# Moral Licensing and Disclosure

**Abstract:**

Market participants continue to demand greater transparency from boards of directors, yet little is known about the effect of increased transparency on board member decisions. We provide initial evidence that increased transparency via disclosure can license board members to make biased decisions that they may otherwise not make in the absence of disclosure. We find no evidence that increasing the level of disclosure (disclosure to the auditor versus disclosure to the auditor and public) had an impact beyond a base level of disclosure. An important implication of these findings, relevant to current projects at both the PCAOB and the SEC, is that increased transparency via disclosure of board member decisions may result in the unintended consequence of greater bias in financial reporting. The knowledge gained form this study may help to improve regulations surrounding targeted transparency disclosures in financial reporting.

## 1. *Introduction*

Market participants continue to request more transparency related to financial reporting and governance because it is difficult to hold management and the board of directors accountable without transparency. While accounting researchers have devoted considerable time and attention to understanding the effects of increased transparency via financial disclosures related to auditor and investor behavior, little is known about whether requiring disclosures also affects governance decisions.[1] In this study, we examine the effect of transparency via financial disclosure on board members' decision-making. More specifically, we experimentally examine whether the act of disclosing board member decisions may provide these directors with a moral license[2] that biases their decisions.

It is important to examine the decisions of members of the board of directors and the disclosures emanating from these leaders. The board is a key governance mechanism for monitoring management to ensure that management acts in the interest of the firm's stakeholders (Fama 1980; Fama and Jensen 1983), and the foundation of any governance structure is disclosure and transparency (Fung 2014). Indeed, financial markets continue to demand increased transparency and accountability as evidenced by the SEC's recent rule on enhanced disclosure requirements about firms' corporate governance that was adopted to improve disclosure, transparency, and accountability of officers and directors to their stakeholders (SEC 2009). "In recent years, investors, regulators and other stakeholders have taken a closer look at the important role of boards — and audit committees in particular — in supporting high-quality

[1] For example, when making a choice coupled with disclosure, auditors alter their choices in a manner that produces less reliable information (Griffin 2014). In addition, users of financial information sometimes fail to use disclosures to punish opportunistic behavior even when it is transparently disclosed (Hirst et al. 2003; Koonce et al. 2010).
[2] A moral license is the often-unconscious feeling that a seemingly unbiased act licenses a different biased act without discrediting the actor.

financial reporting and have sought greater transparency around the audit and oversight of financial reporting (EY 2017)." According to a recent EY study, governance-related transparency has been steadily increasing over the past few years and will likely continue to increase as the PCAOB and SEC continue to advance projects that involve new disclosure requirement revisions (SEC 2009; PCAOB 2011; EY 2017). In the meantime, companies are taking proactive steps to respond to stakeholder requests by providing enhanced disclosures around audit committee activities (EY 2017).

Although transparency in decision-making can provide benefits to market participants (e.g., accountability and information), moral licensing theory suggests that there may also be notable drawbacks – transparency could influence the decision-making itself. A significant body of literature has documented licensing effects in various contexts including advice giving, consumer behavior, racism, and sexism (Cain et al. 2005; Cain et al. 2010; Jordan et al. 2010; Koch and Schmidt 2009; Loewenstein, Cain, and Sah 2011; Monin and Miller 2001; Rose et al. 2014). However, there is scarce evidence about whether moral licensing affects the decisions of board members. Rose et al. (2014) find that conflict of interest disclosures (i.e. friendship ties between CEOs and board members) license board members to make decisions favorable to the CEO. A key implication of their study is that, because of moral licensing, friendship ties impair directors' independence and objectivity. The objective of our study is to investigate more generally whether moral licensing may also impair directors' decisions even in the absence of friendship ties or independence issues. If disclosure of board members' financial reporting-related activities trigger the same reactions/behaviors as disclosure of conflict of interest disclosures, then this increase in transparency could actually result in increased bias in their decisions.

