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EXTENDING THE MANAGERIAL POWER THEORY OF EXECUTIVE PAY: A CROSS NATIONAL TEST

(comments welcome)

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Abstract

Contextual factors are typically neglected in both theorizing and empirical tests on executive pay. The fast majority of empirical investigations use data from U.S. based firms. Theoretical implications are typically developed, understood and tested on the basis of the U.S. context. However, the U.S. case is not the world wide standard. Pay in other countries is on average considerably lower and have a different pay mix. The puzzle that from the typical use of agency theory can't be explained is the variance of pay practices that exist not only within countries but also across countries. This paper extends scholars renewed attention to managerial power theory on executive pay. It sets out how and why institutional theory must be included in explanations of executive pay. On the basis of a sample of executive pay packages from 17 different countries we test the theoretical extensions. Results indicate that institutions interact with firm level determinants of executive pay. Explanations for executive pay should therefore account for the variance of pay practices within and across countries. Highlighting that the institutional embeddedness of pay practices play an important role in finding conclusive explanations of current pay practices.

1. Introduction

Executive pay levels and structures differ greatly within and across national contexts (Abowd and Bognanno, 1995; Conyon and Murphy 2000; Kaplan, 1994; Tosi and Greckhamer, 2004; Zhou, 1999). These differences seem to remain over time and seem to still exist after controlling for known firm-level indicators of executive pay, such as firm size, performance, and executives' human capital (cf. Abowd and Bognanno, 1995; Conyon and Murphy 2000; Tosi *et al*, 2000). Apparently, to understand the drivers of executive pay across national settings, the need exists to cast our theoretical nets wider than most received accounts of executive pay so far have suggested. The research presented in this paper therefore shifts the attention away from the traditional principal-agency explanation of pay (cf. Hall and Liebman, 1998; Hall and Murphy, 2003; Jensen and Murphy 1990b; Murphy, 1999, 2002), in which executive pay is more considered as a tool within an arm's length contracting process between a company's professional managers and the designated representatives of its owners in the form of either the board of directors as a whole or its remuneration committee.

In its place, an account based on managerial power theory is put forward. As has been proposed by others, and seems to be heading to a recently achieved consensus in the literature, executive pay should be more considered as an outcome of pay setting processes that are mediated by the level of discretion of the actors involved (Cf. Bebchuk and Fried, 2004; 2006; Bebchuk, Fried, and Walker, 2002; Bebchuk and Grinstein, 2005; Core, Holthausen, and Larcker, 1999; Finkelstein and Boyd 1998, Finkelstein and Hambrick, 1989; Grabke-Rundell and Gomez-Mejia, 2002; Hallock, 1997; Jensen and Murphy, 2004; Tosi and Gomez-Mejia, 1989; Useem, 1996; Westphal and Zajac, 1995). Managerial power theory suggest, if we want to understand how executive pay levels and structures come about, we should look beyond the stylized accounts provided by the economic models of considering executive pay as a tool to align the interests between firm owners and executives. To understand the processes of setting pay we rather should turn our attention to the actual conditions under which pay is set. These conditions are unpacked in two steps.

First, conventional managerial power theory is followed to predict that certain company-level corporate governance features give CEOs and other executives considerable discretion over the pay setting process, such that they can bend it in their

favor of relative less pay at risk and extract greater pay from the corporations they lead. Specifically, the focus is on five executive-empowering/limiting corporate governance features, notably: CEO/Chair duality, single-tiered boards, the proportion of executives over non-executives on a board, employee representation on boards, and the number of non-executives on a board. Since conventional managerial theory has thus far mainly been tested in the US, the first research question addressed is whether its predictions can be generalized across a considerably broader cross-national sample.

Second, efforts are made to extend the theory by hypothesizing how certain features of the institutional environment in which the firm is incorporated can further increase (or decrease) executives' discretion over the pay setting process. Relevant influences on executives' control over pay setting processes emanate from the legal (La Porta et al., 1997), political (Roe, 2003), economic (Rajan and Zingales, 2003), and social environments such as cultural (Tosi and Greckhamer, 2004), as well as from the news media (Core, Guay, and Larcker, 2005; Dyck and Zingales, 2002, 2004). In order to test the second research question, which is to what extent managerial discretion over the pay setting process is contingent upon forces emanating from national institutional contexts, a broad range of these institutional indicators are taken into account.

The theoretical intuitions concerning the role of managerial power in the pay setting process are tested on a primary data set of 3880 pay levels and 1195 pay structures representing 940 firm-year observations from 17 countries. Results indicate that a significant portion of the within-country variance in executive pay levels and structures is indeed explained by structural corporate governance characteristics that give executives more or less discretion over the pay setting process. These results confirm earlier studies by Bebchuk and Fried and others, but are however for the first time tested on a cross-national dataset that allows to simultaneously analyze within- and between-country variance of pay arrangements. Furthermore, the results also indicate that firm-level corporate governance antecedents interact with the institutional contexts in which these arrangements are embedded. Cross-national differences in executive pay levels and structures thus seem to derive at least in part from a combination of firm- and country level factors which allow executives to exert discretion over the process by which their pay is set. These results remain intact when

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controlled for relevant other firm-level variables like size and performance as well as country-level variables like per capita income and personal and corporate tax levels.

Although the results indicate that managerial power theory can be generalized across institutional contexts, predictions, conclusions and policy implications based on the theory are however highly reliant on contextual conditions. This does not disconfirm the theory, but merely shows that when applying the theory it needs extensions to be able to make predictions powerful enough to deal with these highly important contextual conditions.

The paper is structured as follows. First, before hypothesizing standard managerial power theory to answer the question whether managerial power theory predictions can be generalized across a considerably broader cross-national sample, both the complete contracting as well as the managerial power theory are discussed (dealt with in section 3.2: Theory and hypotheses; step 1). After this and after the first set of hypotheses related to the first research question, the managerial power approach is subject of further discussion and hypothesizes are made concerning the predictions of the theory when extending it to an institutional context (dealt with in section 3.3 Theory extensions and hypotheses; step 2). After these two steps, the succeeding section discusses the dataset used to empirically test the hypotheses, followed by the results of the analyses. The subsequent sections conclude and provide some implications of the results for theory development as well as for practice.

2 Theory and hypotheses; step 1

Within this first step, the basics of "the official story" (Bebchuk and Fried, 2004) on executive pay are discussed first. This dominant approach in the literature is based on an agency framework and relies on optimal contract views and considers pay as a tool. Pay is considered as a tool coming with certain costs, as reflected by the needed incentives (i.e. pay) to transfer risks of possible deviations from the principals' interests to the agent. Managerial power theory, which is discussed next, resembles the optimal contract approach rather closely. Except, managerial power theory considers the discretion pay setters and pay receivers have not merely as a cost but as real possible behavior (Grabke-Rundell and Gomez-Mejia, 2002). It does not exclusively see pay arrangements as a purpose to alleviate agency problems but more

as an outcome of pay setting processes. After the discussion of the basic premises of the two theories, a first set of hypotheses is formulated.

2.1 Optimal contracting theory

How does executive pay get determined? In the stylized world of principal-agency theory, the answer is through arm's length contracting. In the traditional setup, the owners of a firm delegate the authority to make day-to-day operating decisions and set long-term corporate policy to a set of competent professional managers (Shleifer and Vishny, 1997). One motivation for doing so is that many shareholders lack the expertise to run the firms they own. Another reason, rooted in optimal portfolio theory (Fama, 1980), is that shareholders also lack the incentive to lead firms, as their investments are spread across many businesses in order to minimize risk. But since shareholders are imperfect readers of managers' minds as they are hampered by incomplete information of managerial behaviors, it would be unwise for them to hand over all residual control rights to managers. Shareholders have therefore traditionally delegated the rights to hire, fire, and set compensation policy for executives to a separate supervisor in the form of the corporate board or the board's remuneration committee (Conyon and He, 2004). These latter bodies are supposed to act in the sole interest of shareholders.

The board or compensation committee will then engage in arm's length contracting with executives, in order to produce an implicit or explicit employment contract (Gillan, Hartzell, and Parrino, 2005). Executive employment contracts typically have a fixed duration, and stipulate terms of employment like salary, bonus, and other incentives, as well as perquisites like pension advice, country club membership, and use of the corporate jet (Rajan and Wulf, 2004; Schwab and Thomas, 2004; Yermack, 2005). The supervisor's responsibility is to write the best possible contract as seen from the perspective of shareholders – one that "maximizes the net expected economic value to shareholders after transaction costs (such as contracting costs) and payments to employees. An equivalent way of saying this is that [optimal] contracts minimize agency costs" (Core, Guay, and Larcker, 2003).

Assumed is that writing good contracts are hampered by myopia problems. Specifically, executives are motivated to advance their own interests after they are hired than those of the shareholders they are supposed to serve (Jensen and Meckling,

1976). Intelligent supervisors will therefore make use of outcome based contracts serving as incentives which' value is contingent on performance, such as bonuses, stock options, restricted stock, and long-term contracts (Conyon, 2006). If all goes well, such performance-contingent arrangements will motivate executives to work on shareholders' behalf, as the outcome based contract transfers risks of deviation from not adhering to the incentives will diminishes the risk-averse self serving executive's wealth. The actual level of pay is based on the market value for which executives with applicable capabilities are willing to take the risk of contracting themselves to a specific firm (cf. Jensen and Murphy, 1990b). In sum, the arm's length view of the pay setting process is "neat, tractable, and reassuring" (Bebchuk and Fried, 2006: 12).

2.2 Managerial Power Theory

The problem with optimal contracting theory is that it hinges on two crucial assumptions. First, by presuming that misalignment of interests between pay setters and receivers are merely a cost and not considered as real possible behavior (Grabke-Rundell and Gomez-Mejia, 2002), the theory does assume that executives are not able to use their self serving behavior in the contracting process it self. In other words, as argued by Bebchuck and Fried (2002) and Bebchuk, Fried and Walker (2002), if a-priory executives are expected to make non-shareholder value maximizing decisions, the reason of the outcome based contract in the first place, there is no reason to a-priory assume that executives make shareholder value maximization choices at all. Setting executive pay is thus an agency problem in it self as the solution to the problem can not be part of the same problem, and thus setting pay is not a perfect mean to an end of alleviating agency problems (Bebchuck and Fried 2002 Bebchuk, Fried and Walker 2002).

Second, it presumes that even though managers are self-serving and thus constantly are on the look-out for ways to extract rents for personal gains, board members (i.e. non-executives) are presumed to be altruistic doves who always faithfully serve shareholders' interests. Managerial power theory differs from optimal contracting theory in that it also challenges this assumption. As Bebchuk and Fried (2003, 2004, 2006) and others have argued, there are no good reasons to believe that directors will automatically do everything in their power to serve the interests of shareholders. In fact, a more tenable position appears to be that directors' willingness

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to serve is contingent on whether their interests are more tightly linked with those of shareholders or management (Conyon and Ye, 2004). There are numerous good reasons for assuming that self-interested directors will in many cases side with the latter.

First, directors may collude with managers in order to get reelected. The nominal right to reelect directors may rest with shareholders, but in practice many of the director slates offered at annual meetings are the ones proposed by management (Bebchuk and Fried, 2006). Secondly, directors may adopt a generous attitude towards executives in the hope of receiving higher pay themselves. Prior empirical studies have shown that in companies with higher CEO compensation, directors get paid more too (Brick, Palmon, and Wald, 2006). Third, board members may not care about the economic consequences of high pay. Directors typically own only a small fraction of the firm's shares, such that the economic cost of even excessive compensation can be quite low to them (Bebchuk and Fried, 2004). Fourth, board members may simply be generous to the CEO because they are on a friendly bases (Daily, Johnson, Ellstrand, Daltan, 1998). Evidence pointing in this direction of cronyism furthermore exists in the form of studies showing that remuneration committees whose chairs have been installed later than the CEO was hired tend to pay more than those for which this order is reversed (Main, O'Reilly, and Wade, 1995).

Needless to say, examples of how executives can use their discretion and how directors can collude with them are plenty full. Rather than elaborating on more examples and dwell on conceptual concerns, the present paper will focus on the pay setting process of executives, and not on the pay setting process of non-executives. The process of setting pay for non-executives and further investigating how their discretion effects their pay and the pay of executives is left for future research. Potentially, a similar approached as pursued here could provide more insights in non-executive discretion. The general issue under investigation is: which conditions mediate the discretion between pay setters (i.e. non-executives) and pay receivers (i.e. executives) in the pay setting process of executives? Like many others have already opted (e.g. Boyd, 1994; Conyon and Peck, 1998), possible answers must be sought in the area of governance as weak governance in particular empowers executives and possibly especially CEOs vis-à-vis non-executives. For sure, there is no lack of firm-level corporate governance mechanisms that were designed with the intention of limiting executives' power over boards. But the diffusion of these mechanisms should

not be taken-for-granted, and even within one and the same jurisdictions the adoption of governance provisions can differ from company to company (Tosi and Gomez-Mejia, 1989).

2.3 Managerial Power Theory: Firm-level Hypotheses

This section formulates a number of hypotheses, consistent with received managerial power theory, on the influence of possible executive discretion over pay levels and structures. The underlying logic behind the formulated hypotheses is rather straight forward. More discretion of the executives is expected to lead to higher pay levels, and to lower pay at risk. More discretion is expected to lead to higher pay as it provides the executives with more leverage to serve their own interests of higher levels of wealth. More discretion is expected to lead to lower pay at risk, i.e. in theory less performance contingent pay, as the executives are assumed to be risk averse and will thus negotiate higher fixed components as a proportion of total pay (i.e. higher salary as a proportion of total pay).

