach less value to any particular CEO. It is shown that high-status individuals expect more effort from their partners (*Castellucci&Ertug 2010*), which in turn, relies on their high temporal expectations (*Marginson&MacAulay 2008*). Overall, high-status boards tend to see negative evaluation of their collaborators necessary, regardless of the collaborative outcomes, because they remember a socially-constructed history which contains their unique valuable contributions in any joint production. Therefore:

Hypothesis 1a: Board's social status has a negative relationship with CEO compensation.

¹ This represents the global status in the whole sample

CEO dismissal is the more drastic face of CEO evaluation outcome. Although, both CEO compensation and CEO dismissal are carried out by boards, CEO dismissal involves disassociating with a CEO. Because of its greater publicity and impact on firms' symbolic and substantial outcomes, boards vary in their willingness to dismiss their CEOs (*Zajac&Westphal 1996; Fredrickson et al. 1988*).

Partners shape the extended social identity of individuals (*Rao et al. 2000*). High-status boards should therefore eventually see the social inferences about their firms' CEOs relevant to their own social identity. Although, we argue that high-status directors are expected to pay a focal CEO less than what low-status directors would pay him/her, we nonetheless believe that high-status directors should be more reluctant to remove him/her than low-status directors. High-status individuals' past decision to collaborate with a focal partner—in our case, high-status directors' decision to choose a CEO, through either directly choosing him/her or accepting to sit on his/her firm's board—communicates the implicit message that they believe the focal partner is of high social status (*Podolny 1993*). Removal of a focal CEO for high-status directors requires one of these two conditions: admitting that they have had a wrong judgment about his/her quality, or conveying a contradictory message about him/her; both of which are against the categorical beliefs of high historical quality and performance inherent in an identity encompassing high social status. For this reason, for high-status directors removing a CEO should be similar to removing a part of their own social identity. Under such circumstances, individuals try to adopt temporal expectations that are consistent with the present performance of their partners in order to justify their conduct, “especially when that conduct casts doubt on their competence” (*Tetlock et al. 1989*) and can threaten the superiority of their social identity (*Schlenker 1982*). Overall, when considering CEO dismissal, high-status directors are expected to switch their temporal reference point to shorter-

term reference points in ways that lead to positive evaluation of their partners, regardless of the collaborative outcomes, because they consider the removal of their partners as threats to their own social identity. Thus:

Hypothesis 1b: Board's social status has a negative relationship with the likelihood of CEO dismissal.

The indirect effect of board's social status on CEO evaluation outcome

According to the behavioral theory of the firm, decision-making procedures change if firm performance falls below its temporal expectations in that loss aversion becomes activated (Greve 1998; Cyert&March 1963). Thus, we differentiate between the effect of board's social status on CEO evaluation outcome in the presence and absence of loss aversion. Majority of prior researches on the effects of loss aversion on CEO evaluation outcome assume that loss aversion activates problemistic search—i.e., the local search in the proximity of the immediate problem and ongoing activities of an organization—by a decision-maker who intends to improve future performance through risky problem-solving practices. Our theory, however, departs from this assumption by attending to March and Simon's (1993/1958) arguments, which suggest that we should not determine “merely a specification of the situation as it ‘really’ is”, but instead, try to understand subjective views and cognitive biases of decision-makers. In fact, decision-makers may give priority to personal self-enhancement rather than performance improvement when evaluating performance (Jordan&Audia 2012). Self-enhancement rather than performance improvement becomes particularly salient for high-status boards because performance cues wake an identity encompassing high social status.

As negative performance feedback threatens high-status boards' social identity, and therefore inhibits self-enhancement, high-status boards should try to temporally distance themselves from the source of the threat, which in this case is their socially-constructed distant past. Motivated to do so, high-status boards are expected to switch their long-term temporal reference point to a short-term one, which is consistent with their present performance level. Consistent with this idea, researchers have shown that high-status firms are unable to acknowledge their competitive weaknesses and develop capabilities because they are too focused on their short-term market positions (*Castellucci&Podolny 2016*).

Moreover, given that high-status boards attribute much of the success in joint production to themselves, they should also be more motivated to interpret joint outcomes positively. High-status boards are likely to use temporal reference points that produce less inconsistency between their current collaborative outcomes and their temporal expectations through switching to a temporal reference point close enough to the evaluation time. An anecdote can be seen in how *Home Depot's* board of directors switched its CEO evaluation temporal reference point in 2005. The company's board argued in its 2004 proxy statement that its CEO compensation would be based on the three-year return to shareholders. However, the company's board switched its temporal reference point for CEO compensation to a shorter-term criterion in its 2005 proxy when it fell below the longer-term temporal reference point² (see *Home Depot's* proxy statements in 2004 and 2005). To the contrary, low-status boards should avoid switching their temporal reference points and try to improve their future performance. It is shown that low-status actors make riskier choices when they engage in problemistic search (Perretti&Negro 2006; Staw et al. 1981), which suggests that

² Home Depot's board is included in our dataset and is treated as high-status based on our measures of board's social status—both in 2004 and 2005.

low-status boards are less prone to switching their temporal reference-points in face of poor firm performance. Put differently, low-status boards evaluate CEOs more negatively when firm performance falls below its temporal expectations. Thus:

Hypothesis 2: Board's social status has a positive relationship with CEO evaluation outcome when firm performance falls below its temporal expectations.

The moderating effect of status distribution within high-status boards

By theorizing on the average status of boards, so far we remained agnostic to the heterogeneity of directors with respect to social status within a focal board. This is reasonable to the extent that board decision-making is a group decision-making process with average directors' characteristics as a focal board's overall tendency. However, the heterogeneity of directors within a board with respect to a particular characteristic can influence the effects of that characteristic on board decision outcomes (*Westphal&Bednar 2005*).

Therefore, our theoretical predictions should be affected by the equality of social status distribution among directors within a board. Unequal distribution of social status within a board impacts the intensity of status competition among directors. In other words, an intense contest for social status exists within a board with unequally high-status directors. In team processes—such as CEO evaluation by boards—individuals are different in terms of how much they care about social status—which involves recognition both within and without their teams—, but they are all motivated to be the most influential and respected one within their own teams (*Tiedens 2001*). Although there is status competition between each director and a particular CEO, directors compete in a different vocational group from that of CEOs. The contest for social status affects group decision-making through increasing envy so that each of directors come to believe that they are more valuable and

worthy of respect and status than others (*Keeves et al. 2017*). More important, it is during social identity competition that categorical lines are drawn with more clarity and categorical beliefs inherent in the contested social identity are underscored (*Ashforth&Mael 1989*). These in turn, activate aggressive identity bolstering (*Baumeister et al. 1996*), which intensifies directors' motivation to emphasize the categorical beliefs inherent in a social identity encompassing high social status and prove their social identity as the superior social identity with respect to a particular characteristic—historical quality and performance in this case—, while further reducing their tolerance for negative cues about their social identity (*Hogg&Terry 2014*).

Taken together, the arguments above suggest that when status is unequally distributed within a focal board, a focal director is likely to adopt even longer-term temporal orientation than usual—when status is equally distributed—, in an effort to prove to other directors that he/she has a longer history of quality, which he/she takes into account in making decisions, including, CEO evaluation decisions. However, the same director cuts his/her temporal reference point even shorter than usual in face of negative performance cues or when making CEO dismissal decisions because he/she is more intolerant to admitting or absorbing negative information about his/her identity in the presence of identity competition. Therefore, we expect unequal distribution of social status within a high-status board to intensify our theoretical predictions on the aggregate board level because each director who composes the aggregate board level behavior becomes more intensely status-biased in the presence of identity competition:

Hypothesis 3a: The heterogeneity of a focal board's directors with respect to social status positively moderates the relationship between board's social status and CEO compensation.

Hypothesis 3b: The heterogeneity of a focal board's directors with respect to social status positively moderates the relationship between board's social status and the likelihood of CEO dismissal.

Hypothesis 4: The heterogeneity of a focal board's directors with respect to social status positively moderates the relationship between the board's social status and CEO evaluation outcome when firm performance falls below its temporal expectations.

RESEARCH METHODS

Sample

The initial sample for this study included all the public companies listed in S&P 1500 between 2005 and 2014. The choice of sample was enforced by the need to identify firms: (1) that are established and widely traded; (2) that have relatively independent boards deciding over CEOs' fates. This choice is consistent with prior researches that investigate the role of boards in CEO evaluation (*Flickinger et al. 2015*). The choice of 2005 as the starting year is to make sure that the SOX (Sarbanes and Oxley Law (*Burks 2010*)) changes to the power and the role of boards are fully implemented (SOX was passed at the second half of 2002). This way, we can make sure that boards are the ultimate decision-makers over CEOs' fates. We tracked these firms over a 10-years period to capture a sufficient number of evaluation outcomes. For this set, we searched for financial data, board, and CEO data from COMPUSTAT ANNUALS, EXECUMP, CAPITAL IQ, BOARDLEXIS-NEXIS, FACTIVA, WHO'S NEWS, SEC EDGAR, and RISK MATRICS. We analyze both CEO compensation and CEO dismissal as the two faces of CEO evaluation outcome (*Williamson 1989*). Our final sample, which is obtained after dropping firm-year observations with missing data, includes **5136** firm-year observations—from 2007-2014—for CEO compensation and **7246** firm-year observations—from 2006-2014—for CEO dismissal. The reduced number of

observations for CEO compensation analysis was enforced because we needed more data on CEO compensation and its structure—i.e., the proportion of cash payments, options, stocks, and bonuses. However, the general nature of our compensation and dismissal samples are similar. In order to make sure that dropping observations is not making our results biased, we examined if there is any significant difference between the main characteristics—such as size, sales, etc.—of the dropped firm-year observations and the firm-year observations included in our final sample. We didn't find any significant difference.

Dependent Variables

CEO compensation

We use the growth of the annual CEO total compensation because simply using total compensation yields inflated coefficients and overestimation of the effects of our explanatory variables. In fact, using a growth model is appropriate specifically when talking about learning and change. This measure is used in prior researches on CEO compensation (*Bebchuk & Grinstein 2005*). This variable was calculated through logging the ratio of total compensation in time t over the total compensation in time $t-1$. Total compensation is extracted from EXECUCOMP. It includes salary, bonus, restricted stocks and options. This variable appears as *growth* in our results.

CEO dismissal

We identified the incidence and timing of CEO changes during the 9-years period—2006-2014, note that our dependent variable will enter the regression at time t , whereas the independent variables enter the regression at time $t-1$ —for all the firms in our initial dataset. We used WHO'S

NEWS, firms' annual reports and firms' 8-K filings with SEC EDGAR to do so. We verified the identified changes using EXECUMP, RISK MATRICS, and BOARDEX.

In order to determine the nature of CEO turnovers, we used FACTIVA and LEXIS-NEXIS. While many prior researches have used CEO age (if the CEO age is below 65, the CEO turnover will be treated as a dismissal), to determine the nature of CEO turnover, we used a fine-grained method to make sure that we identify 'not too many and not too few' dismissals. The prior researches' method is imprecise because neither all companies have the age limit policy nor all companies report the dismissal as dismissal³. Consistent with the prior fine-grained analysis of CEO dismissal (*Wiersema & Zhang 2011*), we read the news articles and the CEO departure announcement, and coded CEO changes as a dismissal if: (1) it was clearly announced that the CEO is fired or (2) there were evidences in the news showing that the board is considering to fire the CEO or (3) the CEO resignation was effective immediately after a board meeting and no permanent successor was determined or (4) The CEO left abruptly and the firm was searching for a new CEO. These four steps can still become more fine-grained. We did this further step by (1) excluding the dismissals that were driven by shareholders' or analysts' direct and documented pressures to the board (2) excluding the dismissals that were driven by the illness of the CEO, the corruption of the CEO, and the immediate appointment of the CEO as another firm's CEO. Moreover, we considered the time gap between the CEO's departure and the new, permanent CEO's appointment. In most occasions, significant gaps between the two events exist for dismissals. For the firm-year observations within our final sample, we identified **645** CEO changes and **116** dismissals—**17.9 %**, which is in the ranges of prior fine-grained analysis of dismissals for

³ In fact we observed such hiding in our sample. For example, Michael N. Coppola the CEO of 'Advance Auto Parts (AAP)' left the company in 2007. The company announced that he wants to "pursue other business opportunities". Later, it was revealed that he was in fact fired.

time periods overlapping with our period. In our panel dataset—with firms and years—for CEO dismissal, we coded the dependent variable in each year and for each firm, as ‘1’ if the firm has experienced a CEO dismissal in that year and as ‘0’ otherwise. This variable appears as *dismissal* in our results.

Independent Variables

Board’s social status

In prior corporate governance researches, the status of the corporate elite is measured in several ways. Two dominant measurements are the following measurements. First, researchers use the number of outside directorships held by a focal director as a measure of status. This has been the most prevalent measure and somehow the strongest empirically (*Westphal & Shani 2015; Westphal & Khanna 2003*). Sitting on other firms’ boards both conveys and causes status. Being invited to sit on other firms’ boards is the recognition of, and the deferral to a focal director. Second, educational credentials are used to measure status (*Westphal & Shani 2015*). The qualifications of a director show that a director has high social status. We measured the status of each director through a composite measure including the number of his/her outside directorships and educational credentials. Then, we calculated the average status for the firm’s board—CEO is not counted in this calculation. Lastly, we broke the whole sample of boards using the mean of the sample as cutting point. The dummy of social status is equal to 1 for a focal board, if the focal board’ average status is above the cutting point, and zero otherwise. This is called *Board status* in our models. However, we can provide robustness checks with continuous measures and also discrete measures using 60th, and 75th percentile as the cutting point.

Firm performance relative to its historical aspiration

Consistent with prior researches on CEO evaluation outcome (*Gupta&Wowak 2016;Wiersema & Zhang 2011*), we use total shareholders return (TRS⁴) as the performance metrics . We obtained this measure for 3-years and 1-year periods. However, as the 3-years period adds more explanatory power to the model and is more frequently used in prior researches, we only ran the final analysis with the 3-years period TRS. We use the TRS in order to obtain the firm's performance relative to its historical aspiration or temporal expectation⁵. The historical aspiration is obtained using the following formula (*Greve 1998*):

$$HA_{it} = aP_{it} - 1 + (1 - a)HA_{it} - 1 \quad (2)$$

where HA_{it} is the firm's aspiration at time t and P_{it-1} is the firm's performance at time $t-1$, and a ($0 < a < 1$) is an updating parameter. The first question is about the estimation of the updating parameter. We are theorizing on 'a' because the core of our theoretical framework is built on how much weight a focal board puts on firm's short-term performance—i.e., recent past—versus firm's long-term performance. We would put $a=0.5$ as our baseline, which is a general case and can indicate if high-status and low-status boards differ when the updating factor is assumed to be the same for both. Our hypotheses are supported if under general case of 'a', CEO evaluation outcome is less affected by firm performance relative to historical expectations for high-status boards. In further exploring the nature of our hypothesized relationships, we adjust 'a' and show that the difference observed under the general 'a' is in fact due to high-status boards' use of a different value of 'a' compared to low-status boards.

⁴ The formula for TRS is the following: $TRS = \frac{Price\ end - Price\ beginning + dividends}{Price\ beginning} * 100$ (1)

⁵ Our theoretical predictions are about boards' decision-making based on historical aspirations.

Next, we subtracted the firm's aspiration at time t from its performance at time t , in order to measure firm performance relative to its historical aspiration. In keeping with prior researches on learning from feedback, we implemented a spline function which helps us to compare the slopes above and below the aspiration level (*Shipilov et al. 2011*). In doing so, each deviation calculation is broken into two parts, which appear as (1) *outperforming*_{it} >0 —is zero for observations with negative relative historical performance and equals the amount of deviation otherwise—(2) *underperforming*_{it} <0 —is zero for observations with positive relative historical performance and equals the amount of deviation otherwise—in our results.

Status distribution within board

In order to measure the degree to which social status is distributed heterogeneously within a focal board, we used the standard deviation of its directors' social status in a given year—this of course doesn't include CEO's social status. Larger values of this variable for the focal board means that the board's directors are more heterogeneous with respect to social status. This variable appears in our results as *status heterogeneity*.

Control Variables

CEO controls

We controlled for CEO's status—appearing as *CEO status* in our results. CEO's status is shown to act as a barrier to efficient CEO evaluation because it creates the delusions of competence and also power (*Finkelstein et al. 2009*). CEO's status is measured the same way as board's status. We controlled for CEO ownership as one of the traditional indicators of incentives—appearing as *CEO ownership* in our results. CEO ownership is shown to reduce the probability of dismissal, while increasing compensation (*Hambrick & Finkelstein 1995*). CEO ownership is the fraction of the total

firm's shares that belong to the CEO. We also controlled for CEO tenure—appearing as *CEO tenure* in our results. Tenure is shown to have a complex effect on CEO evaluation outcome through experiential learning and power channels. More seasoned CEOs are both more powerful and more knowledgeable. Therefore, more seasoned CEOs are less likely to be dismissed, while receiving higher compensation packages (*Henderson et al. 2006*). CEO tenure is measured as the years passed from the appointment of a CEO in a focal year. We also controlled for CEO age as it is shown that age is correlated with dismissal and compensation (*Graffin et al. 2013*)—appearing as *CEO age* in our results. We also controlled for the possibility that a CEO is the chairman of the board too—appearing as *CEO-chairman*. Chairman CEOs are shown to be more powerful (*Wowak et al. 2011*). CEO-chairman continuity is a dummy. It equals to '1' if a CEO is the chairman too, and '0' otherwise. In order to tease out gender and race explanations for CEO evaluation outcome, we included two more controls for CEOs. We controlled for CEO gender—appearing as *CEO gender* in our results—using a dummy which equals to '1' if the CEO is female and '0' otherwise. Finally, we controlled for the minority status of CEO in terms of race—appearing as *CEO race* in our results—using a dummy which equals to '1' if the CEO is black or non-Caucasian and '0' otherwise.

Board controls

We controlled for the proportion of outsider (and independent) directors on the board. This is one of the variables showing how independent and powerful the board is (*Westphal&Zajac 1997*)—appearing as *board independence* in our results. We divided the number of outside directors by the board's size. We also controlled for board ownership—appearing as *board ownership* in our results—which is the fraction of the firm's total shares owned by the board as it relates to the board's power and also incentives (*Lim&McCann 2013*). Moreover, we controlled for the

proportion of women on the board—appearing as *board gender* in our results. We also controlled for the proportion of black and non-Caucasian board members—appearing as *board race* in our results. Finally, in order to tease out the attention explanations of the board effectiveness, we also investigated which board members attended more than 75% of the board’s meetings—this data item is not complete, however, we can use it for robustness checks.

Firm controls

We controlled for the firm’s industry-adjusted return on assets—appearing as *ROA* in our results. As an accounting measure of firm performance, ROA is used in many prior researches on CEO evaluation outcome (*Finkelstein et al. 2009*). Industry-adjusted return on assets is the firm’s return on assets minus the median firm ROA (of course, excluding the focal firm) in the firm’s two-digit standard industrial classification (SIC) code. In order to tease out the activist shareholders’ effects on CEO evaluation outcome, we also controlled for the institutional ownership (*Hambrick&Finkelstein 1995*)—appearing as *institutional ownership* in our results. In doing so, we used a concentration index—*Hirschman-Herfindahl* index—to control for the power structure of institutional ownership. We also controlled for the firm size—appearing as *firm size* in our results (*Fredrickson et al. 1988*). Firm size is measured as the log of the firm’s sales. We also had 57 industry dummies but they are removed from our analysis due to their insignificance, which is also consistent with prior research (*Wiersema & Zhang 2011*). Year dummies are included in our analysis in order to remove any vintage effect. We used 2006 as the baseline and included dummies for 2007, 2008, 2009, 2010, 2011, 2012, 2013, and 2014.

As noted by *Wowak et al. (2011)*, there are few more controls for analyzing CEO compensation than analyzing CEO dismissal. Thus, we needed to include four more controls which are compensation-specific. The first control variable that is said to be a very important determinant of

compensation is overpayment (*Core et al. 2008*)—appearing as *overpayment* in our results. Consistent with the notion of “settling up” in CEO pay (*Fama 1980*), one needs to control for the adjustments that boards make to CEO compensation in a focal period due to learning that they have underpaid or overpaid a CEO in the past periods. In the prior researches (*Core et al. 2008*), overpayment is calculated as the residuals of an auxiliary regression which has the compensation as its dependent variable and some of the well-known firms’ characteristics as its independent variables. The logic is that the residuals of the discussed auxiliary regression, are part of a focal CEO’s compensation which can’t be explained by the well-known determinants of CEOs’ compensations. Therefore, the residuals represent an excess (or shortage) of compensations. We follow the same approach. In doing so, we used the available data for 6725 firm-years in our dismissal sample between 2006 and 2014—including all of the 5136 firm-years in the main compensation regression. Our auxiliary regression was a pooled OLS with firm- year- and industry dummies. The dependent variable was the log of total compensation for each firm-year. The independent variables were the following: *Firm-size_{t-1}* (log of the sales), *TRS_t* (return to shareholders), *TRS_{t-1}*, *ROA_t* (return on assets), *ROA_{t-1}*, *CEO-tenure_t*, and *CEO-age_t*. Moreover, it is argued in the literature that CEOs’ last years in firms are different from their earlier years in terms of compensation—i.e., in the last year the compensation doesn’t merely reflect the focal and prior years’ performances (*Gibbons & Murphy 1992*). Thus, we added a dummy indicating whether a focal year was the last year of a focal CEO in a focal firm. This variable is included in both the auxiliary regression and the main compensation regressions—appearing as *last year office* in our results. The model fit (R^2) was 0.38 for our auxiliary regression. We saved the residuals

from this regression and used them for each firm-year observation in our main regression as a control variable⁶.

