

Corporate Governance, Board-CEO Ties and New Outsider CEO Compensation

Andrew Valentine

AGSM @ UNSW Business School, The University of New South Wales Sydney, Australia
andrew.valentine@unsw.edu.au

[Abstract] Do directors utilize their relationships with prospective CEOs to determine new CEO compensation in the interests of investors? Or are new outsider CEOs empowered by their relationships with directors to negotiate compensation in their own interests? This study addresses these questions by examining the impact of board/CEO ties in 1,173 outsider CEO successions on a range of short- and long-term, performance-related CEO compensation ratios. Results show that new outsider CEOs in the United States and other common law founded Commonwealth countries can leverage their relationships with directors to restructure compensation in their own interests and against those of investors.

[Keywords] corporate governance, board-CEO, CEO, outsider CEO, compensation

Introduction

Chief Executive Officer (CEO) compensation has been examined extensively by the economics, finance, and CEO succession literatures (Finkelstein, Hambrick, & Cannella, 2009; Frydman & Jenter, 2010). These literatures have developed several theoretical frameworks that explain both the level and composition of CEO compensation (Finkelstein, Hambrick, & Cannella, 1996). In doing so, they have identified that CEO compensation is in part determined by a political process in which CEOs use their influence over boards to negotiate their own compensation (Bebchuk & Fried, 2004). In this context, empirical studies have explored how personal, social, and political board-CEO ties bear on the political process that affects the awarding of CEO compensation (Brown, Ning, Lee, & Stathopoulos, 2009; Larcker, Richardson, Seary, & Tuna, 2005; Wu, Li, Ying, & Chen, 2018).

However, despite the voluminous coverage of CEO compensation in these literatures, the role of professional board-CEO ties in the setting of new outsider CEO compensation has not been fully explored. Professional board-CEO ties are important because boards are challenged in determining how to appropriately compensate a new outsider CEO where less is known about their characteristics or capabilities (Akerlof, 1970). One means for boards to resolve this issue and gather additional relevant background information on prospective CEOs is for directors to use their professional networks and relationships to refer CEO candidates to board nominating committees (Cziraki & Jenter, 2021; Khurana, 2002).

Where directors have previously worked with incoming outsider CEOs, they can potentially provide a valuable reference point, helping boards to determine an appropriate level of CEO compensation (Stiglitz, 1975). At the same time, the advantage of these relationships may be appropriated by prospective CEOs who could attempt to leverage a relationship with a director to negotiate a more favorable compensation package in their own interests (Boyd, 1994). Drawing on the theoretical perspectives of asymmetric information, institutions and governance, and CEO risk-taking and power, this study addresses this research gap through examining the impact of past professional director-CEO relationships on the structure and composition of newly appointed

outsider CEO compensation.

The study includes a sample of 1,173 outsider CEOs appointed between 1992 and 2018, including 114 *Fortune 1000* companies in the United States. The sample spans 18 countries, including a range of developed and developing markets where there are differing approaches to corporate governance. The international dimension to the study enables an examination of the effect of differing approaches to corporate governance in the awarding of new outsider CEO compensation. Contextual variations involve issues such as distributed institutional ownership and independent boards in the United States and other Commonwealth countries founded on English common-law. In other regions, the context involves governance structures that are typified by a small number of large private and family-controlled shareholder groups that exert direct control over corporations, such as in continental Europe and in Asia.

Specifically, the study estimates the effect of a previous professional connection between a new CEO and board directors (connected CEOs) compared with those CEOs that have no prior working relationships with directors (non-connected CEOs) on proportionate changes to the structure and composition of CEO compensation. Comparative estimates use ratios of base salary to total compensation, base salary and cash bonus to total compensation, and base salary, non-cash bonus, and other compensation to total compensation. To capture the effect of connectivity and its potential role in sharing relevant information between outsider would-be CEOs and hiring boards, the structure and composition of the first full fiscal-year compensation for the incoming outsider CEO is examined.

The results show that in the United States and the other Commonwealth countries of the United Kingdom, Canada, and Australia, board-CEO ties are associated with new outsider CEOs being awarded a greater proportion of their compensation as fixed and as cash. This outcome is consistent with arguments that board-CEO ties relax board monitoring such that new outsider CEOs are empowered to negotiate compensation in their favor. The United States, United Kingdom, Canada, and Australia are all countries founded on English common law, and they have subsequently developed approaches to corporate governance typified by independent boards and a large number of dispersed, arms' length institutional investors (Khurana, 2002; Modigliani & Perotti, 2000). These governance characteristics have been shown to endow CEOs with power to set their own compensation (Bebchuk & Fried, 2004; Boyd, 1994; Khan, Dharwadkar, & Brandes, 2005). At the same time, the results are also consistent with the hypothesis that these board-CEO ties provide a screening advantage, thus enabling companies to make a more accurate assessment of appropriate compensation for a new, relatively unknown CEO and, therefore, to pay the new CEO more in cash rather than equity (Palomino & Peyrache, 2013).

This study's results show that in the United States, United Kingdom, Canada, and Australia the compensation of connected CEOs includes a greater proportion of fixed compensation, including a greater ratio of base salary to total compensation and a greater ratio of base salary, non-cash bonus, and other compensation to total compensation. Connected CEOs in the United States, United Kingdom, Canada, and Australia are also awarded a combined lower base salary and cash bonus ratio (to total compensation).

