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In response to the financial frauds that precipitated the “Great Recession of 2007,” Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act in July of 2010. In addition to enhancing the budget of the enforcement division of the Securities and Exchange Commission, the act also provides new monetary incentives for whistleblowers to report fraud. As a result of the act’s passing, shareholder litigation against company directors and officers is expected to increase dramatically in future years (Polikoff and Huskins 2011). While many of these future securities lawsuits will result in substantial financial settlements paid to shareholders, the majority of these payouts will not be funded by the companies themselves, but by their insurance carriers.1 Directors’ and Officers’ (D&O) insurance policies, which are purchased by a substantial portion of U.S. corporations, can be structured to cover, not only the costs of defending litigation, but also the related settlement or judgment (Towers & Watson 2011). Therefore, director and officer exposure to liability is at the forefront of the new legislation.

Unlike some international regulatory regimes, the SEC does not require U.S. registrants to disclose the details of their D&O insurance policies and few firms voluntarily provide this information (Griffith 2005).2 As a result, existing empirical research on the effects of the

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1 Klausner and Hegland (2010) report that 53% of security lawsuit settlements occurring during the years 2001-2009 were fully funded by insurance proceeds while an additional 35% were at least partially funded by insurers. Furthermore, 21% of companies surveyed by Towers Watson (2011) reported increasing their D&O insurance coverage during 2010, while only 3% stated that they had decreased their coverage.

2 For example, an examination of the 2010 proxy statements for a random sample of ten U.S. corporations listed on the New York Stock Exchange revealed that none had disclosed the existence or details of their D&O liability insurance coverage. However, firms listed on non-U.S. exchanges often disclose this information. For example, firms that are subject to the Business Corporations Act (Ontario) (sometimes referred to as “OBCA”) must provide information about their D&O insurance coverage, deductibles, and premiums in the proxy statement. In addition,
disclosure of D&O particulars is limited. Research in this area is important, as existing theory suggests that D&O insurance information may affect investor perceptions of the disclosing firm. On one hand, disclosure of D&O liability details could have significant negative effects for public filers. If management is perceived as having little exposure to the risk of litigation as a result of substantial D&O liability coverage, investors may believe that directors and officers may not have shareholders’ interests in mind when making management decisions. As a result, such a disclosure could decrease the perceived quality of the firm’s financial reporting quality and, ceteris paribus, make the firm’s shares less attractive to investors (Chalmers et al. 2002).

Alternatively, a firm’s decision to disclose its D&O liability coverage may make its shares more attractive to investors, since such policies insulate firms from bearing costs associated with significant litigation and also provide a potential source of redress should the firm’s stock suffer a significant decline in value (Black et al. 2006). Specifically, disclosure of the existence of a D&O insurance policy could provide investors with a hedge against the potential losses that may arise when investing in high-risk firms, a factor which could positively affect the share price of firms who disclose such policies.

In this study, I provide initial evidence concerning the impact of disclosure of D&O insurance details for U.S. registrants. Specifically, I report the results of an experiment which investigates the extent to which, 1) a firm’s disclosure of D&O liability insurance coverage, and 2) management incentives to achieve earnings growth, impact investors’ perceptions of financial reporting quality. Participants in my study were provided with an excerpt from a proxy statement of a hypothetical public company where I manipulated the presence of a disclosure indicating that the company is covered by a substantial D&O liability insurance policy. This disclosure was

countries such as Taiwan and The United Kingdom also currently require disclosure of certain D&O insurance particulars.
constructed from language used by actual public companies that have disclosed similar policies. I also provided participants with information suggesting that management’s compensation was either significantly or modestly tied to earnings growth, as this form of variable compensation has been identified by prior research as being an important predictor of earnings management behavior (Healy and Whalen 1999; Bergstresser and Philippon 2006; Schrand 2009).