2.3.1 CEO/Chair duality

The first considered governance provision that is known to weaken non-executives vis-à-vis executives is CEO/Chair duality; a situation in which both functions of Chairman of the board and Chief Executive Officer are joined in the hands of a single person (Boyd, 1994; 1995; Fama and Jensen, 1983). CEO duality plays two complementary roles in managerial power theory. First, it typically increases the CEO's discretionary powers over firm resources and is thereby taken by inside and outside stakeholders to reflect strong leadership (cf. Finkelstein and D'Aveni, 1994). As a significant and visible symbol, duality reinforces the CEO's "figurehead status" (Ungson and Steers, 1984). The figurehead CEO/Chair tends to present him- or herself as the ulterior representative of the corporation, and typically seeks to underwrite this status and mandate with higher than average pay (Gomez-Mejia, 1994). Second, in a situation of duality, the CEO, as leader of his fellow collaborating executives, is also the leader of the board, and can therefore command additional obedience and loyalty on behalf of those entities that are put in place to set executive pay (cf. Bebchuk and Fried, 2004). Duality therefore offers executives with

opportunities for increasing pay levels and bending pay structures to make them in theory less reliant on performance, i.e. to raise the proportion of executive fixed salary components over total pay. Formally stated as:

Hypothesis 1a: Executive pay levels will be higher in firms where there is CEO/Chair duality.

Hypothesis 1b: The salary component of executive's pay will be larger in firms where there is CEO/Chair duality.

2.3.2 One-tier boards

Companies are either governed by a one-tiered or a two-tiered board. One-tier boards are composed of both executive and non-executive members, and may be chaired by a representative of either group. Typical for the single tier situation, and important for managerial power theory, is that the non-executives do not meet independently of the executives, such that even the non-executive members of the board are never completely out of the CEO's and other executives' sphere of influence (cf. Conyon and Peck, 1998). Two-tier boards, in contrast, have a first tier in the form of a supervisory body composed exclusively of non-executive directors. The supervisory board mostly "appoints the members of the management board [i.e., the second tier], equivalent to the executive directors of a U.K. or U.S. [single tier] board, approves the annual accounts and the firm's long-term strategy, and can intervene when there is a serious deterioration in the company's fortunes" (Franks and Mayer, 2001: 952). Of special interest to managerial power theory is that even though the CEO is typically chair of the management board, the CEO and his fellow executives are not a member of the supervisory board and do not normally attend their meetings. One-tier boards thus offer executives greater opportunities for persuading non-executives to go along with higher salary levels and with less pay that is contingent on performance. Thus:

Hypothesis 2a: Executive pay levels will be higher in firms with a one-tier board structure.

Hypothesis 2b: The salary component of the executive pay will be higher in firms with a one-tier board structure.

2.3.3 Employee board representation

The third set of 2 hypotheses concerns the representation of employees on the board, a governance mechanism that shows firms' commitment to human capital and willingness to let lower level employees "codetermine" the fate of the organization. Employee board representation plays at least four constraining roles in limiting executive discretion. First, since employee representatives are not usually drawn from the inner circles of the corporate elite, certain social control processes that give executives greater influence over fellow elite members (such as long-standing friendships and the "shadow of the future" (Axelrod, 1984) imposed by external business ties and protection of the managerial class (Gomez-Mejia, 1994)) are rendered ineffective. Thus, employee representatives are in this sense less likely to be co-opted by management than other directors. Second, with employee representatives firms allow a third residual claimant (in addition to management and shareholders) into the boardroom (Aguilera and Jackson, 2003), thus potentially lowering management's "piece of the pie" and discretion over firm resources. Third, employees are more likely than other directors to have a keen eye for the proportionality between executive compensation and their own pay, and to object when the differences become socially unacceptable (cf. Simon, 1957). Fourth, due to their day-to-day relationships with management, employee representatives are in better positions than most directors to directly oversee executives' actions (Dow 2003, Hansmann, 1996). Employee representations on the board thus result in lower managerial discretion, leading to the following hypotheses:

> *Hypothesis 3a: Executive pay levels will be lower in firms with employee representation on the board.*
> *Hypothesis 3b: The salary component of executive pay will be lower in firms with employee representation on the board.*

2.3.4 Number of non-executives

One governance characteristic that is often explored in terms of its implications for management monitoring is board size (Boyd, 1994; 1995). Here, in order to make

the results comparable across the 17 countries in the sample, the number of non-executives on a one-tier board and the number of people on the supervisory board on a two-tier board represent the potential number of directors that monitor executives. Applying managerial power theory as addressed, would suggest that more non-executives leads to more monitoring and thus leave less discretion to executives. An additional counter explanation that is given within managerial power theory is that greater absolute numbers of the supervisors on a board could reduce the effectiveness of board monitoring and increase executive entrenchment due to problems of collective action (Conyon and Peck, 1998; Yermack, 1996). This effect, often tested on US and UK data where it is likely to be stronger due to the lesser independence of boards from management as they are one-tier board structures (Gedajlovic and Shapiro, 1998), is found to support the view that bigger boards tend to pay more (Core, Halthausen and Larcker, 1999) and could be interpreted that bigger boards leave executives with more discretion.

On the other hand, Yermack (1996) found that smaller boards often tend to rely more heavily on incentive pay, possibly in order to compensate for their lack of monitoring ability (cf. Finkelstein and D'Aveni, 1994), suggesting that bigger boards are better able to constrain executives discretion. Thereby, bigger boards may want to avoid "overt monitoring" by providing too much incentives (Finkelstein and D'Aveni, 1994). The arguments indicate that executive discretion under conditions of bigger board size could thus go either way and still fit more or less within a managerial power view. It could be that interpretations of theoretical concepts as overt monitoring and problems of collective action could be biased by generalizing the empirical results based on single country data that reflect only one-tier board structures. Interpreting previous results could thus be biased by generalizing these results from these "special cases" of one-tier board structures. Since managerial power theory is here for the first time subject of a cross-national sample, comprised of both two-tier and one-tier board structures, "standard" managerial power theory is followed. The expectation is that more non-executive are, at least potentially, better in constraining executive discretion. Thus:

> *Hypothesis 4a: Executive pay levels will decrease with the number of non-executives on the board.*

Hypothesis 4b: The salary component of the CEO's pay will decrease with the number of non-executives on the board.

2.3.5 Proportion of executives/non-executives

A similar argumentation can be used to hypothesize relationships with the board structure variable proportion of executives over non-executives and executive pay. Previous empirical results are mixed, ranging from no relationship to positive and negative relationships with pay and board structure variables like the proportion of executives over non-executives, proportion of inside and outside directors on the board, and the composition of remuneration committees (Conyon and Peck 1998; Core, Halthausen and Larcker, 1999; David, Kochlar, Levitas, 1998; Sanders and Carpenter, 1998; Daily, Johnson Ellstrand Daltan 1998). If making the conceptual difficult assumption as argued in section 3.2, that non-executives are truly altruistic doves and are truly independent and live up to their fiduciary duties, more non-executives in proportion to executives will lower managerial discretion (cf. Conyon and Peck, 1998; Fama and Jensen, 1983; Finkelstein and Hambrick, 1988; Yermack 1996). To further strengthen the argumentation that less executives over more non-executives decreases managerial discretion, outside directors are also brought on boards in order to bring critical resources into the firm (Hillman, Cannella, and Paetzold, 2000; Luoma and Goodstein, 1999; Pfeffer and Salancik, 2003). Backed by the importance of the resources they represent, such directors could reduce management's discretion. Using this argumentation, higher proportions of executives over non-executives are expected to increase managerial discretion, formulated as:

Hypothesis 5a: Executive pay levels will increase with the proportion of executives over non-executives on the board.

Hypothesis 5b: The salary component of the executive pay will increase with the proportion of executives over non-executives on the board.

3 Theory extensions and hypotheses; step 2

Of central concern to managerial power theorists is how executives can exploit or circumvent firm-level governance mechanisms in order to influence pay setting

practices and extract rents from the firm (Bebchuk and Fried, 2003, 2004, 2006). To date, the main body of theory and research on the role of managerial power in executive pay has originated in the United States and is strongly colored by that nation's culture and institutional makeup (cf. Conyon and Schwalbach, 2000; Conyon and Murphy 2000, Gomez-Mejia and Wiseman, 1997; Tosi and Greckhamer, 2004). Yet, prior research has shown that precisely in the US "CEOs receive higher levels of pay than those in other [economically advanced] countries" (Abowd and Kaplan, 1999: 148). This not only raises questions about the generalizability of explanations of a theory to global settings but also about the role of context in that particular theory (cf. Bruce, Buck and Main, 2005; Gomez-Mejia, Wiseman, Dykes 2005; Gomez-Mejia and Wiseman, 1997). Despite the repeated pleas for more attention to the role of contingency factors in executive pay (e.g. Barkema and Gomez-Mejia, 1998; Finkelstein and Boyd, 1998; Gomez-Mejia and Wiseman, 1997), very little is known about possible influences from national institutional contexts of executive pay setting practices.

The core theoretical premise followed is that the efficacy of a given firm-level corporate governance mechanism is contingent on the quality and makeup of the background institutions of the country in which that mechanism is put to work (Hollingsworth and Boyer, 1997). Mechanisms require judgments of their applications in society in the sense that they have to adhere to social needs, wants and acceptance (Perkins and Hendry 2005). More specifically, when national background institutions are strongly developed and functionally complementary to firm-level governance mechanisms, the potential of the latter for mitigating managerial power will increase. For example, a firm-level information disclosure policy can be stiffened by a national information regime characterized by widely dispersed independent media and well-trained business analysts (cf. Khanna and Palepu, 2000). In contrast, much of a firm-level governance mechanism's capacity for influencing managerial discretion can be destroyed by weakly developed or counter-purposive national institutions. For example, managerial fiduciary duties towards shareholders lose much of their meaning when courts hide behind a "business judgment rule" or are otherwise unwilling to uphold them (cf. Bebchuk and Fried, 2004; Easterbrook and Fishel, 1991).

In short, managerial power theory is extended by arguing and demonstrating how its predictions are contingent on the quality of complementary background institutions

in a given jurisdiction. This institutional theoretical extension of the theory and theoretical contribution should be evaluated against a) the empirical results that provide more insights into the possible generalization of the theory in a cross country sample, and b) to provide managerial power theoretical with extensions that make predictions given the specifics of certain contextual conditions.

3.1 Legal institutions and managerial power

The role of legal institutions in corporate governance has already attracted considerable attention. Prior research has shown that better legal protection enlarges and broadens capital markets (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998), leads to higher valuation of the firms listed in a given jurisdiction (La Porta, Lopez-de-Silanes, and Shleifer, 2002), and generally increases economic growth (Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer, 2003). One micro foundation that appears to produce these macro outcomes is that well-developed legal institutions help tame influential managers directly. Specifically, differences in the level of legal protection investors enjoy across countries seem to influence the ability of insiders to expropriate outsiders (Shleifer and Wolfenzon, 2002). Given adequate legal protection, outsiders can sue "tunneling"[1] or "self-dealing" executives in court in the justified expectation that judges will acknowledge their rights and punish the transgressors (Djankov, La Porta, Lopez-de-Silanes, and Shleifer, 2005). Increase legal protection is therefore expected to decrease managerial discretion, thus lowering pay levels and make pay at least in principal more contingent on performance.

> *Hypothesis 6a: Executive pay levels will be lower in countries offering better legal protection to investors.*
> *Hypothesis 6b: The salary component of executive pay will be lower in countries offering better legal protection to investors.*

Legal protection also helps tame managers indirectly, however, by increasing the efficacy of other governance mechanisms protecting shareholders or by rendering

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[1] Tunneling is transferring assets and profits out of firms, most often assumed to benefit controlling shareholders or executives and not per se smaller shareholders or other stakeholders of the firm. (See e.g. Djankov et al, 2005)

poor firm-level governance situations less harmful. CEO duality may be a case in point. US studies have repeatedly shown that there is a positive relationship between pay and duality (Boyd, 1994; Main and Johnston, 1993; Westphal and Zajac, 1995). Surprisingly, Conyon and Peck found that "CEO duality was not a robust driver of UK management pay" (1998: 154). Apparently, the extent to which CEO duality gives executives power over their own remuneration is contingent upon some other factor, which varies systematically across the two countries (cf. Barkema and Gomez-Mejia, 1998). This factor might be the legal protection of investors, which is exceptionally high in the UK but only mediocre in the US (cf. Djankov, La Porta, Lopez-de-Silanes, and Shleifer, 2005). This contingency effect could be generalized as: better legal protection of investors negatively moderate the positive relationship between CEO duality and executive pay levels and structures, formalized in the following hypotheses:

> *Hypothesis 6c: The relationship between CEO duality and executive pay levels will be stronger in countries offering weaker legal protection to investors than in countries offering stronger protection.*
>
> *Hypothesis 6d: The relationship between CEO duality and the salary component of executive pay will be stronger in countries offering weaker legal protection to investors than in countries offering stronger protection.*

3.2 Cultural institutions and managerial power

Compensation scholars have long speculated about the influence of national culture on executive pay levels (Conyon and Murphy, 2000; Gomez-Mejia and Wiseman, 1997). Culture is expected to exert a direct influence on executive pay because the differential amounts of wealth high-placed officials can extract from the organizations they lead can be seen as "an illustration of the way in which different cultures see [money and monetary exchange] differently" (Bloch and Parry, 1989: 2). Previous research by Tosi and Greckhamer (2004) has shown that especially the cultural dimension of power distance—the degree to which differences in power and status are accepted in a culture (Hofstede, 2001)—bears a relation to executive pay. Executive pay is likely to be higher in high power distance countries for two reasons.