We also controlled for the change in firm's size from year $t-1$ to year t —appearing as *size change* in our results. Depending on the direction and level of size change, the firm might have more or less money to pay to its CEO (*Kostiuk 1990*). We also controlled for the extent to which CEO pay is contingent on firm performance—appearing as *contingency pay* in our results. This variable captures the structure of CEO pay and can affect the pay's adjustments (*Jensen & Murphy 1990*).

In both dismissal and compensation analysis, independent variables are lagged by one measurement period, unless stated otherwise.

Analysis

CEO compensation

Ideally, we should be able to confirm the randomness assumptions—i.e., randomness of firms chosen, and therefore of board's social status and firm performance— and then test the difference between control and treatment groups. This is far from reality. First, many of the differences between the two groups are not observable. Second, even if we observe all the differences and control for them, the assignments to the two groups are due to idiosyncratic factors. Therefore, in reality, for 'N' firms and 'T' time periods, we can only: (1) extract the temporal variations in the firms' performances, boards' social status, and CEO dismissals, and (2) control for other time-specific and firm-specific differences. Then, we should observe 'N*T' relationships between our

⁶ We don't report the results of this auxiliary regression in the paper but they are available from the authors.

explanatory variables and CEO compensation growth. Finally, we should compare these relationships and draw our conclusions.

We couldn't use OLS regression because our responses are serially and temporally correlated. That is, the change in compensation in time t is correlated with the change in time $t-1$. This can lead to serial correlation in the error term and biased estimates. Under such circumstances and with the type of model that we have—a growth model—, prior researches have used Generalized Estimating Equations (GEE) (Liang & Zeger 1986). GEE doesn't require independence. Therefore, we use GEE and robust standard errors to estimate the growth in CEO compensation. (Ballinger 2004). We employed a GEE model with a serial correlation of order 1, an identity link function, and a *Gaussian* distribution for errors. We also used clustered robust standard errors in order to control for the lack of independence among observations.

CEO dismissal

In the absence of randomness assumptions, we need to take the two steps mentioned in the analysis of CEO compensation. There are however differences between dismissal analysis and compensation analysis. Majority prior researches on CEO dismissal use logistic regression, which is the appropriate model when the dependent variable is a dichotomous variable (Wiersema&Zhang 2011). However, using a logistic regression seems problematic because CEO dismissal involves right-censoring in that dismissal can happen after the study period is finished. Therefore, *Cox* proportional hazard event history analysis is more appropriate to analyze dismissal (Cox 1972). *Cox* models helps us to avoid imposing a baseline hazard rate for CEO dismissal (Box-Steffensmeier&Jones 2004). *Cox* models are particularly useful when talking about survival—and dismissal as a special case of it. Our hazard rate at time t will be obtained through the following formula:

$$h_i(t) = h_0(t) * \exp(B'x) \quad (3)$$

where: $h_0(t)$ is the baseline hazard rate; and $(B'x)$ includes controls and explanatory variables. Similar to compensation analysis, and in order to control for the lack of independence among observations we use clustered robust standard errors. In order to handle firms with multiple dismissals during the period of our study, we used *Efron* method (*Wowak et al. 2011; Blossfeld et al. 2007*). We can provide robustness checks with other specifications.

RESULTS

 Insert table 1 about here

Table 1 presents the summary statistics and correlations for all the variables in our compensation dataset—because some of the variables in compensation dataset are not available in dismissal dataset—excluding year and industry dummies. As there are significant correlations among some of our independent variables, we took a further step to make sure that multicollinearity is not a problem in our estimations. The average variance inflation factor (VIF) is in the vicinity of 10 for both compensation and dismissal regressions. Yet, we provide robustness checks with 4 orthogonalized variables—these variables are firm size, CEO age, board independent proportion, and board race proportion—,which had suspicious variance inflation factors (more than 10). In doing so, we can be sure that our estimates are stable. In our main results and also in the table 1, however, we report all variables without orthogonalization.

Table 2 reports the results for our compensation growth models. Model 1 includes controls, majority of which were significant and consistent with prior researches. Model 2 adds board's social status variable, which was negative and significant ($b=-0.0515, p<0.01$). This effect was

still significant and negative after adding interaction terms—in model 3 ($b=-0.0788$, $p<0.001$). Thus, the results support H1a, which posited that board's social status negatively affects the growth of CEO compensation.

Our second hypothesis proposed that high-status boards would evaluate CEOs more positively, when their firms receive negative temporal performance feedback. We tested this proposition by interacting board's social status with firm performance relative to its temporal expectations. In model 3, the coefficient on the interaction term between board's social status and negative deviation of firm performance relative to its temporal expectations is negative and significant⁷ ($b=-0.46$, $p<0.01$). This suggests that the impact of firm performance below its temporal expectations on CEO compensation growth weakens, as board's social status increases. To further explore the nature of this relationship and observing if this effect is in fact due to the shorter-term temporal reference point used by high-status boards as compared to low-status boards, we used *Greve's (1998)* grid search procedure, which can be used to estimate organizational decision-makers' temporal reference points. In doing so, and in unreported analysis in this paper, we found that high-status boards put higher weight on their firms' short-term performance (1) compared to low-status boards (0.6).

Figure 1 further clarifies our findings for H1a and H2. We plotted the interaction effects at one standard deviation below the sample mean and at the mean of negative deviation of firm performance from its temporal expectations, and at the mean and one standard deviation above the sample mean of positive deviation of firm performance from its temporal expectations. Figure 1 clearly shows that the difference between high-status and low-status boards in determining CEO

⁷ Note that the negative sign on this interaction term should be interpreted after reversing the sign because negative deviation of firm performance from its temporal expectations advances from zero to the left of x-axis.

compensation growth both in the presence and in the absence of negative deviations of firm performance from its temporal expectations.

We tested H3a and H4 using a split-sample approach rather than the same multiplicative approach we used to test H1a and H2. Despite the dominance of multiplicative approach, when one needs to test a three-way interaction—as we did—, using a multiplicative approach can be misleading (*Ai&Norton 2003*). To tackle this issue, we followed the procedure proposed by *Shaver (2007)*. In doing so, we first split the sample into two groups with the median value of status distribution variable as the cut-off point. Next, we ran the main regressions again for each subsample. Table 3 presents the results of split-sample regressions for CEO compensation growth. H3a proposed that the relationship between board's social status and CEO compensation growth is stronger when a focal board's directors are heterogeneous with respect to social status. Comparing the coefficients on board's social status in model 1 ($b=-0.0699$, $p<0.01$) and model 2 ($b=-0.0721$, $p<0.05$) supports H3a. Also, H4 proposed that the effect of board's social status on the relationship between negative deviation of firm performance from its temporal expectations and CEO compensation growth is stronger when status heterogeneity exists within a focal board. Comparing the coefficients on the interaction term between board's social status and negative deviation of firm performance from its temporal expectations in model 3 ($b=-0.571$, $p<0.05$) and model 4 ($b=-0.367$, not significant) rejects H4 in the CEO compensation context. We used the cross-models coefficient comparison procedure (*Clogg et al. 1995*) and compared the coefficients of interest for H3a and H4 are in the hypothesized direction.

We also tested all of our hypotheses in the CEO dismissal context. Table 4 reports the results for our CEO dismissal models. In model 1 only controls are included. The results in model 1 were consistent with prior researches. In model 2, we added board's social status variable, which was

negative and significant ($b=-0.46$, $p<0.05$). Thus, the results support H1b, which posited that board's social status has a negative impact on the incidence of CEO dismissal.

H2 proposed that having a high-status board would lead to more positive CEO evaluation outcome, when firms fall below their temporal expectations. In model 3, the coefficient on the interaction term between board's social status and negative deviation of firm performance relative to its temporal expectations is positive and significant ($b=2.654$, $p<0.01$). This shows that the impact of firm performance below its temporal expectations on CEO dismissal weakens, as board's social status increases—negative deviation is reverse-coded. Similar to the CEO compensation growth analysis, we used *Greve's (1998)* grid search procedure to further investigate the temporal reference points that boards in our dismissal have used. In unreported analysis in this paper, we found that high-status boards put higher weight on their firms' short-term performance (1) compared to low-status boards (0.1).

Figure 2 further illustrates our findings for H1b in the CEO dismissal context. Again, we plotted the survival curve when all the covariates are set to their sample means. Figure 2 suggests that the difference between high-status and low-status boards in determining CEO survival chances increases as time passes.

Using a split-sample approach (*Shaver 2007*), we tested H3b and H4 in the context of CEO dismissal. Similar to the CEO compensation growth context, we used the sample median of status distribution variable as the cut-off point. Table 5 presents the results of split-sample regressions for CEO dismissal. H3b proposed that the relationship between board's social status and CEO dismissal is stronger when a focal board's directors are heterogeneous with respect to social status. Comparing the coefficients on board's social status in model 1 ($b=-0.035$, not significant) and model 2 ($b=-1.007$, $p>0.01$) supports H3b. Also, H4 proposed that the effect of board's social status

on the relationship between negative deviation of firm performance from its temporal expectations and CEO dismissal is stronger when a focal board's directors are heterogeneous with respect to social status. Comparing the coefficients on the interaction term between board's social status and negative deviation of firm performance from its temporal expectations in model 3($b=-0.59$, not significant) and model 4($b=3.270$, $p>0.05$) supports H4 in the CEO dismissal context. Similar to CEO compensation growth analysis, we used the multi-model coefficient comparison procedure (Clogg *et al.* 1995) and confirmed that the coefficients of interest for H3b and H4 are in the hypothesized direction.

 Insert table 2 about here

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DISCUSSION

This paper was motivated by the opportunity to shed light on the role that social status plays in determining how directors balance the inter-temporal tensions inherent in their duty. Employing the social-psychological research on social identity in corporate governance, we showed that CEO evaluation is affected by boards' social status. Our theory and findings extend the behavioral perspectives on corporate governance (*Westphal&Zajac 2013*) by uncovering the dual role that social status plays in making corporate governance decisions. Departing from the structural and political foci on the governance implications of corporate leaders' high social status, we explain the cognitive-temporal aspect of directors' high social status in CEO evaluation process.

Building our arguments on the temporal tendencies of a social identity encompassing high social status, we theorized and found that high-status directors adopt an infinitely long-term orientation in evaluating CEOs, but they switch their temporal orientation to a short-term orientation when their social identity is threatened, which is an echo of the upper echelon perspective's core implication that directors's personality concerns affect their decision-making (*Hambrick&Mason 1984*). Considering its direct effects, board's social status reduces the growth of CEO compensation, but it increases the chances of survival for a focal CEO. Our theory suggests that the different direct effects of board's social status across the two contexts originates from the fact that dismissal constitutes an aspect of identity threat to high-status directors by requiring them to remove part of their identity, which resides on their partner—i.e., a focal CEO. The impact of temporal orientation of directors makes sense given that board's temporal references in evaluating CEOs affect CEO evaluation outcome (*Fama 1980*). To put it in numbers, our results indicate that a board with high social status—all else being equal—reduces the growth of CEO compensation by about 5 percent, while the same board increases the chances of CEO survival by about 4 percent.

This should elicit our thoughts when compared to the non-significant increase in CEO effect during 2007-2009 (*Quigley&Hambrick 2015*)—albeit partially because our analysis period only partially overlaps with the findings on CEO effect.

Considering that negative performance feedback with respect to temporal expectations constitute another source of threat to the core values inherent in an identity encompassing high social status, we also demonstrated that board's social status affects firm performance-CEO reward/punishment sensitivity. While both public and academic societies think that high sensitivity of firm performance-CEO reward/punishment is a milestone of good and effective corporate governance, because such sensitivity aligns CEOs' and stakeholders' interests, the literature has identified that there is only a weak link between firm performance and the degree to which CEOs are rewarded/punished (*Jenter&Kanaan 2015*). This weak linkage in turn has evoked criticisms regarding the effectiveness of board of directors. We shed some light on this puzzle, with our results showing that board's social status distinguishes their decision to reward/punish CEOs for firm performance. Our results demonstrate that high-status boards somehow reward a focal CEO for poor firm performance relative to its temporal expectations, because they adapt their temporal reference point to a short-term reference point. Our theory proposes that this phenomenon happens due to the intolerance of high-status directors for negative temporal feedback about their own social identity, which in turn, make them remove inconsistencies through temporal distancing.

We found a negative interaction between board's social status and deviation of firm performance from its temporal expectations in both compensation and dismissal analyses. Notably, as expected and consistent with behavioral theory of the firm (*Cyert&March 1963*), we found that high-status and low-status boards only differ significantly with respect to how sensitive they are about changes in firm performance, when firm performance falls below its temporal expectations. After a

standard deviation decrease in firm performance below its temporal expectations, the growth of CEO compensation is 6 percent more in firms with high-status boards compared to firms with low-status boards. Moreover, following a standard deviation decrease in firm performance below its temporal expectations, the chances of CEO survival is 2 percent more in firms with high-status boards. Thus, high-status boards seem to deviate more from the economic perspectives' expectations regarding the sensitivity of CEO evaluation outcome to firm performance, albeit only when firm performance falls below its temporal expectations. Interestingly, we find no significant firm performance-CEO evaluation outcome sensitivity, when firms outperform their temporal expectations.

Prior research shows us that directors' social status increases their chances for being elected to serve on boards (*Westphal&Graebner 2010*) and also receiving higher pay packages (Graffin et al. 2008). These findings suggest that directors' social status is being treated as a desirable characteristic for compensating and electing them due to positive external reactions to high-status directors and also superior informational access of such directors (*Pollock et al. 2010*). Our findings complement such findings by suggesting that given its cognitive-temporal biasing potential, directors' high social status is not necessarily a positive thing for stakeholders. Thus, when deciding about compensating and electing directors, their social status should be treated with caution.

We also considered the collective nature of board decision-making and found that when a focal board is comprised of status-heterophilous directors, the board's status effects are more pronounced. Our theory suggested that this intensified effects are due to status competition within status-heterophilous boards, which leads to bolstering of an identity encompassing high social status. Prior findings on board demographic similarity suggest that demographically-similar

directors may develop “pluralistic ignorance” in face of poor firm financial performance (*Westphal&Bednar 2005*). The reinforcing effect of status heterogeneity within boards complement prior findings by showing that dissimilarity can in turn lead to a form of cognitive bias in evaluating CEOs.

As we anticipated in the introduction section, board’s social status has both positive and negative effects on inter-temporal trade-offs by boards in determining CEO evaluation outcome. Neither high-status nor low-status boards act outside of the frame expected by “bounded rationality” notion (*Simon 1955*). Corporate decision-makers rationalize their decisions in a way to always see themselves in positive lights and enhance their self-concepts (*March&Simon 1993*). In the context of CEO compensation, while high-status boards punish CEOs less for underperforming firm’s temporal expectations—i.e., the indirect effect of board’s social status—, they also reward CEOs less for outperforming firm’s temporal expectations. The overall effect of board’s social status in the CEO pay context also makes sense through an effort-status exchange frame (*Castellucci&Ertug 2010*), given that the net rewards of CEOs working with a high-status board should have had an intangible nature—i.e., the net reward is expected to be social status spillover for such CEOs. In the context of CEO dismissal, the chances of survival are always higher for CEOs working under a high-status board, which also makes sense through a human resource logic (*Zajac&Westphal 1995*), given that such CEOs should have gone through more intense selection processes to be selected as the CEO of a firm with a high-status board.

Our paper is among the first steps in understanding the cognitive-temporal biases created by social stratification in corporate governance. By demonstrating that boards’ social status affect their inter-temporal preferences in CEO evaluation decisions, we hope to open avenue for future research on the implications of social status of other key players in corporate governance.

Particularly, attending to the early (*Das 2004*) and recent (*Kunisch et al. 2017*) emphases on the costs of overlooking organizational actors' temporal orientation by strategic management scholars, we think that future research can focus on three key corporate players, namely, CEOs, financial analysts, and stakeholders.

First, our theory can be extended to explain CEOs' temporal judgments in governance-related outcomes. Our focus was on CEO compensation and retention, but social status could also explain CEOs' heterogeneous tastes for corporate risk-taking. High-status individuals are found to be more tolerant of longer-term risks as long as their social identity is not threatened (*Bunderson&Reagans 2011*), which suggests that high-status CEOs should be more successful in undertaking risky, long-term and value-adding actions in the absence of identity threats. Social status therefore may also influence CEOs' investment horizon in spending on R&D projects. It is also interesting to see how CEOs' social status influence the temporal convergence between boards and CEOs in making strategic decisions. The broad question in this line of research is whether, when and how corporate leaders' social status affect the temporal nature of firms' strategy. Future research could therefore try to adopt a multiple agency perspective (*Arthurs et al. 2008*) on CEO-board status processes in formulating firm's strategy, focusing on cognitive-temporal aspects of corporate leaders' social status.

Second, it could also be the case that financial analysts who have long been treated as audiences by sociologists (*Zuckerman 1999*) differ in their behavior depending on their social status. Prior research shows that financial analysts have magnificent impact on governance outcomes because they are legitimate evaluators of corporate conduct and have therefore the legitimate power to influence corporate performance through their stock recommendations (*Wiersema&Zhang 2011*). However, little attention has been paid to the role that financial analysts' social status could play

in their temporal judgments about corporates' conduct. We speculate that high-status analysts should differ from low-status ones in terms of the value that they put on long-term strategies in evaluating corporate leaders. Particularly, we think that using a multiple audiences perspective (*Boivie et al. 2016(2)*) could be a fruitful area for future research on the broader question of whether and when financial analysts' social status interact with corporate leaders' social status to affect the temporal nature of firms' strategy.

Finally, we think it is important to investigate how stakeholders' social status shape the temporal nature of messages that are conveyed to them by corporate leaders. Recent theory argues that firms respond to social performance feedback by stakeholders—i.e., feedback about the social responsibility actions of firms—strategically, based on the level of identity-congruence between feedback providers and firms (*Nason et al. 2017*). We speculate that high-status stakeholders favor long-term messages. Therefore, corporate communications targeted at high-status stakeholders, have a long-term orientation. Focusing on corporate leaders' and stakeholders' social status, future research can adopt a strategic framing perspective (*Fiss&Zajac 2006*) to answer the broad question of how and when corporate communications are evaluated by stakeholders.

Board efficacy is one of the most-researched topics in strategic management. Yet, both researchers and public audiences believe that much is left to be understood through further research on the topic (*Hambrick et al. 2015*). The public belief is that directors' social status is a good asset for the firm because it brings more competence, resources, and opportunities to the firm (*The Economist 2010*). In face of the increasing importance of directors' social status for the purposes of election and compensation (*Bloomberg 2013,a*), our study offers an understanding of the neglected side of social status in corporate governance by demonstrating that board's social status affect CEO evaluation decisions. The temporal tendencies inherent in a social identity

encompassing high social status lead to heterogeneous beliefs about the appropriate temporal reference points in evaluating CEOs. We hope that our theory and findings opens avenue for future research on the cognitive-temporal implications of social status in strategic management.