The results of this experiment suggest that a company’s decision to disclose its D&O liability insurance coverage has a negative effective on the perceived quality of the firm’s earnings. Specifically, investors believe that firms who disclose such coverage are less likely to provide accurate earnings information and more likely to engage in fraudulent misrepresentation. However, additional analysis indicates that the impact of director and officer insurance on a firm’s market value may not always be negative. That is, I find initial evidence which suggests that when management incentives are aligned with those of shareholders (i.e., when management compensation is primarily driven by a company’s earnings performance), the presence of the D&O disclosure may make the firms’ shares more attractive to investors by providing a hedge against investment risk. This evidence suggests that for high-risk, high-growth companies, the decision to disclose D&O coverage details may positively affect the price of the firm’s equity.

These results have important implications for managers and regulators as they illustrate that the decision to disclose D&O liability coverage can have consequences that may influence the decisions of shareholders and potential investors. My findings also inform the larger debate on the costs and benefits of D&O liability insurance, suggesting that while such policies provide a potential source of redress to injured shareholders, investors believe that they also de-incentivize management from reporting accurate earnings information. As a result, disclosure of D&O insurance information may impact shareholder behavior in interesting ways.
The remainder of this paper is organized as follows. The following section reviews the existing literature and develops the hypotheses. Section 3 describes the data used to perform the empirical tests. Section 4 presents the results, while section 5 concludes.

1. BACKGROUND AND HYPOTHESES

The Securities Litigation Environment

Recent years have witnessed an increase in the number of securities lawsuits filed in U.S. courts; especially those related to securities class action claims (Bailey 2005). In the typical securities lawsuit, investors or other third parties choose to sue a corporation and its directors and officers as a means of seeking redress for perceived negligence, misrepresentation, or fraud by the company or its representatives. A study by Cornerstone Research (2010), based on data obtained from the Stanford Securities Class Action Clearinghouse, reported that 1.8% of firms listed on either the NYSE, NASDAQ, or AMEX at the start of 2009 were named defendants in one or more federal security class action suits.

Although a significant number of securities lawsuits are filed each year, very few of these cases are actually tried to judgment. In fact, when examining a total of 3,239 federal securities cases filed between 1991 and 2004, Black et al. (2006) found that only 37 were tried to judgment against the defendant parties. Rather than undergo the costs and risks associated with a lengthy jury trail, many plaintiffs and defendants choose instead to settle the action outside of court (Griffith 2005). While this may result in cost savings for defendants, Ryan and Simmons (2010) suggest that such settlements appear to be of significant consequence, as the average class action securities settlement exceeded $55.4 million during the period 1996-2008. As a result of the significant financial consequences associated with securities litigation, corporations may choose

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3 Firms that have D&O insurance coverage risk invalidating their policy by going to trial. In the event that they are found guilty, many D&O policies become null and void.
to purchase D&O liability insurance in order to protect their offices and directors, as well as the company itself, from the costs associated with these legal actions.

D&O insurance is designed to transfer the risk of legal liability from the purchaser of the policy to the insurance carrier. In the 1930s, a time when state laws prohibited corporations from indemnifying their directors and officers, D&O insurance policies were designed to directly protect individual managers from legal liability when acting as representatives of their companies (Monteleone and Conca 1996). Over the next two decades, the laws were changed to permit corporations to indemnify their employees at their own discretion. As a practical matter, firms normally indemnify their directors and officers, suggesting that directors and officers are rarely responsible for litigation costs or settlements. Therefore, the modern role of these policies insures the corporations against the costs associated with indemnifying their directors and officers, as well as to insure the corporation itself from legal proceedings in which the company is named as a defendant. The typical D&O policy covers not only judgments against the defendant, but also settlements, damages, and the associated litigation costs. As a result, corporations and their managers may incur little out-of-pocket cost when defending and settling securities litigation matters if they are insured by a D&O policy (at least to the extent of the policy limit).