Thus, our study provides evidence to conclude whether the effects of moral licensing on firms' governance have broader implications than suggested by Rose et al. (2014) by considering the more likely case where the director is not impaired by friendship ties to a manager. This is important because it suggests that the impact of moral licensing on firms' governance of financial reporting decisions may be more pervasive and commonplace than has been concluded by prior research. Moreover, by examining the context of developing an accounting estimate where subjectivity is involved, we also address the possibility that directors invoke moral license because they can insulate their credibility and reputation when judgment is involved in the financial reporting matter.

To test whether transparency of board member decisions biases their financial reporting-related decisions, we conduct a 2 x 2 between-subjects experiment with practicing board members. We manipulate whether or not the board member's decision is disclosed to the auditor (*auditor disclosure requirement:* present vs. absent) and to the public (*public disclosure requirement:* present vs. absent). Given the rise in and importance of fair value accounting judgments, we examine a context in which the board member must decide whether or not to approve a manager's request to obtain an alternate fair value opinion when the original opinion received caused the company to miss an earnings target.[3] Relying on moral licensing theory, we predict that board members who must either reject or approve a manager's request to fair value opinion shop are more likely to approve the request when their approval decision is disclosed than when the approval is not disclosed. We also investigate whether different levels of

[3] We chose a fair value judgment as the context because: 1) ambiguous decisions, such as those relating to estimates, "facilitate licensing effects by releasing constraints on temptation or reducing suspicion" (Mullen & Monin 2016); and 2) members of the board of directors are likely to be engaged for input on decisions that require subjectivity.

disclosure result in different licensing effects. On the one hand, it is possible that increasing the amount of transparency increases board members' sense of accountability and thus mitigates licensing effects. On the other hand, it is possible that licensing effects are increasing in transparency, as board members feel even more licensed with greater transparency.

Consistent with moral licensing theory, we find that board members have a strong disclosure-induced proclivity to approve a manager's request to fair value opinion shop, despite the fact that the approval biases the firm's financial reporting in response to earnings pressures.[4] More specifically, a board member's likelihood of approving a manager's request to seek a second opinion is significantly higher in the presence of a requirement for transparent disclosure. We also investigate whether the amount of disclosure affects the degree to which board members feel licensed and find that there is no significant difference in board member decisions whether the decision is disclosed to just the auditor or whether it is disclosed to both the auditor and the public. An important implication of this finding is that if board members, including audit committees, are required to disclose their activities to auditors, disclosing these activities to the public as well may not result in any additional bias.

In this study, we extend the disclosure literature in accounting – which has focused on the effects of disclosures on auditors and users – by examining how disclosing their governance-related activities may affect board member judgments. This suggests that additional transparency via disclosure may not only provide information about the governance process, but also may change the governance decisions themselves – and not necessarily in a desirable way. In addition, we provide insights into the board member decision-making process using the rich data

[4] We carefully built this in as a design feature of our study. We told participants that the manager has received an opinion that fails to meet a target, but if they approve getting a second opinion the firm ***will*** meet that target. This ensures that the board members are approving a request to buy a predetermined outcome.

set we were able to obtain. Very few studies have been able to capture the thoughts and feedback on the processes board members go through when making decisions. We provide insights on their thoughts regarding the use of fair value estimates and opinions received regarding those estimates. This information should be useful for users and regulators evaluating and looking to increase financial reporting quality. Finally, we extend prior literature that has investigated the presence versus absence of disclosure, by testing different levels of disclosure to provide initial evidence of the impact of different levels of disclosure on moral licensing effects.

The remainder of this study proceeds as follows. Section 2 provides background and develops our hypotheses. Section 3 describes the experimental design and methodology. Sections 4 reports the results, and Section 5 provides conclusions and implications.