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Table 1. Descriptive Statistics and Correlations for Variables in Dismissal and Compensation Analysis

	Mean	Std. Dev.
growth	.0962106	.673536
dismissal	.0048676	.069605
CEO status	2.4044	1.295116
board status	2.914901	.7789041
CEO ownership	.0249934	.062763
CEO tenure	8.634151	7.674609
female CEO	.0280374	.1650957
board race	.7485473	.3044298
female board	.146097	.1086082
race CEO	.1754283	.3803701
CEO age	56.39934	6.733485
CEO-chairman	.5541277	.49711
independent board	.8952144	.116323
board ownership	.0318607	.0800615
ROA	.4190398	6.387205
institutional own.	.0463147	.0259443
firm size change	6.694963	17.55118
firm size	7.781192	1.568375
overpayment	.0189832	.8632488
contingency pay	.6432768	.2553255
outperforming	.0789657	.1197322
underperforming	-.0597561	.1150001
last year office	.0465343	.2106596
status distribution	1.520798	.7249775

Table 1-continues

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 growth	1.0000													
2 dismissal	0.0265	1.0000												
3 CEO status	-0.0064	-0.0046	1.0000											
4 board status	-0.0042	-0.0067	0.2534*	1.0000										
5 CEO ownership	-0.0700*	-0.0132	-0.1621*	-0.1978*	1.0000									
6 CEO tenure	-0.0490*	-0.0069	-0.0470*	-0.2481*	0.4238*	1.0000								
7 female CEO	0.0093	0.0220	-0.0066	0.0048	0.0027	-0.0360*	1.0000							
8 board/race	0.0033	0.0031	0.0340*	0.0746*	-0.0581*	-0.0450*	-0.0143	1.0000						
9 female board	0.0008	-0.0103	0.1015*	0.2001*	-0.1067*	-0.1248*	0.0072	0.0863*	1.0000					
10 race CEO	-0.0011	-0.0028	-0.0140	-0.1013*	0.0329*	-0.0081	-0.0008	-0.5938*	-0.1190*	1.0000				
11 CEO age	-0.0253	0.0175	0.0617*	-0.0766*	0.2059*	0.4528*	-0.0456	0.0068	-0.0041	-0.0755*	1.0000			
12 CEO-chairman	-0.0396*	-0.0048	0.0514*	0.0241	0.1896*	0.3179*	-0.0588	-0.0234	0.0726*	-0.0353*	0.2908*	1.0000		
13 independent board	-0.0097	-0.0146	0.1200*	0.3418*	-0.2327*	-0.1925*	0.0170	-0.1155*	0.1800*	-0.1019*	-0.1018*	0.1125*	1.0000	
14 board ownership	0.0004	0.0176	-0.1381*	-0.1646*	0.1287*	0.0661*	-0.0131	-0.0251	-0.0060	0.0304*	-0.0146	-0.1509*	-0.3720*	1.0000
15 ROA	0.0226	-0.0398*	-0.0298*	-0.0040	-0.0155	0.0012	-0.0234	0.0069	0.0098	-0.0163	-0.0233	0.0017	0.0060	-0.0068
16 institutional own.	0.0001	0.0061	-0.0866*	-0.1641*	0.1412*	0.1265*	0.0580	0.0067	-0.1106*	0.0339*	0.0244	-0.0281*	-0.1407*	0.1909*
17 firm size change	0.0512*	-0.0102	-0.0218	-0.0145	-0.0125	0.0362*	0.0108	0.0495*	-0.0606*	-0.0076	-0.0504*	-0.0486*	-0.0076	-0.0288*
18 firm size	0.0156	0.0078	0.1862*	0.4363*	-0.1693*	-0.1915*	-0.0387	0.0927*	0.3236*	-0.1594*	0.0496*	0.1443*	0.1963*	-0.1097*
19 overpayment	0.4068*	-0.0367*	0.0184	0.0474*	-0.1443*	-0.0124	0.0297	-0.0140	0.0193	0.0026	0.0070	0.0056	0.0618*	-0.0389*
20 contingency/pay	0.3138*	-0.0303*	0.1674*	0.3669*	-0.2970*	-0.2364*	0.0144	0.1138*	0.1428*	-0.1132*	-0.1123*	-0.0056	0.3032*	-0.1922*
21 underperforming	0.0495*	-0.0015	-0.0370*	-0.0101	-0.0061	-0.0281*	0.0252	0.1444*	0.0083	-0.0733*	0.0034	-0.0540*	0.0305*	0.0342*
22 underperforming	0.0348*	-0.0269	0.0138	0.0336*	-0.0304*	0.0054	-0.0128	0.1812*	0.0755*	-0.1267*	0.0323*	-0.0103	0.0232	0.0194
23 last year office	0.0522*	0.3166*	0.0688*	0.0595*	-0.0266	-0.0127	0.0017	-0.0002	0.0100	-0.0290*	0.1429*	0.0568*	0.0064	-0.0005
24 status distribution	0.0260	-0.0206	0.0850*	0.2735*	-0.0235*	-0.0769*	0.0417	-0.0383*	0.0597*	0.0132	-0.0196	-0.0101	0.0303*	-0.0152
15 ROA	1.0000													
16 institutional own.	-0.1151*	1.0000												
17 firm size change	0.1572*	-0.0457*	1.0000											
18 firm size	0.0767*	-0.3315*	0.0076	1.0000										
19 overpayment	-0.0119	-0.0373*	-0.0107	0.0056	1.0000									
20 contingency/pay	0.0107	-0.1933*	0.0406*	0.3716*	0.4882*	1.0000								
21 underperforming	0.0410*	0.0122	0.1643*	-0.0448*	-0.0007	0.0248	1.0000							
22 last year office	0.0780*	0.0065	0.0787*	0.0329*	-0.0253	0.0097	0.3428*	1.0000						
23 last year office	-0.0231	-0.0463*	-0.0255	0.0817*	-0.0150	0.0058	-0.0086	-0.0309*	1.0000					
24 status distribution	-0.0184	-0.0492*	-0.0145	0.1619*	-0.0051	0.0420*	-0.0170	-0.0292*	0.0415*	1.0000				

Table 2. Estimates for GEE Models Predicting CEO Compensation Growth

	(1) GROWTH	(2) GROWTH	(3) GROWTH
CEO Status	-0.0239 (-1.54)	-0.0203 (-1.31)	-0.0219 (-1.41)
CEO Ownership	0.281* (2.05)	0.276* (2.02)	0.280* (2.05)
CEO Tenure	-0.00312* (-2.54)	-0.00335** (-2.72)	-0.00336** (-2.73)
CEO Female	-0.0171 (-0.38)	-0.0157 (-0.35)	-0.0186 (-0.41)
Board Race	-0.00124 (-0.04)	0.00294 (0.09)	-0.00319 (-0.10)
Board Gender	-0.0715 (-0.97)	-0.0721 (-0.97)	-0.0760 (-1.03)
CEO Race	0.00217 (0.09)	0.00320 (0.13)	0.00446 (0.19)
CEO Age	-0.00108 (-0.84)	-0.00104 (-0.81)	-0.00108 (-0.83)
CEO-Chairman	-0.00309 (-0.18)	-0.00466 (-0.28)	-0.00436 (-0.26)
Board Independence	-0.274*** (-3.85)	-0.243*** (-3.38)	-0.245*** (-3.42)
Board Ownership	0.0728 (0.74)	0.0676 (0.69)	0.0622 (0.64)
ROA	-0.000698 (-0.58)	-0.000744 (-0.62)	-0.000847 (-0.71)
Institutional Ownership	0.595 (1.74)	0.584 (1.72)	0.568 (1.67)
Firm Size Change	0.00126* (2.56)	0.00124* (2.51)	0.00119* (2.41)
Firm Size	-0.0108 (-1.84)	-0.00635 (-1.04)	-0.00610 (-1.00)

Overpayment	0.209*** (20.17)	0.208*** (20.10)	0.209*** (20.16)
Contingency Pay	0.395*** (9.75)	0.406*** (10.00)	0.409*** (10.07)
Outperforming	0.0763 (0.94)	0.0754 (0.93)	0.0688 (0.65)
Underperforming	0.164* (2.10)	0.155* (1.98)	0.427*** (3.63)
Last year office	0.278*** (6.89)	0.281*** (6.95)	0.280*** (6.94)
Board Status		-0.0515** (-3.05)	-0.0788*** (-3.42)
Board Status x Outperforming			-0.00817 (-0.05)
Board Status x Underperforming			-0.460** (-3.06)
-cons	0.222* (2.01)	0.172 (1.54)	0.197 (1.76)
N	5136	5136	5136
chi2	1085.0	1096.9	1110.6

t statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Figure 1. Effect of Board's Social Status on The Margins of CEO Compensation at Various Performance Levels

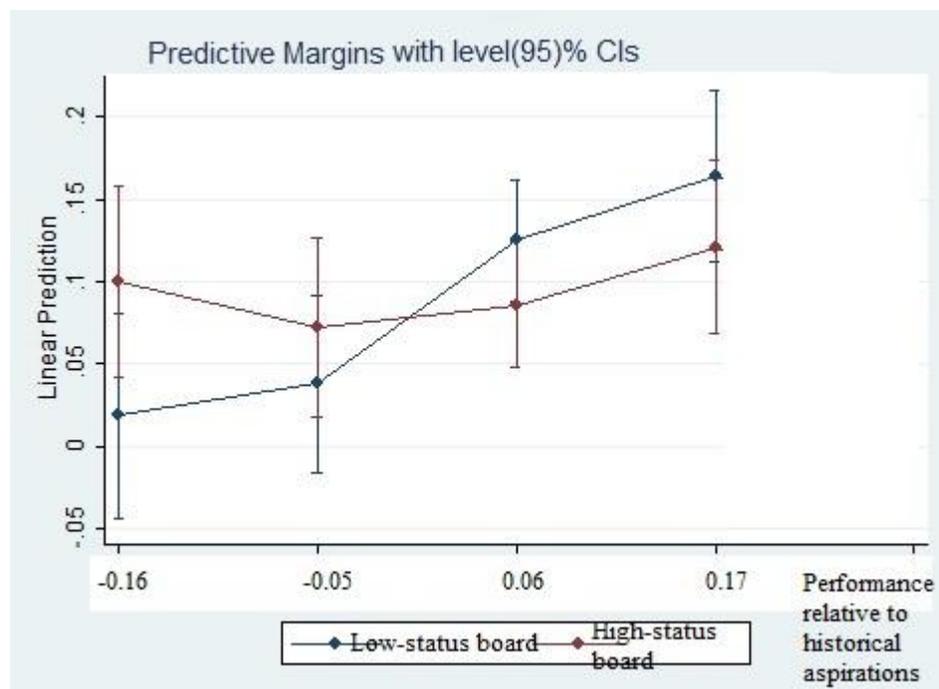


Table 3. Estimates for Split-sample GEE Models Analyzing Interaction Effects in Compensation Context

	(1)	(2)	(3)	(4)
	GROWTH	GROWTH	GROWTH	GROWTH
Board Status	-0.0699** (-2.77)	-0.0721* (-2.27)	-0.114** (-3.10)	-0.0550 (-1.34)
CEO Status	-0.0388 (-1.70)	-0.00905 (-0.31)	-0.0408 (-1.79)	-0.00855 (-0.30)
CEO Ownership	-0.418 (-1.93)	0.125 (0.45)	-0.426* (-1.97)	0.143 (0.52)
CEO Tenure	-0.00252 (-1.45)	-0.00599* (-2.46)	-0.00261 (-1.50)	-0.00607* (-2.52)
CEO Female	-0.0244 (-0.37)	0.00249 (0.03)	-0.0207 (-0.31)	-0.00218 (-0.03)
Board Race	0.0586 (1.27)	-0.0410 (-0.71)	0.0542 (1.17)	-0.0563 (-0.97)
Board Gender	-0.0227 (-0.23)	-0.252 (-1.73)	-0.0292 (-0.29)	-0.240 (-1.66)
CEO Race	0.0578 (1.73)	-0.00599 (-0.13)	0.0570 (1.70)	-0.00258 (-0.06)
CEO Age	0.00315 (1.65)	-0.00393 (-1.65)	0.00308 (1.62)	-0.00395 (-1.68)
CEO-Chairman	-0.0368 (-1.46)	0.0114 (0.37)	-0.0353 (-1.40)	0.00911 (0.30)
Board Independence	-0.195 (-1.92)	-0.254 (-1.87)	-0.198 (-1.94)	-0.241 (-1.79)
Board Ownership	0.0635 (0.47)	0.167 (0.86)	0.0574 (0.42)	0.140 (0.72)
ROA	0.000117 (0.07)	-0.00286 (-1.21)	0.0000434 (0.03)	-0.00300 (-1.27)
Institutional Ownership	2.066** (3.02)	0.225 (0.48)	2.015** (2.94)	0.216 (0.46)
Firm Size Change	0.00124 (1.82)	0.00134 (1.48)	0.00113 (1.66)	0.00134 (1.49)
Firm Size	0.0125	-0.0151	0.0119	-0.0148

	(1.35)	(-1.32)	(1.27)	(-1.30)
Overpayment	0.190*** (15.37)	0.334*** (14.87)	0.190*** (15.35)	0.330*** (14.77)
Contingency Pay	0.324*** (5.77)	0.493*** (6.36)	0.325*** (5.79)	0.490*** (6.38)
Outperforming	-0.0857 (-0.73)	0.232 (1.73)	-0.137 (-0.99)	0.557** (2.85)
Underperforming	0.369** (2.80)	-0.0423 (-0.35)	0.530*** (3.46)	0.251 (1.07)
Last year office	0.359*** (5.47)	0.195** (3.15)	0.361*** (5.51)	0.194** (3.15)
Board Status x Outperforming			0.184 (0.76)	0.586* (-2.38)
Board Status x Underperforming			-0.571* (-2.06)	-0.367 (-1.38)
-cons	-0.265 (-1.55)	0.437* (2.14)	-0.230 (-1.33)	0.436* (2.15)

N	2157	2209	2157	2209
chi2	629.9	574.9	635.4	575.0

t statistics in parentheses				
* p<0.05, ** p<0.01, *** p<0.001				

Table 4. Estimates for Cox Proportional Hazard Models Predicting CEO Dismissal

	(1) -t	(2) -t	(3) -t
CEO Status	0.0110 (0.06)	0.0329 (0.17)	0.0722 (0.37)
CEO Ownership	-8.779 (-1.56)	-8.806 (-1.58)	-8.819 (-1.58)
CEO Tenure	-0.0334 (-1.74)	-0.0357 (-1.84)	-0.0365 (-1.86)
CEO Female	0.388 (0.91)	0.325 (0.76)	0.329 (0.77)
Board Race	-0.0884 (-0.20)	-0.00570 (-0.01)	-0.0415 (-0.09)
Board Gender	0.0870 (0.09)	0.0338 (0.04)	0.207 (0.22)
CEO Race	0.108 (0.36)	0.138 (0.46)	0.130 (0.43)
CEO Age	0.0245 (1.48)	0.0235 (1.42)	0.0217 (1.31)
CEO-Chairman	-0.402 (-1.83)	-0.413 (-1.88)	-0.404 (-1.83)
Board Independence	2.473** (2.59)	2.813** (2.90)	2.792** (2.88)
Board Ownership	1.633**	1.564*	1.595*

Tesi di dottorato "A Theory of Social-Psychological Time in Corporate Governance"
di RADFARD ALI

discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018

La tesi è tutelata dalla normativa sul diritto d'autore (Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).

Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	(2.63)	(2.53)	(2.54)
ROA	-0.0495*** (-8.18)	-0.0508*** (-8.40)	-0.0491*** (-7.96)
Institutional Ownership	4.121*** (3.99)	4.284*** (4.14)	4.379*** (4.21)
Firm Size	0.0385 (0.56)	0.0899 (1.24)	0.0736 (1.01)
Outperforming	-1.853 (-1.55)	-1.889 (-1.58)	-0.545 (-0.39)
Underperforming	-1.748*** (-5.67)	-1.854*** (-5.90)	-4.052*** (-5.88)
Board Status		-0.460* (-2.20)	-0.110 (-0.44)
Board Status x Outperforming			-2.499 (-1.10)
Board Status x Underperforming			2.654** (3.19)

N	7246	7246	7246
chi2	103.4	108.2	117.6

t statistics in parentheses			
* p<0.05, ** p<0.01, *** p<0.001			

Figure 2. Effect of Board's Social Status on CEO Survival Chances During This Study's Period

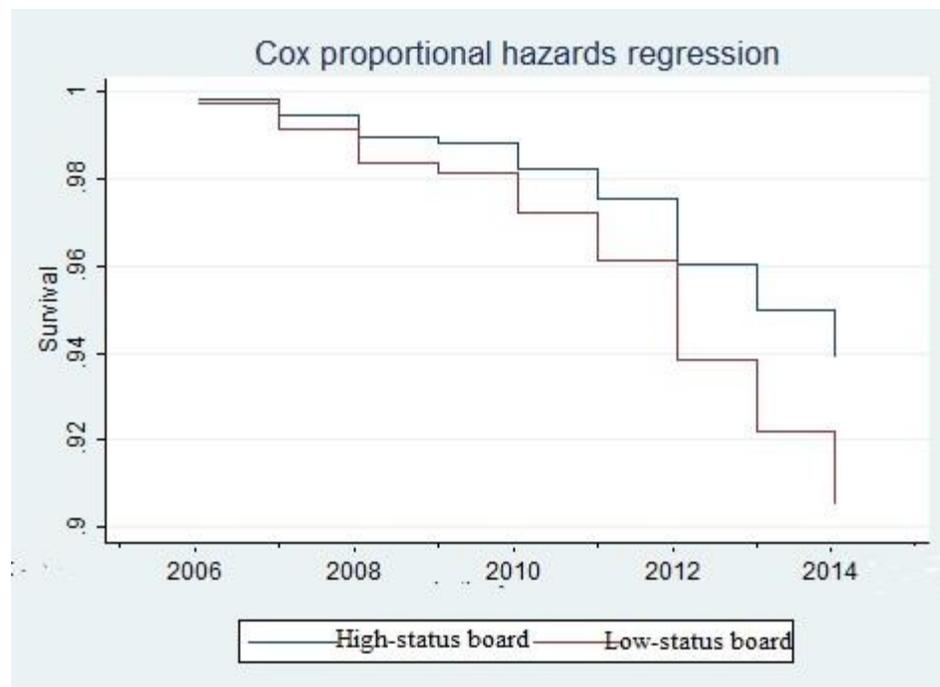


Table 5. Estimates for Split-sample Cox Proportional Hazard Rate Models Analyzing Interaction Effects in Dismissal Context

	(1) -t	(2) -t	(3) -t	(4) -t
Board Status	0.0350 (0.13)	-1.007** (-3.05)	0.117 (0.32)	0.822* (-2.09)
CEO Status	0.105 (0.40)	0.00518 (0.02)	0.105 (0.40)	0.0272 (0.09)
CEO Ownership	-7.654 (-1.11)	-10.68 (-1.14)	-7.348 (-1.08)	-10.47 (-1.15)
CEO Tenure	-0.0312 (-1.24)	-0.0459 (-1.44)	-0.0328 (-1.30)	-0.0482 (-1.51)
CEO Female	0.869 (1.80)	-0.492 (-0.48)	0.875 (1.82)	-0.434 (-0.42)
Board Race	-0.152 (-0.25)	-0.220 (-0.32)	-0.183 (-0.30)	-0.0265 (-0.04)
Board Gender	-0.909 (-0.74)	1.977 (1.32)	-0.798 (-0.64)	1.933 (1.28)
CEO Race	-0.419 (-0.95)	0.757 (1.74)	-0.416 (-0.95)	0.787 (1.83)
CEO Age	0.0424 (1.94)	-0.0134 (-0.52)	0.0441* (2.00)	-0.00849 (-0.33)
CEO-Chairman	-0.525 (-1.77)	-0.219 (-0.63)	-0.528 (-1.78)	-0.273 (-0.79)
Board Independence	3.079* (2.34)	2.314 (1.56)	3.001* (2.28)	2.410 (1.63)
Board Ownership	1.767* (2.36)	0.598 (0.37)	1.689* (2.26)	0.436 (0.26)
ROA	-0.0579*** (-5.98)	-0.0572*** (-4.49)	-0.0577*** (-5.99)	-0.0552*** (-4.28)
Institutional Ownership	4.917 (1.11)	4.045*** (3.34)	4.801 (1.03)	4.454*** (3.63)
Firm Size	0.0308 (0.32)	0.204 (1.72)	0.0321 (0.33)	0.191 (1.60)
Outperforming	-0.103 (-0.08)	-6.371* (-2.03)	0.709 (0.50)	-9.702 (-1.50)
Underperforming	-3.718***	-1.534**	-3.606***	-4.447**

Tesi di dottorato "A Theory of Social-Psychological Time in Corporate Governance"
di RADFARD ALI

discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018

La tesi è tutelata dalla normativa sul diritto d'autore (Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).

Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	(-4.65)	(-2.95)	(-3.99)	(-3.04)
Board Status x Outperforming			-2.428 (-0.90)	5.331 (0.75)
Board Status x Underperforming			-0.590 (-0.31)	3.270* (2.03)

N	3614	3593	3614	3593
chi2	79.62	58.10	80.90	63.18

t statistics in parentheses				
* p<0.05, ** p<0.01, *** p<0.001				

Chapter 3

Symbolic Risk-Taking As A Means To Negotiate Temporal Boundaries: CEO's Time-Aspiring Behavior And Corporate Risk-Taking

INTRODUCTION

There is a consensus among strategic management scholars that corporate leaders take less risk when they have little time left, a situation that is referred to as career horizon problem (Eisenhardt 1989). This consensus is bolstered by empirical researches' findings. Matta and Beamish (2008) showed that CEOs approaching their retirement are less likely to engage in risky international acquisitions; McClelland, Barker, and Oh (2011) found that old CEOs adopt risk-averse strategies; Mannor et al. (2016) established that CEOs who are anxious about losing their jobs will adopt lower-risk firm strategies. What remains less clear is the influence that changes in remaining time have on corporate leaders' appetite for risk. More precisely, what is the effect that a loss/gain in remaining time has on corporate leaders' risk-taking?

Researchers have paid little attention to the active responses of corporate leaders to time loss/gain. It is important to explicate corporate leaders' active responses to time loss/gain because assuming away leaders' temporal agency (Bandura 1991; Garud&Giuliani 2013)—i.e.,

actions taken with the understanding that the future is open⁸—produces incomplete views of how corporate leaders' remaining time shapes corporate outcomes. The conventional agency theory (Jensen&Meckling 1976) suggests that losses in agents' remaining time reinforces their opportunistic and self-interested behaviors (Reilly, Souder, and Ranucci 2016), which impede financial leverage, acquisition, R&D spending, growth and therefore hurts future firm performance. This makes sense given the fact that the essence of risk-taking is the risk-taker's belief that he/she has the required time for his/her risky choice to pay off (Chrisman&Patel 2012). From this point of view, time is a deterministic means and individuals can do all but suffer from its loss. Therefore, naturally, time losses should reduce risk-taking when viewed from conventional agency perspective.

An agentic definition of remaining time dynamics in the corporate elite is necessary. Investigating the active responses to the loss/gain in remaining time is critical for devising more accurate models of horizon-based agency problems (Martin, Wiseman, and Gomez-Mejia 2016). Taking into account the otherwise ignored, temporal agency of corporate leaders may draw a different picture of the effects of corporate leaders' remaining time on firm performance from what is expected by our conventional understanding. More precisely, the active responses of corporate leaders to retain/protect their lost/gained time can lead to risk appetites that are not aligned with the prevailing theoretical prescriptions, which require incentivizing CEOs for taking riskier actions as they approach their retirement (Gomez-Mejia, Berrone, and Franco-Santos 2010).

⁸ Emerging from a Heideggerian approach, this is a form of meta-agency which does not only refer to acknowledging that one has the power to choose but also include the desire to liberate one's own from the worldly constraints—e.g., the temporal constraints on one's life and being [Laclau 1996].

The core premise of the present paper is that a CEO's remaining time can well be a subject for social negotiation, albeit when the social norms used by key organizational actors to build temporal boundaries of the CEO's career, are emergent and therefore negotiable. The present paper draws from prospect theory (Kahneman&Tversky 1979) in order to develop an agentic view of the impacts of time loss/gain on CEOs' risk-taking. As a relativistic and agentic theory, prospect theory emphasizes the importance of heuristics and reference points in human decision-making and posits that an individual's appetite for risk in a decision-making situation involving either tangible or intangible assets depends on the framing of the focal situation —loss vs. gain— against a reference point, with losses leading to riskiest choices. Using prospect theory as the basis of the present paper's theoretical framework requires conceptualizing time and risk different from the way prior research has treated them.

