

Audit Committee Compensation and Demand for Monitoring of the Financial Reporting Process*

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(Preliminary. Comments Welcome.)

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Abstract

We examine the relation between compensation paid to members of the audit committees of public firms and the demand for monitoring of the financial reporting process. We find that total compensation, total cash retainer compensation in particular, is positively correlated with proxies for the demand for monitoring of the financial reporting process. We also find that compensation mix, defined as the ratio of equity compensation to fixed cash retainer, for audit committees is negatively related to proxies for the demand for monitoring of the financial reporting process. Our empirical evidence is consistent with the notion that the demand for monitoring of the financial reporting process is an important determinant of the compensation paid to audit committees.

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1 Introduction

In this paper, we study compensation of members of audit committees of Board of Directors of public firms. Specifically, we examine how cross-sectional variation in the demand for monitoring of the financial reporting process is associated with compensation for audit committee members. Audit committees play a crucial role in firms' financial reporting processes, and thus have attracted considerable attention from researchers, especially in the wake of recent high profile financial reporting scandals. Many studies have analyzed audit committee characteristics such as size and composition (Deli and Gillan (2000) and Klein (2002b)), and related these characteristics to earnings quality (Klein (2002a)). Most notably, Srinivasan (2005) examines penalties for audit committee members when their companies experience accounting restatements, and provides evidence suggesting that ex-post settling up in the market for directors motivates audit committee members to be diligent. To date, however, few studies have attempted to explain compensation paid to audit committees.

We offer three reasons why investigating compensation decisions might provide insights into the internal corporate governance mechanisms of audit committees. First, while prior research has suggested that the monitoring role of outside directors is most prominent in crisis scenarios and examined director incentives under these circumstances, such as when a firm is facing a takeover threat (Brickley, Coles and Terry (1994) and Harford (2003)), we know little about internal governance mechanisms for outside directors in the vast majority of firms that do not face these crises. Public companies are required to have an audit committee that oversees the firm's financial reporting process. In this important monitoring role, the key responsibilities of the audit committee include appointing the outside auditor; communicating directly with the outside auditor, internal auditor and management; assessing internal controls; and reviewing the audited financial statements. An investigation into the determinants of compensation arrangements for audit committees might shed light on whether the compensation arrangements are structured to motivate the directors to successfully fulfill their duties.

Second, recent accounting scandals raise questions about the effectiveness of the audit committee in monitoring the financial reporting process. Whether audit committees function effec-

tively likely depends on the incentive and disciplining mechanisms of audit committees. While Fama and Jensen (1983) posit that reputation and the market for directors serve an ex post role in disciplining outside directors, Yermack (2004) finds that incentives from compensation and ownership account for more than half of total incentives for outside directors. Given this, it is important to gain an understanding of the determinants of the compensation for audit committees.

Third, the passage of the Sarbanes-Oxley Act (hereafter SOX) marked a significant milestone for corporate governance in the US. In particular, the composition and responsibilities of audit committees are a focal point of SOX. Examining changes in audit committee compensation around this period can provide insights into how internal governance mechanisms respond to regulatory intervention.

Our purpose in this paper is to examine compensation for members of audit committees. We investigate two research questions: (1) Do firms that face a higher demand for monitoring of the financial reporting process pay higher compensation to their audit committees? (2) Do firms that face a higher demand for monitoring of the financial reporting process structure the compensation package more toward or away from equity-based compensation?

A greater demand for monitoring of the financial reporting process can arise from a number of characteristics of the firm and its environment or from external regulatory forces. We consider both firm-specific and regulatory forces in our analysis. Firm-specific forces include the complexity of the business and the firm's organizational structure, the strength of internal control systems, financial reporting quality and litigation risk. These factors are among those that impact the overall transparency and riskiness of the financial reporting process. We argue that the lower the transparency and the greater the risk of the financial reporting process, the greater is the demand for monitoring of the financial reporting process by investors and other stakeholders.

External to the firm, we consider the impact of the requirements of SOX on the the demand for monitoring of the financial reporting process. SOX focuses broadly on the financial reporting process, including the role of the audit committee. Specifically, SOX requires that all members of the audit committee be independent and that the company's annual report disclose whether

a member of the audit committee is a financial expert. These provisions are likely to create an increased demand in many firms for audit committee members to monitor the financial reporting process more diligently.

We expect that greater demand for monitoring of the financial reporting process increases the demand for higher quality audit committee members and that audit committee members require an increased commitment of time and effort. We hypothesize that these effects lead to higher compensation for these directors. Further, we hypothesize that compensation of audit committee members is structured more toward fixed pay for firms with greater demand for monitoring of the financial reporting process. Our predictions are derived from agency models addressing the effect of increased risk and multi-task settings on the structure of compensation schemes.

Our primary proxy for the demand for monitoring of the financial reporting process is the amount of total annual audit fees paid to the external audit firm for performing audit services. Prior research suggests that audit fees are positively correlated with business risk, including transparency, litigation, risk of misstatement.¹ We thus employ audit fees as a comprehensive measure that incorporates many of the firm-specific forces argued to influence the demand for monitoring of the financial reporting process. We also include an indicator variable to capture the impact of the regulatory requirements of SOX on the demand for monitoring of the financial reporting process and of the increased demands placed on audit committees. This feature allows us to capture a potentially important external shift in the demand for monitoring of the financial reporting process triggered by the provisions of SOX.

To investigate our research questions, we collect detailed compensation data for outside directors from proxy statements for the sample of ExecuComp firms between 2000 and 2004.² Our analyses focus on audit committee compensation across two main time periods: the pre-SOX period including 2000 and 2001, and the post-SOX period from 2002 through the end of

¹See, for example, O’Keefe, Simunic and Stein (1994), Bell, Landsman and Shackelford (2001) and Danielsen, Van Ness and Warr (2007).

²2000 is the first year that audit fee data is publicly available for US public companies.

2004. Our descriptive analyses document that total compensation for audit committees has increased significantly in the post-SOX period with notable increases in the cash retainer and meeting fee components.

Our primary analyses examine compensation for audit committees in a multivariate framework, controlling for economic factors that optimal contracting theory and negotiation power theory have suggested drive outside director pay (see Jensen and Murphy (1990) and Hermalin and Weisbach (1998)). We find that total annual cash retainer compensation paid to audit committee members is positively correlated with annual audit fees, our proxy for the demand for monitoring of the financial reporting process.³ We also find that the compensation mix, defined as the ratio of equity compensation to fixed cash retainer, is negatively related to annual audit fees. Further, our empirical evidence indicates that the level of compensation for audit committees has increased substantially in the post-SOX period, while the compensation mix has not changed in the post-SOX period compared to the pre-SOX period.

