CEO social capital and contingency pay: a test of two perspectives

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Abstract

Purpose – *This paper aims to provide greater understanding of how the composition of pay reduces agency cost to the shareholders by examining how firms pay their chief executive officers (CEOs). More specifically, this study examines the relationship between CEOs' social capital, measured as external directorships, and their contingency pay, the proportion of their compensation that depends on achieving long-term performance goals.*

Design/methodology/approach – *The authors use a panel sample of Standard & Poor 500 CEOs to test two contrasting theoretical perspectives. From a board perspective, boards attempt to retain executives with more social capital working longer for the firms to utilize executives' social capital and pay them more in the form of contingency pay. The CEO power perspective argues that CEOs wield social capital as a form of power to lower contingency pay in an attempt at preserving wealth.*

Findings – *CEO social capital does not exacerbate agency pressures. Boards reward the long-term benefits of social capital accumulated by CEOs through higher proportions of contingency pay.*

Research limitations/implications – *The authors considered CEOs of well-capitalized, publicly-traded US-based firms. So the results may not generalizable to other contexts.*

Practical implications – *Boards do recognize and reward CEOs for their social capital, and use higher levels of contingency pay to lock in CEOs with social capital.*

Originality/value – *This is the first study to explicitly examine the impact of CEO social capital on both non-equity and equity compensation.*

Keywords *Management power, Remuneration, Chief executives, Merit pay*

Paper type *Research paper*

Introduction

Chief executive officer (CEO) pay is effectively negotiated between the CEO and the board (Yao and Appelbaum, 2009), yet pay that far exceeds the compensation of the average employee is often seen as "excessive" (Scoffield, 2012). While some make claims over whether or not CEOs are overpaid (Kaplan, 2008; Walsh, 2009), others argue that the form of pay is actually more important in influencing CEO behavior than total pay size (Bloom and Milkovich, 1998; Jensen and Murphy, 1990a; Larazza-Kintana *et al.*, 2007).

According to the agency theory, a primary task of the board of directors is to design an appropriate combination of short-term cash (salary and bonus) and longer-term contingency pay (deferred incentives and stock options) (Boyd, 1994) to align the CEO's priorities with those of the shareholders (Jensen and Murphy, 1990a). However, this view explains only a small portion of variance in CEO compensation (Tosi *et al.*, 2000). Boards have difficulty in crafting a plan that reduces agency cost to the shareholders. This paper seeks to provide greater understanding of how the composition of pay reduces these costs.

While pay is also driven by firm size (Tosi *et al.*, 2000), and by the CEO's human capital (Combs and Skill, 2003; Castanias and Helfat, 2001), this study considers a CEO's social capital. Social capital is a personal network (Burt, 1997; Kim and Cannella, 2008) that forms direct and indirect links to other individuals and institutions (Adler and Kwon, 2002). CEO's

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social capital has opposing effects that boards must attempt to balance. On one hand, CEO social capital offers a wide range of benefits to both the CEO and the firm, notably an improved ability to manage long-term industry and strategic contingency pressures (Geletkanycz and Boyd, 2011; Geletkanycz and Hambrick, 1997). Boards offer higher proportions of contingency pay to such CEOs to keep them with the firm long enough to capitalize on the long-term benefits promised by social capital.

On the other hand, CEO social capital can be a form of power (Finkelstein, 1992) that contributes to CEO entrenchment (Finkelstein and D'Aveni, 1994; Weisbach, 1988), allowing them to manipulate pay in their favor and to the detriment of shareholders (Combs and Skill, 2003; Sanders *et al.*, 1995). According to the behavioral agency model (BAM), CEOs prioritize wealth preservation, and prefer stable income with low-risk, up-front cash payments (Larazza-Kintana *et al.*, 2007).