Directors’ and Officers’ Liability Insurance

Prior research on D&O liability insurance has primarily focused on two major topic areas: 1) studies that investigate the demand for the insurance and, 2) studies that investigate its effect on corporate governance and managerial opportunism. Since disclosure of D&O insurance details

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4 In many instances the “duty to defend” the directors and officers is imbedded in corporate bylaws.
5 Most D&O policies include provisions which exclude coverage for judgments related to fraudulent management conduct. However, because both the plaintiffs and the defendants’ incentives are to settle, final adjudication rarely takes place. As a result, such provisions are rarely invoked.
is not required in U.S. markets but is required in other markets, such as Canada, these studies primarily use empirical data from non-U.S. or cross-listed firms. For example, Core (1997) investigated a dataset of D&O insurance purchases by Canadian companies, finding that firms with greater insider voting control tend to purchase more insurance and carry coverage with higher limits. Boyer and Delvaux-Derome (2002) find that corporations which are distressed financially and have weak corporate governance systems are also more likely to purchase insurance. O’Sullivan (2002) investigates insurance purchase decisions of U.K. companies, suggesting that firms which purchase insurance tend to be larger and have greater exposure to U.S. litigation. Boyer (2003), again using a sample of Canadian corporations, suggests that the major factor which influences whether a firm purchases D&O coverage is whether or not the firm has purchased insurance in the prior year.

Several prior studies have investigated the effect of D&O insurance coverage on corporate governance and managerial opportunism. Both Holderness (1990) and O’Sullivan (1997) argue that, because insurance companies perform due diligence in order to reduce the risk of the firms they insure, D&O insurers provide an additional level of managerial monitoring. While this additional scrutiny would presumably discourage management opportunism, a number of other studies have suggested that D&O insurance may have the opposite effect. Because securities litigation is a major deterrent against management impropriety, insurance policies which substantially reduce manager’s legal liability could remove a constraint against managerial malfeasance.

For example, Chalmers et al. (2002) find a negative relationship between the amount of D&O insurance purchased by firms and post-IPO stock returns, which may indicate opportunistic behavior by managers. Specifically, managers of firms whose stock declined subsequent to the
IPO were more likely to be covered by policies with higher limits, suggesting that management may have been aware that the stock was overvalued. The findings of Wynn (2008) also lend credence to the opportunistic behavior argument, demonstrating that Canadian firms which cross-list in U.S. markets are less likely to provide timely disclosure of bad news when they have high amounts of D&O liability coverage. A number of other studies also suggest a potential link between opportunism and D&O insurance (Core 1997; Boyer and Delvaux-Derome 2002; Boubakri and Ghalleb 2008).

These research findings are consistent with agency theory models (Jensen and Meckling 1976) which suggest that D&O insurance coverage may increase the agency conflict between managers and shareholders. That is, D&O insurance may insulate managers from their accountability to investors and reduce management’s incentive to act in the interests of shareholders. Indeed, both Core (1997) and Chalmers et al. (2002) suggest that entrenched managers purchase high levels of D&O insurance. If high levels of D&O insurance are indicative of an agency conflict between managers and shareholders, such disclosure is likely to send a negative signal to investors and potentially decrease the perceived quality of the firm’s earnings.

As a result, I investigate the following initial hypotheses:

**H1a:** Firms that choose to disclose D&O liability insurance coverage will be perceived as having a higher fraud risk than those that do not.

**H1b:** Firms that choose to disclose D&O liability insurance coverage will be perceived as providing less accurate earnings guidance than those that do not.

**Incentive Compensation**

Recent years have seen a significant increase in the amount of incentive-based compensation offered to managers in contracting between shareholders and management (Core et al. 2003). Incentive-based contracts tie a portion of a manager’s compensation to the
achievement of certain performance metrics, making managers much more personally exposed to changes in their firms’ share price. Proponents of such variable compensation schemes argue that this form of executive pay aligns management’s incentives with those of shareholders (Hewitt 2004), although this type of compensation may also incentivize managers to take aggressive risks and even engage in fraudulent reporting (Core 2003).