We also examine the difference in compensation between audit committees and compensation committees. Audit committees are more likely to be affected by the demand for monitoring of the financial reporting process, including the implications of SOX, than compensation committees. By using compensation committees as a control group, we control for systematic shocks to the market for outside directors and firm specific factors. Our descriptive analyses indicate that average total compensation for audit committee members over the sample period is greater than that of compensation committee members and that the compensation mix is lower for audit committee members relative to compensation committee members. Further analyses suggest that while total compensation for the two groups is comparable in the pre-SOX period, audit committee compensation exceeds that of compensation committee members in the post-SOX period. Compensation mix for the two committees is also comparable in the pre-SOX period, while the compensation mix is significantly lower for audit committee members in the post-SOX period. Multivariate analyses using the difference-in-difference design support the predictions that firms with a higher demand for monitoring of the financial reporting process are likely to

³The annual audit fees are deflated by the total asset value of the firm.

pay a higher level of total compensation to audit committees relative to compensation committees, and structure the compensation packages for audit committees more toward fixed pay relative to those of compensation committees. Further, these analyses document statistically significant increases in the differences in total compensation and in the cash retainer component between the two committees from the pre- to post-SOX period, and likewise decreases in the differences in compensation mix between the two committees from the pre- to post-SOX period. Collectively, our empirical results support the predictions linking the demand for monitoring of the financial reporting process with the level and mix of audit committee compensation.

The remainder of the paper is organized as follows: In Section 2 we review prior studies on compensation for outside directors, and develop hypotheses. We discuss the sample and research methodology and provide descriptive statistics in Section 3. We present the main empirical results in Section 4. Section 5 concludes the paper.

2 Related Research and Hypothesis Development

2.1 Related Research

Our research is related to two strands of literature: research on outside directors, and research on audit committees.

The vast majority of research on outside directors has focused on the determinants of board characteristics such as composition or size and on how these board characteristics affect firm performance or observable actions of the board such as CEO turnovers, the takeover market and executive compensation (see Hermalin and Weisbach (2003) for a review). Another line of research on outside directors is motivated by Fama and Jensen's (1983) conjecture that reputation as decision experts and the market for directors are the primary incentive mechanisms for outside directors, focusing on directors' accumulation of seats on additional boards, and directors' turnover around circumstances such as financial distress. Recently, with the trend toward more equity-based compensation for outside directors, researchers have begun to examine compensation for outside directors. Notably, Yermack (2004) studies incentives for outside directors by following a sample of directors for five years after election and tracking director

compensation, changes in equity ownership by directors, other board seats obtained and departures from the board. In contrast to Fama and Jensen's (1983) hypothesis, he finds that incentives from compensation and ownership account for more than half of total incentives for outside directors. This indicates that it is important to understand compensation arrangements for outside directors.

Research on audit committees parallels research on boards of directors, and focuses on the determinants of audit committee characteristics and how these characteristics are related to financial reporting quality. Klein (2002a) finds that the independence of audit committees is positively related to proxies for high quality financial reporting. Along those lines, Carcello and Neal (2000) investigate the relation between audit committee characteristics and auditor reporting behavior in a sample of financially distressed firms. With recent accounting scandals such as Enron and WorldCom and the passage of the Sarbanes-Oxley Act, audit committees have attracted significant research interest. A growing number of papers have examined another feature of audit committees highlighted by SOX, the inclusion of a director with financial expertise. For example, Defond, Hann and Hu (2005) examine the market reaction to the appointment of financial experts on audit committees, while Dhaliwal, Naiker and Navissi (2006) study the relation between audit committee financial expertise and accruals quality. However, little research into audit committees has studied the compensation and incentives of audit committee members. One exception is Srinivasan (2005), who investigates whether audit committee members are held accountable for financial reporting failure by looking at director turnover and the loss of board positions in other companies when their companies experience accounting restatements.

More recently, Linck, Netter and Yang (2006) extend the literature on outside directors by studying the effects of SOX on a variety of dimensions of corporate boards, including director workload, structure, risk, compensation and turnover. Our paper is similar to Linck et al. (2006) in that we explore the impact of regulatory rules on director compensation. Similar to Linck et al. (2006), we argue that SOX has not only increased the demand for directors through mandates on board structure, but also reduced the supply of directors by increasing the risks of being a director. However, given that the primary focus of SOX is on strengthening firms'

financial reporting processes, these effects appear to weigh most heavily on audit committees. Thus we are able to investigate the broader issue by examining a more targeted group of outside directors. More importantly, our paper also addresses a more general question of the relation between compensation for audit committees and demand for monitoring of the financial reporting process.

2.2 Hypothesis Development

Our primary objective is to examine cross-sectional variation in compensation for audit committees. In particular, we are interested in how compensation arrangements to audit committees vary with the demand for monitoring of the financial reporting process. In this section, we discuss the channels through which that demand might affect the level and structure of audit committee compensation, and develop hypotheses about these relations.

First, we expect that the demand for monitoring of the financial reporting process is high when a firm has complex business operations and is subject to great risk of financial misstatement. This is likely to raise the quality requirement for outside directors serving on the audit committees of these firms, since audit committee members must have a thorough understanding of financial accounting issues to effectively monitor the financial reporting process. As a result, the supply of qualified directors for these firms may be relatively limited, while the demand for such directors is high. We expect these forces to lead to higher compensation for directors serving on audit committees of firms with a high demand for monitoring of the financial reporting process.

In addition to being financially literate, the outside directors serving on audit committees of firms with a high demand for monitoring of the financial reporting process are likely to spend more time and effort learning, communicating, and understanding firms' financial reporting processes. Managerial productivity theory (Rosen (1992)) predicts a higher reservation wage for directors serving on audit committees in this case.

Another channel through which a high demand for monitoring of the financial reporting process might affect audit committee compensation is the increased risk of misstatement that

is likely to be present in such firms. Previous research (Srinivasan (2005)) has suggested that audit committee members suffer severe reputation penalties as a result of financial reporting failure. Agency theory predicts that a risk-averse agent requires a higher risk premium when risk exposure is greater. This implies an increase in the marginal cost of incentive pay, thus leading to lower incentive pay or higher fixed pay in equilibrium.

Agency theory suggests another mechanism by which the demand for monitoring of the financial reporting process may impact the structure of the compensation package for audit committees. The multi-task principal-agent model (Holmstrom and Milgrom (1991)) suggests that it might be optimal to pay fixed wages if the agent has several different tasks to perform. The rationale is that “when there are multiple tasks, incentive pay serves not only to allocate risks and to motivate hard work, it also serves to direct the allocation of the agents’ attention among their various duties” (Holmstrom and Milgrom (1991), page 25). If an agent is provided with an incentive tied to a single objective output measure, this may lead the agent to allocate time and effort toward increasing that measure at the expense of other more-difficult-to-measure duties. Applying this insight to audit committees, we argue that the task of monitoring financial reporting is not easily measured, so it may be difficult to provide direct incentives for this task. If equity incentives are provided to audit committee members to encourage performance of other board duties, audit committee members may allocate their attention away from monitoring the financial reporting process and toward other actions in an attempt to increase stock price. While the role of monitoring financial reporting does not necessarily conflict with the goal of maximizing stock price, there may be a tension between financial reporting quality and maximizing short-term performance. For firms with a high demand for monitoring of the financial reporting process, this tension might be particularly salient. Thus we expect that the compensation package for audit committees is structured more toward fixed pay and away from incentive (i.e., equity-based) pay when firms are facing a high demand for monitoring of the financial reporting process.

