



Corporate Social Responsibility Disclosures and Investor Judgments in Difficult Times: The Role of Ethical Culture and Assurance

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Abstract

We conduct an experiment with 459 nonprofessional investors to examine whether they evaluate companies differently based on management's stated purpose for undertaking corporate social responsibility (CSR) activities in the presence versus absence of a company-specific negative event. Specifically, we vary whether or not management intends to achieve financial returns from CSR activities in addition to promoting social good. We address investors' decision processes by investigating whether their judgments are mediated by perceptions of future cash flows and/or the underlying ethical culture of the company. Results show that absent a negative event, investment judgments are stronger when CSR activities are intended to achieve financial returns, through expectations of higher future cash flows. However, when a negative event occurs, we find a moderating effect of independent assurance of CSR disclosures. When disclosures are not assured, investors prefer CSR undertaken only for societal benefit, mediated by perceptions of a stronger ethical culture. However, when disclosures are assured, ethical culture is viewed similarly regardless of management's intention to achieve financial returns from CSR activities. This suggests that management's willingness to obtain independent assurance on disclosures is viewed as a positive ethical signal. Thus, assurance complements disclosure of CSR activities by contributing to protection against the impact of negative events.

Keywords Investor judgments · Ethics · Negative event · Corporate social responsibility · CSR disclosure · CSR assurance

Introduction

Disclosure of corporate social responsibility (CSR) activities by large, global firms has become a widespread practice (Blasco and King 2017). Consistent with this trend, the role of CSR in business has been extensively examined across many literatures. In a multidisciplinary review of the CSR literature, Aguinis and Glavas (2012) note that at the organizational level of analysis, firms are predominantly motivated by either normative reasons (e.g., a sense of responsibility and morals) or financial reasons (e.g., increased

competitiveness or improved profitability). A rich body of research argues that normative reasons—"doing good to do good" (Vogel 2005)—are the heart of CSR, as companies ought to be socially responsible (see Aguinis and Glavas 2012). Yet, another line of research focuses on the importance of "doing good to do well" so that both business and society benefit from managements' actions (i.e., "shared value"; Kramer and Porter 2011; Porter and Kramer 2006). Often, when firms are in the midst of difficult times, the value of these intentions is put to the test (Godfrey et al. 2009).

We address this pivotal issue in the literature by examining whether the occurrence of a negative event affects how prior disclosure of management's CSR intention influences investors' perceptions and decision-making. Specifically, we examine whether CSR motivated by normative reasons (i.e., only promising societal benefits) is valued by investors, or whether investors need the additional signal of an expected financial return to find value in CSR activities. We focus on investors given their definitive stakeholder status of possessing power, urgency and legitimacy (Mitchell et al.

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1997). Further, motivated by the importance of considering contingent variables in CSR research (see Lindgreen and Swaen 2010), we study whether investor reactions to disclosures of managerial intent are moderated when CSR reports are assured by an external public accounting firm. In the following paragraphs, we briefly summarize prior research examining CSR in the negative event context and the value of CSR assurance.

First, we study whether variation in management's intent in undertaking CSR, as expressed in public disclosures, differentially affects investor response when a negative event later occurs.¹ In general, prior research considers voluntary disclosure as a mechanism through which organizations can influence how they are perceived by society (e.g., Chen et al. 2016; Chan et al. 2014; Holder-Webb et al. 2009; Gray et al. 1995). When companies experience damaging events, prior disclosure of CSR activities may provide information that mitigates negative reaction from investors (e.g., Christensen 2016; Zahller et al. 2015; Flammer 2013). Theory suggests CSR activities can build a reservoir of reputational capital (also termed goodwill or moral capital by prior research) among stakeholders, based on the perception of an ethical culture in the organization (Freeman and Velamuri 2006; Treviño et al. 1998).²

Further, Godfrey et al. (2009) find that CSR's "insurance-like" mitigation of losses from negative events is contingent on those activities providing signals of an other-regarding or altruistic actor. In the investment context specifically, Lange and Washburn (2012) note that following a negative event with an ambiguous cause, investors may seek to determine whether management is culpable. In making that judgment, investors may consider management's intentions for undertaking CSR as a clue to the company's ethical culture (Christensen 2016; Treviño et al. 1998). In contrast, some research asserts that investors might always prefer CSR undertaken to increase financial performance, as it viewed as more important (e.g., Cheng et al. 2015) and improves resource allocation between the organization and its stakeholders (e.g., Ballou et al. 2012; Porter and Kramer 2006). However, those studies do not feature a negative event scenario. The occurrence of a negative event may alter investors' preferences away from CSR intended to improve financial performance, as they make assessments of corporate culpability. If so, then investors might use the CSR disclosure of management intent as an observable lens through which to view

the company, providing evidence that can mitigate reaction to negative events (see also Flammer 2013). We study a company-specific negative event instead of an industry- or economy-wide shock (e.g., the Global Financial Crisis; Lins et al. 2017), as company-specific events occur frequently and attribution of the cause of the event (manager lack of skill or ill-will) can be unclear.³

