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PERFORMANCE ASIDE... THE ORGANIZATIONAL AND DIRECTOR-LEVEL DETERMINANTS OF BOARDS' COMPENSATION

Relying on a cross-country panel database, the paper explores the non-performance-related factors affecting the remuneration of supervisory boards. The author demonstrated that entrenched boards benefiting from statutory limitations on director removal and limited director liability receive a higher compensation. In contrast to previous studies, it was shown that the CEO's power over the board positively contributes to the directors' remuneration suggesting that the lack of checks on executives may undermine the board's ability to monitor the management. Overall, a higher workload, board diligence, independence, expertise and experience are shown to increase directors' remuneration. However, the rewards for advanced tenure and supermajority-backed independence vanish in the tails of distributions of the respective variables. Those boards with the majority of directors possessing board-specific skills are seen to receive lower compensation possibly due to the higher substitutability of board members. Generally, the study proved that there is a certain saturation point when it comes to board independence, skills, and tenure. The use of executive retention and compensation-enhancing tools are seen to increase board compensation while simultaneously contributing to the widening in-house wage disparities.

Keywords: corporate governance; compensation policy; supervisory board

JEL Classification: G30; G34

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1. INTRODUCTION

In view of the importance of supervisory boards in alleviating internal corporate controversies, the mechanisms underlying the pricing of boards' stewardship abilities and supervisory competences require close scrutiny. The primary goal of an effective system of board compensation is to assure incentive compatibility between the board members, shareholders, and management. Empirical evidence demonstrates that a lack of appropriate checks on the executives' power may cause a substantial distortion of the compensation mechanisms (Bebchuk and Fried, 2004; Gliniecki and Zaleska-Korziuk, 2017), and as a consequence, a gradual deterioration of the corporate

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performance to the detriment of shareholders (Conheady et al., 2015). The understanding of the importance of the compensation system in assuring the effectiveness of corporate supervision caused significant changes to the boards' remuneration structure with a growing share of compensation coming in the form of equity (Farrel et al., 2008). At the same time, the public outcry draws attention to the frequently oversized remuneration of directors questioning the reasons behind the amounts of retention fees and discretionary bonuses (Linck et al., 2009; Dah and Frye, 2017).

The mainstream theory of corporate governance suggests that board remuneration should monotonically increase in accordance with the boards' ability to efficiently monitor the management (Core et al., 1999; Dah and Frye, 2017; Postuła, 2013) as well as in the skills / expertise / experience / reputation of the board members (Jiang et al., 2016; Fedaseyeu et al., 2018). This paper attempts to demonstrate that these relationships are in fact more intricate with the organizational settings and internal corporate governance mechanisms shaping the directors' compensation and possibly driving it away from economically and institutionally justified amounts.

The design of boards' remuneration mechanisms is dictated by two primary considerations. To start with, directors should have an incentive to carefully monitor and if necessary constrain the exercise of executives' decision making power in order to minimize the negative repercussions of managerial entrenchment (Adams et al., 2010). At the same time, the compensation mechanisms should promote the retention of talent and expertise. Therefore, it is crucial that remuneration is adequate to the tasks conferred to the board as well as to the skills, experience and network brought in by the directors. As the competition for the limited pool of directors becomes fiercer and as the market for managerial ability becomes more internationalized (Knyazeva et al., 2013), the challenge of designing a resource-efficient system of director compensation receives closer attention on the part of corporate executives. Confronting this challenge consists in a careful study of the factors affecting the pricing of directors' capabilities as well as of companies' internal governance settings.

The study focuses on the non-performance-related organizational and director-level determinants of board remuneration relying on an international firm-level panel database. The firm-level factors encompass the settings of the corporate governance mechanism, which may render the fulfilment of directors' duties more/less difficult/uncertain, may preclude the directors from efficiently exercising their supervisory tasks with respect to firms' management, or which may undermine directors' independence or reduce their impact on the internal monitoring process. The director-level determinants include

directors' independence, skills, tenure, and connections/affiliations. Operationalisation and quantification of the factors impacting on the pricing decisions on the market for supervisory board members may provide shareholders and executives with guidance regarding the components of an efficient system of board remuneration, which incentivizes efficiency and favours talent acquisition/retention.

The empirical literature convincingly demonstrates that basic formal board characteristics, the ownership structure, as well as directors' individual features can bring important consequences for the quality of internal supervision (Chen and O'Connor Keefe, 2018; He and Luo, 2018). Therefore, all of them should be priced into the boards' remuneration. For example, if a newly appointed director finds it more difficult to enforce/articulate/implement decisions on an even-numbered board (He and Luo, 2018), the board members' remuneration should be higher *ceteris paribus* compared to the that of a similar odd-numbered board.

The paper confirms that the boards' capture by CEOs contributes to an increase of board compensation suggesting that executives may be willingly rewarding boards' complacency and loyalty. At the same time, board entrenchment seems to exercise a downward pressure on board compensation. The author demonstrated that the statutory limitations on director removal are positively associated with board compensation, therefore concluding that entrenched boards render the compensation system less resource-efficient.

At director level, the paper documents the positive impact of directors' diligence, independence, skills and experience on board members' compensation. At the same time, it was found that the positive relationships between board independence and remuneration weakens as the share of independent directors reaches the interval of 60-70%. A similar pattern is observed in the tenure-remuneration link, which vanishes in the top decile of firms with the longest board tenure. Overall, the findings clearly indicate that both independence and tenure have a saturation point, after which the premium for these factors diminish or vanish altogether. The paper additionally reported lower remuneration for boards which are majority-dominated by directors with board-specific skills. The author conjectures that the latter may be caused by a higher substitutability of board members which have a similar skill set.

Overall, this study contributes to the empirical literature by quantifying the impact of corporate governance settings and director characteristics on board members' remuneration. These findings may facilitate the process of internal decision-making regarding board compensation and contribute to enhancing the efficiency of pricing mechanisms on the international market for directors. These results may be of particular interest to corporate

executives, compensation committees, and advisory agencies participating in the international recruitment of board members.

The remainder of the paper is organized as follows. Section 2 presents a literature review and introduces the research questions. Section 3 discusses the principal empirical findings. Section 4 concludes.

2. LITERATURE REVIEW

Within an efficiently functioning system of corporate governance, the board successfully combines two fundamental roles. First of all, it supervises and monitors the managerial activities within the company in an effort to assure the optimization of operational, tactical, and strategic decision-making. In order to have the possibility to fulfil this fiduciary duty, the board needs to remain independent from the management capture, while its initiatives and interference with the business decisions should not be stifled by internally applicable governance mechanisms. Secondly, the board is intended as an advisory body assembled to assist the management in the decision making process. The most important factor preconditioning the successful fulfilment of the board's advisory function is the availability of board-specific skills, business experience, expertise (Adams et al., 2018), and professional network of contacts.

Theoretically, the board's remuneration should be positively associated with the board ability to properly exercise its functions. Therefore, one should reasonably expect the boards, which are better positioned to monitor the management and which possess a better skill set/external connections to enjoy a higher remuneration *ceteris paribus*.

Adams and Ferreira (2007) note that there may be a trade-off between the advisory and supervisory function of the board, since CEOs may be intentionally concealing valuable business information in order to avoid being monitored thereby limiting the information flow, which is crucial for performing the board's advisory function. As a result, a weaker supervision by the board may in some cases have a beneficial impact on the internal decision-making process by facilitating information flows between executives and the board (Almazan and Suarez, 2003). The board's compensation plays the role of a crucial incentive mechanism, which moderates the interaction between the CEOs and the boards. The former may use it to strengthen their managerial power and widen their discretionary decision-making authority. Fedaseyev et al. (2018) demonstrate that directors who join the board after the appointment

of the CEO receive a higher compensation by exercising more board-related functions. Influential CEOs have a direct interest in endowing the trusted directors with control over the boards' functioning, thereby creating a possible threat of jeopardizing the boards' independence and causing the agency costs to grow (Jensen, 1993).