In accordance with the contextual effects identified by prospect theory (Kahneman&Tversky 1979), Matta and Beamish (2008) in their study of international acquisitions taken by firms whose CEOs are approaching retirement and Mannor et al. (2016) in their study of strategic decision-making process by top executive teams who are anxious about losing their jobs conceptualized time as a non-reproducible contextual factor that affect corporate leaders' asset maximization: CEOs who are going to be retired soon are concerned about their legacy as their time for acting is being depleted and the time for their evaluation is approaching, and top executives who do not have any clue about the timing of threats to their jobs are concerned with their monetary losses/gains as they consider little time to maximize their wealth. Risk-taking is therefore viewed as a variable which maximizes corporate leaders' legacy and wealth preservation functions in a given amount of time. Matta and Beamish (2008) and Mannor et al. (2016) found negative effects of little remaining time on corporate leaders' risk-taking.

Motivated by the focus on intangible assets dynamics in prospect theory, the present paper departs from the conceptualization of time in prior research and views time as a reproducible, socially-constructed and intangible asset (Ancona et al. 2001a; Das 2004; Carstensen 2006; Carstensen&Fried 2012). Thus, time is not only a means to maximize assets, but it is also an end in and of itself, which is given to social actors through social agreements (Lewin 1939; Ancona, Okhuysen, and Perlow 2001b).

Depending on whether a focal CEO falls below or goes above his/her social reference point for an intangible asset, he/she changes his/her risk-taking in order to preserve that asset (Tversky&Kahneman 1973; Kahneman&Tversky 1979). The present paper distinguishes between time-aspiring risk-taking and wealth-aspiring risk-taking because the former acts as a message, which delivers a focal CEO's belief about his/her long remaining time in the future to influential organizational actors, while the latter serves as a means to increase material wealth. In doing so, the present paper talks to the dual role of risk-taking as both substance and symbol (Lyng 1990). This sociological view of risk as a symbol is rooted in prior empirical research. For instance, Cho et al. (2016) viewed risk-taking as a tool used by celebrity CEOs' to control their identity, and Celsi, Rose, and Leigh (1993) viewed risk-taking as consumers' effort to satisfy their inter-personal influence needs. In accordance with this view, hypotheses regarding the effects of CEOs' remaining time on their risk-taking are developed and tested in the present paper. The present paper achieves its goal through a novel use of CEO dismissal. It is argued that a focal CEO can use relevant and observable social cues —such as a realized threat to the career of a fellow CEO— to estimate the timing of the threat to his/her career. In doing so, a focal CEO uses the tenure of a dismissed CEO in another socially-relevant firm as a reference point for his/her remaining time. Depending on the nature of the result of social comparison (gain vs. loss), a

focal CEO's remaining time increases or decreases his/her risk-taking. Important scope conditions for the conceptualization of time as an end in and of itself are further explored in the present paper. In particular, the theory put forward in the present paper is constrained by actual remaining time and recent firm performance as, presumably, the most important goal of businesses. However, where there is space for aspiring for socially-constructed time (Grant&Wade-Benzoni 2009), it is necessary to reconsider the nature of time in risk-taking and active responses to loss/gain in remaining time.

THE SOCIAL CONSTRUCTION OF CEOS' REMAINING TIME

Time is the third dimension of individuals' life space besides the geographical and the social dimensions (Lewin 1939). Time awareness affects individuals' decision-making independently from their capital and ability (Charles&Carstensen 2010). Researchers have viewed time in two ways. Some researchers have viewed time as a chronological, objective duration. This is the dominant view. Other researchers, mainly psychologists and social-psychologists, have viewed time as a product of social construction. In this view, time is a malleable and cognitive-motivational construct (Carstensen, Isaacowitz, and Charles 1999; Zimbardo&Boyd 2008).

Social groups construct their meaning of time through socialization processes (Lewin 1939). In this sense time is a shared social meaning. For instance, Judeo-Christian societies view time as a straight line, whereas, eastern societies view time as circular (Cahill 1998); industrial western countries conceptualize time as clock time which is a resource to buy and sell (Ancona, Okhuysen, and Perlow 2001b). The social construction of the shared meaning of time is regulated by social norms. On the top of metaphorical depiction of time, temporal boundaries are also socially-constructed. For instance, Gersick (1989) finds evidence that creative work

groups build the duration of their different activities towards completing a focal task based on how close they become to the deadline of submitting their final tasks.

The formality of social norms used in constructing temporal boundaries makes great difference in the level of social agreement regarding the constructed time. Formally-scheduled events—such as annual meeting of shareholders—create temporal boundaries—as to when the meeting happens—that are widely-accepted within an organization, whereas, emergent norms—such as coffee break—may create disagreement because the social agreement about temporal boundaries essentially requires high visibility of social norms (Ancona et al. 2001 a).

The social construction of temporal bounds of CEOs' careers follows emergent social norms. Unless exceptional circumstances exist—such as activists' covert pressure to remove CEOs—, it is all but impossible for a focal CEO to know the exact socially-constructed temporal boundaries of his/her career. However, a focal CEO has relevant and observable social cues —such as the termination of the career of a fellow CEO— to infer the social agreement on his/her own career's temporal boundaries. Unlike ordinary departures of other CEOs, dismissal of a CEO in another socially-relevant firm can be deemed as a highly visible emergent social norm in determining temporal boundaries of the career of a focal firm's CEO. CEO dismissal is unique in its visibility because of the strong message that it conveys about the leadership of an organization (Wiersema&Zhang 2011). Yet, dismissal of a CEO in another firm is not readily translated as a social norm for a focal firm's actors because there are ambiguities in the reasons behind it (Haleblian&Rajagopalan 2006). With this open space for social agreement, organizational actors can negotiate the temporal boundaries of a focal CEO's career (Chen 2008). Thus, whether dismissal of a CEO in another firm, as an emergent social norm, creates intra-organizational agreement about its plausibility within a focal firm is determined by social negotiation.

Social negotiations may involve the implicit or explicit exchange of messages between different parties that have a stake in the outcome of the negotiated issues with each party trying to protect its interests through gaining social support for its arguments. Although not explicitly, negotiating temporal boundaries of a focal CEO's career through explicit messages has been documented in the literature. For instance, Westphal's et al. (2012) findings suggest that CEOs may try to extend the temporal boundaries of other demographically-similar CEOs whose firms have performed poorly through attributing such firms' poor performance to external factors such as industry-wide threats. Implicit messages are slightly different because they involve negotiators' effort to embed meaning in actions that act as symbols. Using insights from sociological research on individuals' risk-taking, the present paper conceptualizes a focal CEO's risk-taking as a symbolic act to negotiate socially-constructed temporal boundaries of his/her career and explain the dynamics of the relationship between CEOs' remaining time and corporate risk-taking.

CEOS' RISK-TAKING IN RESPONSE TO CHANGE IN THEIR REMAINING TIME

Risk-taking is substantial for firm's growth and survival (Shapira 1995). Researchers have investigated the link between top management team's characteristics (Hambrick&Mason 1984) and firm risk-taking. Similar to the research on the relationship between CEO career horizon and firm risk-taking, in the near-absolute majority researches with any of the dominant views on the risk-taking by top management teams, time is crucial as a given concept. For example, taking an agency perspective, Wright et al. (2007) demonstrated that the higher proportion of the fixed incentives relative to the variable incentives of top management team increases firm risk-taking. Taking a real options perspective, Lee, Peng, and Barney (2007) showed that a favorable bankruptcy law which puts less stigma on bankrupt managers leads to more firm risk-taking.

Building on behavioral theory of the firm (Cyert and March 1963; Greve 2003), Harris&Bromiley (2007) found that poor firm performance and higher executive compensation relative to a historical or social reference point, increase risk-taking in misrepresenting firm's financial outcomes.

There is a consensus that CEOs take risks in anticipation of potential rewards that risk-taking can bring to them (March&Shapira 1987). Also it is well documented that framing of alternatives plays an important role in determining CEOs' appetite for risk (Chatterjee&Hambrick 2011). Prospect theory explains how framing affects risk-taking (Kahneman&Tversky 1979). The theory conceptualizes decision-making process emphasizing the use of heuristics and reference points. It posits that the riskiness of the choice in a decision-making situation depends on the framing of the focal situation (loss vs. gain) against a reference point. Generally, and given the probabilistic nature of a decision's outcomes, gains lead to risk aversion, while losses lead to risk proneness. For instance, Larraza-Kintana et al. (2007) showed that CEO compensation leads to his/her risk aversion and risk proneness if he/she frames his/her future outcomes in the gain and the loss domains, respectively. Consequently and by extension, more gains lead to less risk-taking and more losses lead to more risk-taking (Tversky&Kahneman 1981).

Prospect theory has been applied to intangible assets as well. For instance, Matta and Beamish (2008) showed that CEOs approaching their retirement apply prospect theory to their legacy. Assuming CEOs' passive reaction to time loss, the authors suggest that CEOs who are approaching their retirement—i.e., losing their remaining time—, frame their legacy, as the intangible asset that would be largely affected by their last days' performance, in the gain context and take less risks. However, it is ignored that time, itself, can be seen as a socially-

constructed asset. More precisely, CEOs' remaining time can be seen as the result of the intraorganizational social agreement on the appropriate temporal boundaries of their careers. Seen through this lens, the present paper argues that risk-taking can also play a role that is ignored by prior researches on CEOs' risk-taking in strategic management, namely, a symbolic role.

Taking risks essentially requires an individual to perceive that he/she has a long time ahead (Chrisman&Patel 2012). For instance, CEOs spend more on risky R&D projects when they perceive that they have more time left (Ling et al. 2008). A natural and immediate conclusion is that CEOs who are running out of time in their careers, are expected to take less risks. However, what if the CEOs' remaining time is determined by social agreement that is far from being reached? It is shown that in the presence of permeable temporal boundaries, individuals engage in risky actions that challenge these boundaries. For instance, doctors and nurses are shown to take risks in patient treatment in order to define temporal boundaries of patient recovery in ways that fit their own points of view (Yakura 2002).

On the top of the traditional view of risk as an operant on personal assets, the present paper argues that risk-taking can act as a symbol, which helps individuals to communicate their desired messages. In a symbolic sense, risk-taking can anchor on two sides, namely, self-determination and social order (Lyng 1990). Anchoring risk-taking on self-determination, one would expect individuals to take risks in order to prove their control over events. For instance, Chatterjee and Hambrick (2011) suggested that narcissistic CEOs take higher risks in order to show their high ability in controlling their firms' outcomes. Anchoring risk-taking on social order, however, one would expect individuals to engage in risk-taking in an effort to affect the emergent social order.

Social boundaries are forms of social differences that are both socially-accepted and socially-reinforced (Lamont&Molnar 2002). For instance, societies have different acceptable characteristics for social actors which are separated by class and gender boundaries. Not only societies have different social expectations based on their accepted boundaries, but also they behave in ways that reinforce such boundaries. Social boundaries therefore produce patterns of behaviors that give rise to social order, in which social actors have common understanding of what each and every actor should do. Social boundaries are created through formal norms. Nonetheless, there are symbolic boundaries that although are similar to social boundaries in many aspects, but they are created through emergent norms (Epstein 1992). Depending on their nature, symbolic boundaries can create, maintain, challenge or even remove social boundaries. However, it is only after wide social agreement is reached about symbolic boundaries that they can turn into social boundaries (Lamont 1992). Temporal boundaries are either social or symbolic boundaries that communicate appropriate beginning and endings of events within societies (DiMaggio 1997).

The present paper argues that CEOs' temporal agency leads them to believe that the future and their socially-constructed remaining time is open (Bandura 1991) and are determined by social interactions (Garud&Giuliani 2013). Bringing back CEOs' temporal agency into the picture, CEOs are expected to actively respond to changes in their remaining time through sending messages about the appropriate temporal boundaries from their own point of view. In particular and based on the arguments above, emergent norms in the social construction of a focal CEO's remaining time—such as the dismissal of a CEO in another firm—as to what is the appropriate temporal boundaries of CEOs' tenure, are expected to induce risk-taking by him/her in the direction proposed by prospect theory. Such risk-taking is symbolic in the sense that it is

against the substantial risk-taking expectations documented in prior researches and serves as a message, which conveys the focal CEO's belief about his/her long remaining time in the future—in case of increased risk-taking. Moreover, when the focal CEO sees the emergent temporal boundaries desirable for himself/herself, he/she tries to preserve his/her temporal gain.

Thus:

Hypothesis 1a: *If a focal CEO's tenure is greater than the tenure of a dismissed CEO in another firm, he/she is expected to frame his/her remaining time in the context of loss and take more risks.*

Hypothesis 1b: *If a focal CEO's tenure is smaller than the tenure of a dismissed CEO in another firm, he/she is expected to frame his/her remaining time in the context of gain and take less risks.*

The Salience of Temporal Boundaries

The moderating role of CEO tenure

Although, CEOs' socially-constructed time is expected to affect their risk-taking behavior, the effects of objective time limits should nonetheless be considered. The absolute value of a focal CEO's tenure puts a profound impact on how he/she approaches risk-taking. Prior researches investigating the stages of CEOs' tenure, proposed that CEOs are clearly risk-averse at the late stages of their tenure (Hambrick&Fukutomi 1991). Given the natural temporal limits on CEOs' careers, a focal CEO's tenure should set an upper limit to his/her socially-constructed remaining time.

In the late stages of his/her tenure, a focal CEO becomes “inwardly” bored, engages less in thoughtful actions and makes decisions based on distilled information (Romanelli&Tushman, 1994). In fact, it is shown that CEOs may even try to help in succession planning when they are at the late stages of their tenure because they want to make sure that their desired management style continues (Krause&Senadeni 2014). Even if at the late stages of his/her tenure, the focal

CEO is still not willing to give up on his/her job (Sonnenfeld, 1988), he/she should make little effort in responding to social stimuli because of the high power that he/she has obtained thanks to his/her long tenure (Miller 1988).

A focal CEO's tenure can also affect his/her willingness to challenge either dominant or emergent social order. Incumbency may influence individuals' toleration for challenging experiences. Incumbent individuals perceive emotional turbulence from the fast passage of time, which in turn leads them to seek more socio-emotional attachment and choose emotionally safe behaviors (Carstensen 2006). In so doing, incumbent individuals try to cease emotional challenges that they experience through the symbolic relational immortality, which helps them to forget the passage of time (Wade-Benzoni 2006). For instance, Zellweger et al. (2011) found that the duration of a CEO's tenure in a family firm has a direct relationship with his/her risk-aversion because he/she attaches more importance to the preservation of his/her socioemotional wealth as his/her tenure with the firm increases.

Taken together, the arguments above suggest that the absolute value of a focal CEO's tenure should dampen his/her symbolic risk-taking. While CEOs try to affect emergent temporal boundaries through symbolic risk-taking, as they spend more time in their careers, they become more passive in facing emergent temporal boundaries. Even when emergent temporal boundaries can potentially lead to loss in remaining time of a focal CEO, he/she becomes less responsive to social stimuli as he/she advances further in his/her tenure. Moreover, even if, a focal CEO attends to social stimuli, he/she is less willing to challenge such stimuli at the late stages of his/her tenure. Put differently, the absolute value of the focal CEO's tenure reduces the salience of socially-constructed temporal boundaries for his/her risk-taking. With the same token, the absolute value of the focal CEO's tenure should therefore enhance his/her risk-aversion for either symbolic or substantial risk-taking. Thus:

Hypothesis 2a: *The absolute value of a focal CEO's tenure negatively moderates the relationship between the loss framing of his/her remaining time and his/her risk-taking.*

Hypothesis 2b: *The absolute value of a focal CEO's tenure positively moderates the relationship between the gain framing of his/her remaining time and his/her risk-taking.*

The moderating role of recent firm performance

Recent firm performance is the most important predictor of CEOs' future risk-taking (Wiseman&Gomez-Mejia 1998). Prior researches showed that recent firm performance has an indirect relationship with firm's future risk-taking (Bromiley 1991). As the ultimate goal of majority of businesses, firm performance creates the context within which organizational actors act. High recent performance is a sign of the merit of the status-quo, and therefore, it makes CEOs conservative in making changes through risk-taking (Audia&Greve 2006). Although, the present paper theorizes about the symbolic risk-taking, given the ultimate importance of firm performance, recent firm performance is expected to act as a constraining factor for CEOs' engagement in symbolic risk-taking. Because, eventually, enhancing symbols at the expense of critical substances seems generally unlikely.

Firm performance, as the bottom line of business, has been considered as the basis of CEO evaluation (Jensen&Meckling 1976). Therefore, it plays a critical role in determining CEOs' behaviors. In particular, CEOs' judgments of alternatives in a risk-taking situation are mainly based on recent and expected performance or wealth consequences of each alternative (Payne, Laughhunn, and Crum 1980). High recent performance is expected to constrain symbolic risk-taking by CEOs through affecting both actual and perceptual characteristics of risk-taking situations. High recent performance impacts the actual characteristics of risk-taking situations because it reduces the actual risk that is needed to achieve organizational goals (Sitkin&Pablo

1992). For instance, it is shown that good recent performance reduces the immediate environmental threats to a focal firm, while at the same time, increasing environmental opportunities (Gomez-Mejia, Wellbourne, and Wiseman 2000). The same positive actual external conditions can, however, give rise to perceptual biases.

CEOs who perform well are more likely to become overconfident. Recent success in the shape of good performance and the positive external reactions that it entail, enhances one's self-efficacy beliefs (Schmalensee 1976). Recent good performance is perceived by a focal CEO as a cue about his/her abilities (Chatterjee&Hambrick 2011). Moreover, the focal CEO is likely to attribute successes to his/her own abilities rather than luck or any other factor (Staw, McKechnie, and Puffer 1983). Therefore, good recent performance is likely to increase the focal CEO's confidence in himself/herself and his/her situation. This overconfidence, in turn, has implications for future risk-taking by the focal CEO. For instance, it is shown that CEOs whose firms have performed well recently, become more overconfident and change their risk-taking approach (Chatterjee&Hambrick 2007).

Overall, based on the arguments above, good recent performance should dampen his/her symbolic risk-taking. CEOs who engage in symbolic risk-taking to shape temporal boundaries that protect their interests, show less willingness to do so as recent firm performance increases. Potentially harmful emerging temporal boundaries become less threatening to a focal CEO due to his/her good recent performance. Moreover, the focal CEO becomes more confident about his/her conditions, and sees little need to make any effort in challenging emergent social order. In other words, good recent firm performance makes the socially-constructed temporal boundaries less salient for the focal CEO's risk-taking. Following the same logic, good recent firm performance is likely to enhance the focal CEO's risk-aversion for either symbolic or substantial risk-taking. Therefore:

Hypothesis 3a: *Recent firm performance negatively moderates the relationship between the loss framing of remaining time by a focal CEO and his/her risk-taking.*

Hypothesis 3b: *Recent firm performance positively moderates the relationship between the gain framing of remaining time by a focal CEO and his/her risk-taking.*

METHODS

Sample

The initial sample for this study included all the public companies listed in S&P 1500 between 2005 and 2014. Companies listed in S&P 1500 are established and widely traded. This choice is consistent with prior researches on CEO career horizon (Krause&Samedani 2014). The choice of 2005 as the starting year was to make sure that CEOs face threats to their career due to changes to the power and the role of boards (see Burks 2010). These firms were tracked over a 10-years period. For this set, financial data, board, and CEO data were collected from COMPUSTAT ANNUALS, BOARDEX, EXECUMP, CAPITAL IQ, RISK MATRICS, FACTIVA, LEXIS-NEXIS, SEC-EDGAR, WHO'S NEWS, and Annual reports of companies. The universal sample, which was obtained after dropping the firm-year observations with missing data, included **6725** firm-year observations. In order to make sure that dropping observations was not making the results biased, Kolmogorov-Smirnoff two-sample test was carried out to see if the difference between the main characteristics (such as size, sales, etc.) of the dropped firm-year observations and the firm-year observations included in the universal sample is significant. No significant difference was observed. Then, firms that were included in the universal sample were investigated in order to identify CEO dismissals. Following the fine-grained approach used in prior research (Wiersema & Zhang 2011), a CEO departure was considered as dismissal if one of the following four conditions existed: (1) it was explicitly announced that a CEO is ousted or (2) there were cues

in the news suggesting that a board is considering to fire its CEO or (3) a CEO resignation was effective immediately following a board meeting and no permanent successor was announced or (4) A CEO left abruptly and his/her firm was undertaking a search for a new CEO. In this paper, two further steps are taken: (1) excluding dismissals that were driven by shareholders' or analysts' direct and evidenced pressures to a board (2) excluding dismissals that were driven by illness of a CEO, corruption of a CEO, and immediate appointment of a CEO as another firm's CEO. As an extra evidence for the accuracy of the present paper's dismissal identification approach, it was observed that there was a significant time gap between the departure of a CEO and the announcement of his/her successor in dismissal cases. Within the universal sample, **645** CEO changes and **116** dismissals were identified. After segmentation of firm-years included in the universal sample by two-digit SIC industry codes, the final sample of the present study was obtained using strata that had at least one dismissal. The final sample, therefore, was comprised of **2664** firm-year observations.

Dependent Variable

Corporate risk-taking

Researchers have operationalized corporate risk-taking in many ways (Bromiley 1991). Some researchers have operationalized corporate risk-taking indirectly using variations in income streams as a measure of ex-post uncertainty (Kang 2016). Others have operationalized corporate risk-taking directly using the reliance on uncertain cash streams or equity in corporate investments as a measure of ex-ante uncertainty (Sandberg, Lewellen, and Stanley 1987). Given the advantages of the direct operationalization (Cole 2013), and in order to make a choice coherent with the theoretical underpinnings of the present paper, corporate risk-taking was operationalized as financial leverage. Financial leverage is the ratio of financial debt (or the sum of long-term debt and short-term loans) divided by the sum of financial debt plus equity. Higher leverage means

that a focal firm needs to pay more interest. Firms can risk using financial leverage in order to increase the potential outcome of their investments and their values. Therefore, if the pay-off from debt-financed investments doesn't override the higher interests, higher leverage will decrease earnings per share (EPS) and overall value. The level of EPS has profound impact on the shareholders' satisfaction and the survival of CEOs (Pitcher, Cherim, and Kisfalvi 2000). Therefore, higher leverage means that corporate decision-makers take risks because they believe—or want to show that they believe—they have the long time that is required for the potential generated profits from the leverage to supercede the interest rate imposed by the leverage. This variable appears as *leverage* in the results.