Second, we study the contingent effect of management's prior purchase of assurance, jointly with varying management intent and the presence/absence of a negative event.⁴ While independent assurance of CSR information has become more widespread in recent years, a recent survey (Blasco and King 2017) reports only 45% of CSR reports are assured. This suggests that a majority of companies do not perceive a net benefit in purchasing this service. Limited research to date examines the value of assurance in the CSR context, with mixed results: some studies find evidence supporting its value to investors (Cheng et al. 2015; Brown-Liburd and Zamora 2015; Casey and Grenier 2015; Pflugrath et al. 2011; Dhaliwal et al. 2011), while others do not (Christensen 2016; Cho et al. 2014). As we examine the joint effects of management's CSR intent and assurance in situations with/without a negative event, two prior studies are key to setting the stage for our tests. Cheng et al. (2015) find in a positive economic environment that assurance is more valuable to investors when CSR activities are aligned with the company's business strategy. In contrast, Christensen (2016) finds no effect of CSR assurance on investor response to high-profile corporate misconduct (e.g., bribery, kickbacks, and discrimination) reported in reputable business news sources. In those scenarios, investors are likely more certain about management culpability, biasing against the usefulness of assurance of CSR reports in their evaluations. In contrast, we study the value of assurance in the wake of negative events for which attribution of management culpability is uncertain. Such events are not only more frequently experienced, but according to the 2017 Harris Poll Reputation Quotient, are more tolerated by the public (Harris Poll 2017). Thus, assurance may have more value there.

Further, this study builds on the CSR literature by responding to the call from Lindgreen and Swaen (2010)

¹ Consistent with Godfrey et al. (2009), we define a negative event as a circumstance having a negative outcome for at least one stakeholder group.

² As argued by Godfrey (2005), goodwill from CSR (the mechanism which provides insurance-like protection) will likely not be generated from all activities, but only for positive acts (i.e., those that are other-regarding, not self-serving) made by genuine actors (i.e., managers in a positive ethical culture).

³ Recent examples include foodborne illness at Chipotle, United Airlines' forcible removal of a passenger from an oversold flight, and early reactions to Boeing's 737 MAX airplanes when it was unclear whether natural events or company negligence led to flight crashes.

⁴ Other research examines CSR reporting *following* a negative event (e.g., Pflugrath et al. 2011; McDonnell and King 2013). In that scenario, the company has incentive to "manage" the CSR report in order to mitigate damage from the *prior* negative event. In contrast, in our scenario, management makes the decision to purchase assurance in advance, voluntarily committing to expend resources to improve information credibility when a negative event has not yet occurred.

to study the underlying mechanisms through which CSR disclosure is viewed by stakeholders. The literature cited above implies that a negative event might shift the mediating roles of perceptions of ethical culture and future financial performance as investors consider management's intent in undertaking CSR activities. Tracking these possible mediators provides information on decision processes that is helpful in understanding investors' reactions to CSR disclosures.

Based on the above arguments, we propose specific hypotheses (explicated below) regarding mediating and moderating effects in the association of management intent with investor judgments. To test these hypotheses, we employ a $(2 \times 2 \times 2) + 1$ experimental design, in the context of a case company (XYZ, Inc.) that procures, processes and transports branded food products sold at national grocery stores. The company has mixed financial performance relative to its industry, allowing us to examine the value of assurance when a company's financial condition is unfavorable (an issue raised by Cohen and Simnett 2015, p. 70).⁵ We manipulate a company-specific material *negative event* through the presence/absence of a press release describing the company's product recall due to cases of foodborne illness among customers. Importantly, the cause of this event is ambiguous, as such events may be caused by employee negligence, or may occur despite effective controls. With insufficient information as to the precise cause, investors might look to other actions of management to form judgments. We manipulate management's CSR intent through disclosure indicating that prior CSR activity was undertaken with the expectation of improving financial returns (i.e., reduce operating costs, increase revenues, and gain market share), or without any such expectation (i.e., other-regarding or altruistic). Use of an experiment allows tight control in the test of CSR intent, as the nature of CSR activity (investment in clean energy and production process equipment upgrades that reduce pollution and waste) is held constant across conditions (Moser and Martin 2012). Finally, we manipulate disclosures as either with or without independent *CSR assurance*. We measure investors' use of information through differences between pre- and post-manipulation judgments of investment valuation and desirability, combined into a single measure (which we term "investment judgment") due to high correlation. We test our hypotheses using conditional process analysis (Hayes 2013; Preacher and Hayes 2004) with data from 459 participants (399 in the $2 \times 2 \times 2$ and 60 in the control group) obtained through Amazon Mechanical

Turk, who met inclusion criteria such as age, location, and familiarity with investing.