The regulatory requirement regarding directors' independence should supposedly mitigate the agency problems stemming from the possible board capture by the CEOs. However, Nili (2016) convincingly demonstrates that directors' tenure on the board may undermine the boards' independence, as long-tenured directors possess the features of corporate insiders and may thus potentially carry a bias in exercising their monitoring functions. Even the appointment of non-tenured outside directors may not constitute an effective remedy to this issue, as empirical evidence demonstrates that firms tend to appoint external directors, who are excessively optimistic with regard to the firms' performance and who, as a consequence, are more likely to exhibit forbearance and complacency regarding the management's discretionary decisions (Cohen et al., 2012). Overall, two opposing hypotheses emerge. The first one suggests that the board should be compensated for an independent and unbiased supervision, hence, stronger boards vis-à-vis management should enjoy a premium to their remuneration. The competing hypothesis suggests that board compensation may increase as the board becomes more loyal and sympathetic with respect to the management. The latter hypothesis finds proof in the empirical literature, which documents the negative relationship between directors' remuneration and companies' future performance: the negative causality is explained by the possibly prevalent cronyism (Brick et al., 2006).

The evidence regarding the relationship between directors' skills and board compensation is mixed. Fedaseyeu et al. (2018) noted that normally, the more competent board members are entrusted with more board-related functions, thereby receiving higher compensation. At the same time, the empirical literature documents the growing incidence of director's appointment based on non-merit-based grounds. For example, Krishnan et al. (2011) demonstrated that in order to circumvent the regulatory requirements regarding director independence, CEOs may be inclined to appoint socially connected directors. In turn, social connectedness is found to be associated with weaker monitoring and a higher probability of internal control failures (Kuang and Lee, 2017). Cohen et al. (2012) documented the prevalent practice of appointing outside directors, who tend to have an overly optimistic picture of company's performance.

Dah and Frye (2017) focused on the frequently observed phenomenon of excessive board compensation, whereby the actual director remuneration is higher than the amount commensurate with the company's complexity and workloads coming with the directorship. Persistent overpayment is reported to have negative consequences for the company's performance by weakening and breaking the relation between managerial compensation and corporate performance. Cronyism and excessive remuneration may cause the link between director skill and compensation to vanish. Additionally, excessive board compensations may engender rent-seeking behaviour, whereby the directors' primary concern shifts from effectively supervising and advising the management to keeping the well-paid position and maximizing the payoff. As a result, the boards' monitoring vigilance is reduced, thereby negatively affecting the quality of corporate governance and subsequent company performance (Dah and Frye, 2017).

From the standpoint of corporate executives, there is another possible downside to the appointment of skilled and experienced directors. Reputable outside directors may be more likely to initiate or participate in the internal controversies involving other board members and top executives. Director departures frequently happen due to disagreements with an overly influential CEO, causing a negative reaction of capital markets (Agrawal and Chen, 2017). Reputable career-centred independent directors are also more likely to dissent in the board's vote, which on the one hand, may contribute to the amelioration of the internal corporate governance system, but on the other hand, may unnecessarily complicate and prolong the decision-making process (Jiang et al., 2016).

Finally, the boards' compensation may be significantly affected by the level of board entrenchment (Bebchuk and Cohen, 2005). Limitations on the removal of directors, the requirement of a shareholder vote to dismiss a director, limited director liability, individual re-election of board members are all examples of mechanisms, which increase the boards' bargaining power and may as a consequence cause an increase in board compensation. Larger, more experienced, internally and externally connected directors may also claim a premium to their remuneration (Dah and Frye, 2017). Entrenched boards may exercise pressure on the management aimed at increasing directors' compensation, thereby virtually trading the board's friendliness towards CEO for excessive remuneration. The result is the rising executive compensation and increasing managerial entrenchment (Bebchuk and Fried, 2004; Slomka-Golebiowska and Urbanek, 2016).

3. RESEARCH DESIGN AND EMPIRICAL RESULTS

3.1. Database

For the purposes of this study, the author compiled a firm-level cross-country panel database covering 4152 companies observed over the period 2003 and 2018. The collection of data regarding board remuneration was constrained by the regulatory framework adopted at country level with respect to the transparency of corporate reporting, scale of mandatory information disclosure and information channelling to shareholders. There has generally been a growing understanding of the importance of the proper disclosure of corporate compensation mechanisms (OECD, 2011). However, the solutions adopted in many jurisdictions in the form of codified regulations still do not mandate a comprehensive disclosure of the performance component of board remuneration. The disclosure of share-based remuneration remains limited, with companies frequently recognizing that compensation-enhancement tools are being used without specifying the amounts/value of the underlying instruments or disclosing the ways in which the proposed mechanisms are expected to ameliorate the boards' supervisory capacity. The research sample is limited only to companies, which disclosed the total amount of board compensation, regardless of whether they provided a detailed breakdown of the remuneration package into base components. The resulting sample covered 59 countries. The problems related to the limited disclosure of corporate governance mechanisms further truncated the sample at later stages of data collection, when analysing the statutory limitations regarding director election and removal, shareholders' input on pay, board structure and director-level characteristics such as skills, affiliation, and independence.

The total value of the board's compensation became the principal explained variable in the study. The author normalized the distribution of the variable by taking the natural logarithm of the boards' total compensation converted into US dollars using the average exchange rate of the companies' reporting currencies against the USD during the given reporting year. The resulting variable BOARD.COMP was subsequently subject to static panel regression analysis in an attempt to elucidate the key determinants of directors' compensation.

The explanatory variables were divided into five groups: 1) variables encoding firm-level corporate governance policies; 2) variables describing the board structure and statutory limitations applicable to board composition, election and removal; 3) variables describing compensation mechanisms;

4) director-level variables describing board members' independence, skills, diligence, affiliations, tenure; 5) control variables.

The author started by analysing the corporate governance policies adopted by the companies with the purpose of enhancing the supervisory and advisory functions of the board and aligning the directors' interests with those of the shareholders. The paper noted and codified whether each company in the research sample disclosed the implementation of a targeted policy aimed at maintaining a pre-defined level of board independence (INDEP. POLICY), or a pre-defined board structure in terms of independence/skills/diversity (STRUCTURE.POLICY); at assuring the continuity and effectiveness of board functioning (FUNCTION.POLICY) through, for example, preparing a succession plan in the event of a voluntary or involuntary director departure (SUCCESSION.PLAN); at recruiting and retaining the directors by devising appropriate compensation mechanisms (EX.RETENTION.POL); or at providing the shareholders with an unconstrained possibility to articulate their stance with regards to directors' compensation and board composition through voting on director remuneration / appointment / removal (SH. ENGAG.POLICY). The adoption and implementation of the listed corporate governance policies may potentially enhance the board's ability to effectively monitor managerial decision making, to control executive compensation, and to provide impartial and independent advice regarding the company's operations. The introduction and implementation of balanced board policies should supposedly help develop a virtuous cycle, whereby the directors' interests are aligned with those of the shareholders (Levit and Malenko, 2016), while the chances of board's capture by management are minimized. The transmission mechanism between corporate governance policies and director compensation should contribute towards the increase of the latter. Shareholder-friendly supervision should be recognized with higher compensation. At the same time, empirical evidence demonstrates that reputation-centred directors, who persistently enforce shareholder-friendly policies, may be less likely to enjoy directorships in other companies or receive additional affiliations (Helland, 2006; Fich and Shivdasani, 2007). As a result, one can expect the above-mentioned corporate policies to be associated with a higher board remuneration in order to compensate the directors for foregoing additional directorship opportunities.