A number of prior studies have investigated the effect of incentive compensation on earnings management behavior. In general, the findings of these studies are consistent with executives using earnings management techniques in order to achieve earnings-based bonus awards. For example, Bergstresserer and Philippon (2006) find that firms whose CEO compensation is more closely tied to the firms’ stock value tend to report higher levels of discretionary accruals and, further, that during years of high discretionary accruals, CEOs exercise unusually large amounts of options. Cheng and Warfield (2005) report that companies that offer greater amounts of incentive compensation are more likely to report earnings that beat or just meet analysts’ earnings forecast. Furthermore, Schrand and Zechman (2009) find that firms that incentivize managers with a greater percentage of variable compensation are significantly more likely to commit fraud.

Since this prior research suggests that company officers may manage earnings in order to achieve incentive compensation targets, I examine whether incentive compensation plans can affect investors’ perception of a firm’s earnings quality. If investors perceive firms which implement such plans as having greater fraud risk and lower quality earnings, they are likely to view the firm’s earnings quality more negatively. As such, I test the following additional hypotheses:

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6 Common forms of incentive-based compensation include employee stock options that are tied to a firm’s stock price and cash bonuses which may be linked to other quantitative performance metrics (e.g., earnings per share).
**H2a:** When a firm’s executive compensation plan has a significant incentive component, the firm will be perceived as having a higher fraud risk than when it does not.

**H2b:** When a firm’s executive compensation plan has a significant incentive component, the firm’s earnings guidance will be perceived as less accurate than when it does not.

**Effects on Stock Purchase Decisions**

If both the disclosure of D&O insurance coverage and incentive compensation affect investors’ perceptions of financial reporting quality, it may be the case that these variables jointly affect investors’ stock purchase decisions. Although one might expect that firms which are perceived to have greater fraud risk and lower quality earnings would be less attractive to investors, a firm’s use of incentive compensation and disclosure of significant D&O liability insurance coverage could impact investors’ purchase decisions in surprising ways.

As discussed earlier, high levels of D&O insurance coverage may indicate an agency conflict between managers’ and shareholders’ interests. That is, by mitigating management’s personal exposure to shareholder litigation, investors may believe that such policies remove a constraint that encourages corporate executives to act in the best interests of investors (Core 1997; Core 2000; Boyer 2005). Therefore, all other factors held constant, a decision to disclose high levels of coverage is likely to negatively affect demand for the company’s shares.

However, for companies with high levels of D&O coverage, incentive compensation plans may be able to re-align the interests of investors and management by tying management compensation to performance metrics that are also of importance to shareholders, such as earnings growth, share price, etc. (Hewitt 2004). Furthermore, even if incentive compensation plans encourage management to engage in aggressive financial reporting, the existence of D&O
insurance coverage may be perceived by investors as insulating them from potential future losses arising from such reporting.

In essence, D&O coverage may mitigate the risk to investors of purchasing shares of firms with a propensity to manage earnings upwards. Therefore, investors may be more likely to purchase shares of companies which disclose both significant amounts of D&O coverage and incentive compensation, even if they believe such firms are more likely to release fraudulent or unreliable earnings information. As an initial investigation of this issue, I examine the following research question:

**RQ:** Are investors’ stock purchase decisions jointly affected by the disclosure of D&O insurance coverage and incentive compensation?

2. **METHOD**

Consistent with prior research, I use nonprofessional investors as participants in my experiment (e.g., Maines and McDaniel 2000; Sedor 2002; Hales 2007). Nonprofessional investors are an important group to study to examine this issue, as they own one-third of all U.S. stocks (Bogle 2006). Additionally, prior research in finance indicates that this class of investors significantly influences security prices (DeLong et al. 1989, 1991). Consistent with prior accounting research that examines the influence of financial statement disclosures on investor behavior (Rennekamp 2012), I obtained my sample of 76 investor participants through an online survey recruitment service (Amazon Mechanical Turk) and each was paid a de minimis award upon completion of the experiment in order to compensate them for their time. The instrument was developed using the Qualtrics® software package and the case materials were accessed online.