Our four hypotheses predict variation in mediating and moderating effects based on whether a negative event has/has not occurred. Consistent with our initial prediction, we find that absent a negative event, the positive association of disclosure highlighting management's intent to improve financial returns through CSR with investment judgments is mediated by perceptions of future cash inflows. While we predict and find that perceptions of the company's ethical culture are not influenced by variation in disclosure of management's intent in this scenario, results do show that ethical perceptions are positively associated with investment judgments. We also predicted that assurance would change this pattern of mediation, but we do not find support there. However, we do find an unexpected positive association of management's decision to purchase assurance with investors' perceptions of the company's ethical culture.

In the presence of a negative event whose cause is ambiguous, we predict and find that the mediation paths reverse. Specifically, the association of management's CSR intent with investment judgments is significantly driven by perceptions of the company's ethical culture, but not by perceptions of future cash flows. When an ambiguous negative event occurs, investors seeking to understand whether the event was caused by management lack of skill or ill-will derive a positive signal from disclosure that the intent of CSR activities was to achieve social benefit with no expectation of future financial return. Thus, disclosure of intent to benefit society alone provides an advantage in mitigating investor reaction when negative events occur. However, we also find that CSR assurance changes this picture, consistent with our moderated mediation hypothesis. Results show that assurance of CSR disclosure eliminates the advantage of a purely societal benefit when a negative event occurs. This suggests that when investors seek information to support their investment judgments, they view the purchase of assurance itself as an observable signal of ethical culture, which then increases their willingness to invest in the company.

This study contributes to the literature in several ways. First, we add to knowledge of how investors use CSR disclosure by studying how the occurrence of a negative event alters how investors consider managerial intent in making judgments. Examining across characteristics of the disclosures or the disclosing firm builds on prior literature by providing evidence on whether and under which combinations of factors investors find CSR disclosures important to decision-making. Thus, this study responds to recent calls (e.g., Malik 2015; Moser and Martin 2012) for experimental research investigating issues difficult to address in archival research. Further, we address the specific need identified by Gödker and Mertins (2017) for additional research examining investors' information processing when receiving CSR

⁵ In their review, Cohen & Simnett (2015) call for future research to investigate whether CSR assurance is viewed by investors as a frivolous luxury if a company is in an unfavorable financial position, since prior assurance literature mainly examines favorable financial contexts.

disclosures. Our finding that ethical considerations take precedence over judgments of future cash flows in some situations contributes to the literature on investor decision-making in general. Second, this study adds to the developing discussion on the value of assurance by showing the value of CSR assurance extends to the negative event context and provides a positive signal of the company's ethical culture to investors.

The rest of this paper is organized as follows: First, we present background information briefly summarizing CSR research and investors' use of nonfinancial information to make decisions, of which CSR disclosures are one component. Next, we review relevant prior literature and develop our hypotheses, followed by a discussion of the study's research design and participants. We then present results, followed by conclusions, limitations and opportunities for future research.

Background and Hypothesis Development

The definition of CSR continues to evolve as researchers debate the role of business in society. For this study, we rely upon the frequently used McWilliams and Siegel (2011, p. 117) view, which defines CSR as "actions that appear to further some social good, beyond the interests of the firm and that which is required by law." CSR activities are undertaken at the discretion of company management, and CSR disclosures are a primary information avenue that informs investors about these activities. CSR disclosures are gaining in importance, as companies increasingly provide this information to stakeholders via voluntary stand-alone reports (Blasco and King 2017). Despite the decades of literature across many disciplines, the full picture of CSR benefits is not complete (Malik 2015). In a review of the literature, Lee (2008) finds that the literature has shifted from focusing on the ethics of CSR to its connection with financial performance. Vogel (2005) refers to this switch as from the "old style" (i.e., doing good to do good) to the "new style" (i.e., doing good to do well). However, focusing on only one "style" prevents a complete understanding of the benefits available from CSR across situational contingencies and mediating variables (Lindgreen and Swaen 2010), a motivation for our study. We bridge these two CSR "styles" with a specific focus on investor decision-making when situational contingencies might alter their preferences.

