

Conflicting Objectives within the Board: Evidence from Overlapping Audit and Compensation Committee Members

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Abstract The board of directors is an elite group that faces multifaceted tasks. The board needs to implement decisions on a wide variety of subject matter. These decisions are often delegated to specialized sub-committees within the board. The different objectives of each sub-committee can result in conflicting interests leading to decisions that are sub-optimal. For example, at times, the objectives of the compensation and the audit committee are not aligned. The objective of compensation committees is to grant CEOs compensation packages reflective of their performance. Yet, these compensation packages might contain incentives that could motivate CEOs to influence the financial reporting process in order to reflect better performance, increasing the risk of poor quality financials. In contrast, the objective of audit committees is to oversee the quality of the financial reports and the process that leads to them. Therefore, they would favor compensation packages that reduce the risk of earnings manipulation. We examine public companies that have overlapping compensation and audit committee members and find a higher proportion of CEO incentive compensation in companies with less overlap among audit and compensation committee members. These results suggest that separating the members within these committees might contribute to the effectiveness of board decisions.

Data availability: Data are publicly available from sources identified in this paper.

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1 Introduction

The board of directors of public companies is a group of individuals who are responsible for performing two primary responsibilities, monitoring management on behalf of shareholders and providing advice to management. This group's work is not always transparent and therefore understanding the factors affecting the boards' decision-making process is a difficult task. Academic research contributes to this knowledge by primarily examining the association of board characteristics with board performance. These characteristics include board member independence, board member expertise, board size, and board diligence. Research has generally found that more diligent (Carcello et al. 2002; Abbott et al. 2003), smaller (Yermack 1996; Core and Guay 1999; Carter and Lorsch 2004), more independent boards (Beasley 1996; Klein 2002) with greater expertise (Yermack 2004) are associated with better board performance.

While most studies focus on the board as a primary group that performs all of the board decisions, others acknowledge that most of the board's work is performed in subgroups, specifically, board committees (Lorsch and MacIver 1989). A number of studies examine the effectiveness of the work performed by committees within the board. This research stream led to results that are similar to those obtained by studies which concentrate on the general board, maintaining that independence, diligence and expertise are also important at the subgroup (committee) level. While there is vast research that examines the work of the board as a whole as well as the work of each committee in isolation, little is known about the interplay between different committees. For example, how would decisions performed by one committee affect the duties/decisions of another committee? We contribute to the literature on corporate boards and board committees by examining whether directors with conflicting committee responsibilities influence the effectiveness of their committees.

Generally speaking, board committees often work independently to attain their own goals, without considering the work and objectives of other committees. Yet, in most cases these different committees are staffed by a common group of board members. Ideally, in cases where there are conflicts of interest between committees, the board should assess the tradeoffs between using the same director in multiple committees and using different directors in each committee. On the one hand, a lack of coordination due to the varying objectives of these committees could contribute to board decisions that are not consistent. On the other hand, the separation of committees, accomplished through excluding individuals from serving on committees with conflicting interests, could contribute to independent and objective decision making by each committee (Laux and Laux 2008). Two important committees with conflicting interests are the compensation and the audit committees. In this article, we empirically examine whether the number of overlapping board members, those who serve on both committees, is associated with the configuration of CEO compensation.

In order to understand why these committees have conflicting objectives, we first highlight the tasks performed by each committee. In the period of our examination, the

post Sarbanes–Oxley act of 2002 (hereafter SOX), the audit committee has increased responsibilities. In general, the audit committee is responsible for overseeing the financial reporting process, the systems of internal controls, and the audit of the financial statements. One factor that affects the quality of the financial reports is earnings management. Therefore, the level of work that the audit committee needs to expend depends directly on earnings manipulation risk. Specifically, as risk increases, the work of the audit committee should also increase. Evidence that supports this association is documented by [Bedard et al. \(2008\)](#), they observe that audit committees of companies that disclose internal controls material weaknesses, which indicate higher financial reporting risk, meet more frequently. Hence, audit committees of companies with greater financial reporting risk need to be more diligent in order to gain confidence that risk is reduced to an acceptable level.