Empirical studies suggest that CEOs with social capital have higher cash compensation (Belliveau *et al.*, 1996; Burt, 1997), as well as higher total compensation (Young and Tsai, 2008). Considered together, these studies imply that boards offer lower contingency pay; however, this hypothesis has never been explicitly tested. It is, therefore, unclear whether CEOs with social capital receive higher proportions of contingency pay because boards want to ensure that CEOs remain long enough to achieve long-term objectives, or whether CEOs receive lower proportions of contingency pay because they use their power derived from social capital to avoid tying their wealth to achieving long-term objectives. This ambiguity provides little guidance for boards designing a compensation package for a CEO with a high social capital. While agency theory argues that contingency pay be used to align CEO and shareholder priorities (Jensen and Murphy, 1990a), the relative proportion of contingency pay can actually lead to a misalignment. Too much emphasis on salary and bonus motivates CEOs to meet relatively short-term performance objectives (Finkelstein and Hambrick, 1989) and ignore the longer-term benefits that social capital can provide. However, too much contingency pay may in fact only partially align CEO and shareholder priorities. Shifting the compensation focus to the longer-term may merely result in managers altering their focus from optimizing short-term performance to optimizing stock price (Devers *et al.*, 2008) or taking unwise risks, leading to big losses (Sanders and Hambrick, 2007). Considering social capital in the design of a compensation package may only exacerbate these agency risks, as it also makes CEOs more sensitive to change (Milbourn, 2003), and with improved career prospects (Seibert and Kraimer, 2001), perhaps increasing their sensitivity to changes in compensation as well.

In this paper, we therefore examine the relationship between contingency pay and CEO social capital, considering social capital both as a source of improved strategic management ability and as a source of CEO power. The first perspective sees boards granting higher proportions of contingency pay to CEOs with significant social capital in recognition of their superior value to the firm, and to tie them to the firm long enough to capitalize on the benefits social capital promises. In contrast, the CEO power perspective argues CEOs wield their social capital as a form of power to reduce levels of contingency pay and minimize the possibility of forfeiting contingency pay by failing to meet long-term objectives. We propose two contrasting hypotheses as a good test of theory, considering that there is some empirical support for both arguments (Zajac and Kraatz, 1993).

Literature review and hypothesis development

Our understanding of CEO compensation begins with agency theory's argument that a CEO's self-interest leads them to stray from the interests of the shareholders because of shirking of responsibility, risk aversion and short sightedness (Jensen and Meckling, 1976; Eisenhardt, 1985). Boards use an appropriate combination of short-term cash and longer-term contingency pay (Boyd, 1994) as a means to coax risk-averse CEOs to consider risk-taking to achieve the shareholders' long-term priorities (Jensen and Meckling, 1976; Jensen and Murphy, 1990a). Agents are assumed to avoid investments that do

not increase the wealth of shareholders, so risk-seeking behavior is encouraged through monitoring, compelling CEOs to share ownership and deferring compensation through contingency pay (Dalton *et al.*, 2007; Nyberg *et al.*, 2010; Hall and Liebman, 1998).

However, agency theory provides only a limited understanding of CEO compensation (Jensen and Murphy, 1990b; Tosi *et al.*, 2000; Zajac and Westphal, 1995). To better explain the drivers of CEO compensation, research has extended agency theory in two distinct ways: human and social capital and managerialism (Combs and Skill, 2003; Wiseman and Gomez-Meija, 1998). Human capital and social capital theories argue that a CEO's human capital, those tacit skills and experiences which are difficult to imitate (Combs and Skill, 2003; Castanias and Helfat, 2001), and a CEO's social capital, that is personal networks (Burt, 1997; Kim and Cannella, 2008) with other individuals and institutions (Adler and Kwon, 2002), together provide a wide range of benefits that lead to superior competitive advantage. Alternatively, managerialism theory argues that pay is primarily driven by powerful, entrenched CEOs who subvert the board's ability to prevent manipulation of pay for the CEO's personal benefit (Combs and Skill, 2003; Finkelstein and D'Aveni, 1994). For instance, entrenched CEOs may prioritize increasing firm size over firm performance (Tosi *et al.*, 2000) because size is more stable than performance (Kroll *et al.*, 1993), size can be directly controlled by the CEO through acquisition activity (Kroll *et al.*, 1990) and size provides easy justification for more pay due to increasing firm complexity (Gomez-Meija *et al.*, 1987).

We next develop two competing hypotheses about the relationship between CEO' social capital and the proportion of contingency pay. The board perspective sees boards compensating CEOs for the benefits of their social capital to the firm. In contrast, the CEO power perspective pictures them wielding social capital as a source of power that allows them to decouple their pay from the need to meet any long-term goal.