Next, the author collected the data regarding board structure, and in particular analysed the size of the boards (BOARD.SIZE), the board structure classified as either unitary (UNITARY.BOARD), or mixed (MIXED.BOARD), the separation of the positions of CEO and Chairman of the Board

(CEO.CHAIR.SEPAR). Additionally, the paper recorded the instances when retired CEOs become Chairman of the Supervisory Board (CHAIR.EX-CEO) in order to study the impact of insider directors on the boards' remuneration. Generally, there are two contradicting effects moderating the interrelation between CEO's capture of the board and directors' compensation. On the one hand, a stronger bargaining position of the board enhanced by separation of executive and supervisory authorities, could be associated with a higher board compensation as better supervision is likely to result in a better quality of corporate governance (Levit and Malenko, 2016). On the other hand, CEO-friendly boards may receive higher compensation, which act as a mechanism incentivizing the board to take decisions in line with the management's standpoint (Fedaseyeu et al., 2018).

In order to establish which of the two effects prevail, the author introduced an additional set of variables, which describe the statutory mechanisms, which reduce the CEOs' role in the nomination and termination process. If the CEO has the discretionary power to dismiss a board member, the latter may have little incentive to scrutinize and question the decisions of the former (Warther, 1998). Therefore, limitations on the removal of directors should serve as a safeguard against arbitrary board reconstitution and thus enhance the board's ability to monitor the management. In order to check how safeguards against board's capture by CEOs impact on board compensation, the following set of variables was collected. IND.REELECTION is a dummy variable indicating whether the firm's corporate governance procedures mandate the individual re-election of each director. The paper additionally investigated the compensation outcomes of a staggered board structure (CLASSIFIED.BOARD), where each class of directors is re-elected separately and has a different term duration. MAJ.REQUIREMENT shows whether the appointment/removal of directors necessitates a majority vote. TERM.DURATION indicates the number of years, after which a board member may be subject to re-election. LIM.REMOVAL indicates whether the company mandates every director removal to be accompanied with a majority vote and an appropriate justification, both of which limit the scope for the arbitrary removal of dissenting directors without the appropriate procedural action and board authorization. Limited liability (LIM.LIABILITY) is a statutory privilege enjoyed by directors in some companies, which substantially limit directors' risks, while potentially limiting the directors' motivation to effectively monitor managerial action and discretionary decision-making.

In order to study the impact of the compensation mechanisms on director remuneration, the author analysed the remuneration policies disclosed

by companies, in particular noting whether the boards are endowed with authority and decision-making power enabling them to devise and modify compensation packages to reward/retain key executives and directors (COMP.IMP.TOOLS). Providing the boards with a say on pay make the boards less responsive to CEOs' pressure, but could cause the boards' remuneration to deviate from the amounts justified by the firms' performance scorecard (Dah and Frye, 2017). The paper also recorded whether the shareholders of each company have an input on pay: the requirement of shareholder approval of directors' remuneration (SH.VOTE.COMP) packages may contribute to the alignment of the directors' interests with those of the shareholders. Finally, the author checked the salary gap (PAY.GAP) measured as the relation between CEO remuneration and the average rank-and-file employee salary in order to check whether executive and director compensation tends to move together when the intracompany inequalities increase. Overall, the author wanted to check how the company-specific remuneration mechanisms translate into boards' remuneration without explicitly taking into account the companies' performance record.

Finally, director-level characteristics were introduced into the quantitative analysis. In addition to controlling for directors' diligence in exercising their duties by introducing average board attendance (AVERAGE.ATTEND) and the number of board meetings (BOARD.MEETINGS), an extensive database was compiled regarding the boards composition in terms of four key parameters:

1) tenure (TENURE) defined as the average number of years the current directors spent on the companies' boards;

2) skills (SKILLS) defined as the percentage of board members possessing industry-specific or board-specific knowledge (see the variable definition in Table 1);

3) independence (INDEPENDENCE) defined as the percentage of board members who meet the regulatory definition of independent directors;

4) affiliations (AFFILIATIONS) defined as the average number of external directorships disclosed by each of the currently sitting directors.

3.2. Research design

The static panel regression analysis was used to identify the associative links between the board compensation as well as the corporate governance settings and board characteristics. The baseline regression model utilized in the analysis is as follows:

$$\begin{aligned}
 & \text{BOARD.COMP}_{it} = \\
 & f(\text{BOARD.CHARACTERISTICS}_{it}; \text{GOV.SETTINGS}_{it}; \dots \quad (1) \\
 & \text{DIRECTOR.CHARACTERISTICS}_{it}; \text{CONTROL}_{it}),
 \end{aligned}$$

where *BOARD.CHARACTERISTICS*_{it} encompass a set of explanatory variables describing the board structure; *GOV.SETTINGS*_{it} comprises a set of regressors describing the internal corporate governance policies and mechanisms governing the processes of director appointment/removal as well as shaping the structure of the board and determining its mode of functioning and key responsibilities; *DIRECTOR.CHARACTERISTICS*_{it} includes a set of director-level explanatory variables describing the boards' composition in terms of directors' tenure, independence, skills and affiliations; *CONTROL*_{it} encompasses firm-level control variables which approximate the size of the firm (SIZE), the complexity of the tasks of the boards and company's operational opacity/complexity approximated by asset tangibility (ASSET.TANG), company's indebtedness (INDEBTEDNESS) measured as debt-to-assets ratio, and liquidity (LIQUIDITY) measured as the ratio of cash reserves to total assets. In order to eliminate the outliers, the author winsorized the research sample at 1% level. The descriptive statistics are summarized in Table 2.

Since preliminary empirical results suggested the presence of nonlinearities in the relationships between board compensation and director-level board characteristics, it was decided to expand the analysis by studying additional regressors derived from the distribution of the initial set of independent variables. The variables TENURE.LOW.X and TENURE.HIGH.Y represent a set of dummy variables encoding the subsamples of firms with the average director tenure lower/higher than Xth/Yth percentile of the distribution of TENURE variable respectively. Similarly, variables IND.LOW.X and IND.HIGH.Y comprise a set of dummies encoding the subsamples of firms with the percentage of independent directors lower/higher than the Xth/Yth percentile of the distribution of variable INDEPENDENCE. SKILLS.LOW.X and SKILLS.HIGH.Y binary-code subsamples of the firms with the percentage of directors with board-specific skills lower/higher than the Xth/Yth percentile of the distribution of variable SKILLS. The inclusion of these variable aimed at ascertaining the possible presence of nonlinearities in the empirically observable relationships between: 1) director tenure and board compensation; 2) director independence and board compensation; 3) director skills and board compensation.