Independent Variable

CEO's socially-constructed remaining time

As an objective construct, remaining time on a CEO's career has been operationalized either through using the focal CEO's tenure (McClelland, Barker, and Oh 2011), or through subtracting the focal CEO's age from a fixed age such as 70 (Matta&Beamish 2008). The fixed age was chosen as the deterministic end of all CEOs' careers. Such measure of remaining time is unable to conform to the reality for two reasons. The first reason relates to the underlying objective logic behind such measures. The second reason relates to the relevance of such measure for CEOs —i.e., CEOs aren't being retired around any fixed universalistic age in the recent years. The present paper used a social-interactionist logic for operationalizing CEOs' remaining time without any fixed universalistic age as the end of CEOs' careers. Following the arguments in the theory section, CEOs' remaining time was operationalized using social cues which CEOs use to locate the threats to their own careers. For a focal firm, relevant social cues were CEO dismissal events in other firms in the final sample in the same year and industry as the focal firm. A focal CEO's remaining time in a specific year was measured as his/her tenure minus the average tenure of the dismissed

CEOs in other firms in the same year and industry as the focal CEO's firm. Two variables capture the result of socio-temporal comparisons by the focal CEO: positive difference—appearing as *positive difference*—equals the tenure of the focal CEO minus the average tenure of socially-relevant dismissed CEOs if the result of this subtraction is positive and zero otherwise; negative difference—appearing as *negative difference*—equals the tenure of the focal CEO minus the average tenure of socially-relevant dismissed CEOs if the result of this subtraction is negative and zero otherwise.

CEO's tenure

CEO's tenure—appearing as *tenure*—is the number of years that a focal CEO has been in his/her position.

Recent firm performance

Recent firm performance was operationalized through subtracting a focal firm's return on assets (ROA) minus the median ROA of other firms in the focal firm's industry in a given year.

Controls

The present paper adapted a set of controls from prior researches on corporate risk-taking (Bromiley 1991; Faccio, Marchica, and Mura 2016) and CEO's career horizon (Matta&Beamish 2008; Strike et al. 2015). The controls include: CEO's salary—appearing as *salary*—which is the natural logarithm of cash payment to a focal CEO, CEO ownership—appearing as *CEO Ownership*—which is the proportion of common shares owned by a focal CEO, CEO's race—appearing as *CEO Race*—which is a dummy taking 1 if a focal CEO is minority, CEO's age—appearing as *CEO Age*—, CEO gender—appearing as *CEO Female*—which is a dummy taking 1 if a focal CEO is female, CEO-chairman continuity—appearing as *CEO-Chairman*—which is a dummy taking 1 if a focal CEO is chairman, board

independence—appearing as *Board independence*—which is the proportion of independent directors within a focal board, board race—appearing as *Board race*—which is the proportion of minority directors within a focal board, board ownership—appearing as *Board ownership*—which is the proportion of shares owned by a focal board, cashflow rights—appearing as *Instown*—which is the proportion of shares owned by the top 5% of a focal firm’s shareholders, firm size—appearing as *Firm size*—which is the natural logarithm of sales, industry-adjusted return to a focal firm’s shareholders—appearing as *TRS*—, firm size change—appearing as *Firm size change*—which is the percentage change in the focal firm’s sales compared to prior year—and year dummies.

Analysis

In order to test the hypotheses, pooled ordinary least squares (OLS) was used. Pooling observations was dictated by practical and theoretical reasons. Given the rarity of CEO dismissal events, it is not appropriate to model a focal CEO’s symbolic risk-taking due to external dismissal events through a panel structure, which exploits within observation heterogeneity. Relatedly, and from a theoretical standpoint, 10 years could not be considered as a long-enough period for a CEO to change his/her beliefs about the emergent social norms about the appropriate temporal boundaries of his/her career. This method is used in prior research investigating corporate risk-taking (Ljungqvist, Zhang, and Zuo 2017). In fact, the diagnostic test (hausman test for endogeneity, serial correlation test) showed that this specification was appropriate. Given the lack of independence of the observations, Huber-white robust sandwich estimator was used. In all the models, the dependent variable was measured at time ‘t’, and the independent variables were measured at time ‘t-1’. This makes sense logically, as the decisions regarding risk-taking in a

specific financial year are made prior to that financial year. Year dummies were included in all models.

 Insert table 1 about here

 Insert table 2 about here

 Insert table 3 about here

RESULTS

The summary statistics and correlations for all the variables are reported in tables 1 and 2. The results predicting future financial leverage are presented in table 3. Model 1 shows the effects of control variables, which include two moderators. Majority of coefficients are significant predictors of financial leverage, and essentially capture the substantial portion of risk-taking consistent with prior researches (Sandberg, Lewellen, and Stanley 1987). Consistent with prior researches, as a CEO's tenure increases his/her risk-taking decreases.

In model 2, main explanatory variables are added. Consistent with hypotheses 1a and 1b, as a focal CEO's tenure goes beyond the average tenure of other socially-similar dismissed CEOs, he/she takes more risk ($b=0.0145$; $p<0.001$); however, as the focal CEO's tenure falls below the average of other socially-similar dismissed CEOs, he/she takes less risk⁹ ($b=0.00248$;

⁹ The coefficients on the gain-framing of the focal CEO's remaining time, which is a result of the negative difference between his/her tenure and the average tenure of other socially-similar dismissed CEOs should be reversed before interpretation because the variable moves toward the left of X-axis.

$p < 0.05$). These coefficients are the support for the first set of hypotheses. Gain-/loss-framing of remaining time by the focal CEO using socio-temporal aspirational levels, have independent effects beyond the absolute value of the focal CEO's tenure. Figure 1 shows the support for hypotheses 1a and 1b, graphically.

 Insert figure 1 about here

Model 3 adds the interaction terms between the absolute value of a focal CEO's tenure and his/her gain-/loss-framing of his/her remaining time. The coefficient on the interaction term between the focal CEO's loss-framing of his/her remaining time and his/her absolute tenure is negative and significant ($b = -0.000186$; $p < 0.05$). Moreover, the coefficient on the interaction term between the focal CEO's gain-framing of his/her remaining time and his/her absolute tenure is positive and significant ($b = -0.000873$; $p < 0.01$). Taken together, these coefficients provide support for hypotheses 2a and 2b. The absolute value of the focal CEO's tenure dampens his/her risk-taking due to framing of his/her remaining time using socio-temporal aspirations. More precisely, as the focal CEO becomes more tenured, his/her gain-framing of his/her remaining time leads to even less risk-taking than that implied by a sole gain-framing, whereas, his/her loss-framing of his/her remaining time leads to less risk-taking than that implied by a sole loss-framing.

Model 4 includes the interaction terms between a focal firm's recent operating performance and its CEO's gain-/loss-framing of his/her remaining time. The coefficient on the interaction term between the focal CEO's loss-framing of his/her remaining time and recent firm performance is negative but insignificant ($b = -0.000128$; not significant). However, the

coefficient on the interaction term between the focal CEO's gain-framing of his/her remaining time and recent firm performance is positive and significant ($b=-0.000417$; $p<0.05$). Therefore, while hypothesis 3b is supported, the results cannot support hypothesis 3a. In other words, high recent firm performance further reduces the focal CEO's risk-taking due to gain-framing of his/her remaining time compared to a sole gain-framing by the focal CEO, whereas, it doesn't put any impact on the relationship between his/her loss-framing of his/her remaining time and his/her risk-taking. For the sake of completeness, the full regression including all the main and interaction effects are included in model 5. All of the hypothesized coefficients remain significant and robust in the full model.

ROBUSTNESS CHECKS

Although the present paper's operationalization of risk-taking followed naturally from the paper's theoretical logic, one may think that using only one variable to capture risk-taking limits the validity of the proposed theoretical framework. In order to tackle this issue, R&D expenditure was used as a second measure of corporate risk-taking. In this case, there were only **1762** observations available and in other cases R&D expenditure was missing. In fact, after running a pooled OLS, with firm and year dummies, an even stronger support for the hypotheses—with the exception of hypothesis 3a—was found. The adjusted R-squared was 28.50 for the regression including main effects. A second potential issue may relate to the model specification. Although, the present paper's main specification again followed from the paper's theoretical logic and diagnostic tests showed that using a pooled cross section is appropriate, in order to address potential concerns, a generalized estimating equations (GEE), with an exchangeable correlation matrix, an identity link function, and a Gaussian distribution for

errors was used. Year dummies and clustered robust standard errors were included. The strength of the relationships was reduced, but the results were still consistent with the main models.

DISCUSSION

Theoretical Implications

Viewing CEO career horizon from a social-constructionist approach, the present paper uncovers an important and counter-intuitive finding through investigating CEOs in S&P 1500 firms: a focal CEO's loss of time can lead to time-aspirational risk-taking, while his/her gain of time can lead to time-aspirational risk-aversion, albeit under certain circumstances. This finding contrasts to prior research on CEO career horizon with a temporal-deterministic approach, which predicts passive suffering of time loss and risk-aversion by CEOs. Considering the two circumstances under which the socially-constructed temporal boundaries of CEOs' careers are salient, the present paper demonstrates that the effect of remaining time on risk-taking is not necessarily positive. The core finding of the present paper has theoretical implications for research on career horizon, prospect theory, and research on social control as a mechanism in determining corporate governance practices.

The core finding of the present paper has two implications for research on career horizon. First, future research can focus on the consequences of ultimate cases of social-psychological time changes. Taking into account both time loss and gain (Shi, Hoskisson, and Zhang 2016) as key explanatory variables in future research can add to our understanding of how remaining time affect firms' behavioral and economic outcomes. In doing so, future research may also need to broaden the conceptualization of remaining time. The dominant paradigm views remaining time as an objective, deterministic and non-reproducible resource (Das 2004).

The contrast between the dominant view and the present paper's view of remaining time becomes clear in Crilly's (2017) recent investigation of time in strategy discourse. Consistent with the dominant view, Crilly argues that the future can be seen as inevitable through a "time-moving" temporal frame, as a result of which "future events loom larger". Under this view, as remaining time is passive and can just be lost, executives are expected to become myopic and avoid risky decisions, which can threaten what they possess. In contrast, Crilly portrays remaining time through "ego-moving" temporal frame, which suggests that actors can build the future events through moving them "forward into the present". Under this latter view, as remaining time is dynamic and can be controlled, executives are expected to have a temporally-balanced view—i.e., giving equal weights to short-term and long-term outcomes—and engage in risk-taking to build the future. This latter view is also consistent with recent frameworks (Nadkarni&Chen 2014; Chen&Nadkarni 2016), which focus on psychological time, arguing that remaining time can be lost and gained, and threaten and secure executives' careers depending on the executives' temporal foci. With a dynamic and explicit consideration of remaining time, and focusing on a focal executive's active responses to ultimate forms of time gain and loss through a within-individuals design, future work can shed further light into how executives' decision-making varies with their socially-constructed remaining time through their tenure stages.

Second, the core finding of the present paper shows the need to reconsider the link between time and agency. As it is, the research on career horizon proposes that remaining time as a contextual resource in decision-making—a resource that the decisions are not supposed to operate on it as an end in itself—increases the extent of the decision set for executives (McClelland, Barker, and Oh 2011). The present study adds to this contextual effect of time on

agency by showing that executives' agentic behaviors are more (less) likely when they frame their remaining time in the context of loss (gain). This reflects the fact that time in itself, constitutes a less explored component of executives' agency, namely, the temporal agency. For example, Matta and Beamish (2008) showed that CEOs are less likely to engage in international acquisitions as they approach their retirement. The present paper's core finding suggests that CEOs who are under pressure to resign may be more willing to engage in acquisitions in an effort to negotiate temporal boundaries of their careers. Espousing the traditional temporal approach and the present paper's temporal approach, future research can distinguish the contextual and core effects of remaining time on agency in alliance formation.

Aspiring for time may also make CEOs who are also the chairman of their firms' boards to exert agency through voluntarily giving up their chairman position. Krause and Semadeni (2013) showed that a CEO in a poorly-performing firm who is in the early stages of his/her tenure engages in a "demotion separation", which signals strategic change to external audiences, while at the same helping him/her to remain the CEO. As CEO-chair separation exposes a CEO to higher risks, there is good reason to suspect that it also follows the time-aspirational risk-taking logic investigated in the present paper. Future research, therefore, can examine whether there is time-aspirational CEO-chair separation, and if so, what are the tenure and performance prerequisites of such separation.

The present work's core finding also has implications for prospect theory. Abundant research in prospect theory have shown that decision-makers become more risk-averse as they approach the time for evaluation of their choices. For example, it is shown that temporal distancing of outcomes from the time of decision-making helps individuals to take more risks (Kahneman&Lovallo 1993). The present paper shows that when temporal boundaries of CEOs'

careers are salient, remaining time as an intangible asset moves from the context of decision-making to the forefront of risky decisions. Future research on prospect theory can consider how temporal distancing operates when remaining time is the asset upon which individuals make risky decisions. Drawing from sociological analysis of risk, the present paper proposed that there are two sides to risk-taking, namely, substantial and symbolic sides. Future research on prospect theory can also explore how symbolic and substantial aspects of risk-taking relate to each other.

Lastly, there is also implication for research on social control as a mechanism, which determines corporate governance practices. Consistent with the emerging behavioral theory of corporate governance (Westphal&Zajac 2013), prior research has shown that social control mechanism—ranging from formal legal sanctions to social distancing—, which acts as a mechanism to deter elite-threatening corporate governance changes through sanctioning deviant behaviors within the corporate elite, can hinder the diffusion of new governance norms such as board independence from CEO (Westphal&Khanna 2003). The present paper shows how dismissal of CEOs in other firms can affect one of the most important corporate governance outcomes in a focal firm, namely, corporate risk-taking. Therefore, there is also another side to social control mechanisms in corporate governance, namely, an indirect mechanism, which may unintentionally reduce CEOs' risk-aversion as an important agency cost (Fama 1980). Future research can shed more light into how direct and indirect social control mechanisms interact to affect corporate governance practices.

Practical Implication

Agency theorists' prescription for practitioners is to incentivize CEOs who face career horizon problems through equity-based payments (Gomez-Mejia, Berrone, and Franco-Santos 2010;

Mannor et al. 2016; Martin, Wiseman, and Gomez-Mejia 2016). It is believed that equity-based payments increase CEOs' senses of attachment to their firms, while at the same time, reducing their risk-aversion. Under this logic, equity-based payments help to turn 'CEO-as-agent' to 'CEO-as-owner'. This makes sense because owners don't have time limits in owning their own firms, and therefore, are expected to approach risk-taking with a sufficiently long horizon. The present paper adds to this prescription by suggesting that practitioners may need to look further than within their own firms and employ equity-based payments considering the social construction of CEOs' career horizon.

Limitations and Scope Conditions

Further avenues for future research exist, given the boundary conditions and limitations of the present paper. As it was discussed throughout the paper, the present paper's theory has two important boundary conditions, which stem from objective time and goal hierarchy. The first boundary condition relates to the objective remaining time captured through the absolute value of a focal CEO's tenure in the present paper. Social construction of reality is constrained by the objective bounds of reality, itself (Berger&Luckmann 1966). As CEOs advance through their tenure stages, the possible social extension of temporal boundaries of their careers becomes more constrained because there is little actual time left for them to bargain about the proportion of it, which can be given to them by social agreement. Future research can question if this is actually the case. Drawing from social-psychological research on individuals' desire for immortality, an emerging body of research suggests that employees may also bargain about their remaining time after their death (Grant&Wade-Benzoni 2009). The present paper couldn't investigate this possibility because it requires in-depth interviews with time-aspiring organizational actors. All that can be said is that objective remaining time before death at least

reduces symbolic risk-taking by financial tools. It may well be the case that time-aspirational organizational actors use behavioral tools in symbolic risk-taking in order to negotiate socially-constructed temporal boundaries of their careers after their death. Therefore, future research can detect such behavioral tools through in-depth interviews with time-aspirational organizational actors.

The second boundary condition relates to the priority of financial goals compared to other goals such as time-related goals. It seems that the bottom-line of each for-profit organization is financial goals. Thus, the dominant belief is that all other organizational and individual goals lose their importance when organizational actors attend to financial goals (Sitkin&Pablo 1992). The present paper finds that a focal CEO's concerns for temporal boundaries of his/her socially-constructed remaining time have less impact on his/her risk-taking, when his/her firm's recent performance is good. Future research can explore if there are boundary conditions to the priority of financial goals. For instance, it is shown that some powerful stakeholder groups put more weight on social rather than financial goals (Ioannou&Serafeim 2012). Future research can take two further steps in data collection in order to investigate the boundary conditions of the superiority of financial performance goals. First, future research should collect data on non-for-profit organizations as well as for-profit organizations. Second, future research should collect data on different stakeholder groups and their power in determining firms' goals in order to capture broader social influences on the importance of financial goals for the firms.

The present study also has limitations. First, the present study does not take into account of inter-organizational networks. It is well established that organizations that are connected through inter-locking directors, imitate each other's strategic behaviors (Westphal, Seidel, and

Stewart 2001). The present study's findings are therefore limited to the extent that a focal firm's connection to firms with CEO dismissals increases the actual likelihood of CEO dismissal in the focal firm. It is less likely that the focal firm's CEO increases his/her risk-taking merely because he/she faces the objective threat of being dismissed (Jensen&Murphy 1990). However, there is an opportunity for future research, which can explore how the diffusion of CEO dismissal through inter-organizational networks affects CEOs' symbolic and substantial risk-taking. Second, the present study does not take into account of environmental dynamism. It is found that environmental dynamism affects a host of firms' decisions (Nadkarni&Chen 2014). Thus, the present study's findings are limited to the extent that a dynamic environment increases the actual likelihood of CEO dismissal. Again, a focal CEO wouldn't increase his/her risk-taking solely because he/she faces higher objective threat of being dismissed due to environmental dynamism. Nonetheless, there is another opportunity for future research. Future research can investigate the accuracy of the theory put forward in the present paper through a comparison between symbolic risk-taking behaviors of CEOs in dynamic environments and symbolic risk-taking behaviors of CEOs in relatively stable environments. The present paper can be a successful little step if it makes a significant contribution and opens avenue for fruitful future researches.

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Table 1. Descriptive Statistics for Variables in Analysis

Variable	Obs	Mean	Std. Dev.
leverage	2664	.5403854	.2351269
CEO salary	2664	6.541415	1.224111
CEO ownership	2664	.025025	.0654608
CEO tenure	2664	8.378754	7.85598
CEO race	2664	.2368619	.4252366
CEO age	2664	56.03791	6.934519
CEO female	2664	.03003	.170702
CEO-chairman	2664	.503003	.5000849
board independence	2664	.8884439	.1200354
board female	2664	.1315215	.1082779
board race	2664	.688849	.3401596
board ownership	2664	.0354739	.0809367
firm size change	2664	7.560234	31.054
instown	2664	.046063	.0347531
firm size	2664	7.5512	1.555272
ROA	2664	.2165522	7.241258
TRS	2664	-.0034023	.1723219
positive	2664	4.871102	7.220574
negative	2664	-2.386305	4.685482

Table 2. Correlations for Variables in Analysis

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1 CEO salary	1.0000																		
2 CEO ownership	-0.1646*	1.0000																	
3 CEO tenure	-0.0589*	0.4193*	1.0000																
4 CEO race	-0.0595*	0.0432*	0.0134	1.0000															
5 CEO age	0.0645*	0.1719*	0.4290*	-0.0626*	1.0000														
6 CEO female	-0.0067	-0.0022	-0.0534*	0.0095	-0.0543*	1.0000													
7 CEO-chairman	0.0844*	0.1952*	0.3256*	-0.0393*	0.2774*	-0.0600*	1.0000												
8 board independence	0.0931*	-0.2079*	-0.1762*	-0.1151*	-0.0608*	0.0333*	0.1014*	1.0000											
9 board female	0.1337*	-0.1141*	-0.1359*	-0.1398*	-0.0078	0.0336*	0.0754*	0.1792*	1.0000										
10 board race	0.0474*	-0.0866*	-0.1075*	-0.6258*	0.0034	-0.0086	-0.0214*	0.1650*	0.1458*	1.0000									
11 board ownership	-0.0136	0.1095*	0.0373*	0.0502*	-0.0330*	0.0162	-0.1603*	-0.3085*	-0.0219*	-0.0472*	1.0000								
12 firm size change	-0.0999*	0.0037	0.0293*	0.0023	-0.0140	-0.0107	-0.0004	-0.0347*	-0.0536*	-0.0033	-0.0146	1.0000							
13 instown	-0.0520*	0.0976*	0.0851*	0.0240*	0.0105	0.0434*	-0.0489*	-0.1044*	-0.0950*	0.0053	0.1443*	-0.0362*	1.0000						
14 firm size	0.2451*	-0.1770*	-0.1617*	-0.2000*	0.0636*	-0.0265*	0.1366*	0.1403*	0.3278*	0.1628*	-0.0901*	0.0090	-0.2303*	1.0000					
15 ROA	-0.0063	0.0042	-0.0019	-0.0176	-0.0323*	-0.0020	0.0171	-0.0163	0.0155	0.0041	-0.0118	0.1322*	-0.1001*	0.0770*	1.0000				
16 TRS	-0.0183	0.0261*	0.0078	0.0005	-0.0185	0.0044	0.0073	-0.0024	-0.0267*	0.0140	-0.0071	0.1905*	-0.1103*	0.0099	0.3106*	1.0000			
17 positive	-0.0776*	0.3470*	0.9043*	0.0288	0.3941*	-0.0476*	0.3021*	-0.1618*	-0.1183*	-0.0911*	0.0413*	0.0060	0.1004*	-0.1808*	-0.0273	-0.0272	1.0000		
18 negative	0.0236*	0.0677*	0.1872*	-0.0221*	0.0854*	-0.0372*	0.0936*	-0.0353*	-0.0071	0.0107	-0.0040	0.0078	0.0268*	-0.0343*	-0.0049	0.0305*	0.3510*	1.0000	