In continental Europe, Asia, and some emerging markets, including those of China (including Hong Kong) and Japan, where corporate governance typically includes a small number of large controlling shareholders that limit the scope for CEOs to negotiate pay, board-CEO ties do not affect CEO compensation.

The results make several contributions. First, they show that board-CEO ties matter in the awarding of new, outsider CEO compensation. Second, they highlight that boundary conditions

exist to their role in reducing information asymmetry and in the political process where CEO pay is negotiated. They show that any impact of board-CEO ties on the awarding of CEO compensation is conditional on the institutional setting and approach taken to corporate governance in specific jurisdictional environments. In the United States and other English common-law focused Commonwealth institutional environments, board-CEO ties are associated with a shift in the structure and composition of CEO compensation toward a greater proportion being fixed. This lowers the risk to the incoming CEO. It also serves the company's interests where reduced information asymmetry enables companies to pay CEOs more in cash rather than equity. The contextualized nature of the results is also consistent with the reasoning that in institutional environments in which CEOs potentially have greater power to set their own compensation, board-CEO ties further entrench CEO power enabling compensation to be structured to CEO advantage.

By contrast, in institutional environments, such as in Continental Europe and Asia, where CEOs are known to have less power to set their own compensation (Agnblad, Berglöf, Högfeldt, & Svancar, 2002; Oxelheim & Randøy, 2005; Pan & Zhou, 2018; Sapp, 2008), board-CEO ties have no bearing on the awarding of CEO compensation. Under these corporate governance structures, board-CEO ties do not appear to sufficiently reduce information asymmetry or weaken the board's ability to control and set CEO compensation such that it is affected by the presence of these relationships. These results highlight the study's third contribution, which consists of the extensions of existing arguments for the role of information asymmetry in the awarding of CEO compensation and the managerial power hypothesis or theory (MPT) through the linking of several unique theoretical perspectives. The results demonstrate that institutional theory as it applies in a wide-ranging international context is linked to interpreting the theories of asymmetric information and CEO risk-taking and power in explaining the setting of new outsider CEO compensation. These results are novel and connect several disparate theoretical frameworks spanning those of institutions, governance, asymmetric information, CEO risk-taking, and power. The rest of the study is structured as follows. The Literature section considers existing evidence and theoretical underpinnings of the work. The subsequent Methods section provides an overview of the data and empirical methodology, and the Results section presents the findings. The final Discussion section addresses the study's contribution and the results' implications for investors, boards, and other CEO succession stakeholders.

Literature

The economics, finance, and CEO succession literatures have proposed several theoretical explanations for the level and composition of CEO compensation. These range from economic and optimal contracting arguments to MPT, which recognizes a political process in the setting of CEO compensation (Finkelstein, 1992; Frydman & Jenter, 2010). Despite a preponderance of evidence, however, the relative importance of optimal contracting and MPT in determining compensation for the typical CEO is still largely unknown (Šilingienė, Stukaitė, & Radvila, 2015; van Essen, Otten, & Carberry, 2015).

Director-CEO Relationships, Board Monitoring and CEO Power

With the creation of a CEO labor market and subsequent rise in outsider CEOs, boards are challenged with how to appropriately compensate relatively unknown, prospective CEOs (Balsmeier, Buchwald, & Zimmermann, 2013). Professional director-CEO relationships have the potential to fill information gaps on prospective outsider CEOs, performing a screening function in pursuit of optimal contracting compensation arrangements (Stiglitz, 1975). They also affect a political process in the setting of new CEO compensation. MPT suggests that such relationships

may empower a CEO because of reduced board independence. Empirical evidence that examines director-CEO relationships is consistent with MPT where these relationships have been associated with increased levels of CEO compensation. Friendly, social, personal, and political ties between directors and CEOs have been associated with greater overall levels of CEO compensation (Brown et al., 2009; Larcker et al., 2005; Wu et al., 2018). These findings illustrate that rather than providing a screening function, a lack of board independence can be collusive, weakening corporate governance and potentially leading to overcompensation for CEOs.

Evidence exploring the scope of director-CEO networks is also consistent with MPT. CEOs with strong networks of directors are awarded greater compensation, as are CEOs who play central roles within networks (Barnea & Guedj, 2009; Crespi-Cladera & Pascual-Fuster, 2008; Geletkanycz, Boyd, & Finkelstein, 2001). These findings are also consistent with the reasoning that when directors and CEOs are connected, directors relax their monitoring of the CEO, which leads to increased CEO compensation.

Underpinning MPT is the notion that power is an important explanation for the behavior of top-management teams. Power plays a central role in strategic decision-making (Eisenhardt & Bourgeois, 1988; Finkelstein, 1992; Horton, Millo, & Serafeim, 2012) including, as MPT suggests, in the awarding of CEO compensation (van Essen et al., 2015). Agency models propose that CEO power must be checked by an independent board with fiduciary responsibilities to investors (Fama, 1980). Thus, agency theory, MPT, and the existing empirical evidence (Brown et al., 2009; Larcker et al., 2005; Wu et al., 2018) point to director-CEO relationships as empowering CEOs and, therefore, having a collusive effect in the setting of new CEO compensation (Finkelstein, 1992; Jensen & Meckling, 1976).