The board perspective

Beyond human capital (Combs and Skill, 2003; Castanias and Helfat, 2001), CEOs develop social capital, that is, personal networks (Burt, 1997; Kim and Cannella, 2008) that form direct and indirect links to other individuals and institutions (Adler and Kwon, 2002) and facilitate exchanges (Tsai and Ghoshal, 1998). From these exchanges, executives derive a wide range of control, information and career benefits (Geletkanycz and Boyd, 2001; Belliveau *et al.*, 1996). Control benefits include securing critical resources (Uzzi, 1999), creating industry networks (Walker *et al.*, 1997), attracting support from key stakeholder groups (Podolny, 1994), eliciting positive reactions from the stock market (Zhang and Wiersema, 2009) and acquiring new managerial talent (Rosenstein *et al.*, 1993). Information benefits include greater access to strategic information, including new business opportunities (Burt, 1997). These networks also facilitate knowledge transfer (Inkpen and Tsang, 2005). Through the experiences of the other companies, executives can identify promising practices and procedures (Haunschild, 1993), as well as proven strategic recipes necessary to sustain a competitive advantage (Hall, 1993) without negatively affecting their own firm (Geletkanycz and Hambrick, 1997). Therefore, CEOs with social capital are better able to manage long-term industry and strategic contingency pressures (Geletkanycz and Boyd, 2011; Geletkanycz and Hambrick, 1997) by helping to secure sufficient resources (Barney, 1991), to learn (March, 1991), to scan the environment for new opportunities and threats (Garg *et al.*, 2003; Daft *et al.*, 1988) and to make effective and timely decisions (Dean and Sharfman, 1996). In short, there are many reasons for boards to keep these CEOs on board.

For firms to gain from these benefits, the firm must continue to employ the CEO because social capital is the property of the CEO, not the firm (Burt, 1997), and follows the CEO if the CEO leaves (Graffin *et al.*, 2011). As social capital also provides CEOs with improved career prospects (Seibert and Kraimer, 2001), boards must therefore use compensation to entice the CEO to remain with the firm long enough to develop social capital and allow the

firm to benefit from the CEO's improved ability to manage industry and strategic contingency pressures. In short, to secure the long-term benefits promised by social capital, we predict boards will offer higher proportions of contingency pay. Consequently:

H1. A CEO's social capital will be positively related to the proportion of contingency pay.

The CEO power perspective

An alternative extension of agency theory's explanation of CEO compensation replaces its assumption of static risk aversion (Jensen and Meckling, 1976) with prospect theory's (Kahneman and Tversky, 1979) view that CEO risk preference depends on whether the CEO perceives loss or gain to their existing personal wealth. The BAM considers how different compensation schemes affect the CEO's risk-seeking behavior (Wiseman and Gomez-Meija, 1998). Gain frames lead to risk-averse behavior, and loss frames give rise to risk-seeking behavior (Holmes *et al.*, 2011). In BAM, individuals are loss averse because they are more sensitive to potential losses than potential gains (Tversky and Kahneman, 1992). Executives faced with potential loss of their firm-linked personal wealth and/or job security, therefore, curtail risky activity (Shimizu, 2007; Latham and Braun, 2008). BAM swaps the agency dichotomy of short-term versus long-term compensation with an assumption that CEOs instead want to protect current wealth against anticipated wealth loss or employment loss even at the cost of higher uncertainty (Tversky and Fox, 1995; Larazza-Kintana *et al.*, 2007). Because CEOs consider reliability of future earnings as the main discriminating factor in compensation forms, BAM defines two forms – essential pay and non-essential pay (Larazza-Kintana *et al.*, 2007) – that together affect individual risk perception (Devers *et al.*, 2008). Essential pay includes base salary and bonus. It is paid consistently over time, and it is likely to be used to support one's standard of living. Alternatively, compensation that is inconsistently paid over time, such as exercising stock options in any one year, is unlikely to support basic living expenses because it is unreliable from one year to the next. Contingency pay, typically consisting of stock options and long-term incentive plans, and with its distant payoff horizon and high uncertainty of being collected, is considered non-essential pay and is used for savings or non-essential expenses (Larazza-Kintana *et al.*, 2007). Contingency pay is considered wealth at risk. As this wealth increases, CEOs make choices that reduce risk to protect their personal wealth from loss. Several studies support the BAM argument that CEOs are therefore more sensitive about protecting the value of essential pay critical to preserving their standard of living than they are about pay devoted to savings or non-essential expenses (Larazza-Kintana *et al.*, 2007; Martin *et al.*, 2013; Chrisman and Patel, 2012; Devers *et al.*, 2008).