Upon accessing the experiment, participants were presented with an excerpt from the
proxy statement of a fictional software manufacturing company, Alpha, Inc. The independent variables that were manipulated are 1) the presence or absence of a disclosure indicating substantial D&O liability insurance coverage and 2) whether or not management is subject to a significant incentive compensation plan. This design results in a 2 X 2 between-participants study. I present my manipulations within the context of a proxy statement excerpt because the SEC currently requires details of executive compensation to be disclosed within this document. Therefore, D&O particulars would presumably be described within this document if such disclosure were to be required. As a result, an investor’s consideration of a firm’s D&O disclosure risk and incentive compensation risk are likely to occur simultaneously within this context.

The D&O disclosure manipulation (DISCLOSURE) informed participants that the company maintains a D&O liability insurance policy with a one hundred million dollar policy limit and that this policy provides the company’s officers with personal protection from financial liability incurred while acting in their capacity as representatives of the company. I carefully constructed this disclosure using language contained in actual D&O disclosures made in proxy statements of Canadian firms. As a result, my manipulation mirrors the boilerplate disclosure language actually used by public filers.

The incentive compensation disclosure manipulation (INCENTIVE) involved informing shareholders that the company’s executive compensation plan is primarily composed of a

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7 Note that Canada currently requires that D&O particulars be disclosed in a company’s annual proxy statement. The U.K. and Taiwan require disclosure of D&O insurance coverage in the annual report.
8 For example, see the proxy circular for 2020 Technologies (2010) which indicates that the company’s D&O insurance policy “includes coverage for wrongful acts (including misleading statements), insuring against any legal obligation to pay on account of any claims brought.” Also, see the proxy circular for Bakbone Software, Inc. (2010) which claims that management is indemnified against “losses, claims, damages, liabilities and amounts paid in settlement in connection with any claim, legal proceeding, arbitration, investigation or inquiry, whether civil, criminal, administrative or investigative.”
guaranteed base salary (which was not tied to earnings growth) and a performance-related cash bonus which was triggered upon achievement of a 10% increase in earnings compared to the prior year. In the low incentive compensation condition, participants were told that the compensation plan was designed to be “comparable to other companies within our industry” and that the guaranteed salary totaled 85% of management compensation, with the remaining 15% consisting of incentive compensation. In the high incentive compensation condition, these percentages were reversed and the compensation plan was described as being “results oriented.” The format of this compensation disclosure is consistent with that used by actual public filers, where variable and fixed amounts are often represented as a percentage of total compensation. A summary of each of the manipulations is presented in the appendix.

After reading the proxy statement excerpt, participants then responded to three dependent measures designed to capture their reactions to the manipulations. I assessed participant perceptions of 1) whether there is a high risk of fraudulent financial reporting at the company (FRAUD), 2) whether the company’s future earnings guidance is expected to be honest and accurate (ACCURACY), and 3) whether the information contained in the proxy statement made the participant want to purchase the company’s stock (PURCHASE). These three measures were randomized within subjects to account for order effects. Participant responses were assessed on 11-point Likert-type scales ranging from 1=“Strongly disagree” and 11=“Strongly agree.” After responding to the dependent variable measures, participants then completed two manipulation checks and provided demographic data.
3. RESULTS

Demographic Data and Manipulation Checks

Table 1 presents demographic data for the participants in my sample. Overall, the demographics of my participants are similar to those provided in prior studies. One hundred percent of the sample had direct investment experience in the stock market.\(^9\) The average age of participants was 40.4 years and the majority (84%) had some level of post-secondary education. My sample represents a relatively even mix of male and female participants. A series of ANCOVA models including my two independent variables, demographic variables serving as covariates, and my three dependent variables indicate that participant demographic data does not affect my results. Therefore, it appears that these individuals are a representative sample of nonprofessional market participants.