First, because organizations are structures of power and authority, they mirror how power in society is viewed. High power distance societies are likely to have more centralized, taller hierarchies, with higher pay levels towards the top. Second, executives from such societies are likely to have a greater psychological need for power, and for seeing that power is reflected by higher pay levels as pay reflects their mandate, abilities, expectations and prestige. In line with others, higher power distance in society provides executives with the social acceptance of using their power to increase pay levels and make it in principal less contingent on performance (Tosi and Greckhamer, 2004; Werner and Tosi, 1995). Formally stated as:

> *Hypothesis 7a: Executive pay levels will be higher in countries with higher levels of power distance.*
>
> *Hypothesis 7b: The salary component of the executive pay will be higher in countries with higher levels of power distance.*

National culture is also likely to influence pay indirectly via an effect on firm-level governance mechanisms. According to Hofstede (2001), there is a tendency to more elitism in power distant societies, implying greater stratification, less direct contact between the strata, and a higher incidence of within-class loyalty and friendship (Useem, 1996). Proposed is that non-executives play two roles in such societies —notably: (1) member of the national elite and possibly member of the same social class as executives, and (2) guardian of investor and stakeholder interests —and that these roles can be empirically separated. In a two-tier system, in which non-executives meet independently, their stewardship role towards investors and the firm is more likely to rise to the fore, as their meetings are also called for the specific purpose of safeguarding financiers' interests and operate as a separate entity in the organization. In a one-tier system, however, non-executives are constantly reminded of the fact that they share an elite position with the executives they are supposed to supervise. Under such conditions, it may be harder for them to separate themselves from their broader cultural frame of reference, which they share with the executives and in which it is seen as just and appropriate that those in positions of power extract more wealth from society—regardless of the performance of the firms they lead. It is therefore expected that one-tier board structures in societies with higher power distance increase the executives' position to influence their pay. Thus:

Hypothesis 7c: The relationship between one-tiered board structures and executive pay levels will be stronger in countries with higher levels of power distance.

Hypothesis 7d: The relationship between one-tiered board structures and the salary component of executive pay will be stronger in countries with higher levels of power distance.

3.3 Political institutions and managerial power

The political power of labor has been a central force in shaping much of the legal and regulatory design of the 20th century (Blair and Roe, 1999; Pagano and Volpin, 2001;2005; Roe, 2000). Indeed, most countries around the world by now have developed complex and overlapping institutions intended to protect the interests of workers (Botero, Djankov, La Porta, Lopez-de-Silanes, and Shleifer, 2004). Although these institutions tend to be analyzed frequently from a social efficiency perspective (North, 1990), political theorists tend to remind us that political institutions are not a priory designed to pursue economic efficiency, but rather to shift resources from the powerless to the powerful (e.g. cf. March and Olsen, 1984; Meyer and Rowan, 1977 Perrow, 1991; Roe, 2003). Even though the role of labor has historically been neglected in the corporate governance literature (Blair and Roe, 1999), it is no fancy to assume that employees can use their political influence in the corporate governance arena (cf Botero, Djankov, La Porta, Lopez-de-Silanes, and Shleifer, 2004; Roe, 2003). Traditional triggers for them to become active could be the rising of executive pay levels against a background of wage freezes for the rank-and-file or firm down-sizes (cf. Finkelstein and Hambrick, 1989, Gomez-Mejia, 1994, Jensen and Murphy 2004, and Murphy, 1997), and more generally a possible lack of social acceptations of proportionality between executives and worker pay (cf. Simon, 1957). In general, expected can be a direct effect between the propensity of political institutions to protect employees and executives' power over their pay levels and structures. Leading to the following hypotheses:

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Hypothesis 8a: Executive pay levels will be lower in countries with higher levels of employee protection.

Hypothesis 8b: The salary component of the CEO's pay will be lower in countries with higher levels of employee protection.

Employee protection might also influence executive pay levels and structures indirectly via an additional empowering effect of employees represented on the board. In the US, participation of employees in firm governance has historically been a rarity (Luoma and Goodstein, 1999). In countries like Germany, Sweden, and Japan, however, employee representation is customary and is typically seen as a cornerstone of competitive advantage and social stability (Aguilera and Jackson, 2003; Brown, Nakata, Reich, and Ulman, 1997). But worker representation alone is insufficient to give labor an important voice in firm governance. Like executives, workers are insiders, and depend for their income and livelihood on the firm whose fate they co-determine. Moreover, even more so than other insiders on the board, they are in a clear hierarchical relationship with executives, who might seek to influence their judgment in matters pertaining to him or her. Thus, employees can only be expected to raise an independent voice when they are adequately protected against dismissal, demotion, and other forms of negative career consequences.

Hypothesis 8c: The relationship between employee representation and executive pay levels will be stronger in countries with higher levels of employee protection.

Hypothesis 8d: The relationship between employee representation and the salary component of executive pay will be stronger in countries with higher levels of employee protection.

3.4 Voice and accountability and managerial power

The news media have the power to directly influence and shape corporate policy, including corporate governance (Dyck and Zingales, 2002, 2004). They play also an important role in the justifying process of pay arrangements (Wade, Porac, Pollock 1997) as they ventilate what Bebchuk and Fried (2004, 2006; Bebchuk, Fried, and Walker, 2002) have called "outrage" factors. Public outrage occurs when a particular

executives pay arrangements go so far beyond what could be justified that "it will be viewed by relevant outsiders as unjustified or even abusive or egregious" (Bebchuk and Fried, 2004: 65). But for the outrage mechanism to work and to provide independent media the possibility to investigate and ventilate possible "unjustifiable" pay arrangements to be able to do something about it, two factors must be met. First, if pay is found to be excessive it must be sufficiently widespread among relevant groups of people about whose views executives care. But the media can not function without social processes of accountability. Thus to make the process work, second, the process must be backed by social institutions as civil liberties like freedom of speech, of association, and of holding those with responsibility of social mishaps accountable. Both factors must be in place for the checks on executive power to work and to come from private ordering (cf. Williamson, 1985).

> *Hypothesis 9a: Executive pay levels will be lower in countries with higher levels of voice and accountably.*
>
> *Hypothesis 9b: The salary component of the CEO's pay will be lower in countries with higher levels of voice and accountability.*

The news media also shape executives pay packages indirectly via non-executive directors. Even though board members can sign off on pay packages that go beyond what executives could have extracted from the firm under arms-length contracting, there are limits to the board's willingness to favor executives. It is especially unlikely that non-executives would approve an arrangement that could generate widespread outrage, as this has two serious effects for non-executives themselves (Bebchuk and Fried, 2004; Bebchuk, Fried, and Walker, 2002). First, outrage has a negative effect of the "high-powered" (Williamson, 1985: 137-141) monetary incentives accruing to non-executives. Directors are selected on corporate boards on the basis of their reputation for expertise and independence in decision-making. Reputational damage can diminish a non-executive's chances of being re-elected and of being appointed to other boards. Second, it also affects directors' "low-powered" (Williamson, 1985: 137-141) incentives like conscience, pride, and social esteem. These effects backed up by a society with higher standards on institutions reflecting voice and accountability may constrain executives' power. The first effect is not necessarily less important than the latter, as many outside directors join boards not for the pay but for the prestige and

connections that are associated with these posts (Lorsch and MacIver, 1989). Therefore:

Hypothesis 9c: The relationship between the number of non-executives on the board and executive pay levels will be stronger in countries with higher levels of voice and accountability.

Hypothesis 9d: The relationship between the number of non-executives on the board and the salary component of executive pay will be stronger in countries with higher levels of voice and accountability.

3.5 Economic financial institutions and managerial power

Country-level economic institutions—especially financial institutions—are strongly linked to economic growth in general and firm-level drivers of such growth in particular (Levine, 1997, Rajan and Zingales, 2003). Financial institutions like stock markets, banks, securities analysts, and rating agencies intervene as intermediaries in less-than-perfect markets, to the effect of lowering information and transaction costs (Khanna and Palepu, 2001). Financial institutions enter the executive pay arena in two ways. First, they regulate and shape the market for corporate control (Manne, 1965). High excessive pay can be regarded as a sign of weak governance resulting in more pervasive management shortcomings and chronic underperformance, and is thus a signal to corporate raiders that the firm might be an attractive takeover target (Bebchuk and Fried, 2004). Well-developed financial institutions supply raiders with both detailed information for making accurate performance potential estimates, communication channels towards dispersed stakeholders they need to reach in case of a proxy fight, and sophisticated financial instruments for closing appropriate deals. Second, financial institutions control the market for additional capital. Firms occasionally have to return to the market for additional equity capital in order to pay for substantial investments. The prospect of having to sell shares to the public might cause managers to seek a reputation as corporate stewards and conservative self-compensators (cf. Bebchuck and Fried, 2004;2003; Bebchuk, Fried, and Walker, 2002). Thus, the well functioning and importance of financial economic institutions for a countries economy might therefore

exert disciplining pressures on executive pay levels and structures. Formulated as the following hypotheses:

> *Hypothesis 10a: Executive pay levels will be lower in countries with more important financial economic institutions for a countries economy.*
> *Hypothesis 10b: The salary component of executive pay will be lower in countries with more important financial economic institutions for a countries economy.*

Financial institutions are also expected to indirectly disciple managers by complementing the control efforts of the corporate board. Walsh and Seward (1990) have described boards and financial institutions as internal and external managerial control mechanisms respectively. Internal control mechanisms, such as enlarging the proportion of outsiders on a board (Kosnik, 1987), are "designed to bring the interests of managers and shareholders into congruence" (Walsh and Seward, 1990: 423). Such internal control mechanisms are rendered ineffectual, however, when managers entrench themselves by tampering with the board's ability to monitor and control their performance (Berger, Ofek, and Yermack, 1997). External control mechanisms, such as the market for corporate control, can then be relied upon as an alternate control mechanism for taming self-enriching managers. Internal control mechanisms like the proportion of executives over non-executive board members and external control mechanisms like important financial institutions for a countries economy can thus be seen as complementary governance options that operate better in tandem—although not necessarily simultaneously (Walsh and Seward, 1990).Resulting in the next set of hypotheses:

> *Hypothesis 10c: The relationship between the proportion of executives over non-executives on the board and executive pay levels will be stronger in countries with more important financial economic institutions for a countries economy.*
> *Hypothesis 10d: The relationship between the proportion of non-executives on the board and the salary component of the executive pay will be stronger in countries with more important financial economic institutions for a countries economy.*

4 Testing managerial power theory and its extension

To be able to test managerial power theory and the extension to provide generalizations of managerial power theoretical predictions given specifics of certain institutional contextual conditions, a cross national sample of executive pay packages was complied. The sample was designed to provide a representative overview of executive pay in the global business landscape, and includes firms from 17 countries. The selected countries are based on their economic impact on the world economy, computed as the average size of their GDP from 1999 to 2003 (source: World Bank Indicators). Some countries have such weak disclosure regimes however, that reliable pay data was not available. Such countries were excluded from the sample, and added by the next largest to replace it. The firm-level data collection efforts were simultaneously aimed at breadth and depth. To realize the former, the aim was to collect 2003 data for all the countries in the sample. The latter aim was reached by adding further observations for firms from 8 countries for the years 2001, 2002, and 2004 to the sample as for the other 9 countries data availability was limited before 2003. For comparability reasons, the aim was to collect data on the largest 30 listed firms in a country. Thereby, the practical reason for choosing the largest firms is that larger firms tend to disclose more pay data. However, some countries have a relative very limited number of listed firms (e.g. Austria, Denmark, Finland) and for many firms from different countries and for different years, annual reports or other company reports disclosing pay data were not available. As an exception, also for comparison reasons, for the US the aim was to collect data for 50 firms as the US has many, especially in comparison to many other countries, very large listed firms. In all cases, the proportion of financial institutions like banks and insurance companies was limited to 20% of the country's sample in order to increase the comparability of the results across nations and industries, as financial firms are drastically overrepresented in some nations, financial firms could be a special case in corporate governance (Adams and Mehran, 2003) and the possible effects from overrepresentation of a single industry that could drive the results (See for industry influences on pay e.g. Coles, McWilliams and Sen 2001, Gibbons and Murphy 1990, Garvey and Milbourn 2003).

The final sample consists of 3880 pay levels and 1195 pay structures representing 940 firm-year observations from 17 countries. To make the data comparable across

national contexts and sample years, all monetary variables are purchasing power parity (PPP)-adjusted, with 2000 as base year and in constant 2000 United States Dollars. Table 1, 2, and 3 provide an overview of the sample of the country specific firm-year observations.