For CEOs to act on their risk preference, the managerialism theory of CEO compensation (Combs and Skill, 2003) argues that they require power over the board of directors to alter the proportions of the pay components (Boyd, 1994). The basis for CEO power is the ability to manage information uncertainty and control resources (Finkelstein, 1992). CEO social capital helps manage information uncertainty through access to privileged information that can be used to reduce information asymmetry and aid decision-making (Carpenter and Westphal, 2001), stimulate collective learning within the firm (Bunderson and Reagans, 2011) and help executives stay up-to-date with the latest practices and procedures used in other firms (Davis, 1991). Social capital helps control access to other social networks and the resources those networks control (Brockmann *et al.*, 2004). CEO social capital is therefore a form of power (Fredrickson *et al.*, 1988; Finkelstein, 1992) based on associations with powerful and elite contacts. Powerful CEOs become entrenched (Combs and Skill, 2003), and try to protect their current wealth through self-serving actions that do not enhance shareholder value (Wiseman and Gomez-Meija, 1998; Bartolome *et al.*, 2005).

Executives understand that their tenure as CEO may be brief, with one in seven replaced in a given year, and roughly half of CEOs replaced within five years (Favaro *et al.*, 2012).

Loss of contingency pay, and even possible termination, can occur if they fail to meet long-term performance targets established by the board of directors (Westphal and Zajac, 1995; Jensen and Murphy, 1990a). Loss of employment jeopardizes future income (Jensen and Murphy, 1990b), and limits possible future employment opportunities through a negative impact on personal reputation (Amihud and Lev, 1981). They are then loath tying their contingency compensation to achieving long-term performance targets, and favor instead more cash compensation. Therefore, we predict that CEOs will use the power derived from social capital to attempt to minimize the proportion of pay tied to long-term performance goals, thereby avoiding the possibility of termination due to failure to achieve these goals. In this way, they secure guaranteed income even at the cost of forfeiting potentially a much higher contingency pay:

H2. A CEO's social capital will be negatively related to contingent pay.

Method

Sample

To test our hypotheses, we developed a longitudinal sample of CEOs of Standard & Poor's (S&P) 500 firms between 2005 and 2010 because the firms are an important indicator of the US economy (Harvey, 1989; Snowberg, 2006), ultimately representing a benchmark to other companies in the USA (Mishina *et al*., 2010). We included all 500 firms listed on the S&P500 in 2005 and extended this sample for each year until 2010. Because some firms left the S&P500 index, presumably due to going private, acquisition or bankruptcy, our initial sample consisted of 2,828 firm-year observations with 704 CEOs. The CEOs in this sample also allows clear discrimination between cash (essential) and contingency (non-essential) compensation. CEOs in our sample earned a mean annual salary and bonus of $1.2 million, and a total annual compensation of $7.3 million. The sample spanned 62 two-digit Standard Industrial Classification (SIC) industries, with no single industry representing more than 8 per cent of the sample, thereby suggesting that no single industry dominates. Data were drawn from COMPUSTAT/Research Insight, EXECUCOMP, Business Week Executive Profiles, SEC 10K and DEF14A filings and company Web sites.

Independent variable

We defined the *contingency pay proportion* as the ratio of total CEO equity compensation (deferred income, stock grants and stock options) to the overall total CEO compensation for a given year (Sanders *et al*., 1995). The total compensation was calculated as the sum of salary, bonus, other annual, total value of restricted stock granted, net value of stock options exercised and long-term incentive payouts with data obtained from EXECUCOMP and from SEC DEF14A proxy statements.