Table 1
The definitions of variables

Variable	Definition
1	2
	Firm-Level Fundamentals
SIZE	Natural logarithm of firm's contemporaneous total assets
INDEBTEDNESS	The ratio of the book value of total debt to the book value of total assets
LIQUIDITY	The ratio of the book value of cash and short-term investments to total assets
BUS.TANG	Business tangibility measured at a ratio of net property, plant and equipment to the contemporaneous book value of total assets
	Board Characteristics
BOARD.SIZE	The natural logarithm of the number of board members disclosed by the company in the given year
TENURE	The natural logarithm of the average tenure of the board members in any given year. Tenure is defined as the number of years a given member has spent on the board.
AFFILIATIONS	Average number of corporate affiliations of the directors currently sitting on the board
TENURE.LOW.X	Dummy variable taking the value 1 if the average tenure of the board members within a given company during a given year is lower than the X^{th} percentile of sample distribution of the variable TENURE
TENURE.HIGH.Y	Dummy variable taking the value 1 if the average tenure of the board members within a given company during a given year is higher than the Y^{th} percentile of sample distribution of the variable TENURE
SKILL	The percentage of board members possessing board-specific skills. The board member is assumed to possess board specific skills if he/she i) discloses prior work experience in the industry; ii) discloses industry-specific educational background; iii) discloses solid expertise in finance defined as either educational or industry background in the area of finance.
SKILL.LOW.X	Dummy variable taking the value 1 if the percentage of board members with board-specific skills within a given company during a given year is lower than the X^{th} percentile of sample distribution of the variable SKILL
SKILL.HIGH.Y	Dummy variable taking the value 1 if the percentage of board members with board-specific skills within a given company during a given year is higher than the Y^{th} percentile of sample distribution of the variable SKILL

INDEPENDENCE	The percentage of independent board members within a given company during a given year
IND.LOW.X	Dummy variable taking the value 1 if the percentage of independent board members within a given company during a given year is lower than the X th percentile of sample distribution of the variable INDEPENDENCE
IND.HIGH.Y	Dummy variable taking the value 1 if the percentage of independent board members within a given company during a given year is higher than the Y th percentile of sample distribution of the variable INDEPENDENCE
Board Diligence	
BOARD.MEETINGS	The natural logarithm of the number of board meetings which occurred during a given year
AVERAGE.ATTEND	The average attendance of the board meetings measured as the average percentage of board members present during the meetings occurring during a given year
Board Structure	
UNITARY.BOARD	Dummy variable taking the value 1 if the company has a unitary board, i.e., a unique board comprising executive and non-executive directors
MIXED.BOARD	Dummy variable taking the value 1 if the company has a mixed two-tier corporate board structure. The company has both an executive and a supervisory board.
CEO.CHAIR.SEPAR	Dummy variable taking the value 1 if the company enforces a strict separation of the positions of CEO and Chair of the Supervisory Board. A strict separation means that CEO is prohibited from chairing the supervisory board both while in position and after termination
CHAIR.EX-CEO	Dummy variable taking the value 1 if the company's chairman of the board of directors during a given year is the same company's former CEO
CLASSIFIED.BOARD	Dummy variable taking the value 1 if the company enforces a staggered board structure with different classes of directors serving for different periods. Only a portion of directors is re-elected each period
Internal Policies	
STRUCTURE.POLICY	Dummy variable, which takes the value 1 if the company discloses a board structure policy aimed at maintaining a pre-defined board composition in terms of independence, skill, diversity etc.
INDEPPOLICY	Dummy variable, which takes the value 1 if the company claims to implement an internal policy aimed at maintaining board independence

Table 1, cont.

1	2
FUNCTION.POLICY	Dummy variable, which takes the value 1 if the company discloses an internal policy aimed at optimizing and sustaining continuous board functioning
EX.RETENTION.POL	Dummy variable, which takes the value 1 if the company claims to implement an executive retention policy consisting in devising appropriate remuneration mechanisms targeted at recruiting and retaining executives
SUCCESSION.PLAN	Dummy variable, which takes the value 1 if the company claims to have drafted a succession plan for senior executives and board members in the event of departure or other unpredicted circumstances
SH.ENGAG.POLICY	Dummy variable, which takes the value 1, if the company claims to implement an internal policy aimed at engaging the shareholders into the company's internal decision making. The measures facilitating shareholders' participation in the decision making include shareholders' vote on executive remuneration, director appointment, transaction approval, lack of limitations on shareholders' initiatives and resolutions.
	Compensation Mechanisms
PAY.GAP	The natural logarithm of the ratio of CEO's total remuneration to the average full-time employee's salary
COMP.IMP.TOOLS	Dummy variable, which takes the value 1 if the company's board has the necessary decision-making power and internal mechanisms to devise and implement appropriate remuneration plans to attract/retain executives.
SH.VOTE.COMP	Dummy variable, which takes the value 1 if the company's shareholders vote (or have a right to vote) on the remuneration of top executives
	Statutory Limitations
IND.REELECTION	Dummy variable, which takes the value 1 if each board member is re-elected separately.
MAJ.REQUIREMENT	Dummy variable, which takes the value 1 if the election of each board member is approved by a majority vote
TERM.DURATION	The period of time after which a member may be subject to re-election.
LIM.LIABILITY	Dummy variable, which takes the value 1 if the company's directors have limited liability
LIM.REMOVAL	Dummy variable, which takes the value 1 if the shareholders of a given company face limitations during the process of the removal of directors. Examples of such limitations include the requirement of a supermajority vote to remove a director or a requirement to provide a justification for removal.

Source of data: Thomson Reuters.

Table 2
Descriptive statistics

Variable	Mean	Median	St. Deviation	Minimum	Maximum
Board Compensation (USD)	2945009	925512	86822853	0	9326226000
INDEBTEDNESS	0.260	0.244	0.190	0.000	3.769
LIQUIDITY	0.130	0.082	0.149	0.000	0.999
BUS.TANG	0.311	0.237	0.261	0.000	0.990
Number of Board Members	9.841	9.000	3.216	1.000	32.000
Average Tenure of Board Members (years)	7.523	6.888	3.770	0.000	34.082
SKILLS	55.408	55.556	22.438	0.000	100.000
INDEPENDENCE	61.354	66.667	24.757	0.000	100.000
BOARD.MEETINGS	8.830	8.000	4.762	0.000	100.000
AVERAGE.ATTEND	88.215	92.745	11.041	0.000	100.000
Wage Gap (nominal)	1192	48	18862	0	1482304
AFFILIATIONS	1.256	1.071	0.976	0.000	17.111

Source of data: Thomson Reuters.

3.3. Empirical results

The empirical results discussed in this section are presented in Tables 3 to 10. Table 3 presents the tests of the baseline regression model inquiring into the determinants of board compensation. After controlling for firm size, it was found that larger boards enjoy higher compensation. Similarly, the average annual number of meetings and average board attendance are positively associated with board remuneration. Overall, the findings are consistent with the prior empirical evidence suggesting that the complexity of the board's tasks and diligence entail higher board compensation (Linck et al., 2009).

Table 4 demonstrates how the internal corporate governance policy settings influence board compensation. The results suggest that, while being intended as tools for improvement in corporate supervision practices, more complex governance mechanisms are costlier in terms of board remuneration. The implementation of a board structure policy aimed at maintaining an appropriate board composition in terms of independence, skills, and diversity causes the board compensation to be higher by 18.6% on average. Higher pay

is primarily driven by the need to attract a diverse body of skilled directors whose profiles fit the board composition. The adherence to a board function policy aimed at ensuring continuous board functioning and preventing gridlocks in decision-making, is associated with an average increase of board compensation of 38.4%. In particular, the availability of a succession plan in the event of an executive or director departure is associated with an average increase of board remuneration of 27%. The implementation of executive retention mechanisms, particularly in the form of stock-related compensation, is associated with a 53% higher board compensation.