Asymmetric Information and Outsider CEO Compensation

Despite the existing empirical evidence aligning closely with MPT's arguments, the effect of professional director-CEO relationships on the setting of new CEO compensation has not been explored. The narrower nature of these relationships may help companies fill information gaps with limited scope for collusion (Stiglitz, 1975).

As the proportion of outsider CEOs has grown, companies have had to address the increased problem of appointing and compensating new leaders of which they have limited direct experience and knowledge. Any selection of a new CEO involves considerable complexity and uncertainty. Public company CEOs are responsible for the overarching performance of companies, including the development of and implementation of strategy, leadership, decision-making and the effective management of a range of constituents and external stakeholders (Andrews, 1971; Dewar, Hirt, & Keller, 2019; Mintzberg, 1973). There is also considerable uncertainty surrounding emergent challenges that a new CEO will face. These could include external environmental shocks, increased competitive intensity and the threat of new market entrants, technological disruption, and changing regulatory environments (Aguilar, 1967).

Adding to the difficulty in predicting CEO effectiveness and appropriate compensation levels, new CEOs are expected to possess a range of potentially relevant attributes, only some of which might be observable to boards (Zajac, 1990; Zhang, 2008). This is particularly problematic in the case of outsider CEOs, where even less is known about a given CEO's character, leadership, and decision-making capabilities as they relate to the specific CEO appointment.

A large management-focused literature addressing the topic of asymmetric information highlights that when agents are better informed than principals about their true skills and capabilities, the risk of selecting agents with inferior talents is higher (Bergh, Ketchen, Orlandi,

Heugens, & Boyd, 2019). In the specific setting of outsider CEO successions, this potential problem is worsened by the incentives that low-quality agents have to misrepresent abilities that boards cannot completely verify. This can result in negative surprises, such as company underperformance (Quigley, Hambrick, Misangyi, & Rizzi, 2019) or overcompensation.

To address this asymmetric information problem, it has been proposed that CEOs be paid in equity rather than cash (Palomino & Peyrache, 2013). Equity aligns CEO compensation to company performance and reduces the risk of overcompensating a new, unknown CEO. Companies also use executive search companies and compensation consultants to reduce information asymmetry and avoid overcompensation when appointing new outsider CEOs (Conyon, Hass, Peck, Sadler, & Zhang, 2019; Khurana, 2002). In this context, professional board-CEO ties have the capability to reduce information asymmetry and help determine appropriate compensation for a new CEO, lowering the risk of overcompensation. Thus, professional board-CEO ties may be associated with CEOs being awarded a greater proportion of their compensation in cash.

CEO Risk-Taking in Outsider CEO Successions

While companies are challenged with the asymmetric information problem when appointing a new outsider CEO, prospective incoming outsider CEOs also face risks. These can include joining a company that may be in financial difficulty (Cannella & Lubatkin, 1993) or the forgoing of company-specific knowledge and social capital at their existing company. Greater career risk and social capital are associated with greater CEO compensation, and so it is logical that new outsider CEOs would seek recompense when joining a new company (Belliveau, O'Reilly, & Wade, 1996; Harris & Helfat, 1997).

This reasoning is supported by a substantial literature on CEO succession and risk-taking that indicates that outsider CEOs are awarded significantly greater compensation packages than insiders, in some instances by more than a third (Gilson & Vetsuypens, 1993; Hambrick & Finkelstein, 1995; Joskow, Rose, & Shepard, 1993). For the incoming outsider CEO, the risk of joining a new company can be mitigated somewhat by negotiating a compensation package that accounts for the career risk the new CEO is taking in leaving an existing employer.

Such a compensation package may include an increased base salary or fixed component that is less risky (Beatty & Zajac, 1994). In this context, board-CEO ties may enable the new outsider CEO to gain more insight into the true conditions that are prevalent in the new company. Such a relationship may also provide the new outsider CEO with some initial level of social capital at the new company. In doing so, it also lowers the risk to the outsider CEO associated with joining the new company. Economic reasoning suggests that this reduced risk extends to the company, thus creating a surplus of value that may be appropriated by the new CEO or the company.

Conversely, for those outsider CEOs who do not have a connection to the board, there is greater risk associated with joining the new company. To compensate for the greater risk associated with joining a new company, non-connected CEOs will likely demand greater compensation, which could include higher fixed compensation, than those outsider CEOs that do have a professional relationship with directors (Connected CEOs).

In the context of external CEO succession, the argument that directors use professional relationships to screen prospective hires is realistic because directors are known to refer target outsider CEO candidates to executive search companies, which perform a screening function at arms' length to limit the scope for collusion (Khurana, 2002). Therefore, it is likely that a director's referral of a known prospective CEO lowers the risk of a sub-optimal employment decision to both the incoming outsider CEO and the employing company. Subject to bargaining, the additional

value created by this reduction in information asymmetry could be appropriated by the new CEO and reflected in the awarding of more cash compensation (Palomino & Peyrache, 2013). Conversely, the value created by the referral may be appropriated by the company where, even though investors may be willing to pay more compensation in cash (because of lower information asymmetry), the new CEO is content to accept a greater proportion of compensation as equity because of the simultaneous reduction in their own risk (Beatty & Zajac, 1994).