Dependent variable

We measured *CEO social capital* by the type, number and quality of board directorships (Finkelstein, 1992; Haleblian and Finkelstein, 1993). The total number of corporate and non-profit boards was measured. We also considered the relative prestige of the firm on whose board the CEO sits, as being a director of Apple Inc. would be considered more prestigious than sitting on a board of a local company. As a measure of relative prestige, we noted the stock rating at the end of each calendar year of each company using the rating of the firm's general condition provided by S&P's Stock Quality Index (Finkelstein, 1992). The scale extends from a 0 for a non-rated firm to 10 for a firm rated A+ by S&P. To determine the S&P board rating, we summed the scores of the firms on whose board the CEO sits. Principal component analysis confirmed a single *CEO social capital* factor (eigenvalue = 1.91), explaining 63 per cent of the total variance. Sampling adequacy (Kaiser-Meyer-Olkin [KMO] = 0.60) exceeded the generally acceptable minimum (Hair *et al*., 1998). Reliability was acceptable (Cronbach's α = 0.71) (Finkelstein, 1992; Eisenhardt and Bourgeois, 1988).

Control variables

We included several industry-level, firm-level and CEO-level variables to control for alternative explanations of contingency pay in CEOs as different stakeholders may tie different factors to compensation (Fleming and Schaupp, 2012; Finkelstein and Boyd, 1998). At the industry level, we considered *industry growth* because an earlier study suggested that executives benefit from social capital especially in low-growth industries (Geletkanycz and Boyd, 2011). We measured *industry growth* as the mean change in net sales for all firms in the same two-digit SIC industry over a five-year period (Mendelson and Pillai, 1999; Dess and Beard, 1984).

At the firm level, *firm performance* relative to the status quo affects a CEO's relative risk preference according to prospect theory (Holmes *et al.*, 2011). We measured *firm performance* as firm return on assets (ROAs) relative to the average of all S&P500 firms in the same two-digit SIC industry for a given year. A common gauge of firm profitability, ROA captures the degree to which management has effectively deployed firm assets, thus it is useful in assessing the performance implications of business strategies (Geletkanycz and Hambrick, 1997). To account for managerialism theory arguments that compensation may be tied to firm size (Tosi *et al.*, 2000), *firm size* was measured as the logarithm of total number of employees.

Finally, at the CEO level, a long *CEO tenure*, measured in years since appointment as CEO, points to more entrenched executives who have more time to develop the relationships that create social capital (Hambrick and Fukutomi, 1991; Barkema and Pennings, 1998). Long-tenured CEOs eventually edge closer to retirement, becoming more risk-averse as they attempt to preserve current wealth and monetize any promised contingency income (Matta and Beamish, 2008).

Managerialism theory acknowledges how CEOs use other forms of power to manipulate the proportions of cash and equity compensation for personal benefits (Combs and Skill, 2003; Dorata and Petra, 2008; Finkelstein and D'Aveni, 1994). Therefore, we noted *CEO–chairman duality* as a dichotomous variable, indicating whether the CEO also occupied the chairman role. Another source is structural or hierarchical power (Finkelstein, 1992), derived from the top executive's formal position at the apex of the organization hierarchy that provides unique authority, resource control and network centrality (Astley and Sachdeva, 1984). We used the CEO total compensation relative to the mean compensation of the other members of the top management team to capture *CEO hierarchical power*. While earlier studies used ratios of total cash compensation (Daily and Johnson, 1997; Finkelstein, 1992), we used the ratio of the total compensation because long-term compensation is also affected by executive power (Sanders *et al.*, 1995).

Since ownership affects the CEO's risk preference (Wright *et al.*, 2002; Füss *et al.*, 2011; Eisenmann, 2002), and is considered as yet another form of CEO power (Finkelstein, 1992), we defined *CEO ownership* as the percentage of shares owned by the CEO (Wright *et al.*, 2002). In S&P500 firms, with their substantial market capitalizations, CEOs typically own only a small fraction of shares. The mean CEO in our sample owned 0.59 per cent of company stock.