Earnings manipulation (also termed, earnings management) risk could be driven by a number of factors, one of which is the structure of executive compensation and the level of incentives built into CEO contracts ([Harris and Bromiley 2008](#)). While more incentive-based compensation should motivate management to work harder, it also introduces a higher earnings manipulation risk. For instance, if a CEO is unable to increase actual performance through company operations and consequently fails to meet the financial goals that are incorporated into the compensation contract, this CEO would have a greater incentive to manipulate earnings, or other specific performance measures. This risk and the additional monitoring work that the audit committee will need to perform might cause members of the audit committee to favor compensation packages with lower performance-based incentives. However, structuring these compensation schemes are not the responsibility of the audit committee, but rather, the responsibility of the compensation committee.

The compensation committee is typically responsible for setting executive compensation, including setting the pay of the CEO as well as producing an annual report on executive compensation which is commonly affixed to the proxy statement. Its primary goal is to structure a compensation package that would align CEO objectives with those of the shareholders. One way to achieve this goal is to structure a compensation contract that includes more performance based incentives. This could motivate the CEO to work harder in order to attain these goals, and consequently benefit shareholders. These incentives can generally take two forms, cash bonus and equity compensation.¹ So, while incentive based compensation can motivate CEOs to work harder, it is also possible that a greater weight on incentives could increase CEO motivation to manipulate earnings. Thus, compensation structure decisions directly relate to the work and risk that audit committee members will have to bear.

This line of reasoning is supported by a recent theoretical paper that examines whether CEO pay-for-performance (the proportion of incentive pay) is lower in companies with overlapping compensation and audit committee members ([Laux and Laux](#)

¹ We focus our examination on bonus as a proxy for incentive compensation because in the period of our examination a new regulation require stock option expensing ([FASB 2004](#)). This new regulation could result in non-systematic option granting behavior in our sample period. Other contemporary research shares a similar concern (e.g., [Carter et al. 2007](#)), and notes the decrease in the option-based portion of compensation ([Chhaochharia and Grinstein 2006](#)).

2008). In their model, they show a tradeoff between providing incentive based compensation to the CEO (the responsibility of the compensation committee) and the level of monitoring that the audit committee will need to exert in order to prevent earnings management. They assert that compensation committee members that also serve on the audit committee will prefer to reduce CEO incentives to manipulate earnings by providing higher base pay and lower incentive pay. This should lead to a reduced need for more extensive monitoring by the audit committee and thus reduce the personal cost (time devoted to committee work and litigation risk) associated with serving on the audit committee. Hence, their model suggests that reducing the number of overlapping audit and compensation committee members should lead to more effective compensation contracts with a higher proportion of incentives. In the current paper, we examine what company characteristics are associated with the number of overlapping compensation and audit committee members and empirically examine the [Laux and Laux \(2008\)](#) prediction.

Our findings add to the literature in a number of ways. First, we find common determinants that are associated with the number of overlapping committee members. Second, we empirically test the consequences of having committees with overlapping members on the structure of CEO pay. We first find that companies with larger boards and smaller committees enjoy greater structural freedom, and therefore can avoid high levels of overlapping committee members. Similarly, we find that companies with more independent boards are also more likely to assign different members to the audit and compensation committees. Given the requirement to include only independent board members on these committees (SOX) this result is not surprising. Finally, we find that the proportion of accounting financial experts, those with a financial qualification, on the audit committee is negatively associated with the number of the overlapping committee members. We further examine how the number of overlapping committee members is associated with the proportion of non-incentive to incentive compensation ratio. This ratio divides CEO base salary (non-incentive) by total annual cash compensation (salary plus bonus). We predict that a higher number of overlapping committee members will be associated with a higher proportion of non-incentive based compensation. Consistent with our prediction we find that the number of overlapping committee members is positively associated with a higher proportion of base salary (non-incentive).

The rest of the paper proceeds as follows: The following section discusses the relevant literature and develops the research hypotheses. The third section presents the sample selection, methodology and measurements. Findings of the paper are presented in the fourth section. We conclude with a discussion of our results including implications, limitations and directions for future research.

2 Background

We first discuss the current regulatory landscape with respect to the structure of boards and its committees. During our sample period, which concentrates on the post SOX period, boards of public companies are required (NYSE 303A, SEC release no. 34-48745) to form three main committees, the compensation, the nomination and the

audit committee. SOX the SEC and recent regulation by the stock exchanges, mandate that these committees be comprised entirely of independent board members.² The requirement for the independence of these committees, which largely function as monitoring entities, is designed to assure that decisions made by each one of these committees are objective. The question we ask and empirically test is whether the requirement to include only outside members is sufficient, and whether the separation of members between the committees is also necessary. Specifically, would audit committee members who also serve on the compensation committee affect the quality of the decisions made by the compensation committee?