The context of the director-CEO relationship being professional rather than social also constrains the extent to which new CEOs may be able to leverage their influence with the board (Aurelie, Reidl, & Siegenthaler, 2021; Ekinci, 2016). That is, professional relationships are likely to enable employing companies to fill information gaps while representing a lower level of risk to both parties while limiting the scope for collusion and increased CEO power that may come from other forms of director-CEO ties, such as personal or social relationships. Consequently, the shared value of the reduction in information asymmetry may be appropriated to a greater or lesser extent by either the company or CEO.

Corporate Governance and Board-CEO Ties

Comparisons of CEO compensation across countries have shown considerable differences in both the level and structure of compensation; reasons for variation are attributed to different national cultures, ownership structures, and approaches to taxation, as well as the influence of stock market or bank-based sources of financial intermediation that are known to affect CEO compensation (Core, Holthausen, & Larcker, 1999; Greckhamer, 2016). In the United States and other countries founded on English common-law, which possess stock market-based as opposed to predominantly bank-based financial systems, the level of CEO compensation has been shown to be higher overall with a greater emphasis on equity-based, long-term incentive schemes (Conyon & Murphy, 2000; Fernandes, Ferreira, Matos, & Murphy, 2013). In the United States, United Kingdom, Canada, and Australia, the greater prevalence of institutional investors, independent boards, a focus on short-term quarterly earnings, and a high degree of transparency with investors results in CEOs facing greater risk of dismissal.

These are fertile conditions for CEOs to be awarded greater compensation (Croci, Gonenc, & Ozkan, 2012). At the same time, the greater dispersion of arms' length institutional ownership in financial markets-based economic systems reduces investors' ability to directly monitor management, relying instead on the alignment of CEO/shareholder incentives through equity-based CEO compensation, an independent board, and a market for corporate control to discipline CEO behaviour (Oxelheim & Randøy, 2005). These common-law-focused institutional arrangements and corporate governance settings add to CEOs' power to set their own compensation. In this context, board-CEO ties, which reduce the board's independence, may further weaken the investors' ability to monitor the CEO.

By contrast, CEO compensation in continental Europe and Asia has been shown to be lower overall with a greater proportion awarded as fixed compensation in what are considered "insider" or "control-oriented" economic systems (Agnblad et al., 2002; Pan & Zhou, 2018; Sapp, 2008). In these environments, financial intermediation is dominated by large banks and companies that are often owned by a smaller number of large private or family shareholding groups. These dominant owners can monitor CEOs directly, rather than relying on common law style corporate governance arrangements where there are independent boards. With CEO compensation determined by large shareholding blocks of family-controlled conglomerates or where there are cross shareholding structures tied to dominant banks such as Chaebol (South Korea), Keiretsu (Japan) and State-owned Enterprises (China) in Asia, there is less scope for CEOs to exert power and to negotiate

their own compensation (Luo, 2015; Pan & Zhou, 2018; Sun, Zhao, & Yang, 2010). Consequently, in these environments, in continental Europe and Asia, the impact of board-CEO ties on the structure and composition of CEO compensation may be lessened (Aguilera, 2005). This is likely to result in no differences being observed between connected CEOs and non-connected CEOs in both the structure and composition of CEO compensation.

Methods

Data

To address the question of whether board-CEO ties affect CEO compensation, data are sourced from several financial databases including Bloomberg, BoardEx, Compustat, Datastream, Execucomp, and Standard & Poor's (S&P) Capital IQ (CIQ). Outsider CEOs appointed between the years 1992 and 2018 are identified from Bloomberg using the equity screen function that identifies a CEO's origin as being either an internal or external appointment. Bloomberg searches focused on publicly owned companies listed on recognized securities exchanges. These are the Australian Securities Exchange, New York Stock Exchange, NASDAQ exchange, Toronto Stock Exchange, London Stock Exchange, Euronext NV, Frankfurt Stock Exchange, Helsinki Stock Exchange, Stockholm Stock Exchange, Borsa Italiana, National Stock Exchange of India, Shanghai Stock Exchange, Stock Exchange of Hong Kong, Tokyo Stock Exchange, Johannesburg Stock Exchange, and the Brasil Bolsa Balcao S.A. stock exchange.

Information regarding company size and industry sector is collated and based on market capitalization (US dollars) at the time of data collection, along with the relevant Morgan Stanley Capital International (MSCI), and Global Industry Classification Standard (GICS) sectors to which a company belongs. The MSCI GICS framework incorporates eleven industry sectors spanning communication services, consumer discretionary, consumer staples, energy, financials, health care, industrials, information technology, materials, real estate and utilities.

Data are collected across 22 countries: Australia, Belgium, Brazil, Canada, China (including Hong Kong), Czech Republic, Denmark, Finland, France, Germany, India, Italy, Japan, Netherlands, Norway, Portugal, South Africa, Spain, Sweden, Switzerland, the United Kingdom, and the United States. All companies in the sample are publicly owned and, therefore, information on CEOs, directors, and company characteristics, including CEO compensation, is available.

