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**The Influence of Director Stock Ownership and Board Discussion Transparency on  
Financial Reporting Quality**

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## **The Influence of Director Stock Ownership and Board Discussion Transparency on Financial Reporting Quality**

### **Abstract**

Seventy-two active corporate directors participate in an experiment where management insists on aggressive recognition of revenue, but the chief audit executive proposes a more conservative approach. Results indicate interactive effects of director stock ownership and the transparency of director decisions. Stock-owning directors are more likely to oppose management's attempts to manage earnings when transparency increases. For non-stock owning directors, however, increasing transparency does not increase the likelihood that directors oppose management's attempts to manage earnings. The current study challenges suppositions that equate director stock ownership with improved financial reporting and higher corporate governance quality, and it challenges the assumption that increasing transparency consistently reduces earnings management.

**Key Words:** aggressive financial reporting, board meeting transparency, corporate governance, director stock holding requirements, earnings management

## **Introduction**

Stock ownership requirements for directors have become commonplace, and institutional investors can pressure corporate boards to rely wholly or partly on stock-based forms of pay for board service (Berk, Bertsch, and Higgins, 1997). Consistent with the underlying principles of agency theory (Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983; Eisenhardt, 1989), the usual justification for stock ownership requirements is for directors to have “skin in the game,” thus aligning their personal interests with those of company shareholders. Recent archival studies strongly favor board stock ownership requirements and indicate that firms with ownership requirements exhibit better performance the year after implementing the requirements (Bolton, 2013; Bhagat and Bolton, 2008; Guest, 2009; and Dey and Liu, 2010). Bhagat and Bolton (2012) suggest that because stock ownership requirements are positively correlated with firm performance, ownership requirements are better proxies of corporate governance quality than existing, more complex measures. Existing literature often equates director stock ownership with improved financial performance and improved corporate governance.

On the other hand, improved firm performance associated with stock ownership could arise from a narrow focus on short-term earnings. Support for this potential alternative explanation is provided by extant archival studies indicating that managers often become myopic when paid with stock options and stock grants (e.g., Healy and Wahlen, 1999). In addition, recent experimental findings suggest that director stock ownership can harm objectivity and lead to biased financial reporting (Magilke, Mayhew, and Pike, 2012). The current study examines whether stock ownership will induce

directors to go along with management's aggressive revenue recognition in light of pressure from the Chief Audit Executive (CAE) to take a more conservative approach. In particular, we examine whether the effects of board stock ownership are dependent upon board discussion transparency.

According to Van den Berghe and Levrau (2004), increased transparency of board discussions should improve the quality of corporate governance. However, we suggest that transparency will change the nature of incentives for stock-owning versus non-stock-owning directors. Stock-owning directors face potential reputation harm associated with being perceived by investors as acting selfishly. Directors place a high value on preserving their reputation capital (e.g., Srinivasan 2005; Hunton and Rose, 2008), and we expect that the stock-owning directors will be less likely to agree with management when transparency is high, relative to low, because supporting management's attempts to manage earnings could be viewed as self-serving decisions to increase personal wealth. However, increased board transparency creates different incentives for non-stock-owning directors. When the public learns about major boardroom disputes, share prices are often negatively affected (Agrawal and Chen, 2011). We suggest that non-stock-owning directors will be concerned about transparency in the experimental scenario, as it will reveal a conflict between management and the board. In an attempt to avoid this conflict and preserve the share price for investors, we predict that non-stock-owning directors will not be more likely to agree with management when transparency is present, relative to absent.

To test the hypotheses, we administered a two (director stock ownership: no or yes) by two (board discussion transparency: low or high) randomized between-participant

experiment. A group of 72 active, experienced corporate directors comprise the sample. This investigation complements prior archival research in this area by leveraging the comparative advantages of experimental research; that is, through control, manipulation and randomization, experiments can provide valuable insight into decision processes where archival data are unavailable. Although archival research documents potential benefits associated with director stock ownership, such research is limited in its ability to “peer into the minds” (Libby, Bloomfield, and Nelson 2002, 802) of directors and draw causal connections. Findings from the current study challenge the touted positive effects of director stock ownership on corporate governance by providing a potential alternative explanation for improved operating performance of companies with stock ownership requirements for directors; specifically, we suggest that findings of improved performance could be based, in part, on myopic self-interest created by stock ownership, which can lead to aggressive financial reporting.