To summarize, we predict that compensation for audit committees increases with the demand for monitoring of the financial reporting process. We note, however, that the forces described above point to different definitions of compensation. Supply of and demand for qual-

ified directors are related to total compensation, while more job responsibility and increased risk exposure may argue for higher fixed compensation. Hence we expect a positive relation between the total compensation paid to audit committees and the demand for monitoring of the financial reporting process. Further, we predict that this positive relation is more pronounced for the fixed component (i.e., total cash retainer) of the compensation package, with compensation structured more toward fixed pay when the demand for monitoring of the financial reporting process is high.

The effects described above are likely to be exacerbated by the passage of SOX. As mentioned in the introduction, SOX has raised the demand for monitoring of the financial reporting process for all public companies: (1) SOX focuses on financial reporting and audit committees, requiring that all members of the audit committee be independent, and that the company's annual report disclose whether a member of the audit committee is a financial expert. These requirements are likely to lead to a decrease in supply and an increase in demand for qualified directors serving on audit committees. (2) SOX has increased the workload of audit committees substantially. Linck et al. (2006) find that audit committees meet more than twice as often post-SOX as they did pre-SOX, and that the average number of directorships held by a director on the audit committee decreased significantly. (3) SOX has also increased the risk exposure of audit committees. Again, Linck et al. (2006) document that average Director and Officer insurance premiums increased by more than 150%, and the proportion of firms that experienced audit committee turnover has increased significantly in the post-SOX period compared to the pre-SOX period.⁴ Therefore, we expect that compensation for audit committees increases in the post-SOX period, and this increase is more pronounced in the fixed component of the compensation package. Thus, we expect that compensation for audit committee members is structured more toward fixed pay in the post-SOX period after controlling for other factors.

⁴In the US, only firms incorporated in New York are required to disclose Director and Officer Insurance premium information. Linck et al.'s (2006) results are based on a sample of 27 New York firms from 2001 to 2004.

3 Sample, Research Methodology and Descriptive Statistics

3.1 Sample and Data

We identify the sample of outside directors using ExecuComp firms covering the period from 2000 to 2004. Following previous studies on outside directors (Adams (2003) and Yermack (2004)), we exclude utilities (2-digit SIC 49) and financial institutions (1-digit SIC 6) from the sample because these firms tend to have different corporate governance structures from firms in non-regulated industries.⁵

We then collect detailed data on fees paid to members of audit and compensation committee of the Board from corporate proxy statements. Specifically, we collect data on the annual cash retainer and equity retainer, the number of stock option grants, the number of stock grants, and the meeting fees paid to directors serving as chair of the audit committee, members of the audit committee, chair of the compensation committee and members of the compensation committee, respectively.^{6,7} When directors can choose between cash retainer and equity retainer, we assume that they choose the maximum amount of cash pay permitted.⁸ For equity compensation awarded upon election as directors, we assume that the awards are made equally through the terms of the directorship. However, we exclude one-time/special/discretionary equity-based

⁵Macey and O'Hara (2003) suggest that most firms are governed according to the US model, while financial firms are governed according to a variant of the Franco-German model.

⁶Stock option awards include options and SARs; stock awards include common stock, restricted stock, deferred stock units and phantom stock units; meeting fees include attending both board and committee meetings, but special committee meeting fees are excluded.

⁷The following committees are defined as audit committee: audit committee, audit and legal committee, audit review committee, audit and ethics committee, audit and affiliated transactions committee, audit and compliance committee, audit and public policy committee. The following committees are defined as compensation committee: compensation committee, executive salary committee, compensation and stock option committee, compensation policy committee, organization and compensation committee, compensation and leadership committee, compensation, benefits and stock option committee, compensation and incentive committee, etc.

⁸The retainer paid for special committees formed for special reasons is excluded.

awards made on an irregular schedule, such as the one-time equity award when a director joins the board. We also do not consider insurance plans, retirement plans and charity matching contributions in the compensation packages. We value stock grants by multiplying the number of shares by the closing stock price. For the value of stock option awards, if the proxy statement discloses the number of stock options awarded, we use the Black-Scholes method to compute the value of option awards assuming that firms issue at-the-money options at the end of the fiscal year and with a ten-year maturity. Volatility and dividend yields for each firm-year are obtained from the ExecuComp database. If the proxy statement only discloses the dollar value of options, then we use the dollar value. In addition, we also collect information on CEO characteristics (i.e., tenure, equity ownership and role on board), other board related data (e.g., director independence), and audit fee data from proxy statements.

To be included in the sample, financial and stock return data must be available from Compustat and CRSP, and data on the parameters of the Black-Scholes option pricing model must be available from ExecuComp. This screening procedure leaves us with an initial sample of 5,016 firm-year observations. We also require that board and CEO data be available from IRRC (the corporate governance database maintained by the Investor Responsibility Research Center) in order to control for those variables suggested by negotiation power theory to explain compensation for audit committees. This reduces the sample to 3,957 firm-year observations.

3.2 Research Methodology

3.2.1 Variable Measurement

Audit Committee Compensation Measures Annual compensation for audit committees is composed of five components: cash retainer, equity retainer, stock grants, option grants and meeting fees. Thus total compensation is measured as the sum of these five components, and the fixed component of the compensation package is measured as the cash retainer.⁹ Since the

⁹While meeting fees are usually paid in cash, meeting fees do not capture the construct of the fixed component of the compensation package.

compensation variables are highly right skewed, we use a logarithmic transformation. We use *Mix*, defined as the ratio of equity-based compensation to cash retainer, to capture the structure of the compensation packages. Equity compensation is the sum of equity retainer, stock grants, and option grants. We collect compensation information for both the audit committee chair and the other audit committee members. In many instances, audit committee chairs receive additional compensation recognizing the typically substantial additional effort chairs exert in preparation for meetings. In our main analyses, we focus on the chairs of audit committees. Results based on audit committee members are similar.

Proxies for the Demand for Monitoring of the Financial Reporting Process We capture the demand for monitoring of a firm’s financial reporting process using the audit fees (*AuditFee*) charged by outside auditors for performing the firm’s annual audit services. We consider the firm’s total annual audit fee to be a comprehensive measure of our construct, capturing both demand forces that are firm-specific and also those related to the external regulatory environment. The extent of work and billings by the audit firm is expected to be linked with many firm-specific forces that give rise to the demand for monitoring of the financial reporting process, including the complexity of the business and the firm’s organizational structure, the strength of internal control systems, financial reporting quality and litigation risk. These factors influence the overall transparency and riskiness of the financial reporting process, which impacts the demand for monitoring of the process by investors, the scope and complexity of the annual audit activities, and the risk premium required by auditors. As such, we argue that audit fees are an objective measure of the business and environmental complexity of the firm and thus the demand for monitoring of the financial reporting process. In determining annual audit fees from corporate proxy statements, we include only fees directly related to auditing services (including internal control analyses) and exclude fees related to supplemental and tax work. We deflate audit fees by the total asset value of the firm to mitigate size effects.