Biographical and résumé data are drawn from BoardEx. Using the BoardEx *Connections* and *Matching* functions, it is possible to identify any overlapping tenure at prior employers between the newly appointed, outsider CEOs, and members of the board that were actively serving as directors in the year that the new CEO is appointed. Where a prior work connection exists between the new CEO and an individual board director, the CEO is marked as a Connected CEO. If the outsider CEO had been found to have previously worked for the target company at an earlier stage in their career and then had subsequently been hired back as a newly appointed outsider CEO, that information is also recorded. Only prior work connections, where a CEO and director overlapped at the same company are considered relevant. Non-work-related connections, for example studying at the same university during at least some of the same years, are not considered a relevant professional connection.

Sample

The sample consists of 1,173 companies across 18 of the 22 countries with 460 led by connected CEOs and 720 by non-connected CEOs. There are 660 companies headquartered in the United States, 112 in India, 106 in the United Kingdom, 98 in Australia, 49 in Canada, 37 in China

(including Hong Kong), 32 in France, 27 in South Africa, 16 in Italy, 9 in Switzerland, 7 in Germany, 6 in Finland, 5 in Sweden, 3 in Norway, 2 in both Denmark and Japan, and 1 in Belgium and the Netherlands. The majority of the sample consists of small- to mid-cap-sized companies with a large number of companies in the Consumer Discretionary, Financials, Health Care, Industrials and Information technology GICS sectors.

Firm financial performance data are collected from the Bloomberg, Compustat, and Datastream financial databases. Compensation data are collected from Bloomberg^[1], Execucomp^[2], and the S&P CIQ^[3] databases for the full first financial year of the newly appointed CEOs' tenure. Specific measures of compensation are Salary, Bonus, Stock Granted, Total Value of Options, Option Awards, Total Annual Cash Compensation, Other Annual Compensation and Total Compensation.

Model and Estimation

Regressions are performed by ordinary least squares (OLS) on the functional form:

$$Y_{it} = \beta_0 + \beta_1 \text{Connected CEO}_{it} + \beta_2 \text{Board Size}_{it} + \beta_3 \text{Gender}_{it} \\ + \beta_4 \text{Company Health} + \beta_5 \text{LogCompany Size}_{it} + \beta_6 \text{Industry}_{it} + C_i + Y_t \\ + e_{it}$$

Variables

Dependent variables. A series of fixed, performance, and total compensation ratios are used as dependent variables. All underlying compensation values used to construct these ratios are reported in USD and have been adjusted for inflation to 2019 USD values using International Monetary Fund (IMF) national average consumer price-based per cent change inflation rates (IMF, 2021). Compensation for non-US CEO successions is converted to USD using the Organisation for Economic Co-operation and Development (OECD), Purchasing Power Parity (PPP) exchange rate index (OECD, 2021).

Underlying measures of compensation that are used to develop the dependent variable financial ratios include Salary^[4], measured as the total amount of salary compensation. Other Annual Compensation is the aggregated amount of other compensation as defined by the company. It typically includes the use of aircraft or a vehicle, 401K payments (United States only), club memberships, insurance, tax reimbursements, and severance amounts a company paid to the CEO or equivalent.

Stock Granted^[5] is the amount of performance-based restricted and other stock granted. Total Annual Cash Compensation is the total amount of cash compensation paid by the company to the CEO or equivalent. It includes compensation that is earned but for which payment will be deferred. Total Compensation^[6] is the total amount of compensation the company paid to the CEO or equivalent. Total Value of Options^[7] is the total value of options the company awarded to the CEO or equivalent and option awards is the total amount of options the company awarded to the CEO.

The ratios derived from these compensation measures are as follows. Base Salary Ratio is calculated as Salary divided by Total Compensation. The Base Salary & Cash Bonus Ratio is calculated as Total Annual Cash Compensation divided by Total Compensation and the Base Salary, Non-cash Bonus & Other Compensation Ratio is calculated as Total Annual Cash Compensation – Salary to derive cash performance bonus which, in turn, is then subtracted from Total Compensation. This enables the calculation of base salary plus non-cash bonuses (stock grants and options) and other compensation. The value of base salary plus non-cash bonuses (stock

grants and options) and other compensation is then divided by Total Compensation to arrive at the Base Salary, Non-cash Bonus & Other Compensation Ratio. The three dependent variables used in the analysis are the Base Salary Ratio, Base Salary & Cash Bonus Ratio and Base Salary, Non-cash Bonus & Other Compensation Ratio.

Independent variable. The independent variable is whether the incoming, externally appointed, CEO has previously worked with at least one member of the board at another company earlier in their careers. The independent variable is transformed as a dichotomous indicator. Connected CEO is coded as 0 if there are no director-CEO connections and 1, if connected.

Control variables. Year is a categorical variable that captures macroeconomic effects. Board Size is a continuous variable that represents the number of directors on the employing company's board. Board Size proxies the incoming CEO's negotiating strength. Gender is a dichotomous variable where male CEOs are coded as 0 and female CEOs as 1.

Company Size^[8] is a categorical variable based on market capitalization at the time of data collection. Categories of Company Size are defined as nano-cap (<USD50m), micro-cap (USD50m - USD300m), small-cap (USD300m - USD2b), mid-cap (USD2b - USD10b), large-cap (USD10b - USD200b) and mega-cap (>USD200b).

Industry is a vector identifying the MSCI GICS sector to which the focal company belongs. Country is a categorical variable reflecting each of the 18 countries where the focal company is incorporated.