The academic literature on board effectiveness examines how board and committee characteristics are associated with company performance, financial reporting accuracy, executive compensation and other board and committee responsibilities. Studies examining the quality of the financial reports use a variety of metrics. One stream of research concentrates on discretionary accruals and generally find that better boards are associated with less accrual management (Klein 2002; Bédard et al. 2004; Dhaliwal et al. 2007; Carcello et al. 2007). Additional research concentrates on other measures of earnings quality such as financial statement restatements and internal controls quality. Abbott et al. (2004) find an inverse association between restatement likelihood and the quality of the board and the audit committee. Further, Bedard et al. (2008) and Zhang et al. (2007) generally find that better audit committees and better boards are associated with higher quality internal controls.³ The above-mentioned shows the link between properties of the board and board committees to earnings quality. Whereas prior research did examine specific committee characteristics in isolation, a joint investigation of the structure of multiple committees is absent in prior work.

Our paper directly relates to a number of studies that examine the link between board independence and board functionality. The importance of independence to effective board functionality has been the subject of numerous academic papers (e.g., see Dechow et al. 1996; Core and Guay 1999). The general premise in these studies is that the monitoring role of the board or its committees will not be effective, or objective, if insiders are involved. With respect to the audit committee, Krishnan (2005) finds that audit committee independence contributes to internal controls quality. Klein (2002) finds a negative relation between abnormal accruals and the independence level of the audit committee, and Carcello and Neal (2003) find that independent audit committees are more likely to side with auditors who issue unfavorable audit opinions. Thus, prior research consistently finds that the effectiveness of the audit committee is linked to its independence. Evidence with respect to the independence of the compensation committee is mixed. A number of studies find no relation between the level of executive compensation and compensation committee independence (Conyon 2006; Vafeas 2003; Daily et al. 1998), while others find that member independence does matter (Newman and Mozes 1999; Main et al. 1995).

The aforementioned studies indicate that there is substantial evidence supporting the importance of board and committee independence. Prior research narrowly defined

² Independent board members are those that affiliated with the firm only through their directorship.

³ Zhang et al. (2007) finds that only audit committee and not the board has an affect on the quality of the internal controls.

independence based on company affiliation. Executives or other affiliated directors were classified as not independent whereas board members that are affiliated with the company only through their board membership were considered independent. Another type of independence, not studied in the literature, is inter-committee independence. The question is whether board members who serve on committees with conflicting objectives can effectively fulfill their responsibilities. One example where a lack of inter-committee independence might lead to suboptimal outcomes is in the case of the audit and compensation committees. Lack of inter-committee independence can contribute to decisions by outside board members (independent) that would advance their own personal interests at the expense of shareholders. We study whether the staffing of the audit and compensation committees could contribute to such behavior.

Executive compensation has recently received significant attention by regulators and it has been the subject of extensive prior research. The views on the efficiency of contracting arrangements between firms and their executives vary considerably. However, the general perception is that compensation arrangements should include incentives to motivate the CEO to work hard. Compensation packages generally include a cash salary, a cash bonus and an equity component. The base salary is relatively fixed, and is often negotiated in prior periods. The cash bonus is designed to provide a short term incentive to management and is most often assessed at year end based on the annual performance. The equity component is often designed to incentivize management with respect to long term performance, 2–5 years. The relative pay-performance sensitivity is the proportion of non-incentive pay to total pay (in our paper it is salary scaled by total annual cash compensation). While compensation committee members should be willing to increase the pay-performance component, these members do not need to bear the subsequent monitoring consequences which are the responsibility of the audit committee.

CEO compensation incentives are designed to motivate CEOs to meet their performance targets by increasing real performance. However, CEOs that are unable to reach their performance targets might be tempted to engage in earnings manipulation through the alteration of subjective accounting measures. CEOs that are unable to meet expectations would be less likely to engage in earnings management if the proportion of their compensation incentives is relatively low. However, the temptation to manage earnings could increase for CEOs with a higher proportion of incentives if they are unable to meet their performance targets. These tradeoffs are depicted in Table 1.