## *II. Background & Hypotheses Development*

### Transparency through Disclosure

A primary goal of the financial reporting process is to improve transparency through disclosure to inform the valuation and stewardship decisions of capital providers (Beyer, Cohen, Lys and Walther 2010). Prior literature has demonstrated a number of benefits related to transparency in financial reporting, including greater analyst consensus, number of analysts that follow a firm, increased accuracy and reduced variability of forecasts (Lang and Lundholm 1996), improved relation between returns and future earnings (Lundholm and Meyers 2002), and stock prices and cost of capital (Healy et al. 1999; Welker 1995). Indeed, in response to greater demand from information consumers in recent years, regulators have used targeted transparency policies to address a broad array of issues, including the energy efficiency of appliances, lead-based paint, genetically modified foods, and financial reporting. These policies seek to reduce information asymmetry, improve the decisions that individuals make, and modify the practices of disclosers by aligning their incentives with regulator's priorities (Fung, Graham and Weil 2007). Still, although there are benefits of targeted transparency policies, increased transparency via disclosure may also result in certain costs or unintended consequences.

**Moral Licensing and Disclosure**

The theory of moral licensing suggests that, under certain circumstances, transparency may actually produce the perverse effect of increasing bias in the information that is disclosed rather than the improving decision-making (Effron and Monin 2010; Koch and Schmidt 2010; Miller and Effron 2010; Merritt et al. 2012; Rose et al. 2014; Jamal, Marshall and Tan 2016). Moral licensing occurs when evidence of a person's virtue frees (licenses) her or him to act less-than-virtuously (Merritt and Monin 2010).[5] Licensing effects have been shown in a number of domains, including advice giving, altruism, consumer behavior, racism, and sexism (Monin and Miller 2001; Cain et al. 2005; Khan and Dhar 2005; Koch and Schmidt 2009; Cain et al. 2010; Jordan et al. 2010; Loewenstein, Cain, and Sah 2011; Rose et al. 2014; Weibel, Messner and Brugger 2014). Prior literature has also documented numerous methods by which individuals develop a license, including good deeds, disclosure, reflecting on planned good deeds, and counterfactual reflection on prior transgressions (Jordan et al. 2010; Khan and Dhar 2005; Effron, Monin and Miller 2013).[6]

[5] The literature has identified two different mechanisms underlying moral licensing, moral credits and moral credentials. In the moral credits model is similar to a bank account where credits are earned and then used to balance out questionable behavior. According to Miller and Effron (2010), in the credentials model one's behavioral history changes the way subsequent behavior is viewed. For an in-depth discussion of the two mechanisms see Miller and Effron (2010).

[6] For example, Jordan et al. (2010) demonstrate that individuals who write about a time they helped somebody subsequently feel licensed to behave less altruistically. Khan and Dhar (2005) show that individuals who imagine volunteering for community service are subsequently more likely to purchase a hedonic item. Effron, Monin and Miller (2013) find that tempting individuals with desserts caused them to exaggerate the unhealthiness of desserts they had previously chosen not to eat.

Existing research relevant to financial reporting decisions primarily focuses on the licensing effects of conflict of interest disclosures, and concludes that disclosing a conflict of interest results in the following: 1) licenses more biased information, and 2) recipients of these disclosures fail to sufficiently discount the information provided by the conflicted advisors. For example, Rose et al. (2014) find that members of the board who disclose their friendship with a CEO (compared to those whose friendship is undisclosed) make deeper cuts to R&D in order to help the CEO earn a bonus. This suggests that conflict of interest disclosures may provide directors with a moral license to make a real earnings management decision with potentially negative long-term consequences.