TABLE 1

Overview of the Total Sample [a]

Country	Firm-year observations
Australia*	44
Austria	12
Canada*	99
Denmark	10
Finland	12
France*	94
Germany*	110
Hong Kong	10
Italy	21
Netherlands*	96
Norway	20
South Africa*	96
Spain	30
Sweden	19
Switzerland	20
United Kingdom*	80
United States*	167
Total firm year observations	940

[a] Countries marked with an asterisk are included in the
longitudinal (2001-2004) data panel; for the others
only 2003 data is available

TABLE 2

Sample overview year 2003

Country	Firm observations
Australia	20
Austria	12
Canada	31
Denmark	10
Finland	12
France	30
Germany	30
Hong Kong	10
Italy	21
Netherlands	25
Norway	20
South Africa	30
Spain	30
Sweden	19
Switzerland	20
United Kingdom	30
United States	50
Total firm observations	400

TABLE 3

Sample overview years 2001, 2002, and 2004

Country	*Firm observations*		
	2001	*2002*	*2004*
Australia	8	9	7
Canada	21	25	22
France	20	22	22
Germany	26	28	26
Netherlands	24	25	22
South Africa	21	24	21
United Kingdom	16	19	15
United States	37	39	41
Total observations	173	191	176

4.1 Dependent variables

Outside the major Anglo-Saxon jurisdictions, pay disclosure is by all means still a novelty. Disclosure is still largely voluntary in many parts of the developed world. Companies in many jurisdictions can choose whether to report data at all, report individual executive data or data aggregated for all executives on the board. Reliable long-term pay data (e.g., stock options, restricted stock, and long-term incentive

plans) is in general rare. Therefore the collect data is cash data (salary, bonus, and total cash) for both CEOs individually and total executives on the board (averaged by number). Total cash pay is the sum of salary and bonus, and is a frequently used measure in studies of CEO pay (e.g. Boyd, 1994; Finkelstein and Hambrick, 1998). Furthermore, the total cash measure has been found to be an excellent proxy for total remuneration (including non-cash components), since the explanatory patterns for both measures do not differ (Core, Halthausen and Larcker, 1999; Lewellen and Huntsman, 1970). In fact, additional analyses on a 12-country panel (10 of which are also represented in the sample used here) compiled by Abowd and Kaplan (1999) show that in 1996 the proportion of total cash pay to total pay for CEOs ranged from 1.25 (Germany) to 1.66 (UK), averaged on 1.48, and had a standard deviation of only 0.17. Thus, total cash measures serve as a very good proxy for total pay (Boyd, 1994; Core, Halthausen and Larcker, 1999; Finkelstein and Hambrick, 1998). The US pay data was collected from companies' proxy statements, for all other countries pay data was retrieved from annual reports.

CEO total cash was measured as the total of CEO salary and CEO bonus. Executive total cash was measured as the total of executive salary and executive bonus, averaged over the number of executives on the board including the CEO. The logarithm of pay levels are used as dependent variables in the pay level models.

The proportion of CEO salary/total cash and Executive salary/total cash is computed by dividing the salary by total cash components of respectively CEOs and averaged executives, and express the relative focus on salary (as compared to bonus) and as a reflection of the importance of fixed pay, and the at least in theory, less dependence on pay that is at outcome risks. Table 4 provides an overview of the average pay levels and structures for all the countries in the data set; Table 5 provides an overview of the descriptive statistics for the dependent variables.

TABLE 4

Mean pay levels and structures all firm-year observations

Country (Pay in US$)	CEO Total cash	Executive Total cash	CEO Salary	Executive Salary	CEO Bonus	Executive Bonus	CEO Salary/ Total cash	Executive Salary/ Total cash
Australia	1.818.347	847.187	968.722	493.940	934.587	384.416	0,608	0,596
Austria	544.996	565.358	346.920	337.019	198.077	232.587	0,657	0,601
Canada	1.920.247	1.251.384	781.429	625.829	1.410.775	695.800	0,508	0,601
Denmark	650.712	416.939	584.112	429.295	93.328	132.870	0,862	0,766
Finland	658.390	436.785	562540	284.791	137.185	131.386	0,801	0,791
France	1.895.236	1.028.609	1.104.743	609.695	1.057.553	563.537	0,516	0,539
Germany	2.072.468	1.331.927	867.172	545.350	1.428.166	831.952	0,428	0,461
Hong Kong	699.721	776.247	788.191	456.059	530.823	320.188	0,598	0,645
Italy	1.369.791		970.578		857.586		0,571	
Netherlands	1.117.233	853.838	662.998	532.239	459.456	330.309	0,667	0,652
Norway	288.837	207.600	269.294	156.780	43.429	20.294	0,886	0,885
South Africa	1.522.656	939.459	853.381	578.051	774.495	401.888	0,595	0,631
Spain	992.191		553.930		1.231.900		0,497	
Sweden	846.845	470.965	611.984	323.323	247.908	171.289	0,747	0,714
Switzerland	1.638.072	777.590	1.409.954	1.138.612	619.260	178.971	0,801	0,786
United Kingdom	1.819.246	1.202.671	1.011.103	672.748	850.677	547.588	0,597	0,617
United States	4.335.054	3.695.394	1.261.363	1.027.420	3.138.628	2.690.207	0,384	0,405
Full sample mean	2.112.076	1.473.971	931.448	655.819	1.393.856	958.340	0,544	0,553
Full sample S.D.	2.198.783	1.680.263	604.764	449.799	2.067.387	1.575.783	0,231	0,214
Full sample N	731	703	688	631	609	583	609	583

TABLE 5

Descriptive statistics dependent variables

Variable	N	Minimum	Maximum	Mean	S.D.
Log CEO Total cash	731	9,828	17,150	14,180	0,938
Log CEO Bonus	560	8,699	17,117	13,623	1,176
Log CEO Salary	688	9,439	16,009	13,566	0,667
CEO Salary /Total cash	609	0,033	1	0,544	0,231
Log Executive Total cash	703	9,725	16,539	13,815	0,857
Log Executive Salary	631	9,413	15,550	13,223	0,600
Log Executive Bonus	567	8,409	16,483	13,046	1,254
Executive Salary /Total cash	583	0,036	1	0,553	0,214

4.2 Independent variables

The main independent variables that are under investigation consist of firm-level variables, country-level variables and the interaction variables between the two. Each of the variables is used to test the different hypotheses as stated above. See table 6 below for the complete list and descriptive statistics.

4.2.1 Firm-level variables

The CEO duality variable is measures with a dummy variable, which was set to one if the posts of CEO and chairman were combined and to zero otherwise (Conyon and Peck, 1998; Sanders and Carpenter, 1998; Zajac and Westphal, 2004). The one-tier board variable was also measured with a dummy variable, and was set to one for one-tier boards and set to zero for two-tier board structures. Thus if there was a single board composed of both executives and non-executives the dummy is one, and zero if there was a separate supervisory board composed entirely of non-executives (Franks and Mayer, 2001). The variable employee on board was measured also as a dummy variable, and set to one if at least one board member was a non-managerial employee of the firm and to zero if otherwise. The number of non-executives variable was measured as a count variable and expresses the absolute number of non-executive directors on the board (Conyon and Peck, 1998). The proportion executives/non-executives variable was computed by dividing the number of executives on the board by the number of non-executives on the board (Conyon and Peck, 1998; Lambert, Larcker, and Weigelt, 1993; Westphal and Zajac, 1994).

4.2.2 Country-level variables

As a measure for shareholder protection against insider self-dealing the anti-self-dealing index from Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2005/6) was used. The index measures jurisdictions' scores on both ex-ante anti-self-dealing provisions like approval and disclosure requirements and ex-post provisions like the ease of proving wrongdoing, and expresses them as a coefficient ranging from 0 (poor protection) to 1 (excellent protection). The index was recently adapted from a prior 'anti-director' index (La Porta, Lopez-de-Silanes, and Shleifer, 1998) and shows excellent predictive validity on a number of stock market development criteria (Djankov *et al.*, 2006). To measure power distance the value scores for this dimension of national culture as they are reported by Hofstede (1980) was used. The scale on which these scores are expressed runs from 0 (low power distance) to 100 (high power distance). The Hofstede scores have been replicated in other studies (Hofstede, 2001; Sondergaard, 1994) and especially power distance has demonstrated its predictive validity in studies of executive pay (Tosi and Greckhamer, 2004). To measure Employee protection the 'employment laws index' compiled by Botero, Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2004) was used. This index measures the economic costs to employers of adopting contracts other than full-time, unlimited duration contracts, of increasing hours worked (i.e., overtime), and of firing workers, as well as the legal constraints to dismissal. The index runs from 0 (poor protection) to 1 (excellent protection). Empirical analyses with this variable subscribe to it being also as a political factor, as countries with longer histories of leftist or centrist governments between 1928 and 1995 have heavier regulation of labor markets and role of employees in corporate governance (Botero *et al.*, 2004, Roe, 2003).

For the measure of voice and accountability, which measures the freedom of the media in a given jurisdiction as well as the extent to which this freedom is supported by relevant civil rights and liberties and holding those in power accountable for social processes, the index compiled by Kaufmann, Kraay, and Mastruzzi (2005) is used. The index, which is scaled from 0 (poor standards of institutional voice and accountability and low media freedom) to 1 (high standards of institutional voice and accountability and high media freedom) has been used and validated in several empirical studies (Knack and Kiefer, 1995; Rodrik, Subramanian, and Trebbi, 2004). Finally, to proxy for the importance of financial economic institutions for a countries

economy the variable Stock market capitalization/GDP, as calculated as the value of all listed shares over GDP was used. The data derives from the World Bank's 'financial development and structure' database. To adjust for temporal economic shocks during the study period, the variable is a calculated average over the years 2001-2004.

4.2.3 Firm-country interaction variables

As hypothesized, the firm level variables are expected to interact with country specific variables. The different interaction effects are calculated as the product of a firm level variable and its matched country level variable resulting in the following 5 interaction variables; 1) Self-dealing * CEO duality as the product of the anti-self-dealing index and the CEO duality dummy; 2) Power distance * one-tier as measured as the product of the Hofstede power score and the one-tier board structure dummy; 3) Employee protection * employee on board as the product of the employee on board dummy and the labor protection index; 4) Voice and accountability * number of non-executives as the product of both variables voice and accountability variable and number of non-executive; and 5) Stock market capitalization/GDP * executives/non-executives as the product of Stock market capitalization/GDP and proportion executives/non-executives variables.

4.3 Control variables

To control for firm specific effects and country specific effects several firm levels controls and country levels controls are included in the regression analyses. See table 6 below for the descriptive statistics for all independent variables as discussed above and control variables that are discussed below.

4.3.1 Firm-level controls

Past research has shown that firm size is one of the most important determinants of executive pay (Tosi *et al*., 2000). To control for firm size effects the logarithm of firm sales is used, which is the most common measure of firm size in executive pay studies (Tosi *et al*., 2000). Sales data for all firms in the sample were derived from the

Thompson Financial's 'DataStream' database. Many executive pay studies have historically set out to test the performance sensitivity of pay (Gomez-Mejia and Wiseman, 1997). To control for firm performance, the measure return on equity in the year preceding the one in which a particular pay package was awarded was used, as is common practice in most studies (cf. Tosi *et al.*, 2000). Performance data was similarly derived from DataStream.

To control for CEOs' life cycle stage-dependent cash needs CEO age, both as a monotonic and as a quadratic relationship (CEO age^2) are used in the models with CEO pay as dependent variable. The rationale behind these variables is that CEOs' cash needs are higher in the earlier stages of his career and lower at later stages (cf. Finkelstein and Hambrick, 1989). Age data was derived from firms' annual reports. To control for industry effects (Coles, McWilliams and Sen 2001, Gibbons and Murphy 1990, Garvey and Milbourn 2003, Porac, Wade and Pollock 1999) on pay 10 industry dummies (basic industry, consumer goods, consumer services, financials, healthcare, industrials, oil and gas, technology, telecommunications, and utilities; source: DataStream) are included in the regression analyses.

4.3.2 Country-level controls

To control for the influence of the size of a given country's economy, the measure (a logarithm of) GDP, as an average over the years 2001-2004 was used (Pedersen and Thomsen, 1997; Roe, 2003; Thomsen and Pedersen, 1996; 2000). GDP data was derived from the World Bank's 'world development indicators' database. Furthermore, corporate tax rate and income tax rate were controlled for, as the former can influence the net cost of executive pay to the corporation and the latter the net benefit of remuneration for individual executives (cf. Abowd and Bognanno 1995). Both rates were derived from the Heritage Foundation's (2006) 'Index of Economic Freedom.' A last control in order to control for time-dependent social and economic shocks, year dummies for each of the years in the data base (2001 through 2004) where included. Table 6 reports descriptive statistics for all independent and control variables.

TABLE 6

Descriptive statistics independent variables

Variable	Minimum	Maximum	Mean	S.D.
Practices				
CEO duality	0	1	0,311	0,463
Dummy one-tier	0	1	0,693	0,461
Dummy employees on the board	0	1	0,191	0,394
Number of non-executives	4	34	13,167	4,658
Proportion executives/ non-executives	0,045	5,5	0,474	0,481
Contextual determinants				
Self-dealing index	2,5	5	3,573	0,898
Power distance	11	68	42,081	11,368
Employee protection index	0,170	0,746	0,471	0,223
Voice and Accountability index	0,206	1,585	1,279	0,214
Average stock market capitalization/ GDP (years 2001-2004)	0,174	3,808	1,058	0,468
Firm level controls				
Log sales	12,529	19,300	16,396	1,200
Return on Equity (t-1)	-291,33	113,15	11,681	25
CEO age	36	78	54,725	6,267
CEO age^2	1296	6084	3034,079	686,960
Dummy basic industry	0	1	0,101	0,301
Dummy consumer goods	0	1	0,131	0,338
Dummy consumer services	0	1	0,185	0,388
Dummy financials	0	1	0,197	0,400
Dummy healthcare	0	1	0,028	0,166
Dummy industrials	0	1	0,190	0,393
Dummy oil and gas	0	1	0,057	0,232
Dummy technology	0	1	0,027	0,163
Dummy telecommunications	0	1	0,046	0,209
Dummy utilities	0	1	0,038	0,192
Country level controls				
Log average GDP (years 2001-2004)	39,223	43,188	41,332	1,214
Corporate tax rate	17,5%	35%	29,894	4,318
Income tax rate	16%	60%	41,506	7,950

5 Estimation method

Since all the estimated models have continuous dependent variables, pooled ordinary least squares (OLS) regressions are used to test the hypotheses. In line with standard OLS regression assumptions, all relevant explanatory variables are assumed to be included in the model. In more formal terms, this weak exogeneity assumption states that the period t error term of the regression equation is uncorrelated with any of the explanatory variables measured in the same period. This assumption does not rule out feedback effects, which are highly relevant in a study that assesses the

influence of institutional factors on executive pay. An example of such feedback effects could be that policy makers in a given jurisdiction change regulations in period t in response to public outcry over pay levels in period t-1. In contrast, fixed effects models assume strict endogeneity, and rule out the possibility of accounting for these highly relevant feedback effects. OLS regressions are thus the appropriate method for estimating consistent coefficients. To compute reliable standard errors for the OLS-estimated coefficients, allowed is for the possibility that the error terms of the regression equations might be correlated within a country and across time (the possible existence of autocorrelation) by using the 'cluster' option in STATA, the used econometric data analysis program. To avoid possible problems of heteroskedasticity, White robust standard errors were calculated and reported.