An additional control variable, Company Health, is a continuous variable that provides a signal of investors' judgements about the vitality and prospects of the company prior to each new CEO's start (Hambrick & Quigley, 2014). Company Health is calculated as the focal company's market-to-book (MTB) value divided by the relevant GICS sector median MTB at the close of the fiscal year prior to each CEO's start. Descriptive statistics and correlations are provided in Table 1.

Table 1*Descriptive Statistics and Correlations*

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1 Connected CEO	.42	.49	1									
2 Year	2010	5.03	.00	1								
3 Board Size	6.29	3.48	.16	.18	1							
4 Gender	.04	.20	.02	.05	.02	1						
5 Company Health	.44	.67	-.01	.12	.10	.06	1					
6 Company Size	1.85e + 10	7.78e + 10	.02	.08	-.03	.06	.05	1				
7 Industry	5.07	2.65	-.01	.02	-.02	-.04	.03	.01	1			
8 Base Salary Ratio	.44	.31	.01	-.20	-.18	.02	-.04	.10	-.02	1		
9 Base Salary & Cash Bonus Ratio	.74	.37	-.02	-.23	-.14	.03	-.04	.11	-.02	.76	1	
10 Base Salary, Non-cash Bonus & Other Compensation Ratio	.71	.24	.04	.10	-.01	-.02	.02	-.03	.01	.10	-.58	1

Results

Results for the Pooled sample indicate that board-CEO ties do not have an observable bearing on the first full-fiscal year compensation packages for newly appointed outsider CEOs. There are no observable Connected CEO compensation effects in the Base Salary Ratio ($\beta = .02$; $p = .20$), Base Salary & Cash Bonus Ratio ($\beta = .00$; $p = .95$) or Base Salary, Non-cash Bonus & Other Compensation Ratio ($\beta = .02$; $p = .14$).

For the United States, Connected CEOs are associated with a higher Base Salary Ratio that is four per cent greater than Non-connected CEOs (refer Table 2; $\beta = .04$; $p = .04$). However, board-CEO ties do not impact the Base Salary & Cash Bonus Ratio ($\beta = .03$; $p = .16$) or the Base Salary, Non-cash Bonus & Other Compensation Ratio ($\beta = .02$; $p = .14$).

Table 2*Base Salary Ratio for the First Full Fiscal Year for Connected CEOs by Geography*

Model 1: Base Salary Ratio	Pooled	United States	Commonwealth^a	Europe^b	Asia^c	Rest of the World^d
Variables						
Connected CEO	.02 (.02)	.04* (.02)	-.03 (.03)	.02 (.11)	.14 (.17)	.01 (.06)
Board Size	-.02** (.00)	.00 (.00)	-.01* (.00)	.02 (.02)	.00 (.02)	-.02† (.01)
Company Health	-.01 (.01)	.01 (.01)	-.04 (.02)	-.01 (.07)	.13 (.08)	-.06* (.02)
Log Company Size	-.00 (.00)	-.07** (.01)	-.04** (.01)	-.01 (.03)	.06 (.06)	-.02 (.02)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Gender dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations (companies)	1,173	660	252	82	39	138
R²	.12	.36	.26	.21	.33	.13

^a Australia, Canada & the United Kingdom; ^b Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden and Switzerland; ^c China (inc Hong Kong) & Japan; ^d India & South Africa, All regressions apply the OLS estimator to data for the relevant indicator (dependent variable). The robust standard error of the point estimate is reported in brackets—the significance levels utilize two-tailed tests except the constant. †p < .10; *p < .05; **p < .01

In Australia, Canada, and the United Kingdom (Commonwealth), Connected CEOs are associated with an eleven per cent lower Base Salary & Cash Bonus Ratio (refer Table 3; $\beta = -.11$; $p = .00$) and an eight per cent greater Base Salary, Non-cash Bonus & Other Compensation Ratio (refer Table 4; $\beta = .08$; $p = .01$). These results are partially consistent with arguments that Connected CEOs will be awarded greater cash compensation. However, they may also indicate that Connected CEOs in Australia, Canada, and the United Kingdom are receiving greater compensation in stock grants, option awards, and other forms of compensation, such as the use of aircraft, cars, club memberships, insurance, severance payments or tax reimbursements.

Table 3
Base Salary & Cash Bonus Ratio for the First Full Fiscal Year for Connected CEOs by Geography

Model 2: Base Salary & Cash Bonus Ratio	Pooled	United States	Commonwealth^a	Europe^b	Asia^c	Rest of the World^d
Variables						
Connected CEO	.00 (.02)	.03 (.02)	-.11** (.03)	.11 (.17)	.20 (.15)	-.01 (.01)
Board Size	-.01* (.01)	-.01 (.00)	-.01+ (.01)	.03 (.05)	.01 (.02)	-.01 (.00)
Company Health	-.02 (.01)	-.01 (.01)	-.02 (.03)	-.08 (.09)	.03 (.05)	.00 (.01)
Log Company Size	.02** (.00)	-.04** (.01)	.00 (.01)	.03 (.05)	-.01 (.05)	-.00 (.00)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Gender dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations (companies)	1,173	660	254	82	39	143
R²	.12	.31	.15	.20	.35	.13

^a Australia, Canada & the United Kingdom; ^b Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden and Switzerland; ^c China (inc Hong Kong) & Japan; ^d India, and South Africa, All regressions apply the OLS estimator to data for the relevant indicator (dependent variable). The robust standard error of the point estimate is reported in brackets—the significance levels utilize two-tailed tests except the constant. [†]p < .10; *p < .05; **p < .01

For those countries in continental Europe (Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, and Switzerland), board-CEO ties do not bear on initial outsider CEO compensation for the Base Salary Ratio ($\beta = .02$; $p = .83$), Base Salary & Cash Bonus Ratio ($\beta = .11$; $p = .52$) or the Base Salary, Non-cash Bonus & Other Compensation Ratio ($\beta = -.09$; $p = .35$).