Table 3
The interrelation between board diligence and remuneration

Explained Variable	BOARD.COMP		BOARD.COMP		BOARD.COMP	
Model No	1		2		3	
No. of observations	29422		28031		28031	
Wald (joint)	1317	***	1430	***	1441	***
R ²	0.7683701		0.7852929		0.7867791	
Constant	9.71862	***	9.65909	***	9.62748	***
	(0.781)		(0.729)		(0.729)	
INDEBTEDNESS	0.127	***	0.111	***	0.114	***
	(0.044)		(0.043)		(0.043)	
LIQUIDITY	-0.00776972		0.00266586		0.00403868	
	(0.062)		(0.059)		(0.059)	
BUS.TANG	-0.103669	**	-0.0864313	*	-0.0860198	*
	(0.050)		(0.048)		(0.048)	
SIZE	0.192	***	0.189	***	0.190	***
	(0.008)		(0.008)		(0.008)	
BOARD.SIZE	0.479633	***	0.509682	***	0.510213	***
	(0.028)		(0.028)		(0.028)	
BOARD.MEETINGS			0.0599165	***	0.0597884	***
			(0.014)		(0.014)	
AVERAGE.ATTEND					0.000	**
					(000)	

Source: own elaboration. Notes: all models include the time and industry dummies (not reported). This table presents the random-effect static panel model estimates. The heteroscedasticity robust standard errors are provided in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 4. The impact of internal policy settings on board remuneration

Explained Variable	BOARD.COMP		BOARD.COMP		BOARD.COMP		BOARD.COMP		BOARD.COMP		BOARD.COMP	
	1	2	3	4	5	6	3	4	5	6	3	4
Model No	28031	28031	28031	28031	28031	28031	28031	28031	28031	28031	28031	28031
No. of observations	1504	1609	1918	2008	1674	1584	1918	2008	1674	1584	1918	2008
Wald (joint)	0.792025	0.8002556	0.8124958	0.8119453	0.8019954	0.7972694	0.8124958	0.8119453	0.8019954	0.7972694	0.8124958	0.8119453
R ²	0.65127	0.67706	0.62046	0.25934	0.7159	0.6871	0.62046	0.25934	0.7159	0.6871	0.62046	0.25934
Constant	0.120	0.112	0.103	0.120	0.122	0.122	0.103	0.120	0.122	0.122	0.103	0.120
INDEBTEDNESS	0.00034327	0.00602826	-0.0213149	0.0400549	0.0036601	0.00340273	-0.0213149	0.0400549	0.0036601	0.00340273	-0.0213149	0.0400549
LIQUIDITY	-0.0876475	-0.0953266	-0.127954	-0.0824563	-0.0836677	-0.0886685	-0.0953266	-0.0824563	-0.0836677	-0.0886685	-0.0953266	-0.0824563
BUS.TANG	0.186	0.186	0.185	0.193	0.187	0.187	0.185	0.193	0.187	0.187	0.185	0.193
SIZE	0.513377	0.5128	0.493058	0.527669	0.510116	0.514641	0.493058	0.527669	0.510116	0.514641	0.493058	0.527669
BOARD.SIZE	0.0582421	0.0559294	0.0612736	0.0610687	0.0627379	0.0607661	0.0582421	0.0612736	0.0627379	0.0607661	0.0582421	0.0612736
BOARD.MEETINGS	0.171	0.171302	0.171	0.171	0.171	0.171	0.171	0.171	0.171	0.171	0.171	0.171
STRUCTURE.POLICY	(0.024)	(0.015)	(0.017)	(0.020)	(0.014)	(0.014)	(0.015)	(0.015)	(0.018)	(0.015)	(0.015)	(0.015)
INDEP.POLICY												
FUNCTION.POLICY												
EX.RETENTION.POL				0.427808				0.427808				
SUCCESSION.PLAN				(0.020)				(0.020)				
SHENGAG.POLICY									0.245405			
									(0.018)			
										0.155812		
										(0.015)		

Source: own elaboration. Notes: all models include the time and industry dummies (not reported). This table presents the random-effect static panel model estimates. The heteroscedasticity robust standard errors are provided in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

The companies which implement a shareholder engagement policy, are shown to have a higher board remuneration (+16,9% compared to those with no such policies in place). Shareholder engagement policies allow for a broader shareholder participation in the process of shaping corporate remuneration policies. In particular, a say-in-pay provision allows stockholders to directly influence board compensation. Empirical studies (e.g. Obermann, 2016) demonstrate that shareholders tend to show preference towards stock-related compensation schemes while having a less favourable view on cash bonuses. A greater share of performance-related payment in the overall board remuneration may significantly alter the directors' incentives by aligning them with the interests of the shareholders. As a result, active shareholder engagement may result in important shifts in the structure of board remuneration, while concomitantly impacting on its value. The author demonstrated that policies aimed at a broader shareholder participation in corporate decision-making may prop up the board in a power struggle with the executives.

Table 5 documents the interrelation between intrafirm compensation mechanisms and board remuneration. The paper found a very strong link between in-house salary disparities and board remuneration. For each 1% increase of wage gap, defined as the ratio of the CEO's total remuneration to average employee salary, the board remuneration is found to increase by 0.067%. These results may be driven by the mechanisms of reciprocity (Boivie et al., 2015), which justify the increases in directors' compensation by the simultaneous rise in executive pay. While undoubtedly allowing to preclude the board capture by the CEO and improving the boards' incentives to monitor, the connection between the remuneration of senior management and directors contributes to a widening of intra-firm inequalities, which may have negative ramifications for employee incentives.

In companies where the board has the power to devise and modify compensation mechanisms to retain and attract executives and directors (COMP.IMP.TOOLS), the board remuneration is found to be higher by more than a third compared to those where the board's decision-making authority with respect to remuneration is checked or restrained. At the same time, allowing for a shareholder vote on board's remuneration is associated with the increase of the latter by 12%.

Exploring the nexus between board compensation and board structure (Table 6), the author found that the CEO's power over the board is positively associated with directors' pay. Unitary boards, where the positions of CEO and Chairman are not clearly separated, are documented to have significantly higher

Table 5
The impact of compensation policies on board remuneration

Explained Variable	BOARD.COMP		BOARD.COMP		BOARD.COMP	
	1		2		3	
Model No						
No. of observations	14279		28031		28031	
Wald (joint)	973.2	***	1867	***	1556	***
R ²	0.8240413		0.8159212		0.8013699	
Constant	7.77353 (0.273)	***	9.56981 (0.733)	***	9.69368 (0.732)	***
INDEBTEDNESS	0.040 (0.062)		0.121 (0.042)	***	0.110 (0.042)	***
LIQUIDITY	0.0495918 (0.084)		-0.00112646 (0.058)		0.00574805 (0.059)	
BUS.TANG	-0.101271 (0.070)		-0.0867445 (0.046)	*	-0.0932932 (0.047)	**
SIZE	0.195 (0.011)	***	0.187 (0.008)	***	0.187 (0.008)	***
BOARD.SIZE	0.466976 (0.041)	***	0.517878 (0.027)	***	0.51104 (0.028)	***
BOARD.MEETINGS	0.0923205 (0.021)	***	0.0576559 (0.014)	***	0.0600022 (0.014)	***
PAY.GAP	0.0673009 (0.006)	***				
COMP.IMP.TOOLS			0.294612 (0.017)	***		
SH.VOTE.COMP					0.114439 (0.014)	***

Source: own elaboration. Notes: all models include the time and industry dummies (not reported). This table presents the random-effect static panel model estimates. The heteroscedasticity robust standard errors are provided in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

compensation than the two-tier boards, where the management and supervisory functions are explicitly separated for the purposes of enhancing the quality of corporate governance. In turn, the compensation of mixed boards, where the management board takes over a part of supervisory boards' competences, is found to be significantly lower than under either one or two-tier system of governance. Within the one-tier system, the board's compensation appears to be driven by the alignment of the interests of the CEO and directors, while in the two-tier system the premium on director remuneration appears to be attributable to the board's stronger bargaining position vis-à-vis the CEO. The arrangement of a staggered board structure appears to have no repercussions for board remuneration.