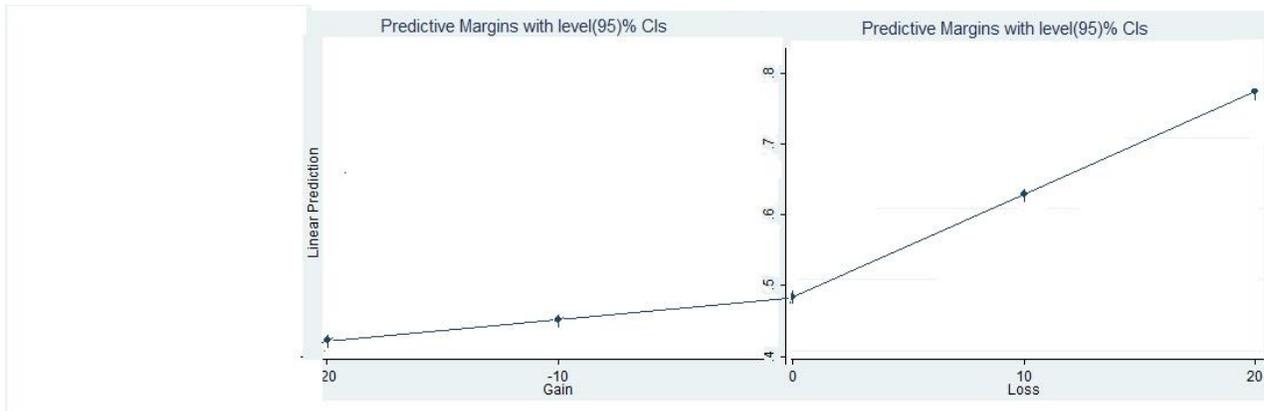
Table 3. Estimates for Pooled Cross-Sectional Models Predicting Financial Leverage

	(1) leverage	(2) leverage	(3) leverage	(4) leverage	(5) leverage
CEO Salary	0.0125*** (3.33)	0.0125*** (3.32)	0.0110** (2.87)	0.0116** (3.03)	0.0103** (2.65)
CEO Ownership	-0.249+ (-1.93)	-0.219+ (-1.81)	-0.200+ (-1.73)	-0.219+ (-1.79)	-0.201+ (-1.72)
CEO Tenure	-0.00190+ (-1.65)	-0.0142*** (-8.34)	-0.0148*** (-7.63)	-0.0143*** (-8.43)	-0.0148*** (-7.62)
CEO Race	-0.0218 (-1.03)	-0.0237 (-1.14)	-0.0236 (-1.13)	-0.0254 (-1.23)	-0.0251 (-1.21)
CEO Age	0.00207+ (1.75)	0.00174 (1.54)	0.00200+ (1.81)	0.00179 (1.59)	0.00204+ (1.85)
CEO Female	0.0909 (1.62)	0.0799 (1.40)	0.0796 (1.38)	0.0802 (1.41)	0.0799 (1.40)
CEO-Chairman	0.0271+ (1.73)	0.0228 (1.50)	0.0171 (1.11)	0.0224 (1.48)	0.0170 (1.11)
Board Independence	0.0341 (0.53)	0.0620 (1.00)	0.0663 (1.09)	0.0662 (1.08)	0.0698 (1.15)
Board Female	0.280*** (3.82)	0.267*** (3.73)	0.291*** (4.24)	0.267*** (3.73)	0.290*** (4.23)
Board Race	-0.0554* (-2.08)	-0.0550* (-2.12)	-0.0532* (-2.05)	-0.0563* (-2.18)	-0.0544* (-2.11)

Board Ownership	0.0517 (0.64)	0.0608 (0.75)	0.0828 (1.08)	0.0593 (0.73)	0.0809 (1.06)
Instown	0.382* (2.06)	0.345+ (1.93)	0.335+ (1.92)	0.352+ (1.96)	0.341+ (1.95)
Firm Size	0.0389*** (7.52)	0.0411*** (8.22)	0.0415*** (8.31)	0.0413*** (8.25)	0.0416*** (8.34)
ROA	-0.00184 (-1.42)	-0.00210 (-1.63)	-0.00216+ (-1.66)	-0.00250 (-1.58)	-0.00246 (-1.57)
TRS	-0.165*** (-5.24)	-0.127*** (-4.21)	-0.124*** (-4.11)	-0.131*** (-4.29)	-0.127*** (-4.18)
Positive		0.0145*** (7.98)	0.0207*** (7.98)	0.0146*** (7.99)	0.0205*** (7.78)
Negative		0.00248* (2.58)	0.00402** (3.17)	0.00280** (2.90)	0.00411** (3.10)
Positive X CEO Tenure			-0.000186* (-2.45)		-0.000180* (-2.36)
Negative X CEO Tenure			-0.000873** (-3.03)		-0.000795** (-2.68)
Negative X ROA				-0.000417* (-2.39)	-0.000368* (-2.20)
Positive X ROA				-0.000128 (-0.81)	-0.000120 (-0.79)
-cons	-0.0101 (-0.10)	0.0370 (0.38)	0.0205 (0.22)	0.0361 (0.37)	0.0195 (0.21)
N	2664	2664	2664	2664	2664
R-sq	0.194	0.232	0.241	0.237	0.245
adj. R-sq	0.187	0.225	0.233	0.229	0.236

t statistics in parentheses
 + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Figure 1. Effect of CEO’s Time Gain/Loss on Corporate Financial Leverage



Chapter 4

Strategic-Temporal Framing As Impression Management: Distorting Investment Analysts' Balanced Temporal Focus In Firm Performance Evaluation

INTRODUCTION

Impression management is a critical aspect of corporate leadership (*Westphal et al. 2012*). It involves deliberate actions taken in order to influence audiences' perception of the organization (*Elsbach et al. 1998; Pfeffer 1981; Selznick 1957*). Organizational impression management can either reduce the negativity or increase the positivity of organizations' actions in the eyes of external audiences (*Elsbach 2014*). Prior research on organizational impression management shows how corporate leaders manage the impression of stakeholders regarding corporate bankruptcy, corporate diversification, corporate acquisition, CEO compensation, CEO succession, and board's conduct (*Graffin et al. 2011; Westphal&Graebner 2010; Wade et al. 1997; Zajac&Westphal 1995; Sutton&Callahan 1987*). Researchers have documented several impression management tactics used by leaders including, symbolic adoption of socially-accepted practices (*Zajac&Westphal 1994*), disclosure of information regarding future firm's actions (*Busenbark et al. 2017*), disclosure of excessive, irrelevant, or positive information in face of negative events (*Graffin et al. 2016; Washburn&Bromiley 2014; Graffin et al. 2011*), and elicitation of stakeholders' positive emotions through maintaining positive relationship with them (*Westphal&Clement 2008*).

Investment analysts as the key financial stakeholders of firms are one of the most important targets for impression management by leaders. Investment analysts play a unique role in determining a firm's fate because they are prominent information intermediaries

(*Jensen&Meckling 1976*) who obtain and process information through analyzing corporate reports as well as direct conference calls with managers. Investment analysts share their expert opinions with investors through research reports and recommendations of firms' stocks. Therefore, investment analysts not only are one of the most important group of stakeholders, but they are also critical players in determining other stakeholders' behaviors. As *Westphal and Graebner (2010)* note two aspects of a firm are of utmost importance to investment analysts, namely, board practices and firm performance. However, somehow surprisingly, researchers have paid little attention to the possibility of strategic framing of the latter aspect by corporate leaders in a way to affect investment analysts' reactions to firm performance.

Prior studies suggest that corporate leaders may attempt to attribute poor firm performance to external factors (*Staw et al. 1983*) in order to manage investment analysts' impression of firm performance. However, this is likely to lead to severe consequences for future firm performance. As expert audiences, investment analysts are likely to discover corporate leaders' deliberate attribution errors and therefore the leaders need to disclose accurate information to investment analysts in order to obtain favorable stock recommendations (*Busenbark et al. 2017*). Given the consensus in the literature regarding the importance of uncertainty for successful impression management (*Porac et al. 1999*), one would wonder whether and how corporate leaders can manage investment analysts' impression of firm performance without exploiting asymmetric information. Unfortunately, the surprising paucity of research on this phenomenon has limited our understanding of the modern impression management tactics that corporate leaders use to protect their interests at the cost of stakeholders. The importance of these tactics goes beyond firm performance and includes socially-unacceptable corporate governance practices (*Bansal&Celland 2004*). Thus, it is important from both theoretical and practical standpoints to investigate the

impression management processes used by firms to communicate firm performance to investment analysts.

We take up the challenge of investigating this peculiar phenomenon. Our core premise is that uncertainty can stem from asymmetric information about the present state of affairs, as well as the past or the future states of the affairs. Although, prior research investigates impression management tactics based on uncertainty arising from asymmetric information, little attention has been paid to uncertainty arising from temporal distance. We draw from behavioral theory of the firm and temporal construal theory to build a theory of temporal impression management, which can explain how corporate leaders form temporal reference points, and strategically frame their performance in their communications with investment analysts based on such reference points, and how investment analysts' react to strategic framing of firm performance by corporate leaders. Behavioral theory of the firm predicts behavioral changes in response to deviations from expectations (*Greve 1998; Cyert&March 1963*). Temporal construal theory posits that an individual experiences events differently depending on their temporal distance (*Trope&Liberman 2010; Trope&Liberman 2003*). We define temporal impression management as the strategic use of temporal distance in order to manage the audiences' impression of firm performance and argue that corporate leaders strategically change their temporal focus in communicating current firm performance to investment analysts when firms perform better or worse than expected. More precisely, when firm performance is above (below) expectations, leaders try to decrease (increase) the attention of investment analysts to the past (future) because positive (negative) events are more discounted under a past (future) focus (*Stephan et al. 2015; Wilson&Ross 2001*). As temporal focus of strategic decision-makers molds their expectations (*Das 2004*), temporal impression

management, in turn, has the capability to elicit favorable reactions to firm performance from investment analysts.

On the top of contributing to the literature on impression management, we contribute to the literature on behavioral decision-making based on performance feedback by introducing symbolic consequences of firm performance deviations. We also contribute to the literature on strategic framing by employing it in explaining symbolic management of firm performance. We test our novel theory of temporal impression management in corporate communications to investment analysts using a unique, hand-collected dataset on firms listed in S&P 500 between 2008 and 2014. Our dataset includes **840** firm-year observations.

THEORETICAL DEVELOPMENT

Performance feedback and its symbolic consequences

Behavioral theory of the firm builds on the assumption that organizational decision-makers are boundedly rational (*Simon 1955*). Thus, the theory posits that organizational decision-makers cannot digest absolute values, instead they compare new information with their behaviorally-constructed expectations or aspirations, which comprises of social and historical information about the past, the present and the future (*Keum & Eggers 2015; Greve, H. R. 2003; Greve 1998; Cyert & March 1963*). Decision-makers change their behavior if their performance deviates from their expectations. More precisely, if firms perform better than historical or social expectations, they make less risky changes; if they perform worse than historical or social expectations, they make more risky changes (*Greve 1998*). Research on behavioral consequences of performance deviation is abundant. Performance deviation is found to influence format change (*Greve 1998*), financial

misconduct (*Bromiley&Harris 2007*) acquisition (*Iyer & Miller 2008*), organizational structure (*Gaba & Joseph 2013*), R&D expenditure (*Keum & Eggers 2015*), etc.

The majority of studies only address the substantial outcomes of performance deviations. Recently, researchers have started to explore the symbolic responses to performance deviations. For instance, *Askin and Bothner (2016)* show that firms that experience status losses increase their prices in order to affect the perception of audiences and regain their status. Also, *Radford (2017)* shows that CEOs who feel the emergence of new social norms about their careers' temporal boundaries, engage in or abstain from symbolic risk-taking depending on whether the emergent social norms lead to a time loss or a time gain for them, respectively.

Also, psychologists show that in face of performance deviations, individuals engage in symbolic actions. Psychology research suggests that when decision-makers face performance deviations, they develop a sense of psychological distance between their current position and the state of conforming to their expectations (*Koo&Fishbach 2008; Fishbach et al. 2006; Carver&Scheier 2001*). Psychological distance is a subjective experience of how close or far something is from the present self (*Lieberman et al. 2007*). It is an ego-centric and multi-dimensional concept, i.e., its reference point is the present-self and it can be created in temporal, social, spatial, hypothetical, etc. dimensions (*Trope&Lieberman 2010*). Individuals who feel psychological distance from their performance deviations are shown to adopt a cognitive frame—i.e., the schema, which include reference points for various characteristics and is used by individuals to make sense of events (*Hunt et al. 1994*)—, which rather symbolically—and not substantially—change their performance. Such responses to performance deviations are symbolic, because they eventually do not make any change in actual performance, but rather, change the way that the actual performance is perceived. For instance, individuals use temporal distance in order to mitigate their own negative perceptions

of performing below their expectations. In doing so, individuals select evidence from the past which includes less detail and try to decrease the psychological distance between their present- and expected-selves (*Wilson&Ross 2001*). The chosen details can include how poorly an individual performed some time ago, which then would be compared to how poorly he/she is performing currently. Strategic management scholars have also shown how high-status directors' need to view themselves in positive light may make boards adopt temporal frames with short-term temporal reference points in evaluating CEOs when firms fall below their expectations (*Radford&Castellucci 2016*).

However, researchers have paid little attention to the possibility of strategic presentation of firm performance based on performance feedback in a symbolic effort to change external audiences' impression of the performance—as opposed to ego-centric perceptions of the performance. We fill in this gap by explaining how performance deviations can motivate corporate leaders to engage in strategic framing of firm performance for external audiences.

The plausibility of redefining temporal vs. social reference points in corporate leaders' communications with investment analysts

Recent governance reforms regarding corporates' information disclosure practices make temporal reference point redefinition more viable than social reference point redefinition for managing investment analysts' impression of firm performance. Traditionally, uncertainty stemming from asymmetric information regarding present state of a firm's actions is seen as the potential ground for cultivating favorable investment analysts' reactions. Consistent with this notion, *Staw et al. (1983)* show that in their communications to their firm's key constituents, corporate leaders may try to attribute poor firm performance to external factors. External factors mean forces that affect all firms in an industry. Thus, this deliberate attribution error may help a

firm to redefine social reference points that external audiences use to evaluate the firm. In order for social reference point redefinition to be successful, firms' external constituents should not have access to the same information that corporate leaders have access to (*Porac et al. 1999*).

However, after 2002 and the "dot-com bubble", security and exchange commission (SEC) adopted rules to increase investment analysts' independence from corporate leaders. Independent investment analysts seem to be dangerous targets for impression management based on inaccurate information, which relies on information asymmetry. Given their increased independence, investment analysts are now experts who can detect inaccurate information. Investment analysts are critical for firms' success because they are the main information intermediaries, who shape investors' decisions for buying or selling a firm's stocks (*Wiersema&Zhang 2011*). Therefore, corporate leaders need to provide investment analysts with accurate insider information in order to enjoy positive analysts' recommendations (*Busenbark et al. 2017*). As a result, impression management efforts based on redefining social reference points may not be a viable choice in corporate leaders' communications with investment analysts.

We argue that uncertainty can also stem from temporal distance. Whether decision-makers focus on the past, the present or the future makes significant changes to the outcome of their decision-making (*Das 2004*). Temporal distancing of reference points can change the impression of informed audiences, while at the same time, helping the source of impression management to avoid the use of inaccurate information. Therefore, while controlling for the possibility of social reference point redefinition efforts by corporate leaders, we believe that temporal reference point redefinition is a more viable choice for managing investment analysts' impression of firm performance.

Strategic framing of firm performance and temporal construal

Framing processes may take three, potentially overlapping forms. First group of frames are discursive: discursive framing processes involve frame articulation, which includes the “alignment of experiences” in a unified body, and frame punctuation, which includes “highlighting some beliefs more than others in order to make them salient”; second and third group of frames involve strategic and contested processes: strategic processes are used to achieve specific goals, whereas, contested processes are used to make one of the many competing frames more plausible (*Benford&Snow 2000*). Therefore, framing can be used in two senses, namely, cognitive and sociological. From a cognitive perspective, framing is akin to discursive processes and refers to managers’ cognitive processes in order to understand their organizational context (*Rajagopalan&Spreitzer 1996*). Nonetheless, when viewed from a sociological perspective, framing may refer to actors’ use of “schemata of interpretation” to affect audiences’ interpretations of events (*Hunt et al. 1994*). This latter sense of framing is akin to strategic and contested processes.

Strategic and discursive framing are shown to affect strategic decision-making in and about organizations. For instance, *Kaplan (2008)* show that strategic decision-making within organizations triggers contested framing by organizational actors who try to make their own cognitive frames regarding the future direction of market the dominant frame in an effort to gain more power. *Fiss and Zajac (2006)* take a symbolic management perspective on strategic change and show that firms strategically frame their strategic change in order to create favorable stakeholders’ reactions. Strategic framing may also be applied to explain symbolic consequences of performance deviations. *Nason et al. (2017)* argue that when reference points are ambiguous, for example, in case of social performance evaluations, a firm negotiates an appropriate reference

point with stakeholders who identify with the firm, and it may also strategically frame its response to social performance deviations.

From the perspective of behavioral theory of the firm, frames can be social, temporal or socio-temporal (*Greve 2003*). As discussed in the previous section, attempting to switch the temporal frame is more viable than attempting to switch the social frame for corporate leaders in their interactions with investment analysts. Temporal construal used to frame firm performance determines the temporal frames of reference for external audiences' judgments of firm performance.

Temporal construal theory (*Trope&Liberman 2003*) focuses on the consequences of temporal distance for an individual's responses to events. The theory has its roots in the research on time perspective (*Lewin 1942*). It proposes that events are represented in terms of more abstract cognitive constructs—high-level construals with few details—by an individual, as their temporal distance from his/her present-self increases. Less details of an event can increase or decrease its value. Thus, an individual is expected to respond differently to the same event based on how close or far he/she locates it in time axis. The theory expects an individual's performance evaluation to change based on his/her temporal focus in the evaluation process and how temporally close or far his/her temporal frame of reference is from the present. For instance, individuals are found to have less negative evaluations of an event when they focus on distant future rather than near future, because the further they move toward the future, the more they consider the “gist” attributes rather than the “noise” attributes of the event (*Stephan et al. 2015*). Valence—positivity or negativity—of an event determines whether the event's value increases as a function of temporal distance. Positive events are discounted less than negative events as temporal distance increases (*Shelley 1994*). Consequently, an ambivalent event becomes more valuable as temporal distance increases.

Temporal construal can be acquired by decision-makers from the temporal cues of messages. Moreover, temporal construal essentially operates on cognitive frames that include reference points used by decision-makers to make sense of absolute information. For instance, research on consumer behavior shows that consumers make different decisions about purchasing products based on the temporal distance of cues that are included in the products' catalogs from the time of purchase because temporally different cues elicit different cognitive frames and reference points for consumer decision-making (*Chandran&Menon 2004*).

Corporate leaders can strategically choose temporal frames that they use in communicating their firms' performance to investment analysts based on performance deviations through engineering temporal construal of corporate reports. However, there is a gap in the literature on impression management regarding corporate leaders' strategic framing of firm performance in their communications with investment analysts. We fill in this gap through building a theory of temporal impression management, and laying out its performance antecedents and evaluative outcomes.

Temporal impression management

There are two root motives for self-presentation, namely, "the motive to please audiences, and the motive to construct one's public-self" (*Baumeister 1982*). The first motive prevails in the wake of competition for scarce resources, which are controlled by audiences. The first motive is also called impression management. The second motive prevails as a part of the quest for approaching one's ideal-self. It is distinct from the first motive in that it is driven by enhancing internal feelings. However, the two motives collide when they are related to obtaining resources, which are controlled by audiences (*Baumeister 1982*). As far as individuals use temporal distance to feel better about themselves, the two motives behind self-presentation are distinct. But when audiences delegate the responsibility to control their resources to an individual, and the individual uses

temporal distance to remove discrepancies between his/her performance and the audiences' expectations, the two motives collide.

Impression management is a critical aspect of leadership (*Westphal et al. 2012; Elsbach et al. 1998; Pfeffer 1981; Selznick 1957*), and is very salient in corporate leadership. *Pfeffer (1981)* argues that communication of corporate outcomes/behaviors is even more important than the outcomes/behaviors, themselves. Prior research on organizational impression management has investigated impression management processes in a host of domains (*Graffin et al. 2011; Westphal&Graebner 2010; Wade et al. 1997; Zajac&Westphal 1995; Sutton&Callahan 1987*). Among the targets of organizational impression management, investment analysts are of utmost importance because they have a unique impact on other stakeholder groups' behaviors (*Kuperman 2003*). Consequently, impression management scholars have paid much attention to impression management processes targeted at investment analysts. A large number of studies of impression management targeted at investment analysts focuses on techniques, which involve no information disclosure by managers to investment analysts. For instance, *Westphal and Clement (2008)* found that managers may engage in favor rendering for investment analysts in anticipation of negative events that can create negative analyst appraisals. The authors show that consistent with reciprocation explanations, investment analysts would make less negative recommendations under favor rendering.

Other studies of impression management targeted at investment analysts have considered techniques with information disclosure. *Westphal and Graebner (2010)* argue that two sets of information are of greatest importance to analysts, namely, information regarding board control over management, and information regarding firm performance. The authors investigate how corporate leaders manage the impression of investment analysts about the conduct of corporate

boards. The authors argue that relatively negative analyst recommendations motivate corporate leaders to symbolically increase the visible attributes of board control over management, while keeping the actual control unchanged. In doing so, leaders exploit the asymmetric information between themselves and investment analysts and present positive images of the quality of corporate governance practices within their firms.