Our sample time period includes the years 2000 to 2004, which allows us to develop a proxy for the demand for monitoring financial reporting arising from an important external regulatory event — the passage of the Sarbanes-Oxley Act. SOX emphasizes the financial reporting process

and requires that all public companies establish and maintain an internal control system for financial reporting. SOX additionally emphasizes the role of audit committees, requiring that all members of the audit committee be independent and that the company's annual report disclose whether a member of the audit committee is a financial expert. These provisions not only impose heavy duties on firms' management, but also create a high demand for audit committees to monitor the financial reporting process more diligently. SOX was written into law in July 2002; thus we define our *PostSOX* indicator variable to equal zero for years 2000 and 2001, and to equal one for years 2002 through 2004.¹⁰

3.2.2 Regression Specifications

Multivariate Analysis In our multivariate analyses we first estimate an ordinary least squares (OLS) regression for the compensation variables of interest. Since our tests use panel data, we include firm fixed effects and estimate robust standard errors to mitigate potential problems with the panel data.

Similar to Linck et al. (2006), we select control variables mainly based on agency theory and negotiation power theory. While agency problems are generally defined as the conflict between shareholders and managers, agency problems could also exist between shareholders and outside directors. To alleviate agency problems, agency theory suggests that compensation should provide incentives to align the interests of the parties. Thus it predicts relations between compensation and firm performance, job complexity, effort and leverage. We use industry-median-adjusted stock returns and industry-median-adjusted *ROA* (Return on Assets) to measure firm performance. We use firm size (measured as the logarithm of market value of equity), *R&D* (measured as R&D expenditures deflated by total assets), and market-to-book ratio (measured as book value of assets minus book value of equity plus market value of equity divided by book

¹⁰The use of annual data determines how we partition the sample period. We find qualitatively similar results for all of our regression analyses (1) when we exclude year 2002 observations in the empirical tests to address the concern that the year 2002 is a transition year, and (2) when we define the post-SOX period as years 2003 and 2004.

value of assets) to proxy for job complexity. We use the number of audit committee meetings during the year to reflect the effort and workload of audit committees. We proxy for debt's disciplining role using a leverage variable, defined as total liabilities scaled by total assets. Further, we capture the cash constraints and tax advantages of options by including a zero dividend dummy and a net operating loss carryforward dummy (Yermack (2004)).¹¹

Alternatively, negotiation power theory suggests that the level of director compensation is determined by the negotiation process between the board and the CEO (see Hermalin and Weisbach (1998) for theory, and see Ryan and Wiggins (2004) for empirical evidence). Thus it predicts relations between compensation and CEO/board bargaining power. Following that literature, we use the percentage of independent directors on the board and the ownership of outside directors to measure the board's negotiation power. To capture the CEO's bargaining power, we use CEO tenure, ownership, and a dummy variable equal to one if the CEO chairs the board.

Difference-in-Difference Approach One potential challenge in conducting multivariate analyses is the possibility of correlated omitted variables. Because of data unavailability, we cannot include all firm-specific variables in the regression model. It is possible that these unobservable factors might contaminate the statistical relationship. To address this concern, we conduct difference-in-difference tests by analyzing the compensation variables for audit committees relative to compensation committees. Thus, we are able to use outside directors serving on compensation committees as a control group to control for unobservable firm-specific factors that may be associated with board member compensation across firms.

Another appealing feature of the difference-in-difference approach is that it can mitigate concerns about whether SOX is indeed exogenous. Other factors occurring around the same period, including general macroeconomic conditions, pressure from more active institutional investors and changes in the public's view of corporate governance, may have contributed to the

¹¹The zero dividend dummy is equal to one if a firm pays a dividend (Compustat data26). The net operating loss carryforward dummy is equal to one if a firm has a net operating loss carryforward (Compustat data52).

passage of SOX. However, given that the primary focus of SOX is on firms' financial reporting processes, outside directors on the audit committee are likely to be affected more by SOX. Hence, we can use outside directors serving on the compensation committee as a control group to control for these factors occurring around SOX's passage that may have affected compensation for audit committees.

3.3 Descriptive Statistics

Table 1 presents summary statistics relating to the compensation of audit committee members. Panel A presents the level of compensation and the key components of the compensation packages for outside directors serving as chair of the audit committee and other members of the audit committee. We observe that the equity component (equity retainer, options and equity grants) of total compensation is, on average, greater than the cash component (cash retainer and meeting fees) while the cash component slightly exceeds that equity component for the median firm. We also note that the average and median compensation (in total and by component) is slightly greater for the audit committee chair than for other members of the audit committee.

Panel B shows the time series variation in compensation and its components from 2000 to 2004 for the chair of the audit committee. Panel B indicates that the level of compensation for audit committees is increasing over time. The average (median) total compensation for the audit committee chair is \$138,219 (\$108,470) in the post-SOX period, significantly higher than \$119,808 (\$81,691) in the pre-SOX period. We note similar significant increases (at better than the 1% level) from the pre-SOX to the post-SOX period in the levels of each of the components of total compensation, with the exception of the value of options, which experienced a decline in value from the pre-SOX to the post-SOX period. This reduction in the value of options granted to committee members is due primarily to the significant drop in the value of stock options granted in 2002. The component with the largest percentage increase is the cash retainer: the average total cash retainer is \$31,923 in the post-SOX period, compared to \$23,033 in the

pre-SOX period.¹²

Table 2 displays the summary statistics (Panel A) and the time series trend (Panel B) in the number of annual board committees meetings and audit fees. Panel A notes that the average (median) number of audit committee meetings is 6.5 (6.0) per year which exceeds that of the compensation committee (4.3 (4.0)). Panel B documents overall increases in the number of annual committee meetings over the sample period (2000-2004). The average number of total committee meetings is 16.91 in the post-SOX period, significantly higher than the 11.54 meetings in the pre-SOX period. The number of audit committee meetings shows a similar impressive increase: the average number of annual audit committee meetings is 7.68 in the post-SOX period, compared to 4.51 in the pre-SOX period. These differences are statistically significant at better than the 1% level. While we also observe a significant increase in the number of compensation committee meetings from the pre-SOX to the post-SOX period, the magnitude of the increase is much smaller (average of 3.8 meetings pre-SOX vs. 4.6 in the post-SOX period) than that of the audit committee. Another notable trend is in audit fees: Audit fees have increased significantly from an average of \$1.1 million in the pre-SOX period to \$2.2 million in the post-SOX period, and the ratio of audit fees to total assets has increased significantly from 0.067% in the pre-SOX period to 0.115% in the post-SOX period.¹³

Table 3 lists summary statistics for the control variables capturing the determinants of directors' compensation suggested by optimal contracting theory and the negotiation power theory. With regard to the determinants related to optimal contracting theory, we first note that our sample firms perform better than their industry peers, with industry-adjusted accounting return of 6% and industry-adjusted stock returns of 16%.¹⁴ On average, our sample firms

¹²Panel B presents the details of compensation by individual years in the sample period. The summary pre-SOX/post-SOX compensation information is untabulated, but is used in the statistical tests discussed above. We use t-tests to test differences in the mean, and Wilcoxon two-sample tests to test differences in the median.