Estimation model and endogeneity control

We are interested in the extent to which CEO social capital affects the proportion of CEO long-term compensation. However, it is likely that contingency pay itself is partially determined by social capital and other CEO, firm and industry factors. In other words, we foresee a classic endogeneity problem. Selection bias methods do not correct for endogeneity between the independent and dependent variables in multilevel models (Hamilton and Nickerson, 2003), so we elected to follow Sanders and Hambrick (2007) and control for endogeneity by first regressing *CEO social capital* at time $t-1$ with *contingency pay*, other CEO and firm variables and *industry growth* at time $t-2$, as well as year

dummies. The resulting predictor from this model was then added as an endogeneity control in our hypothesis model at time *t*. We also assume that some variables, such as *CEO tenure* and *firm size*, are highly correlated between years. Therefore, use a random-effects multilevel model with one-year lagged autocorrelation (*xtregar* in STATA) to test the hypotheses. All dependent and control variables were lagged by one year compared to the independent variable. All independent variables were centered to reduce the effects of multicollinearity (Jaccard and Turrisi, 2003).

Results

The variable statistics are listed in Table I, while the correlations are shown in Table II. The sample was effectively reduced by one year because of our use of lagged variables. Our control model for endogeneity is shown in Table III. The endogeneity model used a sub-sample of 1,515 observations. We noted a significant coefficient in the resulting regression model in Table III for *contingency pay*, thus supporting our contention of endogeneity between contingency pay and social capital. Our hypothesis test is shown in Table IV. The control model is listed as Model 1, while the hypothesized relationship between *contingency pay* and *CEO social capital* is tested in Model 2. Including the regressor from the endogeneity model as an endogeneity control in our hypothesis test models resulted in a final sample of 1,004 observations. The positive sign of the regression coefficient for *contingency pay* in Model 2 supports *H1*, where boards reward CEOs with

Table I Variable statistics

Variable	*Mean*	*SD*
Contingency pay$_t$	0.76	0.23
Social capital$_{t-1}$	0.01	0.80
Year 2005	0.16	0.36
Year 2006	0.16	0.37
Year 2007	0.17	0.38
Year 2008	0.17	0.38
Year 2009	0.17	0.38
Industry growth$_{t-1}$	975.29	1904.37
Firm performance$_{t-1}$	0.00	0.07
Firm size$_{t-1}$[a]	45.65	109.53
Chairman duality	0.57	0.49
Hierarchical power$_{t-1}$[a]	3.58	16.92
CEO tenure$_{t-1}$[a]	5.97	6.32
CEO ownership$_{t-1}$	0.59	2.79

Note: [a]Variable is log-transformed

Table II Variable statistics and correlations

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
Contingency pay$_t$	1													
Social capital$_{t-1}$	0.08*	1												
Year 2005	−0.01	0.01	1											
Year 2006	0.04	0.01	−0.19*	1										
Year 2007	−0.03	0.00	−0.19*	−0.20*	1									
Year 2008	−0.04	−0.00	−0.20*	−0.20*	−0.20*	1								
Year 2009	0.05*	−0.01	−0.20*	−0.20*	−0.20*	−0.21*	1							
Industry growth$_{t-1}$	−0.03	−0.03	−0.01	0.08*	0.10*	0.08*	−0.08*	1						
Firm performance$_{t-1}$	0.07*	0.02	0.00	−0.00	−0.00	0.00	0.00	−0.00	1					
Firm size$_{t-1}$[a]	0.04	0.12*	−0.02	−0.00	0.00	0.01	0.00	0.16*	−0.03	1				
Chairman duality	0.06*	0.23*	0.01	0.00	−0.00	−0.00	−0.00	0.06*	0.01	0.12*	1			
Hierarchical power$_{t-1}$[a]	0.17*	0.03	−0.03	−0.01	−0.03	0.04	0.01	0.01	−0.00	0.01	0.12*	1		
CEO tenure$_{t-1}$[a]	0.02	0.16*	−0.03	−0.02	−0.01	−0.00	0.01	0.00	0.05*	−0.06*	0.34*	0.15*	1	
CEO ownership$_{t-1}$	0.01	−0.10*	−0.05*	−0.05*	−0.02	0.00	0.04*	−0.03	0.05*	−0.17*	0.02	0.02	0.21*	1