Understanding why stock ownership can bias directors’ objectivity, and examining how board discussion transparency can yield differential effects for stock-owning and non-stock-owning directors makes it possible to anticipate the effects of increased board transparency on earnings management and directors’ decisions. The notion of increased board discussion transparency is valid in the current environment in which shareholders are pushing for “constituency board seats” because information leaks surrounding board discussions likely will result when constituent directors report back to their shareholder groups. Hence, our findings suggest that the board monitoring function could affect directors’ judgments and decisions, particularly if controversial boardroom discussions are eventually divulged to the public.

The next section describes background literature and offers study hypotheses. That section is followed by the research method and the study findings. The final section discusses the results.

### **Background and hypotheses**

Bhagat, Bolton, and Romano (2008) argue that when board members own stock their incentives become aligned with those of investors, the result of which is more effective monitoring and improved oversight of important corporate decisions by the board. A number of archival studies support the proposition that stock ownership can improve firm performance. Morck, Shleifer, and Vishny (1988) and Agrawal and Knoeber (1996) find a positive association between *Tobin's Q*<sup>1</sup> and the percentage of stock owned by officers and directors. Bhagat and Bolton (2008) document a positive relationship between the dollar amount of stock owned by the median director and a firm's contemporaneous and subsequent operating performance, and they suggest that the dollar amount of the ownership stake may be more relevant in explaining firm performance than the percentage of stock ownership. Bhagat and Bolton (2012) also find that the dollar value of director stock ownership is significantly and positively related to operating performance both pre- and post-SOX. Similarly, Bolton (2013) finds that firms with the highest levels of audit committee stock ownership have higher operating performance than firms with lower levels of ownership. Finally, for the years 2003-2005, Bhagat and Tookes (2012) observe that voluntary holdings of stock by outside directors are positively related to future performance, but mandatory holdings do not correlate with performance.

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<sup>1</sup> *Tobin's q* is a ratio of performance that uses the ratio of the market value of a firm's assets (as measured by the market value of its outstanding stock and debt) to the replacement cost of the firm's assets (Tobin 1969).

While archival studies document positive correlations between director stock ownership and firm performance, studies of director ethics suggest that compensating directors with stock and stock options may create a conflict of interest, thereby eroding objectivity and independence (e.g., Daily and Dalton, 1992; Meyer, 1998). Thus, improved performance may not equate with improved governance, as has been suggested in prior research. Directors with higher stock holdings can become increasingly myopic as they manage the firm for short-term gains rather than long-term value creation and competitiveness (Grossman and Haskisson, 1998; Meyer, 1998). Evidence from an experimental market setting provides support for the proposition that stock-based compensation could erode the independence and objectivity of directors (Magilke, Mayhew, and Pike, 2012), as student participants compensated with bonus schemes similar to unrestricted stock or vested stock options were less objective and more likely to prefer aggressive financial reporting, compared to those who did not receive the bonuses. Hence, a myopic focus on short-term gains triggered by self-interest offers a potential alternative explanation for the positive relationship between director stock ownership and firm performance.

The Sarbanes-Oxley Act and stock exchange regulations attempt to promote quality corporate governance by requiring that the majority of the board of directors and the entire audit committee be independent (Sarbanes and Oxley, 2002; U.S. SEC, 2003; NYSE, 2003). However, requiring directors to meet independence tests may only produce independence in appearance, while not creating independence in fact (Carcello, Neal, Palmrose, and Scholz, 2011). Hermalin and Weisbach (2003) suggest that the most important factor determining a board's effectiveness is its independence from the CEO.

Director stock ownership holds the potential to align directors' interest with those of the CEO, thereby eroding director independence. Prior experimental research with corporate director participants indicates that experienced directors are susceptible to motivated reasoning, where they make decisions that further their personal interests at the expense of investors' interests. For instance, directors tend to avoid vital restatements in order to preserve their reputations (Hunton and Rose, 2008). We expect that stock ownership creates incentives for directors to act in their own interests, but the nature of these self-interests will change depending upon the transparency of board decisions.

### ***Transparency of board discussions***

There are no legal requirements for boards of directors to disclose their internal discussions, and the lack of transparency surrounding board decisions makes it challenging for shareholders to hold board members accountable. Potential benefits of increased board transparency include increased accountability and reductions in asymmetric information that can lower the cost of capital (e.g., Diamond and Verrecchia, 1991; Leuz and Verrecchia, 2000). Leon Panetta (2003) suggests that companies should open the vacuum chamber of the boardroom and provide greater transparency about board processes. In Panetta's words, a directors' duty to inform would "move toward more transparency about the boardroom process without undermining the ability of management teams to produce the results that shareholders want" (p. 21).