¹³Again, these pre-SOX/post-SOX results are untabulated in the current version of the paper. We use t-tests to test differences in the mean, and Wilcoxon two-sample tests to test differences in the median.

¹⁴Industry adjustments are computed using CRSP/Compustat firms as a comparison group, defining industry

spend 3% of their total assets on research and development. The mean (median) market value is \$7.36 (\$1.26) billion, and the mean (median) market-to-book is 2.0 (1.58). These statistics suggest that our sample firms are larger and have higher growth rates than the average CRSP/Compustat firms. In addition, the average firm leverage is 0.52, 47% of the sample firms issue dividends, and 35% of the sample firms have a net operating loss carryforward. Turning to the variables suggested by the negotiation power theory, we find that the mean percentage of independent directors on the board is 67%, and these outside directors hold on average 3.9% of the equity of the firm. On the other hand, the average tenure of a CEO in the sample is 8 years, and 65% of CEOs also chair the board. CEOs' average ownership is 2.3%. Thus, there seems to be wide cross-sectional variation in the control variables.

4 Empirical Results

In this section, we present the results of the regression analyses based on the hypotheses presented in section 2. We first estimate an ordinary least squares (OLS) regression for the compensation variables of interest to examine how audit committee compensation levels and structure are related to the demand for monitoring of the financial reporting process. We then conduct difference-in-difference tests by analyzing the compensation variables for audit committees relative to compensation committees.

4.1 Multivariate Analysis

We start by estimating an OLS regression for the compensation variables of interest. Table 4 reports our results. Column (1) presents our first regression, which examines the relation between the level of total compensation and proxies for the demand for monitoring of the financial reporting process. We also include control variables suggested by optimal contracting theory. We predict that firms with a higher demand for monitoring of the financial reporting process are likely to pay a higher level of total compensation, particularly the fixed (i.e., cash

based on a two-digit industry codes.

retainer) component, to audit committees. In this specification, we do not find a relation between the level of total compensation and *AuditFee*, our primary proxy for the demand for monitoring of the financial reporting process driven by firm-specific factors. We do, however, document a significantly positive relation between the level of total compensation for audit committees and the post-SOX indicator variable. Under our assumption that the passage of SOX raised the demand for monitoring of the financial reporting process, this result is consistent with our prediction.

With regard to the control variables, industry-adjusted market return is significantly and positively related to the total compensation level, reflecting that audit committees are paid for performance. Larger firms (high *LogMV*) and firms with higher investment opportunities (high *M/B* and high *R&D*) award their audit committees higher total compensation. The coefficient for the number of audit committee meetings is positive and highly significant, consistent with the notion that audit committees are paid for their time and effort. Both leverage and the zero dividend dummy are negatively related to the level of total compensation. Finally, the coefficient on the net operating loss carryforward dummy is positive and significant. It appears that firms with net operating loss carryforwards pay a higher level of compensation to attract qualified directors.

In Column (2) we also include the control variables suggested by the negotiation power theory. Again, we find that the *PostSOX* dummy is significantly and positively related to the level of total compensation for audit committees. The coefficient on *AuditFee* remains insignificant. The results on the control variables suggested by optimal contracting theory are not affected. We also find some evidence in support of the negotiation power theory. Directors serving on outsider dominated boards (high *BdInd%*) receive more total compensation, and CEO ownership is negatively related to total compensation. However, the coefficients on CEO tenure (*LogCEOTen*) and outside director ownership (*IndDirOwn%*) are not statistically significant, and the coefficient on CEO/Chair dummy is positive.

We continue our analysis by turning to the level of total cash retainer, the fixed component of the compensation package. Recall that we predict the positive relation between the level of compensation and the demand for monitoring of the financial reporting process to be more

pronounced when compensation is defined as the fixed component of the compensation package. Columns (3) and (4) report our results. In both columns, we find a positive and statistically significant relation between the level of total cash retainer for audit committees and *AuditFee*. We also note that the total cash retainer has increased significantly in the post-SOX period compared to the pre-SOX period. These results are consistent with the expectation that the demand for monitoring of the financial reporting process plays an important role in determining the fixed component of the compensation package paid to audit committees.

Regarding control variables, we note the following differences from the results reported in Columns (1) and (2): (1) The coefficient on industry-adjusted market returns is now negative and significant, suggesting that the positive correlation between total compensation and market returns in Columns (1) and (2) is driven by the equity compensation component. (2) The coefficients on both *R&D* and *M/B* are now negative and significant, in contrast to the positive and significant coefficients in Columns (1) and (2), supporting the view that growth firms are more likely to use equity-based compensation relative to fixed compensation. (3) Both leverage and the zero dividend dummy are now positively associated with the level of total cash retainer. This, combined with the results from Column (1) and (2), suggests that equity compensation is the main driver of the negative correlation. Our empirical evidence is consistent with the prediction from financial contracting theory (John and John (1993)) that firms award more equity compensation when they face a scarcity of cash (*DivDum* equal to 0) and when the conflict between creditors and shareholders is not severe (low *Leverage*). (4) The coefficient on CEO tenure becomes negative and significant, supporting the argument that powerful CEOs are able to negotiate lower cash retainers paid to outside directors.

Finally, we turn to our analysis of the compensation structure for audit committees. We measure the structure of compensation by using a compensation mix variable (*Mix*) defined as the ratio of equity compensation to cash retainer. Columns (5) and (6) report the results of the compensation structure analyses. Recall that we predict that compensation for audit committees should be structured more toward fixed pay when there is a high demand for monitoring of the financial reporting process. Our empirical evidence supports this prediction. Results from both columns show a negative and significant association between *Mix* and *AuditFee*, our

primary proxy for the demand for monitoring relating to firm-specific factors. However, we do not detect a significant difference in *Mix* before and after SOX, suggesting the compensation mix is not affected by the external regulatory shift in the demand for monitoring of the financial reporting process.

The results on our control variables are generally in accordance with predictions from economic theory and findings from prior research regarding the determinants of compensation mix. In particular, we note the following findings: (1) Firms with more investment opportunities (high *R&D* and high *M/B*), with minimal agency costs of debt (low *Leverage*), and with cash constraints (*DivDum* equal to 0) are more likely to structure compensation more toward equity-based compensation to align the agent's interest with shareholders; (2) Firms with a powerful CEO (high *CEOOwn%*) are more likely to structure compensation away from equity-based compensation to weaken directors' incentive to monitor; while firms with a powerful board (high *BdInd%*) are more likely to structure compensation toward equity-based compensation. One exception is that the coefficient on CEO tenure is positively related to *Mix*, suggesting that CEOs with a long tenure at the firm negotiate to increase the equity-based compensation for outside directors.