Moral licensing effects may persist in board of director decisions about financial reporting, however, even in the absence of conflict of interest. Research has demonstrated that auditors view disclosure as a partial substitute for financial statement recognition (Griffin 2014). It is possible that board members view transparency via disclosure similarly and more broadly as a means to insulate their reputation when estimation uncertainty exists – not just for conflicts of interest. For example, if presented with a request to approve a second fair value opinion, board members likely understand/agree that fair value opinion shopping (seeking a second fair value opinion for the sole purpose of meeting an earnings target) results in more biased financial reporting. However, they may be more likely to approve such a request from management if it is transparent – or disclosed. Indeed, this is a particularly appealing option for the board member when the second fair value opinion produces benefits such as in the case of meeting an earnings target because it is easier to justify that shareholder value increases and the decision is transparent for decision-makers using that information. As such, we predict that board members would be more likely to approve a manager's request for a revised fair value estimate when the approval decision is disclosed. Our first hypothesis is stated as follows:

> **Hypothesis 1:** Board members are more likely to approve a manager's request for a revised fair value estimate when their approval decision is disclosed than when the decision is not disclosed.

Our second hypothesis investigates whether the level of disclosure affects the degree to which board members feel licensed. Given the significant demand for increased transparency in recent years, both the PCOAB and the SEC have engaged in efforts to increase transparency from board members – and particularly audit committees overseeing the financial reporting function – to both the auditor and the public, respectively. As a result, it is possible that upcoming changes in disclosure requirements could impact the level of transparency to the auditor (through PCAOB driven regulatory changes), or to both the auditor and the public (through SEC driven regulatory changes). Consequently, understanding the impact of different levels of disclosure and the resulting licensing effects may be particularly useful to such regulatory efforts. Although prior literature has varied disclosure dichotomously (i.e., presence versus absence) and has consistently found that the presence of disclosure can license individuals to make biased decisions, academic researchers have not considered the effect of different levels of disclosure. It is possible that disclosure to more parties may lead to less biased board member decisions by increasing a sense of accountability or increasing the extent to which they feel their decisions may be scrutinized/second-guessed. In contrast, it is possible that disclosure to more parties could provide a stronger license and lead to more biased decisions by directors. As such, our second hypothesis is stated as follows in the null form:

> **Hypothesis 2:** Board members are no more likely to approve a manager's request for a revised fair value estimate when their approval decision is disclosed to both the public and the auditor as compared to when the decision is just disclosed to the auditor.

## *III. Experimental Design & Methodology*

### Participants

Participants were identified using the Corporate Affiliations web platform complied by the LexisNexis Enterprise Entity Management Group. From the population of active board members identified, 2,500 were randomly selected to receive experimental materials. Of the 2,500 instruments mailed out, 115 were returned as undeliverable. Of the 2,385 instruments that presumably reached their intended recipients, a total of 167 individuals responded, which represents a 7.0 percent response rate. Of those that responded, 10 either had a policy against completing experiments or chose not to complete the materials, resulting in 157 completed experiments. The mean (median) age of participants is 58.0 (57.4) years, and the mean (median) years of board experience is 15.6 (13.5).

### Task and instrument

Participants were asked to assume the role of a board member of a hypothetical company, CGC Corporation. They were informed that a new company policy requires the board to approve contracts for certain professional business services. Next, participants learn that a manager of the hypothetical company obtained a fair value estimate from an external valuation professional and, after factoring the fair value estimate into the preliminary financial statements, the company will miss a financial target. Participants were also informed that shareholders will not obtain certain benefits if the company misses the target. Finally, participants learn that (a) the manager is requesting approval to seek another fair value opinion from a different valuation professional, and (b) if the manager's request is approved, the company will meet its financial target and shareholders will obtain certain benefits.

The first manipulated variable, auditor disclosure, informs participants that their approval decision will or will not be provided to the external auditor. The second manipulated variable, public disclosure, informs participants that their approval decision will or will not be provided to the public.[7] Participants then indicate whether they reject or approve the manager's request to seek a second fair value opinion from a different valuation professional. The dependent variable, participants' response to the manager's request to seek a second fair value opinion, is measured on a 10-point scale ranging from -5 (reject) to 5 (approve). After responding to the dependent measure, participants answered demographic and other explanatory questions.