Wilcox (2011) argues that directors of publicly held companies should be subject to laws requiring them to explain to shareholders how the board is exercising business judgment and acting in the best interests of the corporation. Psychology research suggests that increasing the accountability of board members through greater

transparency can reduce their tendencies to make self-serving decisions (Simonson and Nye, 1992; Tetlock and Lerner, 1999). As accountability increases, decision makers become more inclined to make decisions that others perceive as appropriate and rational (Kunda, 1990; Simonson and Nye, 1992). Hunton and Rose (2012) find that increased board transparency can create more accountability for board members, and directors in their study were less likely to waste firm resources on projects intended to create personal benefits for board members when shareholders were aware of the wasteful nature of the spending. While there are growing calls for increased board transparency because it can increase accountability, the effects of increased transparency on directors' decisions may interact with director stock ownership.

#### ***Director stock ownership and board discussion transparency***

Managers do not engage in earnings management if there is no personal benefit (Fields et al. 2001). Prior research into the earnings management behavior of firms and managers indicates that companies are more likely to be punished for managing earnings when the earnings management is more transparent and easy to detect (Hirst et al. 2004; Hirst and Hopkins 1998). As a result, increased transparency has been shown to reduce earnings management behavior because it decreases its benefits (Hunton, Libby, and Mazza 2006). Similarly, we expect that directors will not facilitate earnings management when there is no personal benefit, and directors will fear punishment (in the form of a damaged reputation) when their facilitation of earnings management is easy to detect.

The current study focuses on the potential for stock ownership and transparency to influence directors' likelihood of allowing management to aggressively recognize revenue in order to meet the analyst forecast, in light of a Chief Audit Executive who is

recommending a more conservative approach. In this context, directors and managers both receive similar financial benefits from earnings management when the directors own stock. That is, meeting earnings targets by managing earnings increases the value of the directors' stock holdings, creating incentives to facilitate earnings management.

Directors who own stock also face potential reputation loss related to being perceived as acting in a self-serving manner. Managers are more likely to avoid earnings management when it is easier to detect, and we expect that directors will avoid the facilitation of earnings management when this facilitation is easy to detect. Hunton and Rose (2012) indicate that increased board transparency can reduce directors' incentives to act in their own self-interests if the transparency clearly reveals that decisions are self-serving. Based on these findings, we suggest that stock-owning directors' likelihood of agreeing with management will decrease in the presence, relative to absence, of board discussion transparency because transparency could increase the costs of earnings management. Directors' desire to protect their professional reputations will outweigh the short-term financial benefits of engaging in earnings management.

Directors who do not own stock do not receive the same direct financial benefits from earnings management as do directors who own stock. As a result, non-stock-owning directors' agreement with management's attempts to manage earnings would be viewed as less self-serving than similar agreement by stock-owning directors. Increased transparency will not reveal self-serving behavior for non-stock-owning directors. However, transparency creates another threat for directors. Public disclosure of a disagreement between management and the board has been shown to adversely affect the company's share price (Agrawal and Chen, 2011). Indeed, the revelation and aftermath

of major boardroom disputes can lead to large declines in share prices. For example, in October 2006 General Motors' share price fell 6 percent upon revelation of an internal boardroom conflict that resulted in the sudden resignation of Jerome York from General Motors' board of directors (Langley, Boudette, and White, 2006). We posit that directors are aware that public knowledge of a dispute at the board level will likely depress the company's stock price; hence, non-stock-owning directors will be more likely to agree with management when board discussion transparency is high, relative to low. As a result of threats to firm value, transparency can cause these directors to acquiesce to management to avoid disputes that will become publicly known and harm share price.

The discussion above indicates an interaction between transparency and stock ownership whereby increasing transparency increases non-stock-owning directors' tendency to facilitate earnings management but decreases stock-owning directors' facilitation of earnings management. While transparency reveals conflicts between the board and management for all directors, we expect that the reputation threats created by stock ownership will overwhelm the effects of public disclosure of disagreements for stock-owning directors, but not for non-stock-owning directors.

**H1a:** For directors who own stock in the company for which they serve as directors, increasing board discussion transparency will decrease board members' agreement with managements' aggressive financial reporting position.

**H1b:** For directors who do not own stock in the company for which they serve as directors, increasing board discussion transparency will increase board members' agreement with managements' aggressive financial reporting position.