4.2 Difference-in-Difference Analysis

In this section we employ a unique feature of our dataset to control for correlated omitted variables. Since we have compensation data for both audit committees and compensation committees, we are able to use compensation committees to control for unobservable firm-specific variables.

We first present summary compensation statistics for compensation committees in Table 5. Panel A presents the level of total compensation, the level of total cash retainer, and the compensation mix for outside directors serving as chair of the compensation committee and member of the compensation committee. When we compare these statistics for compensation committees with those for audit committees in Table 1, we note that outside directors on audit committees are in general paid more than outside directors on compensation committees, and

the compensation mix is lower for audit committees than for compensation committees.

Panel B shows the time series variation in compensation variables from 2000 to 2004 for chair of the compensation committee and the difference between audit and compensation committee chairs. When we compare the levels of compensation for audit committees and compensation committees, we note that while the level of compensation for compensation committees is comparable to that for audit committees in the pre-SOX period, the level of compensation for audit committees exceeds that of compensation committees in the post-SOX period, and this difference is statistically significant.¹⁵ On the other hand, while the compensation mix for compensation committees is comparable to that for audit committees in the pre-SOX period, the compensation mix for audit committees is significantly lower than that for compensation committees in the post-SOX period.¹⁶

Next we conduct a difference-in-difference regression in which the dependent variables now capture the differences between audit committee compensation and compensation committee compensation. We exclude firm level control variables because this difference design itself controls for firm-specific characteristics. Table 6 reports the results from the difference regression.

Column (1) shows the results when the difference in the level of total compensation is the dependent variable. We find that the difference in the level of total compensation is positively related to *AuditFee*, and has increased significantly in the post-SOX period compared to the pre-SOX period. The results support the prediction that firms with a higher demand for monitoring of the financial reporting process are likely to pay a higher level of total compensation to audit committees relative to compensation committees.

The results for the difference in the level of cash retainer are presented in Column (2).

¹⁵Again, these pre-SOX/post-SOX results are untabulated in the current version of the paper. The mean (median) difference in total compensation between the two committees is \$521.94 (\$0) in the pre-SOX period, and \$5,122 (\$3,200) in the post-SOX period. The increase in the difference from the pre-SOX period to the post-SOX period is statistically significant at better than the 1% level. We use t-tests to test differences in the mean, and Wilcoxon two-sample tests to test differences in the median.

¹⁶The mean (median) difference in compensation mix between the two committees is -0.00385 (0) in the pre-SOX period, and -0.11978 (0) in the post-SOX period.

Similar to Column (1), we find that the difference in the level of cash retainer has increased significantly in the post-SOX period compared to the pre-SOX period. However, while the sign on *AuditFee* remains positive, we do not detect a statistically significant relation between the difference in the level of cash retainer and *AuditFee*.

Finally, we examine the results from the difference analysis on compensation mix in Column (3). The coefficient on *AuditFee* remains negative and significant. We note that the *PostSOX* dummy is significantly and negatively related to *Mix*. This suggests that firms structure compensation packages for audit committees more toward fixed pay in the post-SOX period compared to the pre-SOX period, when we use compensation committees as a control.

Taken together, the empirical results support the notion that the demand for monitoring of the financial reporting process is an important determinant of the compensation paid to audit committees. We find that total compensation, total cash retainer in particular, is positively correlated with proxies for the demand for monitoring of the financial reporting process. We also find that the compensation mix is negatively related to proxies for the demand for monitoring of the financial reporting process.

5 Conclusion

In this paper we have examined how cross-sectional variation in the demand for monitoring of the financial reporting process is associated with compensation for audit committees. Audit committees have become an important part of firms' financial reporting process; thus it is important to investigate the internal governance mechanisms for audit committees. We add to the literature on audit committees by exploring the determinants of audit committee compensation.

We focus our analyses on the demand for monitoring of the financial reporting process. Specifically, we predict a positive association between the level of compensation and the demand for monitoring of the financial reporting process based on a demand and supply analysis in the market for outside directors. We also argue, based on multi-task principal-agent theory, that compensation for audit committees should be structured more toward fixed pay when there is a high demand for monitoring of the financial reporting process.

Our empirical evidence supports these predictions. We find that total compensation, total cash retainer compensation in particular, is positively correlated with proxies for the demand for monitoring of the financial reporting process. We also find that the compensation mix, defined as the ratio of equity compensation over fixed cash retainer, is negatively related to proxies for the demand for monitoring of the financial reporting process. Further, our empirical evidence indicates that the level of compensation for audit committees has increased substantially in the post-SOX period, while the compensation mix has not increased in the post-SOX period compared to the pre-SOX period.

We view our study as a first step toward understanding the compensation arrangements for audit committees. One important area for future research is to examine how compensation incentives interact with reputation incentives to impact the effectiveness of the audit committees in monitoring financial reporting.

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Table 1: Summary Statistics: Audit Committee Compensation

<i>Panel A: Compensation Statistics for Audit Committees</i>						
	N	Q1	Mean	Median	Q3	Std
<i>Audit Committee Chair</i>						
Total compensation	5016	60000.00	131490.76	98020.40	153856.65	140385.27
Cash retainer	5016	16000.00	28674.20	25000.00	38000.00	18890.44
Equity retainer	5016	0.00	6127.59	0.00	0.00	16562.02
Options	5016	0.00	73548.56	32008.36	84378.07	139558.57
Equity grants	5016	0.00	8320.27	0.00	0.00	22373.09
Meeting fees	5016	6000.00	14820.15	13200.00	21000.00	12724.58
Mix	4697	0.78	4.17	1.75	3.84	8.91
<i>Audit Committee Member</i>						
Total compensation	5016	57000.00	126668.11	93796.67	147599.41	138745.00
Cash retainer	5016	15000.00	25627.83	24000.00	34000.00	16600.20
Equity retainer	5016	0.00	5641.82	0.00	0.00	15462.87
Options	5016	0.00	72900.29	31521.83	83980.54	138488.19
Equity grants	5016	0.00	8320.27	0.00	0.00	22373.09
Meeting fees	5016	6000.00	14177.90	13000.00	20000.00	12063.84
Mix	4657	0.85	4.17	1.92	4.13	8.08

Total compensation includes cash retainer, equity retainer, options, equity grants, and meeting fees. Options include stock options and SARs. Equity grants include common stock, restricted stock, deferred stock units and phantom stock units. Meeting fees include fees for attending both board and committee meetings; special committee fees are excluded. Mix is the ratio of equity-based compensation to cash retainer.