Notes: [a]Variable is log transformed; *$p < 0.05$

Table III Endogeneity control: effects of CEO contingency pay on CEO social capital (@ $t = t-2$)

Variable	*Model 1 Endogeneity control*
Constant	−0.11 (0.07)
Year dummies	
2005	–
2006	–
2007	−0.02 (0.03)
2008	−0.01 (0.03)
2009	−0.02 (0.02)
Industry growth	−0.05 (0.03)*
Firm performance	−0.01 (0.01)
Firm size	0.06 (0.03)*
Chairman duality	0.16 (0.05)***
Hierarchical power	0.01 (0.02)
CEO tenure	0.13 (0.03)***
CEO ownership	−0.01 (0.01)
CEO contingency pay	0.11 (0.05)*
Wald's χ^2	81.35***
r^2 (between)	0.07

Notes: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; $N = 1515$; $N_{CEO} = 511$

Table IV Effects of CEO social capital on CEO contingency pay

Variable	*Model 2 Control*	*Model 3 Effect of social capital*
Constant	0.86 (0.02)***	0.86 (0.02)***
Year dummies		
2005	–	–
2006	–	–
2007	−0.04 (0.01)**	−0.04 (0.01)**
2008	−0.04 (0.01)***	−0.04 (0.01)***
2009	–	–
Industry growth	0.01 (0.01)	0.01 (0.01)
Firm performance	0.01 (0.00)**	0.02 (0.01)**
Firm size	−0.01 (0.01)	−0.01 (0.01)
Chairman duality	−0.04 (0.02)	−0.04 (0.02)****
Hierarchical power	0.01 (0.01)	0.01 (0.01)
CEO tenure	−0.06 (0.02)**	−0.06 (0.02)**
CEO ownership	−0.00 (0.01)	0.00 (0.00)
Endogeneity control	0.26 (0.08)**	0.26 (0.08)**
CEO social capital		0.02 (0.01)*
Wald's χ^2	37.83***	43.85***
r^2 (between)	0.071	0.080

Notes: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; ****$p < 0.1$; $N = 1004$; $N_{CEO} = 424$

social capital with higher proportions of contingency pay. Each extra standard deviation worth of social capital was compensated with an additional 2 per cent or $147 000 in long-term compensation. We found no support for *H2*, the CEO perspective model that considered loss-averse CEOs minimize contingency pay in an attempt at wealth preservation.

Two of the control variables exhibited significant relationships with social capital, in line with the theories suggested by the cited literature. First, relative *firm performance* was positively related to contingency pay proportion in Models 1 and 2. This result is consistent with the board perspective as boards anticipate long-term relationships with their CEOs who demonstrate a successful performance track record. Therefore, boards are keen to grant higher levels of contingency pay to tie these successful CEOs to the firm.

Second, with a negative and significant coefficient in Models 1 and 2, longer *CEO tenure* was associated with lower proportions of contingency pay. Although not in our model, we subsequently noted the mean CEO age of 55 years, suggesting that career horizon, the remaining years before retirement (Matta and Beamish, 2008), may play a role in declining proportions of contingency pay as long-tenured CEOs eventually edge closer to retirement, becoming more risk-averse as they attempt to preserve current wealth and monetize any promised contingency income. This suggests that managerialism theory impacts may strengthen as CEOs approach retirement.

However, other control variable results were contrary to our expectations. While we have evidence of an effect on contingency pay due to social capital, we found no evidence for other forms of CEO power that we included as control variables. Our lack of relationship with *CEO ownership*, with *CEO hierarchical power* and with *firm size*[1] is consistent with lack of evidence supporting the CEO power perspective, suggesting that entrenched CEOs do not generally use their power to manipulate contingency pay for their own benefit at the expense of firm performance (Dorata and Petra, 2008; Finkelstein and D'Aveni, 1994; Combs and Skill, 2003). Different relationships between different sources of CEO power have been noted in earlier studies (Finkelstein, 1992). As power from social capital has origins outside the firm, while the others are derived from structures and relationships within the firm (Chaganti *et al.*, 2001), we should not necessarily expect to be able to infer similar relationships with contingency pay. For instance, while structural power tends to increase with tenure, power from social capital does not (Buchholtz and Ribbens, 1994). Likewise, structural power can help in recovery from bankruptcy, while power from social capital does not (Brockmann *et al.*, 2004). The lack of relationship with *CEO–chairman duality*, another form of CEO power, also contradicted our expectation that it would help CEOs manipulate the proportions of cash and equity compensation for personal benefits. However, we suspect in this case that our binary dummy variable in effect may have conflated two distinct path dependent mechanisms, as described by Gove and Junkunc (2013). They argue that chairman duality represents changes in the loss of the separation of management and monitoring in agency theory, but that duality is critical in improving decision-making speed and effectiveness in the managerialism model.