## **Research method**

The current study involves a 2x2 between-participant randomized experiment where the primary dependent variable of interest reflects the likelihood that directors will agree with management when there is a disagreement between management and the CAE about aggressive revenue recognition. One of the independent variables, *stock ownership*, either does or does not mandate that corporate directors own shares of the company. The other independent variable, *discussion transparency*, specifies that the minutes of the board meeting where the controversial revenue recognition issue is discussed will or will not be available to the public.

## ***Administration***

The experiment was computerized and administered via the Internet. After a participant entered a valid ID-password combination, which was provided by the researchers, he/she was randomly assigned to one of four between-participant treatment conditions. Participant responses were automatically recorded in a database. Experimental controls were embedded into the software; for example, input fields were validated, participants were not able to return to prior pages unless explicitly allowed to do so, and only one response could be made from a single IP address.

## ***Independent variables***

Before reading the case background and task materials, participants were exposed to the independent variable manipulations. One of the manipulated variables is *stock ownership*. Participants in the (ownership not required) or [ownership required] treatments read the following:

*Assume that Biomeasure Inc. (does not require) [requires] its corporate directors to own Biomeasure Inc. shares, (and you do not currently own shares.) [and the market value of your share ownership must be at least*

*four times the amount of your annual cash compensation. Your share ownership is significant to your personal investment portfolio.]*

The other independent variable is *discussion transparency*. Participants in the (transparency present) and [transparency absent] conditions read the following:

*Assume that detailed internal discussion of this particular board decision (will) [will not] be included in the minutes of the board meeting, and shareholders and auditors (will) [will not] be aware of the discussions related to this matter.*

### ***Case background and task materials***

The case involves a fictitious company. After providing some background material on the company, participants read that management has recognized \$2,200,000 in revenue from long-term service contracts, based on the percentage of completion method. However, the Chief Audit Executive (CAE) presents compelling evidence that management's estimate of contract completion is too aggressive; thus, the CAE strongly believes that only \$1,400,000 of revenue should be recognized. The difference in estimates of \$1,200,000 (\$2,200,000 – \$1,400,000) falls below the external auditor's materiality threshold.<sup>2</sup> Management has strong reservations about the CAE's estimate and forcefully insists that no adjustment is necessary.

### ***Dependent variable***

After reading about this controversy, participants are asked the likelihood that they would agree with the CAE's proposed adjustment (0 = No Likelihood, Definitely Would Not Adjust, 50% = Moderate Likelihood, 100% = High Likelihood, Definitely

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<sup>2</sup> We held the disputed amount below the materiality threshold because if it was above the threshold, the participants would have little choice but to agree with the CAE.

Would Adjust).<sup>3</sup> Participants then responded to some manipulation checks, psychological debriefing and demographic items.

#### **4. Results**

##### ***Participants***

The authors contacted current and former CEOs and board chairs to request the participation of board members. The authors prepared an email request that was sent directly by either a CEO or board chair to approximately 150 potential participants. Eighty four directors chose to participate, and 72 directors completed all of the response items and correctly answered manipulation check items.

Of the 72 directors who are included in the final sample, there were 58 (80%) male and 15 (20%) female directors, whose mean (standard deviation) demographics are as follows: years of business experience = 30.69 (10.97); number of boards on which they currently serve = 2.68 (1.48); and number of audit committees on which they currently serve = 0.64 (0.89). The last demographic question asked how large is the largest company on which they currently serve as a director, relative to other companies in the same industry (small, medium, large or very large). The results indicate that 23 (32%) directors serve on boards of small companies, 23 (32%) directors serve on boards of medium-size companies, 12 (17%) directors serve on boards of large companies, and 14 (19%) directors serve on boards of very large companies.

##### ***Manipulation checks***

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<sup>3</sup> The dependent variable is more understandable to readers if it reflects the likelihood of agreeing with management's aggressive revenue recognition. In this light, we subtracted the responses from 100%, which instead of representing the likelihood of agreeing with the CAE, the dependent variable indicates the likelihood of agreeing with management in this dispute. Statistical results and inferences are unaffected by this transposition. Thus, from this point forward, the dependent variable will be referred to as the likelihood of agreeing with management.

We asked participants whether the case asked them to assume that they were required to own company shares (no or yes), and assume that the minutes of the board meeting where the revenue recognition issue was discussed would be made available to the public (no or yes). Six participants incorrectly answered these questions, and these participants were not included in the analyses used to test our hypotheses. We also asked whether the amount of adjustment involved (\$1,200,000) was material to the external auditors. Two participants incorrectly responded “yes”, and these participants were not included in the forthcoming analyses.