### *IV. Results*

Panel A of Table 2 provides means and standard deviations of board members' likelihood of approving or rejecting a manager's request to seek a second fair value opinion in each of the treatment conditions. The overall mean of -0.99 is statistically lower than the midpoint of 0.00 ($p$-value $< 0.01$), suggesting that, on average, boards are reluctant to approve managers' requests to seek a second fair value opinion. Hypothesis 1 predicts that disclosure will provide a moral license such that board members will make more biased financial reporting decisions when the decision is disclosed compared to when the decision is not disclosed. In the context of our experiment, this suggests that boards are *more likely* to approve seeking a second opinion when it is transparent – i.e., disclosed to either the auditor and/or the public.

[7] Two manipulation checks were included in the experiment. The manipulation checks focused on (1) the presence (absence) of a requirement to disclose board approval to the auditor, and (2) the presence (absence) of a requirement to disclose board approval to the public. Eighty six percent answered the first manipulation check correctly, while 89 percent answered the second manipulation check correctly. All participants were used in the analysis. The inferences and conclusions of this experiment are unaffected by excluding participants who incorrectly responded to any of the manipulation checks.

Panel B of Table 2 presents ANOVA results highlighting the impact of disclosure on board member decisions. Consistent with Hypothesis 1, we find significant effects of both disclosure to the auditor (F-statistic = 5.57, $p$-value < 0.01) and the public (F-statistic = 6.37, $p$-value < 0.01). Given Hypothesis 1 specifies a particular pattern of means, we formally test this hypothesis using planned comparisons (Buckless and Ravenscroft 1990; Rosenthal and Rosnow 2008). Panel C of Table 2 presents the results of our comparison of the likelihood of approval in the condition absent disclosure to each of the three conditions that require disclosure. Consistent with the theory of moral licensing and Hypothesis 1, a board member's likelihood of approving a manager's request to seek a second opinion is significantly higher in the presence of a requirement for transparent disclosure ($t$ = 5.87, $p$-value < 0.01). Thus, we find support for Hypothesis 1.

Our second Hypothesis investigates whether the level of disclosure affects the degree to which board members feel licensed. To test this hypothesis, we compare the condition where disclosure to the auditor is present and disclosure to the public is absent to the condition where disclosure is required to both parties. The results of this comparison in Panel D of Table 2 suggest no significant difference between these two conditions ($t$ = 1.17, $p$-value = 0.24). Thus, we are unable to reject the null and Hypothesis 2 is supported – we find no significant difference in the likelihood of the board member's approval decision when the decision is disclosed to both the public and the auditor as compared to when the decision is just disclosed to the auditor.

### *V. Conclusions & Implications*

Market participants continue to demand greater disclosure from boards of directors, yet little is known about the effect of these disclosures on board member decisions. We extend prior literature, which has examined conflict of interest disclosures, and provide evidence about whether requiring disclosure of boards decisions licenses board members to make more biased decisions. Our results reveal that disclosure can license board members to make biased decisions that they may otherwise not make in the absence of disclosure. However, we find no evidence that increasing the level of disclosure (disclosure to the auditor versus disclosure to the auditor and public) had an impact beyond a base level of disclosure. The implication of these findings, relevant to current projects at both the PCAOB and the SEC, is that increased disclosure of board member decisions may carry with it unintended consequences – including increased bias in financial reporting. The knowledge gained form this study may help to improve regulations surrounding targeted transparency disclosures in financial reporting.

## References


Beyer, A., Cohen, D., Lys, T., Walther, B. 2010. The financial reporting environment: Review of the recent literature. Journal of Accounting and Economics 50: 296-343.

Buckless, F. A., & Ravenscroft, S. P. 1990. Contrast coding: A refinement of ANOVA in behavioral analysis. The Accounting Review 65 (4): 933-945.

Cain, D., G. Loewenstein, and D. Moore. 2005. The dirt on coming clean: Perverse effects of disclosing conflicts of interest. Journal of Legal Studies 34: 1–25.