The audit committee is responsible for the financial reporting quality. A recent survey by Spencer Stuart (2007) among a sample of S&P 500 companies, reports that in

Table 1 Earnings manipulation risk

	Lower proportion of incentives	Greater proportion of incentives
Meet performance targets	Low	Low ^a
Does not meet performance target	Low	High

^a The tendency to manage earnings could also exist if CEOs exceed their performance targets. Under this scenario CEOs might have incentives to manage earnings down in period t and if needed manage earnings up in period $t + 1$

2007, audit committees met on average 9.5 times, significantly more than any of the other committees. Additionally, [Bedard et al. \(2008\)](#) find that the number of audit committee meetings is significantly higher among companies that report internal control material weaknesses. Collectively, this suggests that while on average audit committees meet more frequently than other board committees, the number of meetings will increase in the presence of financial reporting risk. This risk could also increase in the presence of incentives to manage earnings. [Harris and Bromiley 2008](#) find that incentive based compensation is associated with a higher likelihood of financial statement restatements, implying that greater pay-performance sensitivity leads to a higher risk that management will manipulate earnings.

Audit committee members would likely prefer to meet less frequently and face lower risk of litigation. The increased frequency of audit committee meetings after the enactment of SOX has already resulted in overworked audit committees. Further, a recent study ([Black et al. 2005](#)) reports that in the period that followed SOX, director litigation liability is greater. For these reasons, audit committee members should have incentives to reduce the number of meetings and their litigation exposure. One way to reduce earnings manipulation risk is by forming compensation contracts that introduce lower incentives to manage earnings. [Laux and Laux \(2008\)](#), in their theoretical model, find that this is the case. They observe that incentive pay is declining when committee members' overlaps increase. However, there is no empirical evidence to support their claim. In our examination, we expect that the number of overlapping committee members will be associated with a higher proportion of salary (non-incentive based) to total cash compensation. Thus our research question predicts that the number of overlapping compensation and audit committee members will be associated with a lower proportion of incentive pay.

3 Method

3.1 Sample

The sample is drawn from two sources. Data on individual directors and their committee assignment as well as other governance information and CEO compensation is obtained from the *Corporate Library* database. We use Compustat to collect data on all other financial variables for the year 2004. The initial sample includes 17,659 directorships held by 13,822 distinct individuals who serve on 1,947 companies. After eliminating 196 companies with missing data the final sample includes 1,751 distinct companies.

3.2 Variable Definitions and Measurement

3.2.1 *Overlapping Audit and Compensation Committee Members*

We first identify board members who serve on both the compensation committee as well as on the audit committee. The indicator variable *BOTH_AUDIT_COMPENSATION* is equal to 1 if a board member serves on both committees; and zero otherwise. To

aggregate this measure for the entire board, we count the number of board members that serve on both committees. The variable *#BOTH_AUDIT_COMPENSATION* equals the total number of board members who serve on the audit as well as on compensation committee.

3.2.2 *Determinants of the Number of Overlapping Audit and Compensation Committee Members*

3.2.2.1 Board and Committees Structure We start by exploring whether certain company characteristics are associated with the number of overlapping audit and compensation committee members. Our first set of determinants relate to the structure of the board and its committees. *ACSIZE* and *COMPSIZE* are the size (the number of directors) of the audit and compensation committees respectively. We expect that the size of both committees will be positively associated with the number of overlapping committee members. *BOARDSIZE* is the size of the board of directors. We expect that larger boards will have greater flexibility in allocating members to different committees, thus a negative sign is expected.

3.2.2.2 Board Members Characteristics Our second set of determinants relates to characteristics of individual board members. *PINDEPENDENT* is the percentage of independent board members. We expect that companies with more independent board members will have more structural freedom in their committee assignments and hence we expect a negative association with the number of the overlapping committee members. *PAFE* and *PSFE* are the percentage of audit committee members that have accounting financial expertise and supervisory financial expertise respectively. We define expertise based on the biographical information of each member. Accounting financial experts have at least one of the following qualifications included in their personal biographies: CPA, certified public accountant, CFO, chief financial officer, VP of finance, financial controller, principal financial officer, auditor or chief accounting officer. Supervisory financial experts do not indicate accounting expertise within their personal biographies, but do indicate at least one of the following qualifications: CEO, chief executive officer, COO, chief operating officer or chairman of a board of directors. Since accounting financial experts are generally appointed to the board for the purpose of serving on the audit committee, we predict that those members most likely will not also serve on the compensation committee, thus a negative sign is expected. We do not predict any sign for supervisory financial experts.

3.2.2.3 CEO Characteristics Our third set of determinants relate to CEO characteristics. *CEOISCHAIRMAN* is an indicator variable equal to 1 if the CEO is also the chairman of the board; zero otherwise. *CEOISFOUNDER* is an indicator variable equal to 1 if the CEO is also the founder of the company; zero otherwise. *CEOAGE* is the age of the CEO and *CEOTENURE* is the number of years the CEO has been in office. We do not predict any sign for all of the CEO variables.