### ***Preliminary testing***

We ran a MANOVA model, where the independent variables were ownership requirement, discussion transparency and the interaction term. The dependent variables were gender, years of business experience, number of boards on which they currently serve, number of audit committees on which they currently serve, and company size. None of the demographic items were significant in the model (all p-values > 0.55). Thus, the randomization procedure was deemed effective with regard to all demographic variables. We also ran ANCOVA models, where the independent variables were ownership requirement, discussion transparency and the interaction term, and covariates included the demographic items. The covariates were not statistically significant (all p-values > 0.10). Therefore, the demographic variables are not included as covariates in the model used to test the hypotheses.

### ***Descriptive results***

Table 1, panel A shows the means, standard deviations and sample sizes across the treatment conditions. Table 1, panel B presents the results of an ANOVA model. As

indicated, the main effect of ownership requirement is not statistically significant ( $p = 0.246$ ), the main effect of discussion transparency is statistically significant ( $p = 0.091$ ) and the interaction term is statistically significant ( $p = 0.002$ ). The interaction pattern is depicted in Figure 1.

[Insert Table 1 and Figure 1 about here]

### ***Hypotheses testing***

Hypothesis 1a indicates that when board discussion transparency is present, relative to absent, the likelihood of agreeing with management will decrease for stock-owning directors. A contrast test, comparing the non-transparent mean likelihood of 62.53% to the transparent mean likelihood of 33.89% is statistically significant ( $t = 3.75$ ,  $p < 0.001$ ), thus, H1a is supported. A post-hoc test (Scheffe's multiple pairwise comparison,  $\alpha = .05$ ) was performed to determine which means are significantly different, and this test again supports H1. The test results indicate that 37% (stock ownership = no; discussion transparency = low) and 33.89% (stock ownership = yes; discussion transparency = high) are both significantly different from 62.53% (stock ownership = yes; discussion transparency = low).

Hypothesis 1b posits that board discussion transparency will affect non-stock owning directors such that the likelihood of agreeing with management will increase when transparency is high, as compared to low. A contrast test, comparing the low-transparency mean likelihood of 37% to the high-transparency mean likelihood of 45.88% is not statistically significant ( $t = 1.025$ ,  $p = 0.16$ ). Hence, while the means are in the expected direction, H1b is not supported. While not hypothesized, we also test whether there is a significant difference between stock-owning and non-stock-owning

directors when transparency is high. When there is a high level of board transparency, mean support for management's attempts to manage earnings is lower ( $t=1.47$ ,  $p = 0.073$ ) for those who own stock (33.89), relative to the directors who do not own stock (45.88). Thus, the effects of stock ownership are reversed in the presence versus absence of transparency.

### ***Post-experiment debriefing items***

Participants responded to psychological debriefing items to aid in understanding why they responded as they did. The first debriefing item asked: "For the case you completed, do you believe that shareholders will discover that there is a conflict between management and the CAE? (0 Shareholders will definitely not discover the conflict, 5 Shareholders may discover the conflict, 10 Shareholders will definitely discover the conflict)." The overall mean (standard deviation) is 6.44 (3.06). The mean rating is significantly higher ( $t = 4.26$ ,  $p < 0.001$ ) for participants in the high-transparency condition (mean = 7.86) relative to the low-transparency condition (mean = 5.11).

[Insert Table 2 about here]

The second debriefing item asked: "For the case you completed, how do you believe that siding with management and not adjusting revenue would affect your reputation? (-5 Agreeing with management would result in major harm to my reputation, 0 Agreeing with management would have no effect on my reputation, 5 Agreeing with management would result in major benefits to my reputation)". The overall mean (standard deviation) is -0.31 (1.84), which is less than zero ( $t = 1.41$ ,  $p = 0.081$ ). The mean rating is lower ( $t = 1.64$ ,  $p = 0.05$ ) for stock-owning directors when transparency is high (mean = -1.22) relative to when transparency is low (mean = -0.24). Transparency

does not significantly influence concerns about reputation for non-stock owning directors (mean for high transparency = 0.20, mean for low transparency = 0.00). The results of this debriefing question suggest that directors who own stock become concerned about the reputation threats associated with managing earnings when transparency increases.