Cain, D., G. Loewenstein, and D. Moore. 2010. When sunlight fails to disinfect: Understanding the perverse effects of disclosing conflicts of interest. Journal of Consumer Research 37: 836–857.

Effron, D., B., Monin., 2010. Letting people off the hook: when do good deeds excuse transgressions. Personality and Social Psychology Bulletin 36 (12): 1618-1634.

Effron DA, Monin B, DT., Miller. 2013. The unhealthy road not taken: Licensing indulgence by exaggerating counterfactual sins. Journal of Experimental Social Psychology, 49:573-578.

EY. 2017. EY Center for Board Matters: Audit committee reporting to shareholders in 2017. Available at: http://www.ey.com/Publication/vwLUAssets/ey-audit-committee-reporting-to-shareholders-in-2017/%24FILE/ey-audit-committee-reporting-to-shareholders-in-2017.pdf

Fama, E. F. 1980. Agency Problems and the Theory of the Firm. *Journal of political economy, 88* (2), 288-307.

Fama, E. F., M. C. Jensen. 1983. Separation of ownership and control. *Journal of Law and Economics* 26 (2): 301-325.

Fung, A., Weil, D., Graham, M. 2007. Full disclosure the perils and promise of transparency. Cambridge: Cambridge University Press.

Griffin, J. 2014. The effects of uncertainty and disclosure on auditors' fair value materiality decisions. Journal of Accounting Research 52 (5): 1165-1193.

Healy, P., Palepu, K., 2001. Information asymmetry, corporate disclosure, and the capital markets: a review of the empirical disclosure literature. Journal of Accounting and Economics 31: 405-440

Hirst E. D., K. E. Jackson, and L. Koonce. 2003. Improving Financial Reports by Revealing the Accuracy of Prior Estimates Contemporary Accounting Research. 20 (1): 165-193.

Jamal, K., Marshall, E., Tan HT. 2016. Does disclosure of conflict of interest increase or decrease bias? 35(1): 89-99.

Jordan, J., Mullen, E., Murnighan, J. 2011. Striving for the moral self: The effects of recalling past moral actions on future moral behavior. Personality and Social Psychology Bulletin 37: 701-703.

Kahn, U., Dhar, R., 2006. Licensing effect in consumer choice. Journal of Marketing Research 43(2): 259-266

Koch, C., Schmidt, C. 2010. Disclosing conflicts of interest – do experience and reputation matter? Accounting Organizations and Society 35: 95-107.

Koonce, L., M. Williamson, and J. Winchel. 2010. Consensus information and nonprofessional investors' reaction to revelation of estimate inaccuracies. The Accounting Review. 85(3): 979-1000.
Lang, M. H., & Lundholm, R. J. 1996. Corporate disclosure policy and analyst behavior. Accounting review, 467-492.
Loewenstein, G., D. Cain, and S. Sah. 2011. The limits of transparency: Pitfalls and potential of disclosing conflicts of interest. American Economic Review 101: 423–428.
Lundholm, R., & Myers, L. A. 2002. Bringing the future forward: the effect of disclosure on the returns-earnings relation. Journal of Accounting Research, 40 (3), 809-839.
Merritt, A., Effron, D., Fein, S., Savitsky, K., Tuller, D., Monin, B., 2012. The strategic pursuit of moral credentials. Journal of Experimental Social Psychology 48; 774-777.
Merritt AC, Effron DA, Monin B., 2010. Moral self-licensing: When being good frees us to be bad. *Social and Personality Psychology Compass* 4:344-357.
Miller, D., Effron, D. 2010. Psychological license: when it is needed and how it functions. Advances in Experimental Social Psychology, 43: 115-155.
Monin, B., Miller, D. 2001. Moral credentials and the expression of prejudice. Journal of Personality and Social Psychology 81(1): 33-43
Mullen, E., Monin, B. 2016. Consistency versus licensing effects of past moral behavior. Annual Review of Psychology 67: 363-385.
PCAOB, 2011. PCAOB release no. 2011-007, Improving the transparency of audits: proposed amendments to PCAOB auditing standards and form 2. PCAOB: Washington, D.C.
Rose, J., Rose, A., Norman, C., Mazza, C. 2014. Will disclosure of friendship ties between directors and CEOs yield perverse effects? The Accounting Review 89 (4): 1545-1563.
Rosnow, R. L., & Rosenthal, R. 2008. Assessing the effect size of outcome research. In A. M. Nezu & C. M. Nezu (Eds.), Evidence-based outcome research: A practical guide to conducting randomized controlled trials for psychosocial interventions (pp. 379-401). New York: Oxford University Press.
Securities and Exchange Commission. 2000. Regulation fair disclosure 17 CFR 243.100-243.103. The Federal Register Office: Washington, D.C.
_____. 2003. Regulation analysts certification 17 CFR 242. The Federal Register Office: Washington, D.C.
_____. 2009. Amendments to rules for nationally recognized statistical rating organizations; Proposed rules for nationally recognized statistical rating organizations; final rule and proposed rule. *Federal Register* 74 (232): 63,832-63,865. The Federal Register Office: Washington, D.C.
Weibel, C., Messner, C., & Brügger, A. 2014. Completed egoism and intended altruism boost healthy food choices. Appetite, 77, 38-45.
Welker, M. 1995. Disclosure policy, information asymmetry, and liquidity in equity markets. Contemporary accounting research, 11 (2), 801-827.