Table 6
The influence of the board structure on the board members' remuneration

Explained Variable	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP
Model No	1	2	3	4	5			
No. of observations	28031	28031	28031	28031	28031			
Wald (joint)	1587 ***	1774 ***	1434 ***	1449 ***	1432 ***			
R ²	0.7928159	0.800041	0.7863523	0.7866936	0.7854822			
Constant	9.25368 (0.730)	9.42685 (0.728)	9.66666 (0.729)	9.69775 (0.729)	9.67749 (0.729)	***	***	***
INDEBTEDNESS	0.102 (0.042)	0.104 (0.042)	0.112 (0.043)	0.109 (0.043)	0.111 (0.043)	**	***	***
LIQUIDITY	-0.0024772 (0.059)	0.0200507 (0.059)	0.00161116 (0.059)	-0.00198663 (0.059)	0.00247151 (0.059)			
BUS.TANG	-0.086773 (0.047)	-0.0753683 (0.047)	-0.0872651 (0.048)	-0.0898249 (0.048)	-0.0867842 (0.048)	*	*	*
SIZE	0.197 (0.008)	0.199 (0.008)	0.189 (0.008)	0.187 (0.008)	0.189 (0.008)	***	***	***
BOARD.SIZE	0.504712 (0.028)	0.513284 (0.028)	0.509223 (0.028)	0.506815 (0.028)	0.509421 (0.028)	***	***	***
BOARD.MEETINGS	0.0687808 (0.014)	0.0800584 (0.014)	0.0600806 (0.014)	0.0602519 (0.014)	0.0600033 (0.014)	***	***	***
UNITARY.BOARD	0.328 (0.029)							
MIXED.BOARD		-0.690578 (0.041)				***		
CEO.CHAIR.SEPAR			0.0116059 (0.014)					
CHAIR.EX-CEO				0.0487823 (0.013)			***	
CLASSIFIED.BOARD								-0.011 (0.010)

Source: own elaboration. Notes: all models include the time and industry dummies (not reported). This table presents the random-effect static panel model estimates. The heteroscedasticity robust standard errors are provided in parentheses. ***, **, * and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Further corroborating the idea of a positive association between directors' insider involvement and board compensation, the paper documented the higher board remuneration in companies, where the ex-CEO occupies the position of Chairman of the Board. While the prior experience of the ex-CEO in running the company may be useful in performing the advisory function on the board, there is the possibility of the negative impact of a conflict of interest introduced by the insider position previously occupied by the newly appointed Chairman of the Supervisory Board. Empirical evidence (Andres et al., 2014) demonstrates that former CEOs may be excessively sympathetic with the executives, with the compensation of the management team increasing following the appointment of the former CEO to the supervisory board. The practice of CEO transition to the supervisory boards may also imperil the independence of the latter by skewing the boards' agenda in favour of the viewpoint of the insiders/executives.

Exploring the impact of the mechanisms of nomination/appointment/removal on boards' remuneration (Table 7), the paper documents a number of contrary effects. The limitations on director removal such as the stipulated need to obtain a majority-backed decision and the justification for the termination decision, are found to be positively related with board remuneration. The explicitly stated limited director liability is found to have a similar positive effect. Both suggest that the degree of board entrenchment is positively associated with the directors' monetary reward. The requirement of the individual re-election of each director is also found to have a positive association with board compensation, while the duration of the term after which every director may be subject to reelection is evidenced to have a negative impact on the board's pay.

Surprisingly, the empirical analysis revealed the lack of statistically significant impact of directors' affiliations on board compensation, for which two possible explanations can be found. First of all, the relation between board remuneration and director affiliations is influenced by two opposing effects. On the one hand, the external connections of board members and their experience obtained from sitting on multiple boards may be valuable in business operations and in performing the board's advisory functions. On the other hand, interlocked directors may be excessively distracted by their commitments towards many companies, the result being a deterioration in the quality of corporate supervision (Falato et al., 2014). The findings suggest that overall, affiliations are neither valued at a premium nor at a discount on the market for external directors. The second explanation of the revealed relation stems from the statistical properties of the studied research sample. The average number of directors' affiliations across the sample stands at 1.26,

Table 7. The impact of statutory limitations and covenants on the board's remuneration

Explained Variable	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP
Model No	1	2	3	4	5	6	7	8	9	10	11	12
No. of observations	28031	28031	28031	28031	28031	28031	28031	28031	28031	28031	28031	28031
Wald (joint)	1459 ***	1433 ***	1499 ***	1531 ***	1434 ***	1442 ***	1434 ***	1434 ***	1434 ***	1434 ***	1442 ***	1442 ***
R ²	0.7857798	0.7858442	0.7927233	0.7922532	0.7861504	0.7857515	0.7861504	0.7861504	0.7861504	0.7861504	0.7857515	0.7857515
Constant	9.73772 (0.729)	9.67295 (0.729)	9.68527 (0.730)	9.67436 (0.729)	9.6593 (0.729)	9.78411 (0.730)	9.6593 (0.729)	9.6593 (0.729)	9.6593 (0.729)	9.6593 (0.729)	9.78411 (0.730)	9.78411 (0.730)
INDEBTEDNESS	0.113 (0.043)	0.113 (0.043)	0.111 (0.042)	0.104 (0.042)	0.112 (0.043)	0.110 (0.043)	0.112 (0.043)	0.112 (0.043)	0.112 (0.043)	0.112 (0.043)	0.110 (0.043)	0.110 (0.043)
LIQUIDITY	0.00536564 (0.059)	0.00435492 (0.059)	0.00128665 (0.059)	-0.00748645 (0.059)	0.00216201 (0.059)	0.00242322 (0.059)	0.00216201 (0.059)	0.00216201 (0.059)	0.00216201 (0.059)	0.00216201 (0.059)	0.00242322 (0.059)	0.00242322 (0.059)
BUS.TANG	-0.0934613 (0.048)	-0.0852298 (0.048)	-0.0896575 (0.047)	-0.096401 (0.048)	-0.0864517 (0.048)	-0.0905191 (0.048)	-0.0864517 (0.048)	-0.0864517 (0.048)	-0.0864517 (0.048)	-0.0864517 (0.048)	-0.0905191 (0.048)	-0.0905191 (0.048)
SIZE	0.187 (0.008)	0.189 (0.008)	0.186 (0.008)	0.188 (0.008)	0.189 (0.008)	0.189 (0.008)	0.189 (0.008)	0.189 (0.008)	0.189 (0.008)	0.189 (0.008)	0.189 (0.008)	0.189 (0.008)
BOARD.SIZE	0.510915 (0.028)	0.509635 (0.028)	0.520071 (0.028)	0.50852 (0.028)	0.509369 (0.028)	0.511311 (0.028)	0.509369 (0.028)	0.509369 (0.028)	0.509369 (0.028)	0.509369 (0.028)	0.511311 (0.028)	0.511311 (0.028)
BOARD.MEETINGS	0.0597174 (0.014)	0.0598055 (0.014)	0.0597169 (0.014)	0.0634908 (0.014)	0.0601129 (0.014)	0.0596359 (0.014)	0.0601129 (0.014)	0.0601129 (0.014)	0.0601129 (0.014)	0.0601129 (0.014)	0.0596359 (0.014)	0.0596359 (0.014)
IND.REELECTION	0.069 (0.013)											
MAJ.REQUIREMENT		0.0156037 (0.014)										
LIM.LIABILITY			0.095263 (0.014)									
LIM.REMOVAL				0.154327 (0.018)								
AFFILIATIONS										0.00278318 (0.004)		
TERM.DURATION												-0.0191532 (0.006)

Source: own elaboration. Notes: all models include the time and industry dummies (not reported). This table presents the random-effect static panel model estimates. The heteroscedasticity robust standard errors are provided in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

while approximately in half of the analysed boards the average number of affiliations is equal to or lower than one. The low heterogeneity of the sample may be partially responsible for driving the empirical results, therefore these findings should be regarded with caution.