3.2.2.4 Company Financial Information We include additional financial information to control for company size, growth opportunity and profitability. *LOGMARKETCAP* is the natural log of the firm market value of equity, *BTM* is the ratio of book value of common equity to market value of equity, and finally *ROA* is the return on assets.

3.2.2.5 Determinants Model The following linear regression model is used to test the determinants of the number of overlapping audit and compensation committee members (all are defined above).

$$\#BOTH_AUDIT_COMPENSATION = \alpha + \beta_1 ACSIZE + \beta_2 COMPSIZE + \beta_3 BOARD_SIZE + \beta_4 PINDEPENDENT + \beta_5 PAFE + \beta_6 PSFE + \beta_7 CEOISCHAIRMAN + \beta_8 CEOISFOUNDER + \beta_9 CEOAGE + \beta_{10} CEOTENURE + \beta_{11} LOGMARKETCAP + \beta_{12} BTM + \beta_{13} ROA + e$$

3.2.3 CEO Compensation Structure

3.2.3.1 CEO Compensation—Dependent Variable Compensation data was obtained from the *Corporate Library* database for the year 2004. We collect two measures for CEO compensation. First, *CEO_BASE_SALARY* is the salary of the CEO which is determined at the beginning of the year. Second *CEO_TOTAL_CASH_COMP* is the total cash compensation a CEO earned for the year which includes the base salary, annual bonus and other annual cash compensation. We are not interested in the level, or in the cross sectional differences of these two compensation components but rather in the ratio of non-incentive based compensation to total cash compensation. Therefore, our dependent variable *SALARY_TO_TOTAL_CASH* is equal to the ratio obtained when dividing CEO base salary by total annual cash compensation.

3.2.3.2 Financial Control Variables CEO compensation contracts are associated with the firm's financial performance. We control for a number of economic determinants that have been documented to be associated with compensation (Core and Guay 1999; Larcker et al. 2006).⁴ We control for company size by including *LOGMARKETCAP* expecting a negative association, i.e., larger firms are more likely to include more incentives within CEO pay. To control for investment opportunities, we use *BTM* and expect that companies with greater growth opportunities will include more incentive compensation; hence, a negative sign is expected. We use *ROA* to proxy for profitability. It is expected that CEO incentive compensation will increase with profitability; therefore, a negative sign is expected. We proxy for risk by calculating the standard deviation of ROA, *stdROA*, over a period of no less than three years and no more than four. We expect that CEOs of riskier companies will demand more non-incentive based compensation, and hence, a positive sign is expected. To avoid outliers we follow the literature and winsorized all the economic variables at the 2nd and the 98th percentile. In addition, to control for industry effects we include two digits SIC code indicators.

3.2.3.3 Governance—Control Variables Corporate governance has been shown to affect CEO compensation (e.g., Core and Guay 1999). Specifically, companies with better corporate governance are expected to provide compensation contracts that will better align the interests of the CEO with those of the shareholders (i.e., more incentive based). Thus, we expect that indicators of good corporate governance will be negatively associated with our dependent variable. We first control for compensation committee independence, *ALLCOMMMCOMPINDEPENDENT*, is an indicator variable equal to 1 if all members of the compensation committee are independent, and zero otherwise,

⁴ Some of the control variables were defined in the previous section.

we expect a negative sign on this variable. *BOARDSIZE* captures the size of the board. Prior research documented that larger boards are less effective monitors and thus can be more easily influenced by the CEO (Core and Guay 1999; Yermack 1996) hence it is expected that board size will be positively associated with our dependent variable. We expect that a more independent board would provide higher incentive based compensation and thus a negative sign is expected for *PINDEPENDENT*. Finally, we control for the separation of CEO from the chairman of the board duty, *CEOISCHAIRMAN*. We expect *CEOISCHAIRMAN* will be positively associated with our dependent variable.

3.2.3.4 CEO Characteristics and Ownership Structure—Control Variables We control for three CEO characteristics and one type of ownership structure. *CEOAGE*, *CEOTENURE* and *CEOISFOUNDER* are all defined above. We do not predict any direction for these variables. *OWNERSFIVEPERCENTPCTG* is the percentage of outstanding shares held by shareholders who own at least 5% of the company. This variable indicates that there are dominant outside shareholders and it is expected to be negatively associated with our dependent variable. Table 2 summarizes our variables' construction method and their source.