TABLE 7
Correlations CEO pay data

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Log CEO total cash													
2. Log CEO salary	0,797[a]												
3. Log CEO bonus	0,939[a]	0,558[a]											
4. Prop. salary/ tot. cash	-0,661[a]	-0,137[a]	-0,866[a]										
5. CEO duality	0,316[a]	0,246[a]	0,436[a]	-0,299[a]									
6. One-tier	0,269[a]	0,259[a]	0,314[a]	-0,192[a]	0,447[a]								
7. Employee on board	-0,184[a]	-0,134[a]	-0,156[a]	0,062	-0,258[a]	-0,574[a]							
8. Nr. non-executive	0,182[a]	0,148[a]	0,214[a]	-0,187[a]	0,084[b]	0,025	0,421[a]						
9. Prop. exe./ non-exe.	-0,219[a]	-0,112[a]	-0,276[a]	0,277[a]	-0,163[a]	-0,164[a]	-0,014	-0,192[a]					
10. Self-dealing index	-0,150[a]	-0,067[b]	-0,180[a]	0,166[a]	-0,151[a]	0,517[a]	-0,414[a]	-0,107[a]	0,114[a]				
11. Power distance	0,015	0.037	0,073[c]	-0,095[b]	0,342[a]	0,304[a]	-0,349[a]	0,087[a]	-0,026	0,106[a]			
12. Empl. protection	-0,381[a]	-0,301[a]	-0,394[a]	0,264[a]	-0,254[a]	-0,670[a]	0,467[a]	0,034	0,191[a]	-0,437[a]	0,204[a]		
13. Voice and account.	-0,101[a]	-0,074[b]	-0,173[a]	0,164[a]	-0,210[a]	-0,444[a]	0,273[a]	-0,229[a]	0,107[a]	-0,340[a]	-0,530[a]	0,358[a]	
14. Stock market cap./ GDP	0,206[a]	0,274[a]	0.164[a]	-0,047	0,172[a]	0,447[a]	-0,551[a]	-0,236[a]	0174[a]	0,441[a]	0,149[a]	-0,557[a]	-0,483[a]

[a] p < 0,01; [b] p<0,05

TABLE 8
Correlations average executive pay data

Variable	1	2	3	4
1. Log CEO total cash				
2. Log CEO salary	0,801[a]			
3. Log CEO bonus	0,925[a]	0,594[a]		
4. Prop. salary/ tot. cash	-0,717[a]	-0,223[a]	-0,888[a]	
5. CEO duality	0,327[a]	0,267[a]	0,390[a]	-0,246[a]
6. One-tier	0,175[a]	0,151[a]	0,140[a]	-0,047
7. Employee on board	-0,106[a]	-0,168[a]	-0,021	-0,087[b]
8. Nr. non-executive	0,137[a]	0,001	0,157[a]	-0,189[a]
9. Prop. exe./ non-exe.	-0,233[a]	-0,128[a]	-0,252[a]	0,207[a]
10. Self-dealing index	-0,166[a]	-0,095[b]	-0,267[a]	0.242[a]
11. Power distance	0,016	-0,007	-0,009	-0,013
12. Empl. Protection	-0,323[a]	-0,284[a]	-0,282[a]	0,154[a]
13. Voice and account.	-0,097[b]	-0,042	-0,030	0,038
14. Stock market cap./ GDP	0,075[b]	0,161[a]	-0,012[a]	0,089[b]

[a] p < 0,01; [b] p<0,05

6 Empirical Results

Tables 7 and 8 show the correlation matrices of the dependent and main independent variables used in the analysis. Table 7 reports correlations for the CEO data, Table 8 for average executive data.

The results of the regression analyses are presented in two steps of models for both the CEO pay dependent variables as the executive pay dependent variables. The two steps consist of models with: 1) firm-level main effects plus country dummies adjusted for within-cluster correlation; and 2) the full models including all controls and interaction terms and adjusted for within-cluster correlation. Given that the two data panels (CEO remuneration data and average executive remuneration data) and four dependent variables (total cash, salary, bonus, and salary/total cash), a total of 16 (2 steps * 2 groups CEO- executives * 4 pay dependent) regression models where estimated. In the discussion of the results the corresponding model identity number, as can be seen in the tables shown below, serve as a reference to the estimated results of the models for the different steps. Tables 9 (Models 1 through 4) and 10 (Models 5 through 8) report step 1, the OLS regression results for the models with firm-level main effects only for CEOs and average executives respectively. Tables 11 (models 9 through 12) and 12 (models 13 through 16) report the results of step 2, the full models with respectively CEO pay and average executive pay. The results of the models of the first step will only be shortly discussed. The results of the full models are more systematically assessed and discussed. As robustness checks of the results of the full models, extra models are estimated with only the 2003 observations.

TABLE 9

CEO pay models with firm-level main effects [A, B, C]

OLS regression results with country clusters

	Model 1	Model 2	Model 3	Model 4
	CEO	CEO	CEO	CEO
	Total cash	Salary	Bonus	Salary / Total cash
CEO duality	0.244	0.175	0.128	-0.036
	(2.56)**	(1.50)	(1.17)	(2.86)**
One-tier	0.130	0.359	0.041	0.088
	(0.69)	(1.49)	(0.19)	(2.13)**
Employee on board	-0.126	-0.243	0.019	-0.073
	(1.18)	(4.88)***	(0.11)	(1.82)*
Nr. non-executives	0.017	0.014	0.001	0.002
	(1.45)	(1.24)	(0.04)	(0.45)
Prop. exec/ non-exec.	-0.096	-0.058	0.049	0.006
	(1.17)	(1.09)	(0.43)	(0.20)
Sales	0.213	0.237	0.271	0.013
	(6.52)***	(6.60)***	(3.79)***	(1.61)
Return on equity	0.001	0.000	-0.003	-0.001
	(0.66)	(0.52)	(1.28)	(1.24)
CEO age	0.061	0.069	-0.163	-0.013
	(0.75)	(1.51)	(1.07)	(0.46)
CEO age^2	-0.001	-0.001	0.002	0.000
	(0.79)	(1.56)	(1.13)	(0.56)
Constant	9.518	7.632	12.892	0.622
	(4.71)***	(6.78)***	(2.96)***	(0.83)
Observations	608	579	483	526
R-squared	0.48	0.42	0.50	0.32
Nr. Clusters	17	17	17	17

A. * significant at 10%;** significant at 5%; *** significant at 1% .
B. White robust t statistics in parentheses
C. Industry and Country dummies not reported

TABLE 10

Average executive pay models with firm-level main effect [A, B, C]

OLS regression results with country clusters

	Model 5 Executive Total cash	Model 6 Executive Salary	Model 7 Executive Bonus	Model 8 Executive Salary / Total cash
CEO duality	0.028	-0.030	0.221	-0.016
	(0.63)	(0.32)	(2.14)*	(0.49)
One-tier	-0.142	-0.211	-0.091	0.073
	(1.09)	(0.87)	(0.29)	(1.88)*
Employee on board	0.561	0.671	0.920	-0.162
	(2.92)**	(3.74)***	(5.77)***	(3.99)***
Nr non-executives	-0.002	-0.008	-0.013	0.001
	(0.21)	(0.97)	(0.86)	(0.25)
Prop. exec/ non-exec.	-0.008	-0.049	0.077	-0.035
	(0.14)	(0.77)	(0.51)	(1.28)
Sales	0.272	0.232	0.290	-0.013
	(3.71)***	(6.87)***	(4.04)***	(0.98)
Return on equity	-0.000	-0.000	-0.001	-0.000
	(0.26)	(0.70)	(0.23)	(0.51)
Constant	8.146	8.335	7.440	1.220
	(8.11)***	(20.26)***	(6.28)***	(8.44)***
Observations	666	596	534	550
R-squared	0.48	0.37	0.51	0.30
Nr. Clusters	15	15	15	15

A. * significant at 10%;** significant at 5%; *** significant at 1% .
B. White robust t statistics in parentheses
C. Industry and Country dummies not reported

6.1 Results simple models

As tables 9 and 10 report, CEO duality seems to positively influence pay levels and negatively influence the proportion of salary over total cash. Possibly the discretion especially CEOs have over their pay levels seems to be traded-off by less discretion over the importance of pay that is in theory more contingent on performance. One-tiered board structures seem to have no effects on pay levels but seem to increase discretion over pay structures. Surprisingly employee representation on the board limits discretion over CEO pay levels but not for executive pay levels. Furthermore, it seems to limit discretion over pay structures for CEOs and executives as the salary over total cash coefficients are negative. Both the absolute number of non-executives and the proportion of executives over non executives seem to have no effects on pay levels and structures. All in all, these results provide a first indication that executives and CEOs' discretion is mediated by firm level corporate governance mechanisms, also in a cross national sample. The results of the full model, as discussed below, will provide further insights in the relationships with specific institutional contexts.

TABLE 11

CEO pay full models [A, B, C]

OLS regression results with country clusters

	Model 9 CEO Total cash	Model 10 CEO Salary	Model 11 CEO Bonus	Model 12 CEO Salary / Total cash
Self-dealing	-0.062	0.044	-0.267	0.037
	(1.00)	(0.81)	(2.17)**	(2.50)**
CEO duality	1.312	0.938	0.805	0.005
	(2.81) **	(2.96)***	(2.66)**	(0.09)
Interaction Self-dealing*CEO duality	-0.306	-0.230	-0.180	-0.012
	(2.20)**	(2.59)**	(1.99)*	(0.78)
Power distance	-0.008	-0.014	0.009	-0.004
	(1.09)	(2.17)**	(0.67)	(1.70)
One-tier	0.308	-0.481	-0.373	-0.014
	(0.61)	(1.24)	(0.68)	(0.12)
Interaction Power distance*One-tier	-0.005	0.014	0.002	0.003
	(0.57)	(2.29)**	(0.21)	(1.07)
Employee protection	-0.816	-0.652	-3.208	0.347
	(1.10)	(0.81)	(2.44)**	(1.84)*
Employee on board	-1.267	-1.284	-4.430	0.358
	(1.20)	(1.23)	(2.45)**	(0.78)
Inter. Empl. protection* Empl. on board	1.164	1.210	5.685	-0.547
	(0.75)	(0.83)	(2.34)**	(0.91)
Voice and accountability	-0.744	-0.380	-1.945	0.454
	(1.14)	(1.20)	(2.63)**	(3.95)***
Nr. non-executives	-0.013	-0.024	-0.085	0.021
	(0.22)	(1.14)	(1.13)	(2.19)**
Inter.. Voice and account. * Nr. non-exec.	0.031	0.034	0.077	-0.017
	(0.68)	(1.85)*	(1.28)	(1.78)*
Av stock market capitalization/ GDP	-0.339	-0.112	-0.651	0.123
	(1.84)*	(0.56)	(2.25)**	(1.92)*
Prop. executives/ non executives	-0.343	-0.286	-0.612	0.152
	(1.40)	(2.17)**	(1.79)*	(1.98)*
Inter. Av. stock market/GDP *exec./non-exec.	0.193	0.194	0.459	-0.103
	(1.01)	(2.13)**	(2.11)*	(2.11)*
Sales	0.234	0.244	0.283	0.012
	(6.82)***	(6.85)***	(3.84)***	(1.16)
Return on equity	0.001	-0.000	-0.003	-0.001
	(0.53)	(0.00)	(1.11)	(1.16)
CEO age	0.091	0.074	-0.156	-0.010
	(1.08)	(1.57)	(1.05)	(0.36)
CEO age^2	-0.001	-0.001	0.002	0.000
	(1.08)	(1.57)	(1.12)	(0.45)
Average GDP	0.012	-0.032	0.091	-0.057
	(0.15)	(0.54)	(0.78)	(2.36)**
Corporate tax	0.002	-0.018	-0.051	0.004
	(0.12)	(1.14)	(1.22)	(0.66)
Income tax	0.011	0.019	0.033	-0.003
	(1.00)	(1.58)	(1.20)	(0.62)
Constant	8.759	9.562	14.579	2.002
	(2.15)**	(4.59)***	(2.33)**	(1.46)
Observations	608	579	483	526
R-squared	0.46	0.40	0.49	0.32
Nr. Clusters	17	17	17	17

A. * significant at 10%;** significant at 5%; *** significant at 1% .

B. White robust t statistics in parentheses

C. Industry and Country dummies not reported

TABLE 12

Average executive pay full models [A, B, C]