Table 8 presents the results of the author's inquiry into the possible nonlinearities in the tenure-compensation relationship. While overall, the paper found a positive link between the average tenure of board members and directors' compensation, it also documented the non-persistent character of this interaction across the research sample. The generally positive link between tenure and remuneration may be explained from two standpoints, i.e. the more experienced directors may take more informed decisions and may generally exhibit higher effectiveness in monitoring a familiar company. However, Nili (2016) demonstrated that the longer-serving directors, even when meeting the regulatory independence criterion, are more likely to align with the insiders' decisions and support discretionary managerial choices in order to preserve the status quo and maintain the position on the board. Overall, in the medium and long term, there seems to be a trade-off between directors' independence and expertise in the context of a particular company. These findings support this conjecture. While there is discounting of the remuneration of the least tenured directors, there is no corresponding premium for the most tenured boards. The quartile of companies with the least tenured directors (average directors' tenure of less than 4.9 years) are shown to pay the board significantly less than the remainder of the research sample. At the same time, the directors' remuneration in the top quartile of the TENURE distribution (average board member tenure is higher than 12.4 years) is not significantly different from the sample average. This finding suggests the existence of a certain threshold in terms of director tenure after which a discount for additional years on the board starts to apply. This inference is in line with common practice which postulates the importance of the outsider view in forging an unbiased assessment of the company's operations.

One of the most important findings of this paper is the empirically confirmed discounting for board-specific skills. Table 9 demonstrates that as the percentage of board members with either an in-depth industry background or financial expertise increases, the board remunerations falls. This economically significant nexus is however found to exhibit non-monotonicity. In the bottom decile of firms, where the percentage of directors with board specific skills is below 25%, no discounting for lack of skills seems to apply. Starting from the second quintile, one may detect a premium for an increased share of skilled directors. In the top 15% of firms from the SKILL distribution (firms where the share of directors with board-specific skills is higher than

Table 8. The nonlinearities in tenure–remuneration linkage

Explained Variable	BOARD.COMP		BOARD.COMP		BOARD.COMP		BOARD.COMP		BOARD.COMP		BOARD.COMP	
	1	2	3	4	5	6	7					
Model No												
No. of observations	26970	26980	26980	26980	26980	26980	26980	26980	26980	26980	26980	26980
Wald (joint)	1100	1059	1049	1067	1050	1042	1042	1042	1042	1042	1042	1042
R ²	0.7808587	0.7790543	0.7794148	0.7808661	0.7794157	0.7783688	0.7783688	0.7783688	0.7783688	0.7783688	0.7783688	0.7783688
Constant	7.91872 (0.216)	8.07636 (0.216)	8.06616 (0.216)	8.10139 (0.215)	8.03955 (0.216)	8.04543 (0.216)	8.04543 (0.216)	8.04543 (0.216)	8.04543 (0.216)	8.04543 (0.216)	8.04726 (0.216)	8.04726 (0.216)
INDEBTEDNESS	0.152 (0.044)	0.154 (0.044)	0.156 (0.044)	0.156 (0.044)	0.155 (0.044)	0.155 (0.044)	0.155 (0.044)	0.155 (0.044)	0.155 (0.044)	0.155 (0.044)	0.155 (0.044)	0.155 (0.044)
LIQUIDITY	-0.027411 (0.062)	-0.0293027 (0.062)	-0.0295944 (0.062)	-0.0296753 (0.062)	-0.0340336 (0.062)	-0.0349232 (0.062)	-0.0349232 (0.062)	-0.0349232 (0.062)	-0.0349232 (0.062)	-0.0349232 (0.062)	-0.0345769 (0.062)	-0.0345769 (0.062)
BUS.TANG	-0.160572 (0.050)	-0.155406 (0.050)	-0.152581 (0.050)	-0.154952 (0.050)	***	***	***	***	***	***	***	***
SIZE	0.238 (0.008)	0.238 (0.008)	0.239 (0.008)	0.238 (0.008)	0.239 (0.008)	0.239 (0.008)	0.239 (0.008)	0.239 (0.008)	0.239 (0.008)	0.239 (0.008)	0.239 (0.008)	0.239 (0.008)
TENURE	0.0899958 (0.014)	***	***	***	***	***	***	***	***	***	***	***
TENURE.LOW.5		-0.0973148 (0.025)	***	***	***	***	***	***	***	***	***	***
TENURE.LOW.10			-0.0385562 (0.019)	**	**	**	**	**	**	**	**	**
TENURE.LOW.25				-0.0598354 (0.014)	***	***	***	***	***	***	***	***
TENURE.HIGH.75								0.0375712 (0.016)	**	**	**	**
TENURE.HIGH.90										0.00988547 (0.023)		
TENURE.HIGH.95											0.0071139 (0.031)	0.0071139 (0.031)

Source: own elaboration. Notes: All models include the time and industry dummies (not reported). This table presents the random-effect static panel model estimates. The heteroscedasticity robust standard errors are provided in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 9. The nonlinearities in skill-remuneration linkage: discounting for board-specific skills

Explained Variable	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP	BOARD_COMP
Model No	1	2	3	4	5	6	7	8					
No. of observations	27940	27940	27940	27940	27940	27940	27940	27940					
Wald (joint)	999.2 ***	989.3 ***	989.3 ***	992 ***	992.4 ***	995 ***	994 ***	1004 ***					
R ²	0.7587596	0.7583411	0.75837	0.7582922	0.7590664	0.758958	0.7585118	0.7587691					
Constant	8.20597 ***	8.14842 ***	8.14938 ***	8.1474 ***	8.16597 ***	8.1732 ***	8.17101 ***	8.18017 ***					
	(0.227)	(0.227)	(0.227)	(0.227)	(0.227)	(0.227)	(0.227)	(0.227)					
INDEBTEDNESS	0.140 ***	0.140 ***	0.141 ***	0.141 ***	0.140 ***	0.140 ***	0.140 ***	0.139 ***					
	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)					
LIQUIDITY	0.0134466	0.0106738	0.0105249	0.0113946	0.0118861	0.0113712	0.0112635	0.012018					
	(0.063)	(0.063)	(0.063)	(0.063)	(0.063)	(0.063)	(0.063)	(0.063)					
BUS.TANG	-0.13013 **	-0.132309	-0.131915	-0.130848	-0.131145 **	-0.131694 ***	-0.131392 ***	-0.133574 ***					
	(0.051)	(0.051)	(0.051)	(0.051)	(0.051)	(0.051)	(0.051)	(0.051)					
SIZE	0.236 ***	0.236 ***	0.236 ***	0.236 ***	0.236 ***	0.236 ***	0.236 ***	0.236 ***					
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)					
SKILL	-0.00088964 ***												
	(000)												
SKILL.LOW.5		0.0248333											
		(0.026)											
SKILL.LOW.10			0.018										
			(0.020)										
SKILL.LOW.25				0.025958 *									
				(0.013)									
SKILL.HIGH.75					-0.020								
					(0.013)								
SKILL.HIGH.85						-0.0362219 **							
						(0.016)							
SKILL.HIGH.90							-0.0410239 **						
							(0.018)						
SKILL.HIGH.95								-0.0896248 ***					
								(0.023)					