3.2.3.5 Compensation Model The following linear regression model is used to test the association between the number of overlapping committee members and the structure of CEO compensation. $SALARY_TO_TOTAL_CASH = \alpha + \beta_1 \#BOTH_AUDIT_COMPENSATION + \beta_2 LOGMARKETCAP + \beta_3 BTM + \beta_4 ROA + \beta_5 stdROA + \beta_6 ALL-COMMCOMPINDEPENDENT + \beta_7 BOARDSIZE + \beta_8 PINDEPENDENT + \beta_9 CEOISCHAIRMAN + \beta_{10} CEOAGE + \beta_{11} CEOTENURE + \beta_{12} CEOISFOUNDER + \beta_{13} OWNERSFIVEPERCENTPCTG + \beta_{14-80} Industry + e$

4 Results

4.1 Descriptive Statistics

Table 3 presents descriptive statistics of our dependent and independent variables. The table indicates that, on average, 1.37 members serve on both the audit and compensation committee. The average CEO salary in our sample is \$667,641 and the average total annual cash compensation is \$1,507,435.⁵ The ratio of salary to total annual compensation is 59%, suggesting that most of the cash based compensation is granted through base salary. The average size of the audit and compensation committees is 3.43 and 3.26 respectively and the average size of the board of directors is 9.3. In our sample, 69% of companies have a fully independent compensation committee and, on average, 68% of board members are independent. Members serving on the audit committee include 15% accounting financial experts and 45% supervisory financial experts. In 65% of our sample companies, the CEO also chairs the board of directors and in 9% the CEO is also the founder of the company. The average age of the CEO is 55 and on average a CEO has tenure of 7.7 years. The natural log of the market cap

⁵ Since we use different variables to estimate our two models the determinants sample includes 1,695 observations and our compensation structure sample includes 1,751 observations.

Table 2 Variable definition

Variable name	Variable definition [source]
<i>Dependent variable</i>	
SALARY_TO_TOTAL_CASH	Equal to the ratio obtained when dividing CEO base salary with total annual cash compensation [<i>Board analyst</i>]
CEO_BASE_SALARY	Salary is determined at the beginning of the year. Salary can include non-cash elements and salary taken as deferred compensation [<i>Board analyst</i>]
CEO_TOTAL_CASH_COMP	Total cash compensation a CEO earned for the year which contains the sum of base salary annual bonus and other annual compensation [<i>Board analyst</i>]
#BOTH_AUDIT_COMPENSATION	Equals to the total number of board members who serve both on the audit and compensation committee [<i>Board analyst</i>]
<i>Audit/Compensation Committee—Control variables</i>	
ACSIZE	Number of members serving on the audit committee [<i>Board analyst</i>]
COMPSIZE	Number of members serving on the compensation committee [<i>Board analyst</i>]
ALLCOMMCOMPINDEPENDENT	An indicator variable equal 1 if all compensation committee members are independent; zero otherwise [<i>Board analyst</i>]
PAFE	Percentage accounting financial experts serving on the audit committee, based on total audit committee size (individuals whose bios indicate at least one of the following qualifications: CPA, CFO, VP of finance, financial controller, CMA, CFA, principal financial officer, auditor or chief accounting officer) [<i>Board analyst</i>]
PSFE	Percentage of supervisory serving on the audit committee, based on total audit committee size (individuals whose bios indicate at least one of the following qualifications, but not one of the qualifications used to define financial experts: CEO, COO, or chairman of a board of directors) [<i>Board analyst</i>]
<i>Board of Directors—Control variables</i>	
BOARDSIZE	Number of members serving on the board of directors [<i>Board analyst</i>]
PINDEPENDENT	Percentage of independent board members [<i>Board analyst</i>]
<i>CEO Characteristics and ownership structure—Control variables</i>	
CEOISCHAIRMAN	An indicator variable equal to 1 if the CEO is also the chairman of the board; zero otherwise [<i>Board analyst</i>]
CEOISFOUNDER	An indicator variable equal to 1 if the CEO is also the founder of the company; zero otherwise [<i>Board analyst</i>]
CEOAGE	Age of the CEO [<i>Board analyst</i>]
CEOTENURE	Number of years the CEO has been in office [<i>Board analyst</i>]
OWNERSFIVEPERCENTPCTG	Percentage of outstanding shares held by any 5% or greater shareholders
<i>Financial—Control variables</i>	
LOGMARKETCAP	The natural log of market value of equity. [Compustat data25 * data199]
BTM	Book value of common equity divided by market value of equity. [<i>Compustat</i> Data60 divided by (data25 * data199)]
ROA	Net income divided by total assets [<i>Compustat</i> data172 divided by data6]
stdROA	the standard deviation of ROA over a period of no less than three years and no more than four