The next item asked: “For the case you completed, do you believe that disagreeing with management and requiring adjustment of 2012 revenue would affect Biomeasure’s stock price in the near term? (-5 = Disagreeing will cause a significant decrease in share price, 0 = Disagreeing will not affect share price, 5 = Disagreeing will cause a significant increase in share price)”. The overall mean (standard deviation) is -0.31 (1.51). For non-stock ownership participants, there is an expected decrease in stock price when transparency is high (-0.95), while there is an expected increase when transparency is low (0.53), and the difference is statistically significant ( $t = 3.46$ ,  $p < 0.001$ ). When transparency increases, non-stock-owning directors become more concerned about decreases in the company’s current stock price.

A final item was worded as follows: “In general, how is the stock price of a firm affected when investors learn of disagreements between the board of directors and management? (-5 = Very negative effect, -3 = Moderately negative effect, 0 = No effect, 3 = Moderately positive effect, 5 = Very positive effect).” The overall mean (standard deviation) is -0.81 (1.41), which is less than zero ( $t = 4.88$ ,  $p < 0.001$ ), and the means are lower ( $t = 2.24$ ,  $p = 0.015$ ) for participants in the high transparency condition (mean = -1.27) relative to the low transparency condition (mean = -0.46). The results of this debriefing question suggest that directors believe there could be a negative effect on

stock price if disagreements between the board and management become public, and this effect is more pronounced when board discussions are transparent.

### *Mediation Analyses*

Given we expect that reputation concerns are important drivers of stock-owning directors' decisions and concerns that revealing conflicts can harm share price are drivers of non-stock-owning directors' decisions, we employ structural equation models to determine whether reputation concerns and stock price concerns are mediating variables. That is, the structural models test whether the effect of the interaction of stock ownership and board transparency is mediated by concerns about reputation effects and stock price declines. Figure 2 presents the structural model used to evaluate the potential mediating effects of reputation concerns. The model fits the data as well as a just-identified model (Chi-square = 0.566,  $p = 0.753$ ), and the goodness of fit index is 0.997. Path coefficients indicate that the link between the ownership/transparency interaction and reputation concern is negative and statistically significant ( $p < 0.01$ ), and the path between reputation concern and agreement with management is positive and statistically significant ( $p < 0.001$ ). Combined with the debriefing findings presented in the previous section, the results indicate that reputation concerns mediate the relationship between the ownership/transparency interaction and agreement with management, and transparency only decreases agreement with management's attempts to manage earnings when directors own stock.<sup>4</sup>

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<sup>4</sup> We conduct a similar analysis for concerns about stock price declines, but the path between the interaction term and stock price concerns is not statistically significant ( $p=0.157$ ). Thus, we do not find statistical evidence that concerns about stock price declines mediate the relationship between the ownership/transparency interaction and agreement with management.

## **Discussion and conclusions**

Auditors are precluded from owning stock of their publicly traded audit clients because such ownership is deemed to compromise their independence and objectivity (Dilworth, 1994; Lampe, 1995; Kaback, 1996). We find that stock ownership can affect directors' independence and objectivity as well. We conclude that independence requirements resulting from SOX and adopted by the NYSE and NASDAQ focusing on board member affiliation are threatened by directors' ownership of stock in the companies for which they serve. We suggest that the temptation of stock-owning directors to engage in myopic behavior that could boost the company's stock price can be mitigated by increasing the transparency of board discussions.

In examining the effects of transparency of board discussions on the likelihood of directors agreeing with management's aggressive reporting attempts, we find competing effects, depending on whether directors own or do not own stock. Specifically, directors who own stock were less likely to agree with management's aggressive reporting when board discussions were more transparent, compared to less transparent. Yet, there were no benefits of increased transparency for directors who did own stock, and directors who did not own stock were more likely to support earnings management attempts than were stock-owning directors when transparency was high. These competing effects can be understood by examining the results of post-experiment analyses.

Responses to the debriefing questions indicate that directors who own stock are concerned about the reputation threats associated with increased transparency. These directors perceive that investors will recognize that earnings management is self-serving for directors who own stock, and the stock-owning directors decrease their support of management's attempt to manage earnings in order to preserve their reputations with