**TABLE 1: Demographics in Years**

| | *Average* | *Median* | *Min* | *Max* |
|---|---|---|---|---|
| *Age* | | | | |
| Average | 57.4 | 58.0 | 26.0 | 84.0 |
| *Total Board Experience* | | | | |
| Average | 15.6 | 13.5 | 1.0 | 52.0 |
| *Public Board Experience* | | | | |
| Average | 7.0 | 4.8 | 0.0 | 39.0 |
| *Private Board Experience* | | | | |
| Average | 8.6 | 5.0 | 0.0 | 40.0 |

**TABLE 2: Board Experiment**

***Panel A*: Board Member's Approval/Reject Decisions**

| | | *AUDITOR* | | |
|---|---|---|---|---|
| *PUBLIC* | | Yes | No | Average |
| Yes | Mean | 0.13 | -0.74 | -0.27 |
| | St. dev. | 3.95 | 3.37 | 3.70 |
| | N | 45 | 38 | 83 |
| No | Mean | -0.83 | -2.74 | -1.81 |
| | St. dev. | 4.01 | 3.24 | 3.73 |
| | N | 36 | 38 | 74 |
| Average | Mean | -0.30 | -1.74 | -0.99 |
| | St. dev. | 3.98 | 3.43 | 3.76 |
| | N | 81 | 76 | 157 |

***Panel B:* ANOVA**

| Source | DF | Mean Square | F | *p*-Value |
|---|---|---|---|---|
| Public disclosure | 1 | 85.75 | 6.37 | <0.01* |
| Auditor disclosure | 1 | 74.96 | 5.57 | <0.01* |
| Public disclosure × Audit disclosure | 1 | 10.40 | 0.77 | 0.19* |
| Residual | 1 | 13.46 | | |

***Panel C:* Tests of contrast**

| Hypothesized Contrast | *t* | *p*-Value |
|---|---|---|
| When deciding to approve or reject a manager's request to obtain a second fair value opinion, a requirement to disclose the board's decision to the public, to the auditor, or both will increase the board's likelihood of approval (contrast weights are +3, -1, -1, -1) | 5.87 | <0.01* |

***Panel D:* Tests of Hypothesis 2**

| Hypothesized Comparison | *t* | *p*-Value |
|---|---|---|
| When deciding to approve or reject a manager's request to obtain a second fair value opinion, there will be no difference in the likelihood of approval when the decision is disclosed to both the public and the auditor as compared to when the decision is just disclosed to the auditor. | 1.17 | 0.24 |