Table 1: Summary Statistics: Audit Committee Compensation (*continued*)

<i>Panel B: Time Series Compensation Statistics for Audit Committee Chair</i>		Audit Committee Compensation							Pre-/Post-SOX Difference
		2000	2001	2002	2003	2004	Pre-SOX	Post-SOX	
Total compensation	Mean	117792.41	121472.09	106104.57	150521.37	162887.67	119807.9	138218.6	18410.7 ^a
	Median	73950.15	87111.17	82969.12	116213.25	134807.53	81691.2	108469.83	26778.63 ^a
Cash retainer	Mean	22689.51	23316.37	25998.77	32050.88	39151.69	23032.86	31922.89	8890.03 ^a
	Median	21000.00	21500.00	24000.00	30000.00	36000.00	21000	29500	8500.00 ^a
Equity retainer	Mean	4933.12	5340.45	5582.91	6489.29	8311.22	5156.23	6686.97	1530.74 ^a
	Median	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Options	Mean	73350.96	75673.93	55135.39	85701.35	79151.85	74623.33	72929.62	-1693.71
	Median	23323.31	30975.29	25948.41	44134.12	38734.60	26723.21	34664.75	7941.54 ^a
Equity grants	Mean	5151.83	5237.73	5217.52	9349.60	17190.31	5198.88	10117.79	4918.91 ^a
	Median	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ^a
Meeting fees	Mean	11666.98	11903.60	14169.98	16930.25	19082.60	11796.59	16561.33	4764.74 ^a
	Median	10500.00	11000.00	13200.00	16000.00	18000.00	10800.00	15000.00	4200.00 ^a
Mix	Mean	4.59	4.92	3.32	4.54	3.58	4.77	3.83	-0.94 ^a
	Median	1.50	1.84	1.50	1.97	1.85	1.66	1.78	0.12
N		829	1004	1135	1138	910	1833	3183	

Total compensation includes cash retainer, equity retainer, options, equity grants, and meeting fees. Options include stock options and SARs. Equity grants include common stock, restricted stock, deferred stock units and phantom stock units. Meeting fees include fees for attending both board and committee meetings; special committee fees are excluded. Mix is the ratio of equity-based compensation to cash retainer. Pre-SOX = years 2001 and 2001. Post-SOX = years 2002 - 2004. *t*-tests used to test differences in the Pre- and Post-SOX mean; Wilcoxon two-sample tests used to test differences in the Pre- and Post-SOX median.

^a denotes significance of difference at the 1% level.

Table 2: Summary Statistics: Firms' Audit Fees and Board Committee Meetings

Panel A: Summary Statistics

	N	Q1	Mean	Median	Q3	Std
Audit fees	5016	352.81	1812.33	728.50	1760.43	3614.06
Audit fees/Assets	5016	0.030%	0.096%	0.061%	0.112%	0.148%
Total committee meetings	5016	9.00	14.95	14.00	19.00	7.81
Audit committee meetings	5016	4.00	6.52	6.00	8.00	3.28
Compensation committee meetings	5016	3.00	4.32	4.00	6.00	2.50

Panel B: Time Series Statistics

	2000	2001	2002	2003	2004	Pre-SOX	Post-SOX	Difference
Audit fees	Mean	1042.60	1124.36	1563.97	1890.51	3484.59	2229.81	1142.43 ^a
	Median	471.00	496.50	661.00	819.00	1706.91	934.53	444.99 ^a
Audit fees/Assets	Mean	0.060%	0.065%	0.087%	0.097%	0.170%	0.114%	0.051% ^a
	Median	0.042%	0.045%	0.060%	0.066%	0.111%	0.073%	0.030% ^a
Total committee meetings	Mean	11.21	11.82	14.27	17.32	19.68	16.91	5.37 ^a
	Median	10.00	11.00	13.00	16.00	19.00	16.00	6.00 ^a
Audit committee meetings	Mean	4.25	4.72	6.51	7.86	8.91	7.68	3.17 ^a
	Median	4.00	4.00	6.00	8.00	8.00	7.00	3.00 ^a
Compensation committee meetings	Mean	3.88	3.82	4.05	4.60	5.27	4.60	0.75 ^a
	Median	4.00	4.00	4.00	4.00	5.00	4.00	0.00 ^a
N		829	1004	1135	1138	910	1833	3183

Audit fees are in thousands of dollars, including annual fees directly related to auditing services and do not include audit-related fees, tax fees, and all other fees. Audit fees/Assets is in percentage term. Committee meetings are the number of meetings each year. Pre-SOX = years 2001 and 2001. Post-SOX = years 2002 - 2004. *t*-tests used to test differences in the Pre- and Post-SOX mean; Wilcoxon two-sample tests used to test differences in the Pre- and Post-SOX median. *a* denotes significance of difference at the 1% level.

Table 3: Summary Statistics: Control Variables

	N	Q1	Mean	Median	Q3	Std
ROA_Ind	5016	0.00	0.06	0.05	0.11	0.19
Return_Ind	5016	-0.15	0.16	0.07	0.34	0.59
R&D	5016	0.00	0.03	0.00	0.04	0.07
MV	5016	497.38	7362.59	1256.08	3948.81	26113.76
Leverage	5016	0.36	0.52	0.52	0.66	0.24
DivDum	5016	0.00	0.47	0.00	1.00	0.50
NOLDum	5016	0.00	0.35	0.00	1.00	0.48
M/B	5016	1.20	2.00	1.58	2.26	1.36
IndDirOwn%	3957	0.22%	3.93%	0.71%	2.51%	12.029
CEOOwn%	3957	0.09%	2.28%	0.31%	1.20%	6.015
CEOTen	3957	3	8.073	5	11	7.521
CEO/Chair	3957	0	0.654	1	1	0.476
BdInd%	3957	57.14%	66.71%	66.67%	80.0%	16.372

ROA_Ind = industry-median-adjusted return on assets. Return_Ind = industry-median-adjusted stock return. R&D = research and development expenditures/total assets. MV = market value. Leverage = total liabilities/total assets. DivDum = 1 if firm pays a dividend. NOLDum = 1 if firm has a net operating loss carryforward. M/B = market value/book value. meetings. IndDirOwn% = percentage ownership of independent directors. CEOTen = CEO tenure. CEOOwn% = percentage ownership of CEO. CEO/Chair = 1 if CEO is chairman of board. BdInd% = percentage of independent directors on board.