My manipulation checks consist of two post-experimental questions. In order to determine whether my incentive compensation manipulation was effective, participants were asked whether the majority of Alpha, Inc’s executive compensation was provided in the form of 1) a guaranteed base salary (the low incentive condition) or, 2) a performance-related cash bonus (the high incentive condition). Only one participant failed this manipulation check and this data was removed from my analyses. Thus I conclude that the executive compensation manipulation was effective. In order to test the effectiveness of the D&O disclosure manipulation, I asked participants whether Alpha’s executive officers were likely to be held personally financially liable if they were sued in connection with their roles as officers of Alpha. Responses were measured on an 11-point Likert scale ranging from 1=“Strongly disagree” to 11=“Strongly

\(^9\) Eight participants who completed the experiment but indicated in a post-experiment question that they did not have prior investment experience were excluded from this sample. If I include these participants, my results are qualitatively unchanged.
agree.” When participants were presented with the D&O disclosure, they indicated that Alpha’s executives were less likely to be held personally liable in a lawsuit (2.8) than when the D&O disclosure was not present (6.8). This difference was statically significant (p<.001) which indicates that the D&O disclosure manipulation was also successful.

**Hypothesis Tests**

Table 2 presents the means and standard deviations for each of three dependent variables by experimental condition, while Table 3 presents the results of my hypothesis tests. In order to perform my analyses, I use a multivariate ANOVA design, with each of my three primary
response measures as dependent variables. Hypotheses 1a predicts that firms who choose to
disclose substantial D&O coverage will be perceived as having higher fraud risk than those that
do not. Consistent with H1a, the main effect of DISCLOSURE is marginally significant, as
participants indicated higher fraud risk (FRAUD) when the disclosure was present (M=6.59) than
when it was absent (M=5.87; F=1.88, p=.087). Hypothesis 1b predicts that the earnings guidance
of firms who choose to disclose substantial D&O coverage will be perceived as less accurate
than the guidance of those that do not. Consistent with H1b, the main effect of DISCLOSURE is
marginally significant, with participants indicating that the firm’s earnings guidance will be less
accurate (ACCURACY) when the disclosure is present (M=5.21) than when it is not (M=6.00;
F=2.39, p=.064).

Hypothesis 2a predicts that when a firm’s executive compensation plan has a significant
incentive component, investors will perceive the firm as having higher fraud risk. My results
indicate a main effect of INCENTIVE, consistent with H2a, and indicating that investors perceive
a greater fraud risk (FRAUD) when executives’ pay agreements contain a significant amount of
incentive compensation (M=6.84) than when they do not (M=5.64; F=5.88 p=.009). Hypothesis
2b predicts that investors will perceive a firm’s earnings guidance as less accurate when
managers receive a significant amount of incentive compensation. Consistent with H2b, I find a
main effect of INCENTIVE, suggesting that investors perceive earnings guidance as less accurate
(ACCURACY) when the firm has a high level of incentive compensation (M=4.84, SD=2.20)
than when it does not (M=6.36; F=10.59, p<.001).

My research question examines whether D&O insurance disclosure and incentive
compensation impact investors stock purchase decisions. Although I do not find a main effect of
TABLE 2
Responses by Experimental Conditions
(n=76)

Means, (Standard Deviations), and [Cell Sizes]

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<th>Incentive Compensation (INCENTIVE)</th>
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<tr>
<td>Present</td>
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<td>FRAUD 6.28 (.486)</td>
<td>FRAUD 6.59 (2.10)</td>
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<td></td>
<td>ACCURACY 4.58 (.466)</td>
<td>ACCURACY 5.90 (.466)</td>
<td>ACCURACY 5.21 (2.06)</td>
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<td></td>
<td>PURCHASE 6.00 (.541)</td>
<td>PURCHASE 4.11 (.555)</td>
<td>PURCHASE 5.08 (2.68)</td>
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<td>Absent</td>
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<td></td>
<td>ACCURACY 5.11 (.466)</td>
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<td>ACCURACY 6.00 (2.13)</td>
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<td>PURCHASE 5.00 (2.77)</td>
<td>PURCHASE 4.90 (2.06)</td>
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Variable definitions:

FRAUD = whether there is a high risk of fraudulent financial reporting at the company; measured on a continuous scale from 1="Strongly disagree" to 11="Strongly agree"