Little attention has been paid to how corporate leaders may manage the impression of investment analysts regarding firm performance. We examine the possibility that corporate leaders manage the impression of investment analysts of firm performance using a technique, which although provides information, but does so through a strategic frame. Ex-ante strategic information disclosure has been investigated by impression management scholars. For instance, *Washburn and Bromiley (2014)* show that managers provide earnings information to investment analysts strategically depending on how analyst appraisals deviate from managers' expectations.

However, the technique that we explore departs from prior works on impression management targeted at investment analysts in that uncertainty required for successful impression management does not necessarily stem from information asymmetry, but rather stems from temporal distance. This technique is specifically useful as an ex-post impression management technique targeted at investment analysts, because efforts to mislead investment analysts through redefining social reference points can backfire (*Whittington et al. 2016*). The use of time in impression management is not rare. For instance, *Graffin et al. (2011)* found that corporate boards think of stakeholders' reactions to CEO succession and engage in anticipatory impression management by providing confounding information about a new CEO's potential future actions. Similarly, *Busenbark et al. (2017)* investigate how managers may provide information regarding a future corporate acquisition to investment analysts in order to face less negative analyst appraisals after the completion of the

future acquisition. Yet, anticipatory impression management techniques build on asymmetric information regarding future events. Our focus is on situations where corporate leaders do not necessarily exploit asymmetric information between themselves and investment analysts regarding future events, but use temporal distance to present a positive image of current firm performance. We define temporal impression management as the ex-post strategic framing of firm performance through choosing temporal construal levels based on performance deviations in ways that generate more favorable investment analysts' reaction.

HYPOTHESES

Deviation of firm performance and temporal impression management

Performing below expectations make leaders feel threats to their images (*Westphal&Clement 2008*). Leaders have two options in face of such threats: they can accept the penalties and suffer passively or they should engage in strategic presentation of their underperformance in a way that minimizes the negativity of failing to meet investment analysts' expectations. As researchers have demonstrated, leaders, as any other individual who faces image threatening events, engage in image protection following their failure to meet investment analysts' expectations (*Elsbach et al. 1998*). In other words, when firms perform below expectations, firms' leaders try to manage investment analysts' impression of firm performance. Leaders are expected to do so consistent with behavioral theory of the firm (*Cyert&March 1963*). In doing so, leaders search for risky changes in the vicinity of their problems—i.e., presenting a performance below expectations as less negative (*Greve 1998*).

Understanding the vicinity of performance below expectation problem for impression management requires further explanation. The vicinity of performance below expectation is close

to firm current performance substantially, yet, it is far away from the current performance temporally. One may readily expect corporate leaders to attempt to redefine social reference points when searching in the vicinity of their impression management problem (*Staw et al. 1983*). However, exploiting information asymmetry and giving positive interpretations of firm performance through redefining social reference points are not feasible for corporate leaders when the targets of impression management are investment analysts. The second direction that corporate leaders can take is along the temporal axis. Researchers have shown that at each point in time, strategic decision-makers carry the past, the present and the future (*Das 2004*). The question is what point in time is in a close distance for corporate leaders who have performed below expectations in order to find the solution to the impression management problem. The answer lies in the strategic temporal space of leaders who have performed below expectations.

Organizational decision-makers play a “silent” political game with internal and external powerful players in the strategic temporal space (*Das 1987*). This political game involves contesting projections of the relevant past, and future in the present. In the course of this game, players negotiate the temporal frames of reference that best protect their interests. Temporal focus affects “people’s attention to the events of the past, the present and the future” in making decisions in the present (*Shipp et al. 2009*). It influences decisions through changing the significance of events in making decisions. Consistent with temporal construal theory, outcomes of the present—such as, performing below expectations—are discounted when the temporal focus of strategic decision-makers moves toward temporally distant points because such temporal focus is associated with less details or high construal of the decision subject (*Trope&Lieberman 2010; Trope&Lieberman 2003*). Therefore, temporally distant points are strategically favorable for corporate leaders who perform below expectations. However, a temporal focus on temporally

distant past is not equal to a temporal focus on temporally distant future in terms of its potential for discounting negative outcomes. In fact, focusing on the past can do little about reducing the negativity of outcomes (*Stephan et al. 2015*). The past has actually happened and via the virtue of superiority of the negative past relative to the positive past events, a temporal focus on distant past renders itself to little positive coating. For instance, *Kahneman and Lovallo (1993)* show that a decision-maker engages in risk-taking in reaction to negative past events even when such events are outweighed by positive past events.

The arguments above are consistent with psychological research on psychological distance. Individuals who experience negative discrepancies between their performance and expectations become more focused on distant future, because it minimizes psychological distance from the negative discrepancies through increasing hope. For instance, *White et al. (2011)* show that individuals who have been presented by a loss, feel less negative as the temporal focus of the message moves towards distant future because they feel hopeful about making a significant change.

Overall, we argue that negative deviation of firm performance motivates corporate leaders to change the temporal focus of investment analysts through searching in the strategic temporal space and finding a favorable temporal focus in the vicinity of the impression management problem—i.e., presenting a performance below expectations as less negative. Attempting to change the temporal focus of investment analysts is risky because excessive emphasis on a point of time is not acceptable for persuasion targets (*O'Keefe 1999*). However, corporate leaders take the risk in order to manage the investment analysts' impression of firm performance through strategic framing of firm performance using favorable temporal frames of reference. This we call temporal impression management towards the future. Thus:

Hypothesis 1: Negative deviation of firm performance from expectations has a positive relationship with temporal impression management towards the future.

When firms perform above their expectations, corporate leaders become more conservative. In other words, leaders are expected to take less risks. Therefore, they are expected to only minimize the probability that investment analysts forget a firm's outperforming. Leaders who experience positive deviations are expected to put less emphasis on points of time, which minimize the positivity of events. In doing so, leaders strategically frame firm performance using temporal frames of reference that do not discount the positivity of firm performance. This we call temporal impression management towards the past. Therefore:

Hypothesis 2: Positive deviation of firm performance from the firm's expectations has a positive relationship with temporal impression management towards the past.

Deviation of firm performance, temporal impression management and investment analysts' recommendations

Investment analysts are hired by brokerage firms that operate in investment banking industry. Although, investment analysts are not directly compensated by non-institutional investors, they are motivated to make accurate predictions about firms for such investors due to rewards and promotions attached to such accuracy (*Litov et al. 2012*). Investment analysts' judgments, as any other strategic decision-maker's judgments, are boundedly rational (*Simon 1955*). Stock recommendations as an important part of investment analysts' predictions are significantly affected by how firms perform relative to reference points. Firm performance below expectations increases the likelihood of negative stock recommendations by investment analysts because it violates the accepted social norms (*Busenbark et al. 2017; Westphal & Clement 2008*).

When a firm performs below expectations, it may not only violate the accepted social norms, but it may also signal to investment analysts that its performance prospects are not strong (*Westphal&Clement 2008*). However, there are evidences suggesting that analysts are subject to biases in interpreting present firm performance. *Fogarty and Rogers (2005)* show that investment analysts are largely affected by their social context in making sense of present firm performance. Admitting that firm performance is below expectations can hurt investment analysts' image in the mind of investors who expect prior notice from the analysts (*Brown et al. 2015*). Moreover, firm performance is a complex signal to interpret the quality of a firm's leaders because there is a complex link between strategies and firm performance (*Meindl et al. 1985*). Further, the time lag between strategies and firm performance add temporal uncertainty to inferring firm performance prospects from present firm performance (*Gupta&Wowak 2016*). Therefore, investment analysts need to handle a great deal of information in order to make sense of the linkage between firm performance and firm performance prospects. More important, the temporal frames of reference play a critical role in determining investment analysts' recommendations.

The value of temporal impression management is that it changes investment analysts' temporal frames of reference to points of time that reduce the negativity of firm performance below expectations. Temporal impression management towards the future makes firm performance below expectations look like a result of the temporal lag that is needed for supposedly good strategies of a firm's leaders to pay off. Moreover, temporal impression management towards the future reduces burden of collecting a great deal of information for investment analysts, while helping them to select information that are consistent with a positive firm performance prospect. Therefore, we expect to see that:

Hypothesis 3: Temporal impression management towards the future mediates the relationship between firm performance below expectations and investment analysts' recommendations in a way that the negative impact of firm performance below expectations on investment analysts' recommendations is reduced in the presence of temporal impression management towards the future.

When firms perform better than expectations, generally, investment analysts' recommendations tend to be positive (Busenbark et al. 2017; Westphal & Clement 2008). However, there is a potential for investment analysts' underreacting to firm performance above expectations (Zuckerman 1999). To the extent that positive events are discounted under specific temporal foci, corporate leaders' risk-averse temporal impression management can minimize the potential for investment analysts' underreacting. Therefore:

Hypothesis 4: Temporal impression management towards the past mediates the relationship between firm performance above expectations and investment analysts' recommendations in a way that the positive impact of firm performance below expectations on investment analysts' recommendations is increased in the presence of temporal impression management towards the past.

METHODS

Sample

The initial sample for this study included a random sample of the public companies listed in S&P 500 between **2008 and 2014**. The choice of sample was enforced by the need to identify firms: (1) that are well-established and publicly-traded; (2) that are covered by relatively independent investment analysts due to governance reforms. We tracked these firms over a 7-years period to

collect a sufficient number of observations. We searched for financial data, ownership, analyst, board, and CEO data from COMPUSTAT ANNUALS, EXECUMP, CAPITAL IQ, BOARDEX, I/B/E/S and RISKMATRICS. We obtained letters to shareholders (LTS) from MERGENT ONLINE and LEXIS-NEXIS. Our final sample—obtained after dropping the firm-year observations with missing data—includes **840** firm-year observations. In making sure that dropping observations is not biasing our results, we examined the existence of significant differences between the main characteristics (such as size, sales, etc.) of the dropped firm-year observations and the firm-year observations in our final sample. No significant difference was found.

Dependent Variables

Temporal impression management by corporate leaders

In order to measure temporal impression management, we collected LTSs for firm-years in our sample. LTS is a unique communication tool between corporate leaders and analysts. Rather than objective or technical information, it indicates leaders' efforts for managing stakeholders' impression of a firm (*Patelli&Pedrini 2014*). Although, one might object that leaders do not write LTS personally, but the fact that they put their signature under LTS suffices to believe that leaders intentionally influence LTS's content. Overall, we collected more than 8400 pages of text. Next, we carried out an in-depth content analysis of the collected text. In order to do so we used Linguistic Inquiry and Word Count (LIWC) text analysis program (*Pennebaker et al. 2001*). LIWC uses the psycholinguistic approach, which unveils a writer's cognitive processes from the type of words he/she uses in a text (*Pennebaker et al. 2001*). LIWC has a coding schema, which includes a set of 145 linguistic structures that reflect past focus—e.g., phrases with “had” and “did”—, a set of 169 linguistic structures that reflect present focus—e.g., phrases with “is” and “does”—, and a

set of 48 linguistic structures that reflect future focus—e.g., phrases with “will” and “going to”¹⁰. Prior research has validated the consistency of LIWC’s coding schema with the definitions of CEO past, present and future foci (*Nadkarni&Chen 2014; Shipp et al. 2009; Bluedorn 2002*). Most recent studies in corporate governance show that LIWC is a valid and reliable tool to measure temporal constructs in a text (*Nadkarni&Chen 2014*). Moreover, the use of LIWC in strategy research is growing (*Pfarrer et al. 2010*). We enter the length-standardized percent of words used to manage the future or the past temporal impression in our regression models. Temporal impression management towards the future appears as “*TIMF*” in our models, and temporal impression management towards the past appears as “*TIMP*” in our models—note that *TIMP* is reverse-coded.

Investment analysts’ recommendations

Our ultimate dependent variable is the average analysts’ recommendations of firms’ stocks. Average analysts’ recommendation for a focal firm is obtained through averaging the recommendations of all analysts who cover the focal firm. This measure is used in prior researches investigating analysts’ behaviors (*Wiersema&Zhang 2011*). Analysts’ recommendation can fall in one of the following five categories: 1)“strong buy”; 2)“buy”; 3)“hold”; 4)“sell”; 5)“strong sell”. I/B/E/S reports consensus analyst data on the third Friday of each month and we picked December data to let for the firm performance at year ‘t’ to be fully reflected in analysts’ reports. Average analysts’ recommendation appears in our models as “*Mean recommendation*”.

Independent Variables

Firm performance relative to expectations

¹⁰ The coding dictionary used in the present study can be requested from the authors.

We use total shareholders return (TRS¹¹) as the performance indicator because it is the most visible outcome for firm's stakeholders. We collected this measure with 3-years and 1-year references. However, we enter the 3-years TRS in our models, because it has more explanatory power. Moreover, it is more frequently used in prior researches. We use the TRS in order to build firm's performance relative to social expectation—or aspiration¹². The social aspiration is created using the following formula (*Greve 1998*):

$$SA_{it} = \frac{1}{N-1} \sum_j P_{jt} \quad (2)$$

where SA_{it} is the firm's aspiration level at time t , P_{it} is the firm's performance at time t , and N represents the number of firms that operate in the same industry as the focal firm.

Next, we deducted the firm's aspiration level at time t from its performance at time t , in order to measure firm performance deviation from expectations. We insert a spline function, which helps us to compare the slopes above and below the expectation (*Shipilov et al. 2011*). If social aspiration_{it} > firm performance_{it}, performance deviation is negative; if social aspiration_{it} = firm performance_{it}, deviation is zero; and if social aspiration_{it} < firm performance_{it}, deviation is positive. Negative deviation takes on zero if deviation is not negative. It is entered in our models as “*Negative deviation*”—note that negative deviation is reverse-coded. Similarly, positive deviation takes on zero if deviation is not positive. It appears in our models as “*Positive deviation*”.

Control Variables

¹¹ The formula for TRS is the following: $TSR = \frac{Price\ end - Price\ beginning + dividends}{Price\ beginning}$ (1)

¹² Different researchers pick either social or historical aspirations based on their theoretical frameworks. For example, while Harris and Bromiley (2007) use historical aspirations, Cho et al. [2016] use social aspirations. We need to use social aspiration because its nature is more consistent with temporal impression management theory.

In keeping with prior research on investment analysts, impression management, and temporal focus (*Busenbark et al. 2017; Chen&Nadkarni 2016; Nadkarni&Chen 2014; Westphal et al. 2012; Wiersema&Zhang 2011; Westphal&Graebner 2010; Weinberger&Davidson 1994*), and the conceptual foundation of LIWC (*Pennebaker et al. 2001*), we employed a set of CEO-, board-, text-, and firm-level controls: (1) CEO's social status measured as a composite construct including current number of outside directorships and educational credentials appearing as "*CEO social status*", (2) CEO's gender, which is a dummy and is equal to 1 if the CEO is female, appearing as "*CEO female*", (3) CEO's race, which is a dummy and is equal to 1 if the CEO is non-Caucasian appearing as "*CEO race*", (4) CEO's tenure appearing as "*CEO tenure*", (5) natural logarithm of CEO's cash payment appearing as "*CEO salary*", (6) percentage of common shares owned by a board appearing as "*board ownership*", (7) proportion of female directors appearing as "*board female*", (8) proportion of independent directors serving on a focal board appearing as "*board independence*", (9) globally-standardized composite describing how confident the writer of the text is, appearing as "*confidence*", (10) percentage of words conveying certainty appearing as "*certain*", (11) percentage of words conveying tentative messages appearing as "*tentat*", (12) percentage of negating words appearing as "*negate*", (13) percentage of words aimed at targets' affect appearing as "*affect*", (14) degree of positivity of words, which is a globally-standardized composite variable appearing as "*tone*", (15) percentage of complex words appearing as "*complexity*", (16) percentage of words, which are temporal adverbs appearing as "*time*" (17) percentage of words, which are used to reason appearing as "*cogproc*", (18) percentage of common shares owned by the biggest five institutional shareholders appearing as "*instown*", (19) number of analysts covering a focal firm appearing as "*numrec*" (20) natural logarithm of firm sales appearing as "*firm size*", (21) industry-adjusted return on assets appearing as "*ROA*", (22) TRS

relative to historical aspirations appearing as “*historical aspiration*”, (23) percentage of words, which constitute indirect messages appearing as “*we*”, (24) year dummies, and (25) industry dummies.

Analysis

Although, an individual may overemphasize a specific temporal orientation, he/she focuses on the past, the present and the future at any particular point of time. As such, there are cross-clusters correlations among the unobserved heterogeneity in the equations estimating the past, the present, and the future foci. Therefore, in order to consistently and efficiently analyze the effects of firm performance deviations on temporal impression management towards the past and the future, we should estimate a system of three simultaneous equations (*Greene 2003*).

In order to analyze the interplay among firm performance deviations, temporal impression management, and investment analysts’ recommendations, we should have decided between pooling observations and using firm fixed-effects. Our diagnostic tests showed that pooled OLS (Ordinary Least Square) does not provide consistent and efficient estimates. Therefore, we employed panel analysis with firm fixed-effects (*Wooldridge 2003*). This is consistent with prior research analyzing investment analysts’ recommendations (*Ioannou&Serafeim 2015*). In the present paper using panel analysis with firm fixed-effects makes sense because one would expect mutual learning between corporate leaders and investment analysts. We reran our regressions with different specifications, which will be explained in the section on robustness checks. Year dummies are included in all of our models. Moreover, industry dummies are employed when the model does not include firm fixed effects—i.e., in our estimation of the system of simultaneous equations.

As our hypotheses include mediation effect, we followed the approach proposed by *Baron and Kenny* (1986) which requires three conditions: (1) the independent variable (performance deviation) should relate to investment analysts' recommendations, (2) the independent variable (performance deviation) should influence the mediator (temporal impression management), and (3) the effect of the independent variable (performance deviation) on investment analysts' recommendations should be reduced once the mediator (temporal impression management) enters the regression. In addition, the supplementary analysis of mediation following the *Mackinnon et al.* (2002) procedures can be requested from the authors.

RESULTS

 Insert table 1 about here

 Insert table 2 about here

The summary statistics and correlations for all the variables in our final dataset are shown in table 1 and table 2. There are significant correlations among some variables. In order to make sure about the absence of multicollinearity, we obtained variance inflation factors for all our regressors, and confirmed that all the factors are below the benchmark of 10—with an average of 3 (*Flickinger et al. 2015*).

Table 3 presents the results of our estimations for the system of simultaneous equations. Models 1 through 3 include results for the effect of independent variables on mediators. Model 1 indicates that temporal impression management towards the future (TIMF) has a positive relationship with negative deviation from expectations ($b= 0.573, p<0.05$)—note that the negative sign on negative

deviation should be interpreted after reversing the sign because the variable advances toward the left of x-axis, i.e, it is reverse-coded. This is the support for hypothesis 1.

In model 2, temporal impression management towards the past (TIMP)—TIMP is reverse-coded—is positively related to positive deviation from expectations ($b= 0.941, p<0.01$). This supports our hypothesis 2. Model 3 informs us about the effects of firm performance deviations on the present focus.

Table 4 presents the results for our fixed-effect models. Model 1 shows the results for the direct effect of independent variables on the ultimate dependent variable. As expected, positive deviation from expectations improves average investment analysts' recommendation ($b= -0.672, p<0.001$), whereas, negative deviation from expectations puts a negative impact on average investment analysts' recommendation ($b= 0.970, p<0.001$)—note that higher average analyst recommendation shows more negative analysts' reactions.

Model 2 adds TIMF to model 1, while also controlling for the present focus. Average investment analysts' recommendation is negatively related to TIMF ($b= - 0.0512, p<0.05$). Model 3 adds TIMP to model 1, again controlling for the present focus. In model 3, average investment analysts' recommendation is negatively related to TIMP ($b= - 0.0404, p<0.05$). Model 4 adds TIMF, TIMP, and the present focus to model 1. Hypothesis 3 posits that TIMF mediates the effect of negative deviation from expectations on investment analysts' recommendation. We see that once TIMF is added, the coefficient on negative deviation from expectations becomes stronger ($b= 0.976, p<0.001$). In order to understand the reason behind such unexpected change, given the proposed mediating effect of TIMF, we should consider the literature on suppressing mediation (*Mackinnon 2000*). If the signs of the indirect effect of the independent variable—i.e., negative firm performance deviation—on the dependent variable—i.e., average investment analysts'

recommendation—and the sign of the direct effect of the independent variable on the dependent variable are opposite, the inconsistency happens. However, the mediation effect is still present but its useful effect is to suppress the direct negative effect of the independent variable on the independent variable. As for hypothesis 4, the effect of positive deviation from expectations becomes weaker, once TIMP is added to the model ($b = -0.657, p > 0.001$)¹³.

 Insert table 3 about here

 Insert table 4 about here

ROBUSTNESS CHECKS

In order to determine the robustness of our findings, we conducted more analyses. We reran our regressions with GEE (Generalized Estimating Equations) models. For the GEE models, we used exchangeable correlation matrix, identity link function, and Gaussian distribution for the errors (*Ballinger 2004*). The results from GEE models were again consistent with the results presented in the paper. Also, we operationalized temporal impression management differently. In doing so, we used a composite measure incorporating both the past, and the future foci. We replaced our separate measures of different temporal foci with this composite measure. The results were consistent with the overall role of temporal impression management in explaining average analysts' recommendation.

¹³ Please note, in order to abide by the *Barron&Kenny's* mediation procedure, we have estimated TIMF and TIMP using the same fixed-effects models while replacing average investment analysts' recommendation by TIMF and TIMP. The results of these two estimations are not included in the paper for saving space but they are pretty consistent with the estimations obtained through the system of simultaneous equations. These results can be requested from the authors.