Table 4: OLS Regressions of Audit Committee Compensation

	Total compensation		Cash retainer		Mix	
	(1)	(2)	(3)	(4)	(5)	(6)
AuditFee	-0.176 (-1.39)	0.029 (0.21)	0.343 ^b (2.55)	0.521 ^a (4.08)	-7.712 ^a (-5.88)	-8.364 ^a (-4.43)
PostSOX	0.133 ^a (6.17)	0.122 ^a (5.71)	0.163 ^a (9.23)	0.148 ^a (6.94)	-0.305 (-1.12)	0.033 (0.10)
ROA_Ind	0.057 (0.97)	0.054 (0.77)	0.039 (0.72)	0.064 (1.33)	-0.555 (-0.55)	-0.758 (-0.57)
Return_Ind	0.052 ^a (2.99)	0.069 ^a (2.86)	-0.029 ^b (-2.14)	-0.032 ^c (-1.67)	0.863 ^a (2.74)	1.587 ^a (3.33)
R&D	0.944 ^a (2.92)	1.460 ^a (4.34)	-0.783 ^a (-3.29)	-0.704 ^a (-2.65)	14.165 ^a (3.23)	24.216 ^a (4.30)
LogMV	0.231 ^a (21.80)	0.209 ^a (18.87)	0.175 ^a (17.77)	0.175 ^a (15.69)	0.227 ^c (1.70)	0.139 (0.91)
Leverage	-0.101 (-1.44)	-0.188 ^b (-2.17)	0.423 ^a (7.11)	0.430 ^a (5.39)	-3.661 ^a (-3.31)	-3.575 ^b (-2.16)
DivDum	-0.324 ^a (-9.42)	-0.316 ^a (-8.86)	0.064 ^b (2.32)	0.061 ^b (1.98)	-2.679 ^a (-7.77)	-2.494 ^a (-6.47)
NOLDum	0.123 ^a (4.58)	0.108 ^a (4.00)	0.054 ^b (2.26)	0.041 (1.54)	0.564 ^c (1.65)	0.423 (1.11)
M/B	0.075 ^a (4.29)	0.081 ^a (4.50)	-0.076 ^a (-4.94)	-0.071 ^a (-4.04)	2.000 ^a (5.50)	1.861 ^a (4.94)
AuditMeet	0.039 ^a (8.13)	0.036 ^a (8.41)	0.020 ^a (5.35)	0.020 ^a (4.59)	0.043 (0.85)	0.017 (0.30)
IndDirOwn%		-0.001 (-0.88)		-0.001 (-1.04)		-0.008 (-0.95)
LogCEOTen		-0.007 (-0.42)		-0.062 ^a (-3.66)		0.897 ^a (3.12)
CEOOwn%		-0.015 ^a (-3.67)		0.002 (0.64)		-0.070 ^a (-3.09)
CEO/Chair		0.061 ^b (2.01)		0.007 (0.23)		0.073 (0.18)
BdInd%		0.533 ^a (4.77)		0.154 (1.57)		2.066 ^c (1.69)
Intercept	9.446 ^a (112.31)	9.289 ^a (87.13)	8.515 ^a (111.89)	8.493 ^a (72.94)	1.571 (1.59)	-0.653 (-0.36)
N	5016	3957	4697	3716	4697	3716
R ²	0.40	0.45	0.32	0.32	0.20	0.21

Total compensation includes cash retainer, equity retainer, options, equity grants, and meeting fees.

Mix = ratio of equity-based compensation to cash retainer. AuditFee = audit fees/total assets.

PostSOX = 1 for fiscal years 2002 - 2004. ROA_Ind = industry-median-adjusted return on assets.

Return_Ind = industry-median-adjusted stock return. R&D = research and development expenditures/total assets. LogMV = log of market value. Leverage = total liabilities/total assets.

DivDum = 1 if firm pays a dividend. NOLDum = 1 if firm has a net operating loss carryforward.

M/B = market value/book value. AuditMeet = number of yearly audit committee meetings.

IndDirOwn% = percentage ownership of independent directors. LogCEOTen = log of CEO tenure.

CEOOwn% = percentage ownership of CEO. CEO/Chair = 1 if CEO is chairman of board. BdInd% = percentage of independent directors on board. *a*, *b*, and *c* denote significance of coefficients at the 1%, 5%, and 10% levels, respectively.

Table 5: Summary Statistics: Compensation Committee Compensation

	N	Q1	Mean	Median	Q3	Std
<i>Compensation Committee Chair</i>						
Total compensation	5016	57277.49	128049.67	94481.38	150000.00	139946.41
Cash retainer	5016	16000.00	27822.24	25000.00	36583.33	18376.76
Mix	4687	0.80	4.24	1.78	3.92	8.98
<i>Compensation Committee Member</i>						
Total compensation	5016	54972.30	124432.23	91286.53	144416.91	138704.85
Cash retainer	5016	15000.00	25533.22	24000.00	34000.00	16711.88
Mix	4657	0.85	4.18	1.93	4.14	8.14

Total compensation includes cash retainer, equity retainer, options, equity grants, and meeting fees. Options include stock options and SARs. Equity grants include common stock, restricted stock, deferred stock units and phantom stock units. Meeting fees include fees for attending both board and committee meetings; special committee fees are excluded. Mix is the ratio of equity-based compensation to cash retainer.

Table 5: Summary Statistics: Compensation Committee Compensation (*continued*)

<i>Panel B: Time Series Compensation Statistics</i>		2000	2001	2002	2003	2004	Pre-SOX	Post-SOX	Pre-/Post-SOX Difference
<i>Compensation Committee Chair</i>									
Total compensation	Mean	117627.15	120655.64	103285.47	144903.19	155513.36	119285.96	133096.45	13810.49 ^a
	Median	73500.00	85964.56	79029.33	111465.52	125039.96	81460.31	103000.00	21539.69 ^a
Cash retainer	Mean	22851.79	23307.67	25687.58	30649.55	36457.92	23101.49	30540.78	7439.29 ^a
	Median	20000.00	21000.00	24000.00	28000.00	35000.00	21000.00	27500.00	6500.00 ^a
Mix	Mean	4.59	4.95	3.33	4.61	3.82	4.78	3.93	-0.85 ^a
	Median	1.50	1.80	1.51	2.05	1.96	1.66	1.85	0.19 ^b
<i>Difference between Audit and Compensation Committee Chairs</i>									
Total compensation	Mean	165.26	816.45	2819.10	5618.18	7374.31	521.94	5122.15	4600.21 ^a
	Median	0.00	0.00	1500.00	4000.00	5550.00	0.00	3200.00	3200.00 ^a
Cash retainer	Mean	-162.28	8.70	311.18	1401.33	2693.77	-68.63	1382.11	1450.74 ^a
	Median	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ^a
Mix	Mean	0.01	-0.02	-0.01	-0.13	-0.24	-0.00	-0.12	-0.12 ^a
	Median	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 ^a
N		829	1004	1135	1138	910	1833	3183	

Total compensation includes cash retainer, equity retainer, options, equity grants, and meeting fees. Options include stock options and SARs. Equity grants include common stock, restricted stock, deferred stock, phantom stock units, and phantom stock units. Meeting fees include fees for attending both board and committee meetings; special committee fees are excluded. Mix is the ratio of equity-based compensation to cash retainer. Pre-SOX = years 2001 and 2001. Post-SOX = years 2002 - 2004. *t*-tests used to test differences in the Pre- and Post-SOX mean; Wilcoxon two-sample tests used to test differences in the Pre- and Post-SOX median.

^a denotes significance of difference at the 1% level.