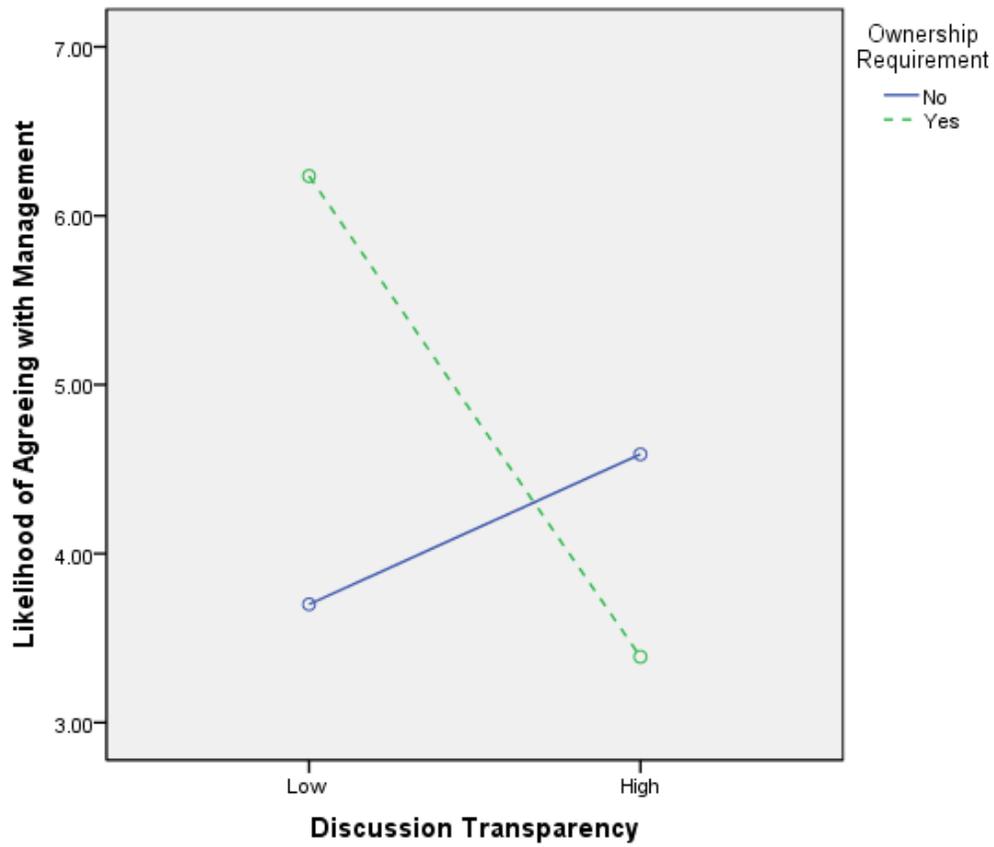
shareholders. Structural equation analyses reveal that the interactive effect of transparency and stock ownership on support of earnings management is mediated by these reputation concerns. Non-stock-owning directors do not share these concerns, but they fear that public knowledge of disagreements between management and the board can trigger investors concerns and harm share price. Thus, transparency did not result in any beneficial effects for directors who did not own stock in our experiment.

The current study provides an alternative explanation for extant archival research that finds improved operating performance in companies with director ownership requirements. Based on our results, we contend that improved performance could, in part, be based on the short-term focus created by director stock ownership. This finding is consistent with literature indicating that stock options and stock grants result in managers adopting a short-term focus on the current period bottom line (e.g., Healy and Wahlen, 1999). Importantly, we also find that the focus on short-term earnings that is induced by stock ownership can be mitigated by increasing board discussion transparency. We realize that it might not be possible to disclose all boardroom discussions to the public; hence, complete board discussion transparency might not be realistic via the publication of board meeting minutes. We employ publication versus non-publication of board meeting minutes as an experimental manipulation because it clearly signals high versus low levels of transparency. While full disclosure of board minutes may be unlikely in practice, the notion of increased board discussion transparency is a timely, relevant and important issue. For instance, Panetta (2003) and Wilcox (2011) argue that within the confines of Regulation FD, new laws should be instituted to require transparency of board discussions. Also, Nathan (2010) argues that