OLS regression results with country clusters

	Model 13	Model 14	Model 15	Model 16
	Executive Total cash	Executive Salary	Executive Bonus	Executive Salary / Total cash
Self-dealing	-0.150	-0.016	-0.302	0.062
	(6.31)***	(0.40)	(4.29)***	(3.78)***
CEO duality	0.005	0.720	-0.160	0.221
	(0.02)	(1.87)*	(0.33)	(2.49)**
Interaction Self-dealing*CEO duality	-0.002	-0.211	0.098	-0.062
	(0.02)	(1.86)*	(0.77)	(2.33)**
Power distance	-0.002	-0.002	-0.021	-0.003
	(0.43)	(0.22)	(1.84)*	(1.41)
One-tier	-0.968	-1.450	-1.943	0.066
	(3.06)***	(10.05)***	(2.15)**	(0.51)
Interaction Power distance*One-tier	0.012	0.022	0.033	0.000
	(2.19)**	(10.10)***	(1.91)*	(0.13)
Employee protection	-2.703	-2.687	-4.003	0.502
	(4.75)***	(5.63)***	(3.34)***	(2.68)**
Employee on board	-2.623	-2.075	-7.006	0.431
	(4.70)***	(2.47)**	(4.82)***	(1.74)
Inter. Empl. protection* Empl. on board	3.931	3.174	9.679	-0.702
	(4.96)***	(3.50)***	(5.28)***	(2.28)**
Voice and accountability	0.006	1.042	-1.727	0.271
	(0.01)	(1.83)*	(1.49)	(1.63)
Nr. non-executives	-0.007	0.035	-0.093	0.024
	(0.23)	(1.20)	(2.42)**	(3.28)***
Inter.. Voice and account. * Nr. non-exec.	0.002	-0.033	0.070	-0.020
	(0.10)	(1.23)	(1.95)*	(3.33)***
Av stock market capitalization/ GDP	-0.146	0.078	-0.591	0.099
	(1.57)	(0.64)	(1.59)	(2.15)**
Prop. executives/ non executives	-0.205	-0.225	0.082	0.000
	(1.51)	(1.09)	(0.14)	(0.00)
Inter. Av. stock market/GDP *exec./non-exec.	0.144	0.165	-0.015	-0.018
	(1.52)	(1.08)	(0.04)	(0.25)
Sales	0.282	0.250	0.300	-0.011
	(3.84)***	(6.85)***	(3.69)***	(0.76)
Return on equity	-0.000	-0.000	-0.001	-0.000
	(0.08)	(0.98)	(0.22)	(0.48)
Average GDP	0.055	-0.033	0.246	-0.015
	(0.76)	(0.45)	(1.65)	(0.70)
Corporate tax	0.025	-0.000	-0.016	-0.006
	(1.22)	(0.02)	(0.38)	(0.91)
Income tax	0.008	0.018	0.037	0.000
	(0.69)	(1.45)	(1.86)*	(0.05)
Constant	8.437	10.320	4.055	0.720
	(3.82)***	(4.71)***	(0.90)	(1.04)
Observations	666	596	534	550
R-squared	0.47	0.36	0.49	0.30
Nr. Clusters	15	15	15	15

A. * significant at 10%;** significant at 5%; *** significant at 1% .

B. White robust t statistics in parentheses

C. Industry dummies not reported

6.2 Results full models of firm-level main effects

In line with previous research results (Boyd, 1994; Core, Holthausen and Larcker, 1999; Westphal and Zajac, 1995), CEO duality seems to adequately capture executives' power in relation to setting pay levels and structures. The 'duality effect' can be noted for both CEOs (models 9, 10, and 11) and average executives (models 14 and 16). This evidence supports hypotheses 1a and 1b that CEO duality increases pay levels and decreases relative pay that is mend to be contingent on performance. However, duality did not exert a significant influence on CEO salary over total cash and on average executives' total cash and bonus, suggesting that duality is more beneficial for the CEO him- or herself in setting pay levels than for the group of executive board members in its entirety. Thereby, it seems that CEO duality provides executives and to a lesser extend CEOs with discretion to make their pay less contingent on performance, as in model 16 CEO duality is significant and in model 12 it is not.

No significant effects on CEO pay were noted for one-tiered board structures. For average executive pay, however, the results on all pay level variables turned out significant (models 13, 14, and 15). Surprisingly, however, the effects were opposite from what was predicted, indicating that average executives have more discretion to set their own pay in a two-tiered than in a one-tiered board structure, thus disconfirming hypotheses 2a and 2b. A possible explanation for this effect is that two-tier jurisdictions – especially true for Germany and the Netherlands – could also be staunchly managerialist in orientation (Kraakman *et al.*, 2004). The legal principle of codetermination tends to result in a deadlock in the supervisory board between employees and shareholders, creating a power vacuum which is filled by management (Pistor, 1999). In the words of Kraakman and his colleagues: "in both Germany and the Netherlands, the single most important consequence of codetermination (…) may be an increase in managerial discretion" (2004: 69).

Employee representation on boards drove down pay levels. It appears to lower CEO bonuses (model 11) as well as average executives' total cash, salary, and bonus (models 13, 14, and 15), providing support for hypothesis 3a. No support for hypothesis 3b was found, as employee representation did not appear to affect the proportion of salary over total cash. An explanation of these findings could be that employee directors are more concerned with aspects of executive pay packages that

matter to them as employees (i.e., an equitable difference between executive and worker levels of pay, especially in the case of the level of cash bonuses; cf. Simon, 1957) than with defending the interests of shareholders (for whom the performance sensitivity of pay might be more important than the absolute level of pay). Employees are in the hierarchical structure closer to the executives than to the CEO. Possibly employees are more concerned with the pay setting processes of more close, less senior, parties than in determining CEO total cash and salary.

The effect of the absolute number of non-executives on executive pay was modest. The only pay level variable that was significantly affected was average executives' bonus (model 15), thus offering rather weak support at best for Hypothesis 4a. In contrast, the coefficients for both pay structure variables (models 12 and 16) were significant but, alas, opposite to the hypothesized direction. It seems that adding more non-executives to the board does not make pay more performance-sensitive but less so, thereby disconfirming Hypothesis 4b. These results could indicate that the concept of "overt monitoring" (providing too much incentives in combination with increased monitoring) (Finkelstein and D'Aveni, 1994) is supported as more non-executives show to be related with more focus on salary. However, more non-executives do not seem to lead to lower pay levels in general. Another explanation could be that bigger boards leave CEOs and executives with more discretion in determining performance contingent pay. The non-executives could be less concerned with incentive alignment arguments instead of pay levels, supporting the notion that non-executives only play to a certain extend a role in safeguarding firm interests by (all be it with weak evidence) limiting executive discretion over observable pay levels but not in making pay potentially more contingent on performance. It seems that there is a certain trade-off between agreeing on lower pay levels and making pay less sensitive to potential risks. Bigger boards may have no or decreasing effects in constraining executive discretion in determining pay levels as only one negative significant effect was found. Expanding the number of non-executives possibly could also lead to the point that the board becomes unwieldy (Yermack, 1996). Prior research seems to confirm this conjecture, as managerialist countries like Germany and Japan tend to have the largest boards with the greatest number of outsiders (Kraakman *et al*., 2004; Miwa and Ramseyer, 2005). It seems that, rather than completely limiting managerial discretion, large boards with numerous non-executives could offer executives better opportunities to influence pay

that is potentially contingent on performance and with less or no discretion over pay levels.

The ratio of executives to non-executives seem to further strengthen the notion that executives and especially CEOs have more discretion in determining their pay that is potentially contingent on performance than discretion over their pay levels. A higher proportion of executives over non executives skims off CEO salary and bonus levels (models 10 and 11). Average executive pay levels were however unaffected. Model 12, CEO salary over total cash, shows a significant positive effect, suggesting that CEOs have discretion over their pay structure by making it potentially less contingent on performance if the number of executives over non-executives increases. For CEOs it seems to be the case that more executives relative to non-executives limits CEO discretion over his pay levels, but not so over his discretion over pay that is contingent on performance. It could be that having relative less non-executives makes these non-executives more aware of having an important "altruistic" role in setting executive pay. Possible negative reputation or public outcry effects (Bebchuk and Fried, 2004) for non-executives of setting to high observable pay levels could make them exercise their role to set lower pay levels. The "overt monitoring" argument of less performance contingent pay seems to be supported as relative more non-executives were found to have still positive effects on the importance of salary as a proportion of total cash but have decreasing effects if the proportion is a smaller number (i.e. it is a ratio of executives over non-executives; more non-executives and the same number of executives lead to smaller negative effects for pay levels and less positive effects for salary over bonus). Non-executive seem not to be able to completely limit CEO discretion but are able to limit executive discretion. Possibly, CEOs could use their discretion to accept lower pay levels but negotiate that their pay is then made less contingent on performance.

In general two explanations seem possible of the results. Firs, closer monitoring, either by a one-tiered board structure, by employee representation or by more non-executives, either as a proportion of executives or as absolute numbers, seem to constrain executives and CEOs discretion over pay levels. Closer monitoring could lower the need of incentive pay, i.e. a relative lower proportion of salary of total pay. This would support the concept of vigilance boards not to apply overt monitoring by providing to much incentive pay as a proportion of total pay (cf. Finkelstein and

D'Aveni, 1994). Second, closer monitoring, also by relative less non-executives relative to more executives, lowers executive and CEO discretion of observable pay levels possibly in the wake of reputation or public outcry effects hampering non-executives (cf. Bebchuk and Fried, 2004). Executives and CEOs, possibly also constrained by these outrage effects could negotiate a trade-off between on the one hand lower pay levels and on the other more salary as a proportion of total pay, making their pay a-priory less sensitive to performance outcomes. However, as the first explanation seems to rely more on the altruistic role of non-executives, a conceptual problem within a managerial power theory, the second explanation seem to be more fitting. A strengthening argument of managerial power theory, and thus for the second explanation, is that the results of the relationship with CEO duality and pay indicates considerable discretion over pay levels, especially for CEOs themselves, and, all be it to a lesser extend, over pay structures.

6.3 Results full model and country-level main effects

Better protection against self-dealing has a negative effect on pay levels. It lowers CEO bonuses (model 11), as well as average executives' total cash and bonuses (models 13 and 15), thereby offering support for Hypothesis 6a. Again there seems to be some kind of trade-off between pay levels and pay contingent on performance. Models 12 and 16 have an opposite sign as hypothesized. Increased protection against self-dealing instead of limiting discretion by making pay potentially more contingent on performance, the results showed that increased protection result in more importance of salary as a proportion of total cash for as well CEOs as executives. It seems that the acceptation of lower pay levels is a trade-off with making pay less contingent on performance.

No support was found for Hypotheses 7a and 7b. In contrast with an earlier study by Tosi and Greckhamer (2004), the cultural dimension of power distance was here found to have a negative effect on CEO salary (model 10) and average executives' bonus (model 15), and no effects on pay structures were found. A possible reason for these inconsistent findings is that whereas Tosi and Greckhamer use cumulated data (pay averages per country), the data used here is disaggregated firm data. The latter allows to control for known pay determinants like firm size and performance and uses known within country variance of pay, something which is impossible to do with

aggregated data. In other words, Tosi and Greckhamer's findings could possibly be the result of model misspecification (i.e., the omission of known determinants of pay) and neglect within country variance and possible interaction effects between firm level corporate governance mechanisms and culture. As Tosi and Greckhamer (2004) already indicate and is apparently the case: " we [i.e. Tosi and Greckhamner] cannot rule out the possibility that within-country distributions of countries with similar mean levels of CEO pay could be markedly different" (Tosi and Greckhamer, 2004: p 668).

The results indicate support for hypotheses 8a. In countries where employees are well-protected by relevant legislation (Botero *et al*., 2004), they appear to be able to more effectively challenge executive pay levels that are disproportional to their own. Better employee protection drives down CEO bonus levels (model 11) as well as average executives' total cash, salary, and bonus (models 13, 14, and 15). However hypotheses 8b is disconfirmed. Both CEO and executive salary over total cash (models 12 and 16) showed positive effects, implying that higher protection of employees result in higher importance of fixed pay. Conceptually problematic is the explanation that employees are reluctant to use overt monitoring by increasing performance contingent pay. More inline with managerial power theory is to argue that executives and CEOs are willing to accept lower pay levels in exchange of less a-priory performance contingent pay.

Mixed results were recorded for hypotheses 9a. In countries with free news media and stronger standards of institutional accountability CEO bonuses (model 11) were lower, but executives' salaries (model 14) were higher. Hypotheses 9b was disconfirmed. CEOs have higher proportions of salary over total cash (model 12) in countries with higher levels of voice and accountability. The effectiveness of the "outrage" mechanism (Bebchuk and Fried, 2003; 2004; 2006; Bebchuk, Fried, and Walker, 2002) and the level of voice and accountability in a given jurisdiction (Kaufmann, Kraay, and Mastruzzi, 2005) seem to be different for executives as for CEOs.

Some support for Hypotheses 10a can be reported. In countries with relative larger stock markets as a proportion of a country' s economy– in which financial institutions tend to be better developed (Levine, 1997) and in which financial analysts and intermediaries occupy stronger positions (Khanna and Palepu, 2001) – executive pay packages appear to be scrutinized more heavily. Interestingly, financial actors appear

to be more concerned with CEO pay levels than with average executive pay, as indicated by lower CEO salary and bonus (models 9 and 11). Apparently, CEOs are not just figureheads (Ungson and Steers, 1984) in the eyes of the general public, but also individuals whom are better able than others to attract financial analysts' and other intermediaries' attention. For both CEOs and average executives alike, however, larger stock markets as a proportion of a country's economy, indicative of higher standards of financial institutions, seem to put less bounds on the ability to make pay a-priory more contingent on performance (models 12 and 16).