ACCURACY = whether the company’s future earnings guidance is expected to be honest and accurate

PURCHASE = whether the information contained in the proxy statement makes the participant want to purchase the company’s stock
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<th>Panel A: MANOVA results for <strong>FRAUD</strong></th>
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<td><strong>Variable</strong></td>
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<td>DISCLOSURE</td>
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- **PURCHASE** = whether the information contained in the proxy statement makes the participant want to purchase the company’s stock

1 Reported p-values are one-tailed, given directional hypotheses.
2 Reported p-values are two-tailed as I have no directional predictions for this dependent variable.
either independent variable on participants’ purchase decisions \((PURCHASE)\) I do find a highly significant disordinal interaction \((F=10.53, p=.002)\). Specifically, when managers’ compensation is primarily fixed (i.e. not incentive-based), the disclosure of substantial D&O coverage makes participants less likely to purchase the firm’s shares \((M=4.11)\) compared to when such disclosure is not present \((M=5.57; t=1.93, p=.058)\). However, when managers’ compensation is primarily incentive-based, the D&O disclosure made participants more likely to purchase the firm’s stock \((M=6.00)\) than when the disclosure was absent \((M=3.94; t=2.65; p=.01)\). This relationship is represented graphically in Figure 1. Thus, the effect of D&O disclosure on investors’ purchase

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**FIGURE 1**
Means plot for \(PURCHASE\)
\((n=76)\)

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**Variable definition:**

\(PURCHASE\) = whether the information contained in the proxy statement makes the participant want to purchase the company’s stock; measured on a continuous scale from 1=“Strongly disagree” to 11=“Strongly agree”
decisions appears dependent on whether management’s compensation is tied to earnings
growth.¹⁰

Supplemental Analysis

The findings presented above are consistent with participants believing that D&O
insurance coverage mitigates the risks associated with investing in firms with a propensity to
manage earnings. Essentially the D&O insurance coverage may have been perceived as allowing
participants to both: (a) partake in potentially higher market returns of a firm that aggressively
reports earnings (i.e. engages in upward earnings management) and (b) hedge the risk that
aggressive financial reporting crosses the line into fraud by providing a source of financial
redress should the stock price fall. This may explain why participants were more willing to buy
shares of the firm that possessed both experimentally manipulated characteristics (high levels of
incentive compensation and D&O insurance).

As a means of investigating this possible explanation, as a post-experiment question,
participants were asked to provide their agreement with a statement indicating that, when
investing, “they are likely to take substantial financial risks to potentially earn substantial
financial returns.” This response was measured using an 11-point Likert scale (endpoints labeled
1=“Strongly Disagree” and 9=“Strongly Agree”). Results indicate that the participants’
willingness to take on risk was greatest when exposed to proxy statement containing high
incentive compensation and the disclosure of D&O insurance coverage (mean of 6.7) compared
to the other three conditions (scores ranged from 3.7 to 4.8) and planned comparisons indicate

¹⁰To provide further insight into my results, I also administered an alternate version of the experiment which
slightly modified the D&O disclosure manipulation. Instead of including a condition where participants did not
receive any disclosure, all participants were presented with an explicit disclosure indicating that the company either
did or did not maintain a D&O liability insurance policy. The results of this alternate experiment are qualitatively
similar to those discussed above. Therefore, it appears that my results are attributable to the presence or absence of
D&O insurance coverage as opposed to the presence or absence of only the disclosure itself.
that this difference is statistically significant (all p’s < .05). This result is consistent with the notion that individuals are more likely to invest in risky firms (i.e., those more likely to engage in earnings management) when such firms possess a significant level of D&O insurance coverage.

4. DISCUSSION

This paper presents the results of an experiment which examines the effect of disclosure of D&O insurance coverage and management incentive compensation on investors’ perceptions of earnings quality and stock purchase decisions. Consistent with my expectations, I find that disclosure of 1) D&O liability coverage and 2) significant executive incentive compensation is perceived by investors as indicating greater fraud risk and lower quality future earnings. Specifically, by offsetting management’s personal liability in securities lawsuits, D&O coverage is perceived by investors as reducing management’s incentive to provide accurate information to shareholders. Incentive compensation appears to have a similar effect on investor perceptions, as it is believed to encourage aggressive (and even fraudulent) earnings management behavior.