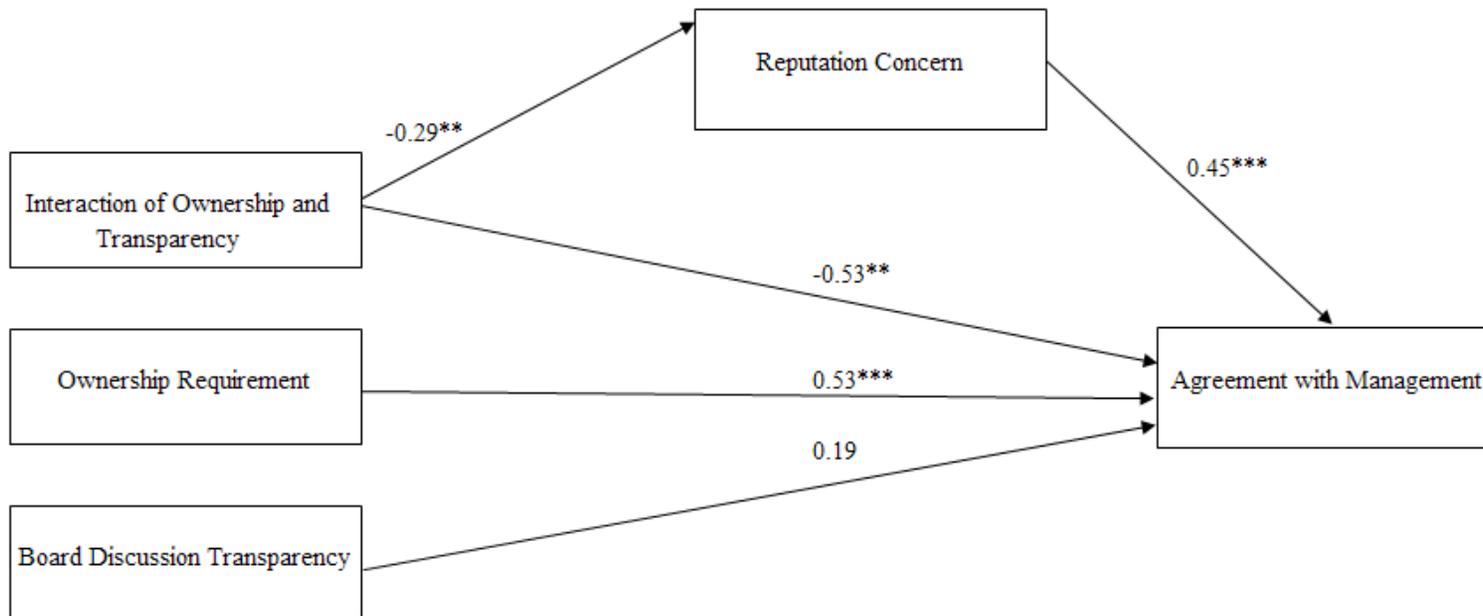
the increasing success of shareholder activists in designating or electing directors (i.e., constituency directors) poses a challenge to long-held assumptions about the sanctity of board deliberations and the nature of a director's confidentiality obligations to fellow directors and the company. He suggests that, as a practical matter, constituency directors are often viewed as, and in fact act as, representatives of their shareholder sponsors. Thus, their very presence should heighten concerns about confidentiality of boardroom discussions, which can affect the fabric of trust and collegiality among directors.

Future research should examine how laws might be structured to achieve the goal of increased board transparency, without compromising privacy and confidentiality. Further, researchers could investigate whether constituency directors will knowingly or unknowingly divulge boardroom discussions to their communities of interest, thus effectively opening the door to more transparency. Another line of potential research involves the effects of board transparency on other parties, such as management and internal auditors. It is possible, for example, that management will be less likely to propose self-serving accounting choices to the board when board discussions are more transparent. Finally, future studies could examine the effect of director stock ownership on other facets of corporate governance (e.g., independence, objectivity, and internal control), the results of which can broaden our understanding of whether firm performance benefits of stock ownership outweigh potential negative effects on corporate governance.

**Figure 1**  
Likelihood of Agreeing with Management



**Figure 2**  
Structural Equations Model – Reputation Concern<sup>1</sup>



\*\*Significant at  $\alpha \leq 0.01$ , \*\*\*Significant at  $\alpha \leq 0.001$

<sup>1</sup> Path coefficients are standardized and derived from maximum likelihood estimation.

**Table 1**  
Likelihood of Agreeing with Management

**Panel A:** Mean (standard deviation) {sample size} across treatment conditions

	Discussion Transparency		Row Mean
	Low	High	
<b>Ownership Requirement</b>			
No	37.00% (21.05) {20}	45.88% (30.01) {17}	41.08% (25.58) {37}
Yes	62.53% (18.55) {17}	33.89% (25.93) {18}	47.71% (26.58) {35}
Column Mean	48.65% (23.47) {37}	39.71% (28.23) {35}	<b>44.31%</b> <b>(26.10)</b> <b>{72}</b>

**Panel B:** ANOVA Results

Source	Sum of Squares	d.f.	Mean Square	F	p
Intercept	1437.50	1	1437.50	245.81	<0.001
Ownership Requirement (OR)	8.00	1	8.00	1.37	0.246
Discussion Transparency (DT)	17.18	1	17.18	2.94	0.091
OR x DT	62.49	1	62.49	10.69	0.002
Error	397.65	68	5.85		
Total	1897.00	72			

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