Finally, we did not note any significant relationship with *industry growth*, contradicting our expectation that the benefits from social capital are more pronounced in low-growth industries (Geletkanycz and Boyd, 2011). However, we did find a significant relationship between industry growth and social capital in our endogeneity control model (Table III), suggesting lower-growth industries were associated with CEOs with more social capital. This result is in line with Geletkanycz and Boyd's (2011) study. Therefore, we speculate that the industry growth effect is effectively accounted for as part of the endogeneity control, leaving little remaining variance to be explained in the main hypothesis test model.

Discussion

In this study, we examined the role of a CEO's social capital on their contingency pay. We measured social capital in terms of the number, type and quality of external board directorships. Finkelstein and D'Aveni (1994) argued that boards have to actively balance conflicting entrenchment and unity of command pressures originating from CEO duality and structural power, and we worried that social capital would exacerbate this conflict because it increases a CEO's sensitivity to change (Milbourn, 2003). However, our results suggest no such dichotomy exists with CEO social capital. Boards continue to be correct in emphasizing unity of command over worries about conflict of interest (Finkelstein and D'Aveni, 1994), even when social capital plays a dominant role. Although CEOs may personally prioritize securing essential pay over non-essential pay, and want to act in ways that diverge from the board of director's interest, their social capital does not allow them to do so. Therefore, Boards should encourage CEOs to expand their social capital because it will help them manage strategic contingencies.

Earlier studies pointed to higher cash compensation (Belliveau *et al.*, 1996; Burt, 1997) and higher total compensation (Young and Tsai, 2008) for CEOs with social capital. Taken together, these studies would imply that CEOs obtain lower proportions of contingency pay. Our study is the first to explicitly test both pay forms simultaneously, and concludes that CEOs with more social capital instead have higher proportions of contingency pay. In other words, social capital and contingency pay go hand-in-hand.

Of course, this study suffers from limitations. First, we only examined the relationship between the CEO of a firm and the "external" social capital (Kim and Cannella, 2008) they acquire through board directorships. We may have partially captured "internal" social capital through a measure of hierarchical power, but the measure is incomplete at best. We also did not account for the CEO's ties with other directors in the CEO's own firm (Harris and Helfat, 2007), leaving out examination of related effects from social capital such as trust (Stevenson and Radin, 2008). Second, we examined the sum total of contingency pay, and we did not distinguish between the effects of stock options versus long-term incentive plans because both forms of contingency pay were known to not curb agency behaviors in executives (Devers *et al.*, 2008; Sanders and Hambrick, 2007). Finally, our method limits generalizability. The sample includes only large, well-capitalized US-based firms on the S&P 500. Therefore, we cannot necessarily extend our conclusions to smaller firms, non-US-based firms or privately held firms.

Conclusion

In this paper, we asked whether CEOs with social capital are compensated with higher or lower levels of contingency pay. Contingency pay, typically stock options and long-term incentives, is granted only on the achievement of long-term objectives established by the board of directors. We contrasted two predictions, one based on the board perspective that predicted higher proportions of contingency pay, the other anchored in the entrenched CEO power perspective that predicted lower proportions. We found that boards reward CEOs with higher social capital with higher proportions of contingency pay. Based on our sample, each standard deviation increase in social capital is rewarded by an additional $147 000 in long-term compensation. This study extends the literature by suggesting that social capital does not exacerbate agency pressures, and boards reward the long-term benefits of social capital accumulated by CEOs though higher proportions of contingency pay.

Note

1. Similar results were obtained when substituting total assets as a measure of firm size.

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Further reading

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