Table 3 Descriptive statistics on dependent and independent variables

Variable	Number of observations	Mean	Std Dev
<i>Dependent variable</i>			
#BOTH_AUDIT_COMPENSATION	1,751	1.37	1.22
CEO_BASE_SALARY	1,751	667,641.81	308,376.70
CEO_TOTAL_CASH_COMP	1,751	1,507,435.25	1,309,566.20
SALARY_TO_TOTAL_CASH	1,751	0.59	0.24
<i>Governance—Control variables</i>			
ACSIZE	1,695	3.43	1.03
COMPSIZE	1,695	3.26	1.13
BOARDSIZE	1,751	9.29	2.65
ALLCOMMCOMPINDEPENDENT	1,751	0.69	0.46
PINDEPENDENT	1,751	0.68	0.16
PAFE	1,695	0.15	0.20
PSFE	1,695	0.45	0.29
<i>CEO characteristics</i>			
CEOISCHAIRMAN	1,751	0.65	0.48
CEOISFOUNDER	1,751	0.09	0.28
CEOAGE	1,751	54.95	7.54
CEOTENURE	1,751	7.72	7.81
<i>Financial—Control variables</i>			
LOGMARKETCAP	1,751	7.63	1.51
BTM	1,751	0.45	0.26
ROA	1,751	0.04	0.08
stdROA	1,751	0.05	0.07
OWNERSFIVEPERCENTPCTG	1,751	0.19	0.15

is on average 7.63, and the ratio of book value of assets to market value of equity is 45%. The average return on assets is 4% and the average standard deviation of the return on assets is 4.6%. Finally, on average, 19% of outstanding shares are held by groups holding 5% of shares or more.

4.2 Determinants of Audit and Compensation Committee Members' Overlap

In Table 4 we present results for a linear regression model that examines the determinants that impact the number of overlapping members in the audit and the compensation committee. The model is well specified with an adjusted R^2 of 45%. We first find, as predicted, that companies with larger audit and compensation committees are positively associated with the number of overlapping committee members ($p < 0.01$). These findings are intuitive and suggest that since larger committees require more directors the likelihood of members' overlap increases with committee size. Furthermore, we find that larger boards have higher allocation flexibility, and

Table 4 OLS Regression of determinants of the number of overlapping committee members

Variable	Coefficient	<i>t</i> -statistic
Intercept	1.612	3.85***
ACSIZE	0.436	16.52***
COMPSIZE	0.477	20.63***
BOARDSIZE	-0.215	-19.15***
PINDEPENDENT	-1.972	-12.98***
PAFE	-0.423	-3.54***
PSFE	0.006	-0.07
CEOISCHAIRMAN	-0.219	-4.25***
CEOISFOUNDER	0.121	-1.4
CEOAGE	0.008	2.17**
CEOTENURE	0.007	1.99**
LOGMARKETCAP	-0.03	-1.54
BTM	-0.01	-0.1
ROA	-0.112	-0.35
Industry indicators included	Yes	
Adj- R^2	45%	
<i>F</i> -value	19.54	
Number of Companies	1,695	

Notes: The table presents model coefficients, with the following indicators of significance of the *t*-test statistic: * significant at 10% level; ** significant at 5% level; *** significant at 1% level. One-tailed tests are used when coefficients have predicted signs. Variables are defined in Table 2

consequently, the number of overlapping members decreases ($p < 0.01$) with board size. Similarly, boards with more independent directors also have higher structural flexibility and the number of overlapping committee members is lower ($p < 0.01$). Companies with more accounting financial experts experience a lower number of overlapping members, which suggests that on average these directors concentrate on audit committee work and do not participate in the compensation committee. We do not find any significance for the more general expertise category, supervisory financial experts, suggesting that executives of other companies such as CEOs and COOs do not serve exclusively on either committee. In companies where the CEO is also the chairman of the board, the number of committee overlaps is lower. In contrast, in companies where the CEO is older and with greater tenure, the number of committee overlaps is greater. Finally, our results show no association between the number of overlapping committee members and any of the financial variables.