However, while D&O liability coverage and incentive compensation both seem to negatively affect investors’ perceptions of financial reporting quality, this does not necessarily mean that shares of disclosing firms will be less attractive to investors. Rather, I find initial evidence that when managers have significant compensation incentives to achieve earnings growth, disclosure of D&O insurance may actually increase the desirability of a firm’s shares. This interaction implies that investors may accept the risks of aggressive (or even fraudulent) financial reporting if they believe that management’ interests are aligned with those of shareholders and if a form of redress exists through the insurance policy.

These findings have important implications for researchers and policy makers. While other research has investigated how D&O policy details can affect management behavior (Core
2000; Chalmers et al. 2003), I am not aware of any other studies that examine how the disclosure of D&O coverage impacts investor behavior. Indeed, while the SEC does not require disclosure of D&O policy details for U.S. registrants, I provide empirical evidence to support the claim that disclosure is perceived by investors as relevant (Griffith 2005). Secondly, my results suggest that D&O liability insurance coverage has the potential to have a market-distorting effect, as it may encourage investors to seek out firms which are likely to engage in earnings management. This finding inform the broader debate concerning the costs and benefits of directors’ and officers’ insurance as such policies may have negative implications for the overall efficiency of the capital markets.

As is the case with all research, this study has some limitations. For example, participants were exposed to a proxy statement excerpt that manipulated only the company’s level of incentive compensation and the existence of D&O liability insurance. While this design choice was made to limit the influence of extraneous factors on our primary research questions, investors are often exposed to a significant amount of additional information when evaluating investment options. As such, future research may wish to consider the impact of the variables examined within contexts that contain more rich information sets.

Additionally, my study focuses exclusively on non-professional investors. While this is consistent with prior accounting research which examines investor behavior (e.g., Maines and McDaniel 2000; Sedor 2002; Hales 2007), institutional investors and/or analysts could react differently to my manipulations. Therefore, future research could examine whether investor reaction to D&O coverage and incentive compensation disclosures varies depending on investor type. Finally, my experimental materials described a company within a single industry: software development, which is traditionally a high-risk industry from a financial reporting perspective.
Presumably, the impact of incentive compensation and D&O coverage might differ in other industries with different risk profiles, such as manufacturing or consumer products.
REFERENCES


APPENDIX
Summary of Manipulations

Panel A: Low incentive compensation plan description

<table>
<thead>
<tr>
<th>Name</th>
<th>Guaranteed Base Salary</th>
<th>Performance-Related Cash Bonus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pat Whitlock, President</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>Kendall Brown, CEO</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>Terry Klein, CFO</td>
<td>85%</td>
<td>15%</td>
</tr>
</tbody>
</table>

We believe that the compensation plan discussed above is consistent with our intention to provide executive compensation that is comparable to other companies within our industry.

Panel B: High incentive compensation plan description

<table>
<thead>
<tr>
<th>Name</th>
<th>Guaranteed Base Salary</th>
<th>Performance-Related Cash Bonus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pat Whitlock, President</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>Kendall Brown, CEO</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>Terry Klein, CFO</td>
<td>15%</td>
<td>85%</td>
</tr>
</tbody>
</table>

We believe that the compensation plan discussed above is consistent with our intention to provide a “results-oriented” executive compensation program.
Panel C: D&O disclosure

For these three executive officers, the company also maintains a Directors and Officers Liability Insurance policy which has a $100,000,000 policy limit. This policy provides these officers with personal protection from financial liability incurred while acting either directly or indirectly in their capacity as executive officers of Alpha. The policy covers losses, fines, judgments, damages, liabilities, and settlements (including those arising out of shareholder lawsuits) paid in connection with any claim, including wrongful acts, errors or admissions, and misleading statements.