DISCUSSION

We put forward a novel theory of temporal impression management in the interactions between corporate leaders and investment analysts. Our results provide strong support for our theoretical propositions. The first part of the results indicated that deviations of firm performance from expectations can create a form of impression management, which we coin temporal impression management, and the second part of the results showed that temporal impression management strongly affects investment analysts' recommendations. Particularly, temporal impression management by corporate leaders improved investment analysts' recommendations following firm performance deviations. Temporal impression management does so through mediating the relationship between firm performance deviations and investment analysts' recommendations. Our theory and findings contribute to the literature on impression management, the literature on strategic framing, and the literature on performance feedback theory.

Our findings' contribution to the literature on impression management is twofold. First, in analyzing a firm, investment analysts pay much attention to two aspects of it, namely, its board's conduct and its performance (*Westphal & Graebner 2010*). Of these two important determinants of investment analysts' appraisals of firms, the latter has surprisingly received little attention from impression management scholars. We theorize and find that corporate leaders try to play the impression management game in the strategic temporal space. In doing so, corporate leaders' strategically frame firm performance using appropriate temporal construal levels. When firm performance falls below expectations, corporate leaders engage in risky change of the temporal focus of their communications. Changing the temporal focus of communications is risky because overemphasizing a specific temporal orientation may make persuasion targets feel that they are being deceived (*O'Keefe 1999*). Focusing more on the future in their communications to

investment analysts, corporate leaders can mitigate the negative impact of firm performance below expectations on investment analysts' recommendations because a future focus can discount the negativity of information. However, when firm performance goes beyond expectations, corporate leaders become more conservative and only try to reduce the focus of investment analysts on the past because a past focus discounts the positivity of events. While we investigated the strategic framing of firm performance in the communications between corporate leaders and investment analysts, we believe that this practice may also work for justifying other image-threatening firm behaviors to investment analysts. Corporate acquisitions are among the behaviors that are severely punished by investment analysts. Investment analysts view corporate acquisitions as both threatening firm performance prospects and signaling CEOs' opportunism (*Westphal&Clement 2008*). Prior research shows that corporate leaders may manage investment analysts' impression of a future corporate acquisition by disclosing it through diluted and encoded information to analysts in advance (*Busenbark et al. 2017*). We suspect that corporate leaders may well use temporal impression management to complement anticipatory impression management techniques. Future research can use multi-waves data on corporate acquisitions and investigate whether corporate leaders use temporal impression management following an acquisition and if so, how the presence or absence of anticipatory impression management (*Busenbark et al. 2017*) prior to the acquisition and favor rendering (*Westphal&Clement 2008*) after the acquisition affect the overall effectiveness of impression management targeted at investment analysts around the acquisition.

Our second contribution to the impression management literature involves adding to the identified techniques of impression management. While extant literature has produced valuable insights into how corporate leaders engage in managing the impressions of a firm's stakeholders

amid image-threatening events such as changing CEO, announcing performance-free CEO rewards, or under pressures to implement good governance practices such as increased board control over CEO (*Graffin et al. 2011; Westphal&Graebner 2010; Wade et al. 1997; Zajac&Westphal 1995*), this literature has paid little attention to a critical limitation to the efficacy of impression management. The literature on impression management has examined leaders' efforts to give present-focused favorable interpretations of their own firms' performance and leadership or to disclose information about engaging in an undesired behavior in the future in anticipation of future positive reactions. It is neglected, however, that leaders may play stakeholders' attention to different time perspectives—the past, the present and the future—, instead. Although, prior studies have contributed to our understanding of impression management, they focused on forms of impression management that informed and powerful stakeholders are likely to perceive as dishonest behavior. Managing investment analysts' impression of firm performance is constrained by long-lasting importance of investment analysts' roles for firm's performance and their expertise in detecting inaccurate information, both of which have compromised the potential of asymmetric information, which is in turn, believed to be the only key to successful impression management. Investment analysts are well-informed about the appropriate social reference points for assessing a focal firm based on its performance because they have better access to firms' insider information. This makes corporate leaders' attempts for managing investment analysts' impression of firm performance based on redefining social reference points (*Staw et al. 1983*) problematic because such attempts can be interpreted as dishonest behavior by investment analysts (*Whittington et al. 2016*). In the present paper, we borrow from the literature on temporal focus and contribute to the literature on impression management by theorizing and examining a form of impression management that exploits

temporal uncertainty, which may therefore be especially effective in managing investment analysts' impression of firm performance. Although changing temporal focus cannot change the fact that a firm is performing below or above expectations, our theory suggests that temporal impression management is going to be effective because temporal foci of strategic decision-makers significantly affect their decision outcomes (*Das 2004*). We focused on temporal impression management technique in facing investment analysts. Nonetheless, we believe that this technique can be applied in corporate leaders' interactions with other stakeholders and in other domains of corporate activities. Corporate communications to stakeholders regarding corporate social responsibility and sustainability practices have attracted many scholars in the recent years. Temporal impression management is particularly interesting in the domain of sustainability, which is essentially about future-focused thinking. Prior research shows that corporate leaders' use of cognitive complexity levels in communicating decoupled/implemented corporate sustainability claims can be detected by specialist stakeholders (*Crilly et al. 2016*). Future research can investigate corporate leaders' use of temporal impression management in communicating their sustainability claims to specialist stakeholders.

Our theory and results also contribute to the literature on strategic framing. A large body of research on social movements and collective actions already suggests that framing is a vehicle to generate, diffuse, and mobilize meaning (*Benford&Snow 2000*). This literature suggests that framing processes take a strategic form when social movement organizations want to connect their interests with prospective constituents or resource providers (*Snow et al. 1986*). We indicate one case of the attractiveness of strategic framing concept for understanding how corporate leaders try to influence different audiences' interpretation of organizational actions (*Fiss&Zajac 2006*). We show that strategic framing processes can also be employed by corporate leaders to justify firm

performance deviations from expectations. Moreover, researchers have paid much of their attention to strategic framing processes that redefine social reference points. However, frames include social as well as temporal reference points (*Williams&Benford 2000*). We also indicate that strategic framing based on redefinition of temporal reference points can compensate for strategic framing based on redefinition of social reference points, when attempting to redefine social reference points leads to negative outcomes. Prior research suggests that less powerful organizational actors can either use temporal strategic framing to refocus the attention of more powerful organizational actors to new goals or use social strategic framing to refocus the attention of more powerful organizational actors to current goals during organizational search (*Nigam et al. 2016*). We suspect that temporal and social forms of strategic framing may have different types of relationships in different contexts. In other words, social strategic framing may complement temporal strategic framing in some contexts, but substitute for it in other contexts. Future research can therefore explore the relationship between temporal and social strategic framing processes under different contextual factors.

We also contribute to the literature on performance feedback theory. Performance feedback theory implicitly takes into account of cognitive temporal frames (*Greve 2003*). It is shown that social attributes of decision-makers can bias their temporal frames of reference in face of performance deviations (*Radford&Castellucci 2016*). Our findings show that performance deviation may not only bias decision-makers in choosing temporal frames of reference, it may also motivate decision-makers to behave in a more agentic way with respect to temporal frames of reference. Moreover, the majority of prior works on performance feedback theory focuses on substantial consequences of performance deviations. We join the emergent research on symbolic consequences of performance deviations (*Askin&Bothner 2016*), by showing that performance

deviations can actually affect symbolic management practices of organizations. Prior research shows that CEOs engage in symbolic risk-taking when they deviate from their time-related aspirations (*Radford 2017*). We suspect that strategic framing may well be applied to time-related goals, given the similar nature of temporal impression management and the time-related goals. Future research can explore the presence of temporal impression management when organizational leaders are prone to time-aspirational behaviors.

Our theory and findings also have practical implications. Stakeholders and policy-makers can try to neutralize corporate communications by being aware of corporate leaders' temporal impression management technique. We hope our findings benefit the society and open avenues for future research.

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Table 1. Descriptive statistics

Variable	Obs	Mean	Std. Dev.
meanrec	840	2.39525	.3586356
TIMP	840	1.790012	.6416088
TIMF	840	1.076405	.4628874
present focus	840	5.107988	1.479684
board ownership	840	.0176505	.0579729
affect	840	5.116238	1.220912
numrec	840	20.66905	7.36823
negate	840	.2432976	.2145666
indirect	840	5.589	1.75145
time	840	5.080417	1.125912
CEO status	840	3.804762	1.321853
CEO female	840	.0095238	.097182
board female	840	.187965	.0949079
certain	840	1.102917	.4202536
tentat	840	.8046667	.3686462
ROA	840	1.217545	5.373185
cogproc	840	6.778179	1.393407
confidence	840	88.86315	7.41509
complexity	840	31.39398	3.762943
CEO race	840	.1095238	.3124813
tone	840	87.61718	10.91782
instown	840	.037812	.0177305
historical aspiration	840	1.723821	16.11828
positive deviation	840	.0476237	.0740126
negative deviation	840	-.048568	.0829125
board independence	840	.9300515	.0868931
CEO tenure	840	6.460714	5.421309
CEO salary	840	6.950525	.8040515
firm size	840	9.325203	1.109349

Table 2. Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 TIMP	1.0000													
2 TIMF	-0.0465	1.0000												
3 present focus	0.0126	0.2491*	1.0000											
4 board ownership	0.0945*	-0.0072	0.0080	1.0000										
5 affect	0.0026	0.1475*	0.3295*	-0.0670*	1.0000									
6 numrec	0.0393	-0.0661	0.1401*	0.0200	-0.1061*	1.0000								
7 negate	0.2911*	0.1215*	0.4568*	0.0289	0.0963*	0.0812*	1.0000							
8 indirect	0.0098	0.1789*	0.2276*	0.0497	0.2907*	-0.0572	0.0142	1.0000						
9 time	0.4252*	0.2428*	0.0592*	0.1053*	0.0334	0.0501	0.1243*	0.1727*	1.0000					
10 CEO status	0.0331	0.0259	-0.1355*	-0.0471	-0.0564*	-0.0327	-0.0439	-0.0604*	0.0725*	1.0000				
11 CEO female	-0.0408	0.0668*	0.0333	0.1004*	-0.0108	0.0094	-0.0323	0.0874*	0.0285	-0.0745*	1.0000			
12 board female	0.0222	0.0100	0.1238*	-0.0074	0.0333	0.0508	0.0188	0.1177*	0.0083	0.0257	0.0671*	1.0000		
13 certain	0.1643*	0.0906*	0.3953*	0.0294	0.3413*	0.0357	0.3548*	0.2359*	0.1153*	-0.0233	-0.0278	0.0840*	1.0000	
14 tentat	0.2651*	0.1311*	0.3493*	0.0143	0.0396	0.1380*	0.4984*	-0.1115*	0.1483*	0.0099	-0.0435	-0.0297	0.2302*	1.0000
15 ROA	-0.0127	-0.0587*	0.0211	0.1252*	-0.0379	0.1202*	-0.0432	0.0052	0.1045*	-0.0666*	0.0903*	-0.0246	0.0118	-0.0229
16 cogproc	0.2003*	0.1863*	0.5551*	-0.0005	0.2822*	0.0799*	0.5065*	0.1324*	0.0611*	-0.0428	-0.0691*	0.0659*	0.5100*	0.5417*
17 confidence	-0.0007	0.1495*	0.2699*	0.0535	0.3489*	-0.0352	-0.0651*	0.8878*	0.1661*	-0.0411	0.0592*	0.1293*	0.2266*	-0.1232*
18 complexity	-0.2065*	-0.0476	-0.2394*	-0.1514*	0.2295*	-0.1063*	-0.3337*	0.0210	-0.0930*	0.0540	-0.0733*	-0.0617*	-0.1222*	-0.2333*
19 CEO race	0.0717*	0.0255	0.0167	0.0616*	-0.0323	0.0003	0.0594*	-0.0144	0.0311	0.0706*	-0.0428	-0.0784*	0.0002	0.0336
20 tone	-0.1166*	0.1130*	0.2449*	-0.0289	0.6536*	-0.0501	-0.1773*	0.4085*	0.0696*	-0.0328	0.0215	0.0895*	0.1986*	-0.2038*
21 instown	0.0564*	0.0242	-0.0191	0.0132	-0.0432	-0.1906*	0.0380	0.0012	0.0777*	0.0320	-0.0024	-0.1262*	-0.0130	0.0146
22 historical aspiration	-0.0489	-0.1029*	0.0047	-0.0191	-0.0283	0.0963*	-0.0891*	0.0567*	0.0065	-0.0551*	0.0366	0.1286*	-0.0364	-0.0717*
23 positive deviation	-0.0281	-0.0387	0.0749*	0.0264	-0.0157	0.0359	-0.0066	0.0381	0.0630*	-0.0470	0.0424	0.0478	0.0005	0.0196
24 negative deviation	-0.0623*	-0.0414	0.0169	0.0445	-0.0613*	-0.0361	-0.0176	0.0384	0.0114	0.0174	0.0220	0.0197	-0.0294	-0.0399
25 board independence	-0.1166*	0.0249	0.0821*	-0.4088*	0.0953*	-0.0092	-0.0079	0.0549*	-0.0747*	-0.0340	-0.0110	0.1227*	0.0829*	-0.0372
26 CEO tenure	0.0932*	-0.0076	0.0238	0.0357	-0.1019*	0.2203*	0.0335	-0.1179*	0.0336	0.0990*	-0.0876*	-0.1710*	-0.0542	0.1471*
27 CEO salary	-0.0771*	-0.0301	-0.0268	-0.0014	0.0207	0.0259	-0.0700*	0.0799*	-0.0454	0.0534	0.0350	0.1135*	0.0476	-0.0580*
28 firm size	-0.0544	0.0652*	0.1301*	-0.0880*	0.1361*	0.2533*	0.0731*	0.0750*	-0.1173*	-0.0111	0.0439	0.2465*	0.1695*	-0.0080

	15	16	17	18	19	20	21	22	23	24	25	26	27
15 ROA	1.0000												
16 cogproc	-0.0160	1.0000											
17 confidence	0.0154	0.1315*	1.0000										
18 complexity	0.0096	0.0057	0.1101*	1.0000									
19 CEO race	-0.0464	0.0904*	-0.0090	0.0141	1.0000								
20 tone	0.0203	0.0716*	0.5232*	0.2799*	-0.0167	1.0000							
21 instown	-0.0436	-0.0258	-0.0367	-0.0451	0.1082*	-0.0609*	1.0000						
22 historical aspiration	0.0351	-0.1010*	0.0486	-0.0605*	-0.1165*	0.0887*	0.0039	1.0000					
23 positive deviation	0.1264*	-0.0369	-0.0022	-0.1247*	-0.0556*	0.0481	-0.0540	0.4805*	1.0000				
24 negative deviation	0.2029*	-0.0433	0.0271	-0.1015*	-0.0510	0.0827*	-0.1608*	0.3659*	0.3826*	1.0000			
25 board independence	-0.1117*	0.0590*	0.0562*	0.1194*	-0.1146*	0.1027*	-0.0684*	0.0732*	0.0548*	0.0058	1.0000		
26 CEO tenure	-0.0268	0.0049	-0.1261*	-0.0964*	0.0319	-0.1289*	0.0015	-0.0356	0.0703*	0.0340	-0.0881*	1.0000	
27 CEO salary	0.0185	-0.0341	0.0833*	-0.0305	-0.0375	0.0315	-0.0777*	0.0323	0.0112	0.2469*	0.0498	-0.0204	1.0000
28 firm size	-0.0916*	0.0490	0.0994*	-0.0835*	-0.1361*	0.1091*	-0.1947*	0.0196	0.0290	-0.0021	0.2040*	-0.0853*	0.2306*

	(1) TIMF	(2) TIMP	(3) Present Focus
Board ownership	0.756* (2.14)	-0.639 (-1.39)	-1.293 (-1.54)
affect	0.00926 (0.48)	-0.00306 (-0.12)	0.144** (3.12)
numrec	-0.00830** (-2.97)	-0.00390 (-1.08)	0.0263*** (3.96)
negate	0.0418 (0.48)	0.118 (1.05)	1.677*** (8.12)
indirect	-0.00131 (-0.07)	-0.0209 (-0.81)	-0.112* (-2.38)
time	0.102*** (7.20)	0.229*** (12.43)	-0.0859* (-2.55)
CEO status	-0.00521 (-0.43)	0.0110 (0.70)	~ -0.0836** (-2.89)
CEO-FEMALE	0.180 (1.15)	0.289 (1.43)	0.809* (2.18)
BOARD female	-0.0803 (-0.44)	0.363 (1.54)	-0.112 (-0.26)
certain	-0.141** (-3.27)	0.120* (2.15)	-0.132 (-1.29)
tentat	-0.00433 (-0.08)	0.0271 (0.40)	0.0795 (0.64)
ROA	-0.00451 (-1.52)	-0.00307 (-0.80)	0.00658 (0.94)
cogproc	0.0794*** (5.14)	0.0252 (1.26)	0.370*** (10.09)
confidence	0.00998* (2.11)	0.00530 (0.86)	0.0416*** (3.70)
complexity	-0.0183*** (-3.85)	-0.0160** (-2.58)	-0.117*** (-10.31)
CEO-race	0.136** (2.79)	0.0142 (0.22)	-0.156 (-1.35)
Tone	0.000406 (0.18)	-0.00200 (-0.70)	0.0299*** (5.72)
Instown	-1.231 (-1.36)	1.374 (1.17)	1.560 (0.72)
TRS	-0.000294 (-0.19)	0.00621** (3.13)	-0.00205 (-0.56)
Positive dev.	-0.0679 (-0.27)	-0.941** (-2.90)	0.455 (0.77)
Negative dev.	-0.573* (-2.37)	-0.214 (-0.68)	0.0408 (0.07)
Board independence	-0.196 (-1.04)	-0.129 (-0.53)	0.426 (0.95)
TENURE	0.00388 (1.32)	0.0104** (2.73)	0.00712 (1.02)
SALARY	-0.0126 (-0.63)	-0.0115 (-0.44)	-0.0275 (-0.58)
FIRM-SIZE	0.0586** (3.05)	0.0429+ (1.72)	-0.0619 (-1.36)
N	840	840	840
R-sq	29.73	38.47	61.23

Table 4. Results for analysts' recommendations fixed-effects estimations

	(1) meanrec	(2) meanrec	(3) meanrec	(4) meanrec
Board ownership	0.732+ (1.70)	0.803+ (1.87)	0.819+ (1.91)	0.845* (1.97)
affect	0.0167 (1.07)	0.0139 (0.89)	0.0122 (0.78)	0.0126 (0.81)
numrec	-0.0103* (-2.56)	-0.00999* (-2.49)	-0.00970* (-2.42)	-0.00997* (-2.49)
negate	-0.0558 (-0.89)	-0.0975 (-1.51)	-0.0994 (-1.54)	-0.103 (-1.60)
indirect	0.0119 (0.74)	0.0162 (1.01)	0.0171 (1.07)	0.0180 (1.12)
time	0.0191+ (1.83)	0.0239* (2.26)	0.0122 (1.10)	0.0167 (1.47)
CEO status	-0.00929 (-0.80)	-0.00819 (-0.71)	-0.00766 (-0.66)	-0.00786 (-0.68)
CEO-FEMALE	0.273* (2.27)	0.280* (2.34)	0.258* (2.16)	0.275* (2.30)
BOARD-FEMALE	-0.0541 (-0.24)	-0.0268 (-0.12)	-0.0424 (-0.19)	-0.0392 (-0.18)
certain	-0.0173 (-0.56)	-0.0196 (-0.63)	-0.0180 (-0.58)	-0.0214 (-0.69)
tentat	0.0226 (0.60)	0.0152 (0.41)	0.0191 (0.51)	0.0152 (0.41)
ROA	-0.00270 (-1.05)	-0.00265 (-1.03)	-0.00225 (-0.87)	-0.00233 (-0.90)
cogproc	0.00920 (0.75)	0.00329 (0.26)	-0.00261 (-0.20)	0.000342 (0.03)
Confidence	-0.00248 (-0.68)	-0.00353 (-0.96)	-0.00410 (-1.11)	-0.00395 (-1.08)
complexity	-0.00260 (-0.66)	-0.000200 (-0.05)	0.000808 (0.20)	0.000477 (0.12)
CEO race	0.0372 (0.90)	0.0518 (1.24)	0.0422 (1.02)	0.0505 (1.21)
Tone	-0.00194 (-1.14)	-0.00265 (-1.55)	-0.00263 (-1.53)	-0.00265 (-1.55)
Instown	3.209*** (4.76)	3.166*** (4.71)	3.123*** (4.64)	3.074*** (4.57)
TRS	0.00252* (2.19)	0.00252* (2.21)	0.00233* (2.03)	0.00238* (2.08)
Positive dev.	-0.672*** (-3.73)	-0.698*** (-3.90)	-0.657*** (-3.66)	-0.673*** (-3.75)
Negative dev.	-0.970*** (-5.54)	-0.976*** (-5.58)	-0.957*** (-5.48)	-0.978*** (-5.60)
Board independence	0.419+ (1.88)	0.386+ (1.74)	0.409+ (1.85)	0.394+ (1.78)

Tesi di dottorato "A Theory of Social-Psychological Time in Corporate Governance"
di RADFARD ALI

discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018

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TENURE	0.00420 (1.53)	0.00474+ (1.73)	0.00410 (1.50)	0.00455+ (1.66)
SALARY	-0.0276+ (-1.91)	-0.0313* (-2.17)	-0.0297* (-2.06)	-0.0318* (-2.20)
FIRM-SIZE	-0.0498 (-0.93)	-0.0537 (-1.01)	-0.0516 (-0.97)	-0.0517 (-0.97)
TIMF		-0.0512* (-2.03)		-0.0443+ (-1.74)
focuspresent		0.0277* (2.52)	0.0282* (2.56)	0.0309** (2.78)
TIMP			0.0404* (2.03)	0.0350+ (1.74)
-cons	2.931*** (5.13)	3.022*** (5.30)	2.952*** (5.18)	2.985*** (5.24)

N	840	840	840	840
R-sq	0.232	0.242	0.242	0.245

t statistics in parentheses

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001