6.4 Overall results of the full model and country-firm interaction effects

The interaction effects of protection against self-dealing (hypotheses 6c and 6d) on pay levels and pay structures show that the relationships between CEO duality and pay in countries with higher protection against self-dealing are stronger (models 9,10,11,14 and 16). Executives' ability to exploit the surplus power that comes with duality appears to be restricted significantly by better anti-self-dealing protection. This mostly affects the CEO/Chairs themselves, as indicated by the lower levels for total cash, salary, and bonus for CEOs (models 9, 10, and 11). Nonetheless, average executives' salaries are also negatively affected (model 14) and the security of their pay diminishes (model 16). The combination of duality and good anti-self-dealing protection is common in jurisdictions that have their legal origins in the U.K., like the U.S. (Becht, 2001), Canada, Australia, and of course the U.K. itself (Conyon and Peck, 1998; Goergen and Renneboog, 2001a; 2001b). Overall, CEO duality by itself increases pay levels and result in a focus on salary. Increased protection against self-dealing diminishes executive and CEO discretion. The combined effect of CEO duality and increased protection result in higher pay levels for CEOs and a focus on salary. For executives the combined effects result in lower total cash and bonus levels, but higher salary and relative higher proportions of salary over total pay.

Strong support could also be noted for Hypothesis 7a, but not for Hypothesis 7b. Whereas the main effect of power distance on pay levels may have been small and, surprisingly, negative, this variable appears to interact strongly with one-tiered board structures. CEOs' salary (model 10) and average executives' total cash, salary, and bonus (models 13, 14, and 15) were all significantly higher when the additional power executives hold in a one-tiered board went unchecked by fellow-elite directors.

Apparently, directors on one-tier boards in high power distance countries see themselves more as peers to executives than as guardians of shareholders' interests, as is typical in insider-controlled systems (Franks and Mayer, 1995). The governance landscapes of France (Bloch and Kremp, 2001) and Belgium (Becht, Chapelle, and Renneboog, 2001) provide cases in point of one-tier/high power distance combination. As stated, no significant effects of the present interaction term on pay structures were found. Overall two-tiered board structures seem to have higher average executive pay levels. Firms in countries with higher social acceptance of power distance however mediate these effects. Firms with one-tiered board structures in countries with higher acceptance of power distance positively influence pay levels.

Surprising results were noted for Hypothesis 8c and 8d. In combination with high levels of legal protection for employees, the representation of employees on boards seems to consistently yield higher bonus levels for CEOs (model 11) as well as higher total cash, salary, and bonus levels for average executives (models 13, 14, and 15). For average executives, the salary component of their pay packages also decreased (model 16). These findings seem to be consistent with recent work by Pagano and Volpin (2005), who argue that in 'corporatist' countries managers and employees can strike a political agreement by which attention to the interests of shareholders is traded off against high employment protection. Examples of countries in which the 'corporatist' mixture of employee codetermination, high employee protection, and high managerial discretion flourishes are Sweden (Agnblad, Berglöf, Högfeldt, and Svancar, 2001), Germany (Becht and Böhmer, 2001), and France (Bloch and Kremp, 2001). Overall, the results indicate that employees on boards limit executive discretion. Protection of employees further limit executive discretion, but having employees on the board that are well protected increases pay levels. Having no employees on the board but having employees that are well protected indicate a trade-off of lowering pay levels and increasing less pay at potential risk by increased proportion of salary over total cash. Having employees on the board significantly decreases this positive effect for executives but not for CEOs. Apparently, well protected employees constrain executive discretion more than they constrain CEOs. CEOs have lower bonuses but are left with enough discretion to have less pay that is contingent on performance, with or without employees on the board. It seems that the protection of labor is of more importance to constrain managerial discretion over pay levels than having employees on the board. Having employees on the board however

constrain executives but not CEOs in their discretion over pay that is made contingent on performance.

The results for the voice and accountability variables are mixed. Higher standards of voice and accountability by it self has negative effects on CEO bonus levels (model 11) and positive effects on executive salary levels. More non-executives by it self have only minor effects as the only significant effect is found to negatively influence executive bonuses (model 15). The interaction term is found to be positive for CEO salary (model 10) and executive bonuses (model 15). Overall, it seems that in countries characterized by higher standards of voice and accountability and with higher number of non-executives seem to have higher salary levels for CEOs (model 10) and executives (model 14) but lower bonuses for CEOs (model 11) and executives (model 15). As for the proportion of salary of total cash, higher standards of voice and accountability and more non executives overall result in higher proportions of salary for CEOs and executives. Apparently the mechanism of "public outcry" (Bebchuk and Fried 2004) and institutional voice and accountability mediates the effects of more or less board monitoring. Although the evidence is relatively weak, the overall relationships seem to indicate that more non-executives and higher standards of voice and accountability leave executives and CEOs with less discretion over bonus levels, but with discretion to increase salary and importance of salary as a proportion of total cash. Apparently, the unwieldiness of larger boards makes it easier for executives to negotiate higher salary and less pay related to performance. But when countries have strong informational regimes, non-executive directors ought to be disproportionately concerned about their image as guardians of the firms' and financial interests in the narrow sense or of social efficacy more broadly. Thus, they could be more likely to sign off on pay packages that are "disguised" as pay-for-performance arrangements (a form of "stealth compensation;" cf. Bebchuk and Fried, 2003, 2004). The results seem to indicate that pay packages in such jurisdictions tend to involve lower bonus levels (models 11 and 15) and higher fixed salary (10 an 14) and more importance of salary as proportion of total cash (12 and 16). Possibly, executives and CEOs are able to agree on lower bonus levels as a reflection of possible moderate observable firm performance, but use this as a trade-off to negotiate increases in salary and importance of salary as a proportion of total pay.

Interesting results can be noted for Hypotheses 10c and 10d. It seems again evident that financial analysts and intermediaries are more concerned with the

discretion of CEOs than with executives. No significant results at all were noted for average executives, but the combination of larger stock markets and a greater proportion of non-executive directors on the board apparently positively mediates CEO salary and bonus (models 10 and 11) and made CEO-pay more dependent on incidental pay (model 12). Overall the results show that firms with more executives as a proportion of non-executives in countries with larger stock-markets as proportion of their economy have lower CEO pay levels, and higher proportions of salary over total cash for both CEOs as executives. The interaction between the proportion of executives and importance of the stock market positively influence CEO pay levels but negatively influence the proportion of salary for CEOs. Apparently, although relative more executives over non-executives by it self are able to limit discretion over pay levels and the importance of the stock market by it self has a similar effect, the interaction between the two is positive for pay levels, indicating more discretion, and is negative for salary over total cash, indicative of less discretion. Apparently, the internal control mechanism as the proportion of executives over non-executive board members and the external control mechanisms as the importance of financial institutions for a countries economy do not operate better in tandem in regard of pay levels. Possibly, increasing the number of non-executives as representatives of shareholders (Gedajlovic and Shapiro, 1998) could become of more importance when stock markets are of more importance. Increasing the number of non-executives relative to the number of executives could however lead to collective action problems and provide executives with more instead of less discretion (cf. Conyon and Peck 1998, Yermack, 1996) over pay levels. However, it could increase the importance of (observable stock market) performance contingent pay. Implying less support for overt monitoring arguments as the financial markets provide also a monitoring role. This again further strengthens a trade-off between pay levels and potential pay contingent on performance. Jurisdictions with large stock markets and a high proportionality of outsiders on boards include the UK (where the best practice guidelines of the Cadbury and Greenbury reports have caused a steady increase in the proportion of non-executive directors on boards; cf. Conyon and Peck, 1998) and the US (where most companies have had a majority of nominally independent directors since the 1970s; cf. Hermalin and Weisbach, 1991).

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6.5 Results full model robustness checks

Tables 13 and 14 below report the results of the full models with only observations of the sup-sample using only 2003 observations. The results further supports the overall conclusions of the full sample. Most of the significant results that are found with the full sample are also found with the 2003 sample. Some extra significant results can however also be reported. In the models 21, 23 and 24, the overall results of the voice and accountability variables and the number of executives and the interaction variables further supports the notion that higher institutional standards of voice and accountability and more non executives lowers executives discretion over pay levels but increases discretion over pay structures. Further strengthening the conception that executives can use their discretion to trade-off pay levels with pay that is potentially more contingent on performance. Similarly, the importance of the stock market for a country's economy limits executive discretion over pay levels but not over pay structures (models 19, 21, 23 and 24). The overall effects of the proportion of executives over non executives and the importance of stock markets show that more executives over non executives in countries with relative bigger stock markets have lower pay levels for CEOs and executives but have executives with higher proportions of salary. These results further strengthen earlier reported results that a) more executives over non-executives could indicate that relative lesser non-executives are more inclined to pay lower pay levels possibly as a result of reputation or outcry effects as individual non-executives are more in the center of attention then when more non-executives are on a board, b) executives are able to trade-off implications of pay contingent on performance with implications of pay levels, and c) more non-executives and monitoring by financial markets seem not to support overt monitoring arguments.

Table 13

CEO pay 2003 sample full models [A, B, C]

OLS regression results with country clusters

	Model 17	Model 18	Model 19	Model 20
	CEO Total cash	CEO Salary	CEO Bonus	CEO Salary / Total cash
Self-dealing	-0.071	0.059	-0.113	0.036
	(0.80)	(0.72)	(0.69)	(1.80)*
CEO duality	1.848	1.234	1.005	0.018
	(2.27)**	(2.22)**	(2.46)**	(0.11)
Interaction Self-dealing*CEO duality	-0.484	-0.336	-0.274	-0.009
	(2.09)*	(2.12)**	(2.28)**	(0.22)
Power distance	-0.021	-0.021	-0.009	0.001
	(2.34)**	(2.80)**	(0.66)	(0.23)
One-tier	-0.151	-0.583	-0.374	0.156
	(0.31)	(1.46)	(0.69)	(1.27)
Interaction Power distance*One-tier	0.005	0.016	0.009	-0.002
	(0.53)	(2.27)**	(1.06)	(0.58)
Employee protection	-0.666	-0.474	-2.213	0.257
	(0.84)	(0.49)	(1.49)	(1.31)
Employee on board	-1.431	-2.332	-5.044	0.492
	(1.18)	(2.28)**	(3.69)***	(1.24)
Inter. Empl. protection* Empl. on board	1.109	2.450	6.729	-0.738
	(0.59)	(1.63)	(3.53)***	(1.44)
Voice and accountability	-0.861	0.095	-1.880	0.682
	(0.88)	(0.25)	(1.76)*	(3.43)***
Nr. non-executives	0.009	0.046	-0.004	0.040
	(0.10)	(0.99)	(0.04)	(1.88)*
Inter.. Voice and account. * Nr. non-exec.	0.025	-0.015	0.000	-0.034
	(0.36)	(0.37)	(0.00)	(2.04)*
Av stock market capitalization/ GDP	-0.204	-0.187	-0.855	0.053
	(1.17)	(0.84)	(2.55)**	(0.74)
Prop. executives/ non executives	-0.159	-0.363	-0.954	0.108
	(0.57)	(1.88)*	(2.01)*	(1.16)
Inter. Av. stock market/GDP *exec./non-exec.	0.117	0.243	0.708	-0.081
	(0.65)	(1.85)*	(2.52)**	(1.44)
Sales	0.215	0.265	0.260	0.019
	(3.84)***	(8.55)***	(3.00)***	(0.95)
Return on equity	0.002	-0.001	-0.004	-0.001
	(0.72)	(0.65)	(0.94)	(1.15)
CEO age	0.208	0.104	-0.073	-0.010
	(2.14)**	(1.80)*	(0.32)	(0.25)
CEO age^2	-0.002	-0.001	0.001	0.000
	(2.04)*	(1.74)*	(0.40)	(0.29)
Average GDP	0.044	-0.056	0.236	-0.064
	(0.46)	(0.87)	(1.61)	(2.33)**
Corporate tax	0.004	-0.016	-0.047	-0.003
	(0.17)	(1.00)	(0.96)	(0.33)
Income tax	0.012	0.017	0.025	-0.001
	(0.94)	(1.10)	(0.88)	(0.17)
Constant	4.989	9.282	6.511	2.051
	(1.07)	(3.50)***	(0.75)	(1.23)
Observations	252	238	191	214
R-squared	0.60	0.57	0.57	0.36
Nr. Clusters	17	17	17	17

A. * significant at 10%;** significant at 5%; *** significant at 1% .

B. White robust t statistics in parentheses

C. Industry dummies not reported

Table 14

Average executive pay 2003 sample full models [A, B, C]