Table 4

Base Salary, Non-cash Bonus & Other Compensation Ratio for the first full fiscal year for Connected CEOs by geography

Model 3: Base Salary, Non-cash Bonus & Other Compensation Ratio	Pooled	United States	Commonwealth^a	Europe^b	Asia^c	Rest of the World^d
Variables						
Connected CEO	.02 (.02)	.01 (.01)	.08 [†] (.03)	-.09 (.09)	-.06 (.13)	.01 (.06)
Board Size	-.00 (.00)	.00 (.00)	.00 (.00)	-.01 (.02)	-.01 (.02)	.01 [†] (.01)
Company Health	.01 (.01)	.02 (.01)	-.02 (.03)	.08 (.06)	.10 (.06)	-.06 ^{**} (.02)
Log Company Size	-.02 ^{**} (.00)	-.03 ^{**} (.00)	-0.04 ^{**} (.01)	-.03 (.03)	.07 (.05)	-.02 (.02)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Gender dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations (companies)	1,173	660	252	82	39	138
R²	.07	.12	.17	.18	.30	.13

^a Australia, Canada & the United Kingdom; ^b Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden and Switzerland; ^c China (Hong Kong) & Japan; ^d India & South Africa, All regressions apply the OLS estimator to data for the relevant indicator (dependent variable). The robust standard error of the point estimate is reported in brackets—the significance levels utilize two-tailed tests except the constant. [†]p < .10; *p < .05; **p < .01

For Hong Kong and Japan (Asia), territories and countries that are open to international investors, the initial compensation of Connected CEOs does not differ from that of Non-connected CEOs as measured by the Base Salary Ratio ($\beta = .14$; $p = .42$), Base Salary & Cash Bonus Ratio ($\beta = .20$; $p = .20$) and the Base Salary, Non-cash Bonus & Other Compensation Ratio ($-.06$; $p = .66$). A similar pattern of results for those countries in the Rest of the World (Brazil, India & South Africa) that are less open to international investors is observed for the Base Salary Ratio ($\beta = .01$; $p = .92$), Base Salary & Cash Bonus Ratio ($\beta = -.01$; $p = .61$) and the Base Salary, Non-cash Bonus & Other Compensation Ratio ($\beta = .01$; $p = .83$).

Limitations and Oster's (2019) Robustness Test for Omitted Variable Bias

Any study of CEO compensation is limited by data availability and research design, and this study is no exception. Limitations include a lack of information on important aspects of board characteristics, such as CEO duality, board interlocks, the proportion of independent directors (including those appointed by the CEO), the presence of board committees, and anti-takeover provisions. These and other aspects of corporate governance are known to affect CEO power to determine their own compensation (Core et al., 1999; O'Reilly III, Main, & Greaf, 1988; Renneboog & Zhao, 2011). The study also does not ascertain the strength of board-CEO ties or consider qualitative aspects of CEOs' career histories, which may affect their ability to negotiate their own compensation (Granovetter, 1973; Hambrick, 2007). Last, it is likely that a new CEO is appointed at particularly critical times, and the choice of a Connected or Non-connected CEO may be related to unobserved determinants of company performance. In this study, it has been determined that the financial performance of those companies that appoint a Connected CEO deteriorates more sharply in the immediate 12-months prior to succession than those companies that appoint a Non-connected CEO. To counter this endogeneity problem, the study incorporated the Company Health measure to control for company financial performance prior to the new CEO being appointed and the Hubert/White Sandwich Estimator to mitigate the effects of heteroskedasticity.

To ensure that the results are robust for any omitted variable bias created by the study's limitations, Oster's method is used to estimate the amount of unobserved heterogeneity required to eliminate the effect of board-CEO ties as a treatment is applied (Oster, 2019). Table 5 shows that for the United States in Model 1, and for Australia, Canada, and the United Kingdom, in Models 2 and 3, the variance explained by any unobserved heterogeneity would have to be 32.61, 4.23 and 25.49 times stronger than the effect of the covariates, respectively, in each model to explain away the treatments' effects. These highly unlikely outcomes show that the study's results are robust for omitted variable bias.

Table 5
Oster Bounds for OLS Regressions

Oster bounds*	Pooled	United States	Commonwealth	Europe	Asia	Rest of the World
<i>Model 1</i>						
Delta (Beta is set to zero)	-6.02	32.61	3.78	1.12	-3.16	-2.62
<i>Model 2</i>						
Delta (Beta is set to zero)	-0.49	-39.34	4.23	5.00	-2.44	3.37
<i>Model 3</i>						
Delta (Beta is set to zero)	-50.61	4.43	25.49	-26.12	-9.90	18.60

*R² maximum was set at 33 per cent higher than the actual R² for each OLS model (reported in Tables 2 to 4)

Discussion

In achieving these results, this study makes several contributions. First, it shows that board-CEO ties are associated with new outsider CEOs being awarded a greater proportion of their compensation as fixed (rather than variable) and as cash. Although, the study does not incorporate a specific measure for CEO power, the results are consistent with arguments that board-CEO ties weaken board monitoring, enabling new CEOs to restructure compensation in their own interests. As such, they are consistent with the managerialist approach or MPT as a theoretical determinant to the setting of CEO compensation.