Source: own elaboration. Notes: all models include the time and industry dummies (not reported). This table presents the random-effect static panel model estimates. The heteroscedasticity robust standard errors are provided in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 10. The nonlinearities in the independence–remuneration relation

Explained Variable	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP	BOARD.COMP
Model No	1	2	3	4	5	6	7				
No. of observations	28756	28756	28756	28756	28756	28756	28756	28756	28756	28756	28756
Wald (joint)	1674 ***	1061 ***	1119 ***	1411 ***	1221 ***	1065 ***	1036 ***				
R ²	0.7939998	0.7656172	0.7686064	0.7870047	0.780673	0.7705034	0.7658467				
Constant	7.76952 (0.207)	8.0554 (0.218)	8.0909 (0.216)	8.18666 (0.209)	8.06853 (0.212)	8.08162 (0.216)	8.04522 (0.218)	***	***	***	***
INDEBTEDNESS	0.149 (0.044)	0.142 (0.045)	0.144 (0.045)	0.151 (0.044)	0.147 (0.044)	0.143 (0.045)	0.142 (0.045)	***	***	***	***
LIQUIDITY	0.0104456 (0.061)	0.00024731 (0.063)	0.00820652 (0.063)	0.0277678 (0.062)	0.0032214 (0.062)	0.00637678 (0.063)	0.00863673 (0.063)				
BUS.TANG	-0.10735 (0.049)	-0.110201 (0.050)	-0.104975 (0.050)	-0.101673 (0.049)	-0.114794 (0.050)	-0.107902 (0.050)	-0.10787 (0.050)	**	**	**	**
SIZE	0.229 (0.007)	0.238 (0.008)	0.237 (0.008)	0.235 (0.008)	0.233 (0.008)	0.235 (0.008)	0.237 (0.008)	***	***	***	***
INDEPENDENCE	0.00764394 (0.000)										
IND.LOW.5		-0.174338 (0.030)									
IND.LOW.10			-0.202 (0.022)	***							
IND.LOW.25				-0.286611 (0.016)	***						
IND.HIGH.75					0.187 (0.015)	***					
IND.HIGH.90						0.102623 (0.020)	***				
IND.HIGH.95							0.0833957 (0.027)	***			

Source: own elaboration. Notes: all models include the time and industry dummies (not reported). This table presents the random-effect static panel model estimates. The heteroscedasticity robust standard errors are provided in. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. 80%, an economically and statistically significant discounting applies, with its magnitude increasing in the tail of the distribution. The highest discounting for board-specific skills is observed in the top 5% of firms with the percentage of directors disclosing board-specific skills being above 90%. Overall, the paper shows that as the directors with board-specific skills become the overwhelming majority on the board, the premium for expertise vanishes, suggesting that director substitutability plays to the economic disadvantage of the board members.

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Finally, Table 10 demonstrates the findings with respect to the interrelation between board independence and directors' remuneration. In line with common practice and prior empirical evidence (Jiang et al., 2016), the author a positive link between board remuneration and directors' independence. At the same time, important patterns appear following closer scrutiny of the analysed dependency. First of all, it was noted that the highest discounting to board compensation applies in the bottom quartile of the INDEPENDENCE distribution, which comprises companies with the share of independent directors on the board below 50%. Once the share of independent directors reaches 50%, a premium for independence is observable, while it gradually wears off in the top quartile of the sample distribution. The board compensation is lower in the top decile (share of independent directors above 90%) than the average of the top quartile, while the average compensation in the top 5% of companies (the share of independent directors between 91% and 100%) is lower than that in the top decile.

CONCLUDING REMARKS

This study examines the non-performance-related determinants of board compensation. The paper demonstrated that in most jurisdictions, board compensation is a function of a number of organizational, regulatory and director-level variables, which approximate the board's ability to exercise their supervisory and advisory functions. These seemingly routine relations are complicated by the power struggle between management and supervisory boards, agency issues, and the directors' reputational and business-related concerns.

The author showed that while some of the anticipated relations find empirical confirmation, others manifest intrinsic peculiarities which are not sufficiently covered in the literature. In particular, while confirming that board diligence, experience, skills and independence are positively associated with board compensation, the latter three are documented to exhibit non-monotonic

relationships with board remuneration. The paper shows that the premium for advanced tenure wears off once average board tenure reaches a certain point where there appears to be a trade-off between tenure and independence. Similarly, once the share of independent directors reaches an overwhelming majority, the premium for independence vanishes. Interestingly, the paper showed evidence of discounting for board-specific skills with the remuneration of boards which comprise the majority of directors revealing board-specific skills, lower than that of boards without this property. This study documents the surprising lack of a significant connection between directors' remuneration and the number of their external affiliations.

In contrast with the empirical findings reported in the literature analysing the power struggle between the CEO and the board, it was found that remuneration for the board may increase in line with the CEO's control over the board. Unitary boards and those chaired by former CEOs are found to report higher total remuneration.

Further empirical studies should focus on the design of mechanisms of optimal director remuneration which would balance performance and non-performance-related components. At present, the market seems to be heavily skewed towards flat meeting fees with some jurisdictions allowing for a supplementary stock-tracking package. The director-level determinants of board compensation are mostly codified in the form of minimal requirements towards the applicants for director positions. It is clear that the type of compensation mechanisms should be contingent upon the tasks conferred upon specific board committees with certain credentials and qualifications warranting a premium (for example, more stringent independence requirements may be imposed on nomination and compensation committees with the inclusion of a respective additional compensation element). The latter conjecture merits a further empirical study.

Further research may be necessary to elucidate the discovered independence-tenure trade-off and its impact upon the board compensation mechanisms. As the compensation premium for an advanced director tenure is shown to exhibit a diminishing effect over time, it is worth exploring how the possibly existing informal social networks, ties to incumbent management and non-pecuniary company-director relations may impact the board's ability to exercise impartial supervision. The possible negative repercussions of longer director tenures for independent corporate monitoring may prompt a further discussion over the design of the appropriate mechanisms incentivizing interest compatibility between directors and shareholders.

These findings may be of particular interest for advisory experts specializing in director and executive remuneration, as it highlights the important

organizational determinants which shape board remuneration internationally. The author demonstrated that an appropriate design of a board compensation mechanism should rely on several key determinants which precondition and strengthen the board's ability to exercise effective managerial supervision. The possession of company-specific skills and industry-relevant expertise, experience, independence (as defined by the existing regulatory framework) and diligence (measured by workload and the number of committee-specific functions conferred upon individual directors) should constitute the principal variables underlying director remuneration. At the same time, appropriate care should also be taken to ensure that no outliers are observed (due e.g. to advanced tenure or compliance-cleared consulting) among directors remuneration in order to avoid widening intra-firm wage disparities and prevent the possibility of their entrenchment.

It is worth noting that the current regulatory framework provides a substantial interpretative leeway for setting directors' pay. Public, and especially state-owned, enterprises face a more stringent regulatory supervision (Slomka-Golebiowska and Urbanek, 2014). Disagreements persist in regard of the most appropriate ways of introducing additional remuneration-related regulatory statutes. The self-imposed standards mandated and scrutinized by investors appear to be the most efficient way of promoting best practices allowing to avoid rigid standardization across industries. The primary challenge lies in designing efficient ways of the operationalisation and measurement of director-level performance determinants. Further empirical studies directed towards the identification and quantification of those determinants are warranted.

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