OLS regression results with country clusters

	Model 21	Model 22	Model 23	Model 24
	Executive Total cash	Executive Salary	Executive Bonus	Executive Salary / Total cash
Self-dealing	-0.140	-0.030	-0.036	0.022
	(1.96)*	(0.55)	(0.62)	(1.62)
CEO duality	1.010	1.810	2.723	0.053
	(1.40)	(2.38)**	(2.81)**	(0.29)
Interaction Self-dealing*CEO duality	-0.293	-0.555	-0.680	-0.020
	(1.45)	(2.65)**	(2.49)**	(0.37)
Power distance	-0.014	-0.024	-0.073	0.005
	(2.17)**	(4.07)***	(7.59)***	(2.80)**
One-tier	-0.876	-1.771	-2.329	0.071
	(2.00)*	(6.43)***	(3.36)***	(0.68)
Interaction Power distance*One-tier	0.009	0.028	0.043	-0.001
	(0.85)	(3.99)***	(2.96)**	(0.30)
Employee protection	-2.683	-2.744	-2.309	0.172
	(4.36)***	(7.16)***	(2.32)**	(1.20)
Employee on board	-3.394	-4.622	-11.705	0.982
	(4.35)***	(6.47)***	(10.77)***	(4.98)***
Inter. Empl. protection* Empl. on board	5.065	6.440	15.428	-1.478
	(4.71)***	(8.96)***	(13.76)***	(7.05)***
Voice and accountability	-1.008	0.467	-4.612	0.620
	(2.05)*	(0.93)	(4.96)***	(3.10)***
Nr. non-executives	-0.044	0.043	-0.125	0.024
	(1.04)	(1.39)	(2.07)*	(1.54)
Inter.. Voice and account. * Nr. non-exec.	0.026	-0.031	0.075	-0.014
	(0.91)	(1.31)	(1.52)	(1.05)
Av stock market capitalization/ GDP	-0.231	-0.077	-1.363	0.211
	(2.91)**	(0.65)	(4.63)***	(3.72)***
Prop. executives/ non executives	-0.159	-0.608	-0.575	0.119
	(0.48)	(2.63)**	(1.06)	(0.90)
Inter. Av. stock market/GDP *exec./non-exec.	0.130	0.431	0.445	-0.091
	(0.73)	(2.80)**	(1.09)	(0.98)
Sales	0.349	0.288	0.471	-0.038
	(6.48)***	(6.62)***	(3.63)***	(1.66)
Return on equity	-0.001	-0.000	0.002	-0.000
	(0.36)	(0.12)	(0.57)	(0.49)
Average GDP	0.019	-0.062	0.353	-0.033
	(0.27)	(0.99)	(2.92)**	(1.62)
Corporate tax	0.020	-0.006	-0.082	-0.004
	(0.93)	(0.25)	(2.18)**	(0.52)
Income tax	0.003	0.024	0.050	0.003
	(0.23)	(2.28)**	(3.06)***	(1.00)
Constant	11.002	12.705	3.354	1.068
	(4.67)***	(7.81)***	(0.99)	(1.59)
Observations	297	257	237	243
R-squared	0.61	0.54	0.59	0.43
Nr. Clusters	15	15	15	15

A. * significant at 10%;** significant at 5%; *** significant at 1% .

B. White robust t statistics in parentheses

C. Industry dummies not reported

7 Discussion and Conclusion

The objectives of this study were twofold. First, to examine the cross-national generalizability of managerial power theory by testing it on a sample of 940 firm-year observations from 17 countries. Second, to extend managerial power theory existing scope by assessing the influence of national context – especially that of designated background institutions – on the effectiveness of selected governance mechanisms for constraining executive discretion over their pay levels and structures. The results of this study speak to the current debate in the executive pay literature on the role of managerial power, and have several implications for management practice and policy makers.

7.1 Generalizing managerial power theory

The results of this study suggest that managerial power theory can be generalized outside of the national context in which it was formulated (i.e., the US; cf. Bebchuk and Fried, 2003, 2004) – but with caution. At a somewhat elevated level of abstraction, issues of managerial power and managerial control over the pay setting process are shown to also apply to other jurisdictions than the US alone. More concretely, the workings of certain corporate governance mechanisms appear to be generalizable across nations. CEO duality, for example, presents many US CEOs with extra discretionary powers, and therefore tends to be associated with higher pay (Boyd, 1994; Main and Johnston, 1993; Westphal and Zajac, 1995). The current study shows that duality is endemic not only in the US, but also in France – where individuals in the uniquely powerful role of *president directeur-général* can domineer the other directors on the board and may even have the informal power to handpick them (Wymeersch, 1998) – as well as in Canada, Hong Kong, and Spain. In all these nations, chief executives whom are also chair of the board seem to stand to reap the gains of surplus power. Furthermore, higher proportions of non-executive directors seem to not able to tame executive discretion over pay structures because of managerial discretion in negotiating trade-offs between implications of pay levels and pay structures, not only in the US, but also in other jurisdictions with relative more executives over non-executive like Sweden, South Africa, and Switzerland. In sum,

some of the predictions derived from managerial power theory hold equally well in other corporate governance contexts than the US.

Other predictions can only be generalized with greater care, however. Employee representation on the board for instance may work as an additional check on management in "outsider systems" (Franks and Mayer, 1995) like the US and the UK, in which ownership is dispersed and in which the principal controls on managerial discretion, such as the market for corporate control, supposedly are external to the company (Walsh and Seward, 1990). In "insider systems" (Franks and Mayer, 1995) like Germany (Becht and Böhmer, 2001) and Sweden (Agnblad, Berglöf, Högfeldt, and Svancar, 2001), however, in which ownership is more concentrated and control ought to come more "from within," employees and managers may strike up a coalition against shareholders (Pagano and Volpin, 2005), such that employee representation simultaneously furthers employee protection and managerial discretion, at the expense of the owners of the corporation. These results should however not be seen as evidence against managerial power theory, as they merely specify additional circumstances under which managers can use their discretionary powers. They do call for further research, however, to map with greater precision which conditional varieties of national contexts increase or decrease managerial discretion.

7.2 Extending managerial power theory

The current paper offered and tested an extension of managerial power theory, based on the increasingly important notion that corporate governance mechanisms are critically affected by institutional context (Becht and Mayer, 2001; Dyck and Zingales, 2004; La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997; Roe, 2003). In such an approach, the contextual embedded processes of setting pay rather than considering pay as an instrument within these processes are of importance. The central theoretical tenet was that the effectiveness of a given firm-level governance mechanism for controlling managerial discretion would be contingent on the quality and makeup of the background institutions of the country in which that mechanism is employed. Expected was that strong and functionally complementary institutions would increase control over managerial behavior and decrease managerial discretion over their pay setting process, and weak or dysfunctional institutions would decrease control and increase managerial discretion.

Results showed however to be mixed. Some well and strong functioning institutions are found to mediate the expected relationships where others are found to negatively influence the expected effects. For instance, CEO duality allows executives to extract greater rents from the corporation in countries offering relatively weak protection against managerial self-dealing like the US (cf. Djankov *et al.*, 2005), but this particular governance dysfunctionality is rendered less harmless when adequate investor protection laws are put in place. Furthermore, in contrast with earlier findings (Tosi and Greckhamer, 2004), little support was found for a main effect of the cultural dimension of power distance on executive pay. What is found however, is that this dimension enlarges managerial power in situations where control is supposed to emanate from direct peers, such as in a one-tiered board structure. Here, the respect for fellow elite members that is typical of high power distance countries (cf. Hofstede, 2001) diminishes non-executives' willingness to police executives.

On the other hand, higher levels of institutionalized protection of labor and employees representatives jointly increase managerial discretion. Although the separate effects of these variables showed to dampen managerial power over pay levels, their interaction effect positively relates to pay levels. Similarly, the mediation between bigger stock markets and relative more executives over non-executives resulted in counter intuitive results. Although the separate effects of these two showed to be negatively related to pay levels, their interaction effect is positive.

The results in general show the contextual importance of firm level corporate governance mechanisms. Further research is however needed to further comprehend the complex interaction effects between background institutions and corporate governance mechanisms. The many possible combinations between background institutions and the many different corporate governance mechanisms may be complemented with extensive studies that systemically asses possible combinations and their effects on pay levels and structures. Furthermore, an other technique of Set-theoretic Methods, a method that can be used to examine which combinations of attributes lead to specific outcomes, could be used as a complementary method to investigate the contextual makeup and relationships with corporate governance mechanisms and their joint effects on executive pay.

More research is also needed to address the issue to which extent non-executives use their discretion to on one hand set their own pay and to set the pay of executives. The focus in the current paper has been on executives, future research could further

explore the implications of an institutional managerial power theory and the context in which non-executive pay is set and how non-executives use their discretion to collude with executives. Investigating the implications of non-executive discretion could further shed light on managerial power theory's indicated conceptual concerns of non-executive altruistic roles and concepts of overt monitoring.

An other issue is the extent to which managerial discretion leads to "bad" or "good" behavior. For instance the result that in a two-tiered system executives seem to have more discretion is arguably an indication that they have simply more responsibilities and decision making freedom over firm resources and organizational slack (cf. Cyert and March, 1992). The conceptual fundamental difference between (mis-)using discretion for pure and only opportunistic behavior, or using it for organizational interests or self-interests with inclined cooperation (Gomez-Mejia, Wiseman and Dykes 2005, Murphy 2002, Roe, 2003) needs additional research. In contrast to the present study, the view in the executive pay literature typically is normative in the sense that discretion is mostly understood as having negative results for shareholder value (e.g. in the mainstream literature that adheres solely to the contract approach of agency theory, discretion is ruled out and is only considered as a cost). Executive discretion might indicate that executives are in a position to game the system by simply increasing their pay or to influence their pay structures, but discretion and related pay levels and structures arguably reflect true responsibilities and decision making freedom that any actor has in any social constructed system where market forces are limited and actors are constrained to make fully rational, calculated, optimal decisions (cf. Cyert and March,1992). Actors may thus be more inclined to follow rules of thumb and other cognitive behaviors when negotiating executive pay that reflect the appropriateness of certain pay given the institutional conditions and personal (normative) considerations in the process (cf. Cyert and March, 1992). A broader objective function of the firm as striving for long term firm value instead of the normative assumption of shareholder value (cf. Jensen, 2001) ought to consider the most likely possibility that discretion also has a positive contribution for performance. Future research is needed to make the conceptual (normative) difference more explicit and may show empirically how executive pay and discretion interact with corporate governance arrangements and institutions and how these relationships effect and are effected by firm performance.

7.3 Implications for Practice

The results of this study have several implications for policy makers and for shareholders and their representatives. Policy makers – including "soft regulators" like stock exchanges and directors' associations – around the globe have recently begun to introduce new practices in their existing corporate governance systems, either as a response to globalization or to systemic corporate crises in the post-Enron era (Aguilera and Cuervo-Cazurra, 2004). Similarly, stakeholders and their representatives are pushing for corporate governance reforms, especially in jurisdictions that have suffered from prolonged periods of sub-par economic performance. The current paper harbors at least three lessons for these parties.

First, they should not try to copy elements from more successful jurisdictions (i.e., countries with higher economic growth rates, better average firm performance, or broader and deeper stock markets) directly. Especially US-style governance principles have long been heralded as a superior way of distributing corporate wealth and regulating the relations between managers and other constituents (Fiss and Zajac, 2004). But policy makers should not turn a blind eye to the institutional idiosyncrasies of the US economic landscape. Especially if their own institutional makeup is considerably different from the US, they should not count on the possible effectiveness of US-style governance mechanisms, and are most likely better off selecting governance principles that suit their own context better. Second, if aiming to influence managerial discretion, firm-level governance reforms seem to work best when they go hand-in-hand with jurisdiction-level institutional reforms. Although relationships between certain institutional conditions and corporate governance mechanisms could negatively mediate executive discretion, this does not have to be true for all combinations. Some are found to increase rather than decrease managerial discretion. Amendments to one of the other (i.e. institutions or mechanisms) could therefore have less or opposite wanted effects for specific pay components and/or pay makeup. When challenging the discretionary powers CEO duality harbors, for example, policy makers should simultaneously push for better shareholder protection. Focusing on just one of the two is unlikely to yield satisfactory results, as illustrated by the differential experiences of the US and the UK in addressing discretionary powers of CEO-Chairmen (Conyon and Peck, 1998). And third, CEOs and executives seem to have discretion to make trade-offs between positive and negative effects for

their pay levels with negative and positive effects for their pay that is potentially more contingent on performance. Implying that certain reforms may limit or increase discretion over pay levels but may simultaneously increase or decrease discretion over pay that is potentially more inline with performance.

In short, effective governance reforms are likely to be those that respect the uniqueness of each national system of corporate governance and that work toward the improvement of local governance conditions. More radical reform attempts, in which large parts of foreign governance systems are "transplanted" into a given national context without much regard for the actual mix of extant background institutions (a process stimulated, amongst others, by the World Bank and the OECD – two organizations promoting their own rather strict principles of corporate governance) are less likely to be successful. More research is needed, however, to come to a better understanding of the effects of the present "governance harmonization movement" led by these supranational organizations on the competitiveness of firms and regions.

7.4 Conclusion

Even though calls for more attention to the role of managerial power in the pay setting process are by no means new (Core, Holthausen, and Larcker, 1999; Finkelstein and Boyd 1998, Finkelstein and Hambrick, 1989; Grabke-Rundell and Gomez-Mejia, 2002; Hallock, 1997; Jensen and Murphy, 2004; Tosi and Gomez-Mejia, 1989; Useem, 1996; Westphal and Zajac, 1995), managerial power theory (cf. Bebchuk and Fried, 2003, 2004, 2006) offers an important addition to the executive pay literature because it is the first systematic theory of the processes by which executives come to set their own pay. It is systematic, first, because it offers an orderly account of how its own assumptions regarding the behavior of executives and non-executives contrast with those of the received optimal contracting approach. It is also systematic, second, because it brings together and integrates a substantial number of previously disconnected findings on various aspects of the executive pay setting process, such as social influencing processes on the board and the role of public outcry.

In contrast to the mainstream literature, and also in contrast to the single institutional view taken by Bebchuk and Fried, the current paper explored the important implications of considering variance in institutional makeup. The paper has

demonstrated the generalizability of this important theory, by showing that managerial power influences executives' pay levels and structures in many economically developed nations. It also offered a straightforward major extension of the theory, by demonstrating how the effectiveness of certain firm-level governance mechanisms is contingent upon the quality and makeup of a given nation's institutional matrix. To further the development of an institutional managerial power theory, proposed is that future research extend this study by exploring how combinations of (other) governance mechanisms interact with (other) institutional structures to impact executives' influence and remuneration and in finding more generalized explanations about the contextual context in which interactions of mechanisms and background institutions can positively or negatively influence managerial discretion and how this is influenced by and has influence on firm and a country's economic performance.

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