4.3 CEO Compensation Structure

Consistent with Laux and Laux (2008), we predict that in companies with a greater number of overlapping committee members, the ratio of non-incentive based compensation to total cash compensation will be higher. Table 5 presents results for the

Table 5 OLS Regression of CEO compensation structure and the number of overlapping committee members

Variable	Coefficient	t-statistic
Intercept	0.967	9.64***
#BOTH_AUDIT_COMPENSATION	0.008	1.83**
LOGMARKETCAP	-0.055	12.02***
BTM	-0.018	-0.76
ROA	-0.372	4.84***
stdROA	-0.148	-1.67**
ALLCOMMCOMPINDEPENDENT	0.005	-0.37
BOARDSIZE	0.002	-0.91
PINDEPENDENT	-0.053	-1.32*
CEOISCHAIRMAN	-0.021	-1.73*
CEOAGE	0.001	-0.8
CEOTENURE	0.001	-1.54
CEOISFOUNDER	-0.005	-0.25
OWNERSFIVEPERCENTPCTG	0.069	1.91*
Industry indicators included	Yes	
Adj- R^2	23%	
F-value	7.96	
Number of Companies	1,751	

Notes: The table presents model coefficients, with the following indicators of significance of the t -test statistic: * significant at 10% level; ** significant at 5% level; *** significant at 1% level. One-tailed tests are used when coefficients have predicted signs. Variables are defined in Table 2

association of the number of committee overlaps with the ratio of CEO base salary to CEO total annual cash compensation. The model is well specified with an adjusted R^2 of 23%. Consistent with our prediction, the variable #BOTH_AUDIT_COMPENSATION is positive and significant ($p < 0.05$), suggesting that the number of overlapping compensation and audit committee members is associated with CEO compensation that include a lower proportion of incentives. Other significant control variables suggest that larger companies tend to have a higher proportion of incentive compensation ($p < 0.01$). Similarly, CEOs of more profitable companies, as measured by ROA , receive a higher portion of their cash compensation in an incentive based form ($p < 0.01$). Companies with higher volatility in their ROA ($stdROA$) are also marginally associated with higher incentive based compensation ($p < 0.1$). We also learn that, as predicted, a more independent board will grant a higher proportion of incentive compensation ($p < 0.1$). With respect to CEO characteristics, we observe that, contrary to our expectations, CEOs that also chair the board of directors receive a higher proportion of incentive-based compensation ($p < 0.1$). Finally, contrary to our expectations, in companies where the share holding is more concentrated, the CEO receives higher non-incentive based compensation ($p < 0.1$).

5 Discussion

Prior research on board of directors and committee composition finds that the structure of boards and specific committees is associated with their performance. Among factors that impact boards and committees' performance is the independence of their members. While the term "independence" should proxy for objectivity, prior research narrowly defines member independence as insiders (executive and other affiliated directors) or outsiders (directors with no other affiliation to the company). In the current paper, we extend this view by examining the objectivity of outside board members when their committee assignments create conflicts that might jeopardize their independence.

Our examination concentrates on the audit committee, generally responsible for monitoring the quality of the financial reporting process, and the compensation committee, primarily responsible for setting executive pay. We study whether board members that serve on both the audit committee as well as on the compensation committee alter CEO compensation schemes in order to reduce the subsequent monitoring effort that they will have to undertake as members of the audit committee. This empirical investigation is motivated by a recent theoretical paper (Laux and Laux 2008) which suggests that such conflicts of interests could occur. Our results support our expectation by showing that the number of overlapping compensation and audit committee members is associated with a lower proportion of CEO incentive pay. This finding is consistent with our prediction that overlapping members will tend to advocate for less incentive pay which in turn will lead to lower earnings manipulation risk by the CEO.

In additional analysis we observe that the number of overlapping compensation and audit committee members is not random. We observe that structural properties of boards including, board size and the number of independent members is inversely associated with committee overlaps. In contrast, committee size is positively associated with the number of interlocked members. This result highlights the consequences and implications of internal board structure on committee performance.

Our results lead to a number of implications for regulators and boards as well as emphasize the need for further research. In particular, boards of public companies should be alert to the possibility that members' personal incentives and risk aversion preferences might impact their decisions. This understanding can potentially lead to changes in internal board composition and committee assignments. Regulators might also need to reexamine the definition of independence to understand whether the risk for member objectivity is broad enough to warrant further regulation. Further, academic research could concentrate on internal board structure and implications of committee allocation decisions to the overall performance of the board.

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