At the same time, the results are also consistent with the reasoning that professional director-CEO ties reduce information asymmetry such that companies are comfortable paying new outsider Connected CEOs more in cash because there is less need to align CEO incentives with company interests (Palomino & Peyrache, 2013); Bebchuk & Fried, 2004; Boyd, 1994; van Essen et al., 2015; Wu et al., 2018). Thus, board-CEO ties may be perceived as both enabling CEOs to negotiate compensation and boards to fill information gaps, reducing their need to rely on equity compensation. These results are significant because they show that any increase in managerial power or reduction in information asymmetry is contextualized and that the political process that determines CEO compensation is conditional upon the approach taken to corporate governance.

This insight is the study's second contribution, which is that the results extend the current theoretical understanding of the role of MPT and asymmetric information. They do so by illustrating how institutional settings and approaches to corporate governance place boundary conditions to the effects of managerial power and asymmetric information in the awarding of new CEO compensation. Institutional concentration has previously been shown to affect the structure and level of CEO compensation (Agnblad et al., 2002; Khan et al., 2005; Oxelheim & Randøy, 2005; Pan & Zhou, 2018; Sapp, 2008; Sun et al., 2010). However, this study extends that understanding by developing new insights from the first wide-ranging, comparative international examination of the issue.

These insights highlight how institutional settings and approaches to corporate governance in unique jurisdictional environments moderate the effect of board-CEO ties on relative CEO power and the reduction of information asymmetry as they relate to the setting of new outsider CEO compensation. In turn, these insights highlight the study's third and theoretical contribution, which is to characterise how institutional theory is linked to the use of the theories of asymmetric information and CEO risk-taking and power in explaining the setting of new outsider CEO compensation.

Conclusion

In shedding light on the effects of board-CEO ties on the setting of CEO compensation, in outsider CEO successions, this study's results may be of interest to a range of stakeholders in CEO succession events. In such successions, directors are known to refer prospective CEO candidates to executive search companies and board nominating committees with the implication being that they confer a screening advantage (Khurana, 2002). This study's results are consistent with this argument (Palomino & Peyrache, 2013). They also show that at least some of the value created by lower information asymmetry is captured by CEOs in Commonwealth institutional environments. This insight is consistent with and extends MPT where reduced board monitoring enables new outsider CEOs to restructure compensation in their own interests. It shows that their ability to do so is contingent upon corporate governance settings being characterized by independent boards and dispersed arms' length institutional investors.

In Europe and Asia, however, board-CEO ties do not provide an observable screening advantage that is reflected in the setting of CEO compensation. Nor do they serve to empower new outsider CEOs to structure their own compensation. Thus, an awareness of the relevant institutional settings and approaches to corporate governance are critical to determining whether board-CEO ties are likely to affect the power that CEOs have to determine their own compensation.

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Notes

[1] CEO compensation data are gathered manually from a Bloomberg terminal at the UNSW Sydney, Main Library for those companies outside the S&P 1000 index in the United States and not available from the S&P CIQ dataset. For international companies outside of the United States, all compensation data are converted to USD using the OECD PPP index. All compensation data is inflated to 2019 USD values using IMF national average consumer price-based per cent change inflation rates.

[2] CEO compensation data for those companies in the S&P 1000 index in the United States are collected from Execucomp. All compensation data are inflated to 2019 USD values using IMF national average consumer price-based per cent change inflation rates.

[3] CEO compensation data for companies outside the S&P 1000 index in the United States and for those in all other countries are sourced from the S&P CIQ database. For international companies outside of the United States, all compensation data are converted to USD using the OECD PPP index. All compensation data is inflated to 2019 USD values using IMF national average consumer price-based per cent change inflation rates.

[4] Salary is defined as the total amount of salary compensation, including compensation that is earned, but for which payment will be deferred.

[5] The valuation for Stock Granted is based upon the value of shares that vested during the year and as the cost recorded to the company on its income statement as well as any amounts that are capitalized on the balance sheet for the fiscal year.

[6] Total Compensation includes stock grants, option awards, and other compensation, such as the use of aircraft, vehicles, 401K payments (United States only), club memberships, insurance, tax reimbursements and severance payments.

[7] The value of options is recorded as those costs to the company on its income statement as well as any amounts that are capitalized on the balance sheet for the fiscal year for options that vested during the fiscal year.

[8] Company Size is transformed to its natural logarithm given it is zero bound. A Variance Inflation Factor test revealed no evidence of significant multicollinearity between the variables. White and Breusch-Pagan tests indicated some observed heteroskedasticity, most likely caused by the non-random nature of the sample. In light of the observed heteroskedasticity, the Huber/White Sandwich Estimator (using the Stata *robust* command) is applied. Applying the Stata *xi:* command enables the creation of dummy variables from the categorical control variables to further enhance the precision of the model's estimates.

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