Investors' Use of CSR Disclosures

When forming their investment judgments, investors have increasingly moved from primarily evaluating financial information to also considering nonfinancial information,

of which CSR is a central piece (e.g., Arnold et al. 2017; Cohen et al. 2015; Cohen et al. 2011). Prior literature finds that CSR disclosure can help improve the information environment when predicting financial outcomes such as future cash flows (e.g., Cheng et al. 2015; Dhaliwal et al. 2012; Dhaliwal et al. 2011). The general findings in the CSR literature are consistent with the forces that influence managers' disclosure choices identified by Healy and Palepu (2001). Specifically, CSR disclosure can provide capital market benefits if there is a connection between CSR activities and increased future net cash inflows, which sends a signal of management ability. However, the CSR disclosure literature goes beyond these forces by considering how CSR information can send a signal about company culture separate from corporate ability. For example, Martin and Moser (2016) find that when managers choose to decrease company wealth by undertaking green investments with no connection to future cash flows, investors react favorably to disclosure of the activity. One possible explanation is that voluntary CSR disclosure provides relevant information about managerial intentions for undertaking CSR initiatives, which in turn signals management's ethical culture. Despite true managerial intent being unobservable (Christensen 2016), voluntary CSR disclosure provides management the opportunity to send signals of their intent to investors, which could influence their decision-making process.

Prior research differentiates between CSR activities that are or are not clearly related to the company's future financial performance (e.g., Cheng et al. 2015; Du et al. 2010; Godfrey et al. 2009). Some studies suggest investors view CSR disclosure much like traditional financial disclosure by considering the impact on future cash flows (Arnold et al. 2017; Cheng et al. 2015). Thus, disclosure highlighting management's intent regarding positive future financial returns from the firm's CSR activities should be preferred in a positive information scenario. We propose the following hypothesis:

H1a: In the *absence* of a negative event, the positive association of investor judgments with disclosure indicating management's intent in undertaking CSR with (versus without) the expectation of increasing future financial performance, will be mediated by perceptions of higher future cash flows.

The Role of Negative Events in Investors' Use of CSR Disclosures

Prior research finds that CSR can provide an insurance-like benefit that protects shareholder value following a negative event (e.g., Shiu and Yang 2017; Godfrey et al. 2009). Focusing on CSR disclosure, Zahller et al. (2015) find that high disclosure quality is associated with investors

perceiving greater organizational legitimacy, which then provides social resilience from investor reactions to a negative event at another company in the same industry. Christensen (2016) finds that companies producing CSR reports are less likely to engage in high-profile misconduct. However, among those whose executives have committed transgressions such as bribery, kickbacks or discrimination, a previously produced CSR report leads to less negative stock price reactions. Despite being unobservable, Christensen (2016) attributes this protection as being derived from the CSR disclosure influencing perceptions of managerial intent, which then influences punishment. Together, these studies suggest disclosure of CSR activities can send signals of managerial intent, which can influence investors' judgments of culpability by building positive corporate reputation, providing insurance-like protection from negative investor reaction following a negative event.

The severity of the negative response by investors depends on the attribution process, as investors search for information in order to assign responsibility for the negative event. The Lange and Washburn (2012) model of corporate social irresponsibility attributions asserts that response to a negative event involves judging causality (i.e., whether the source of the negative event is internal versus external to the firm) and the firm's responsibility (i.e., whether the firm was aware of the negative event and was exercising intent in pursuing its course of action). Thus, when companies experience negative events of the type frequently reported in the media where causality is difficult to judge, judgments of responsibility will influence investor response (Lange and Washburn 2012), hinging on whether the negative event was due to managerial lack of skill or ill-will (Godfrey et al. 2009). Ethical organizational behavior is detectable through an organization's sincere manner and reputation, and reflected in the visible policies and decisions of the firm (Jones 1995). Disclosure of a firm's commitment to social good helps it build a reputation of caring for society (Fombrun and Shanley 1990) and its CSR policies are an example of an observable practice that could signal ethical culture (Hsu et al. 2019; Treviño et al. 1998).

Godfrey (2005) theorizes CSR can build *moral capital* among stakeholders which companies can draw on in times of crisis, if the CSR activities are discretionary and align with the values of stakeholders. In other words, they must be altruistic (i.e., other-regarding) activities that benefit society without a direct link to future financial performance. CSR activities that do not fit these criteria generate *exchange capital*, as they are viewed as motivated more by self-interest. Godfrey et al. (2009) test this theory by segregating CSR performance into CSR activities aimed at primary versus secondary stakeholders. They find insurance-like protection only for CSR activities aimed at secondary stakeholders and conclude this is due to the moral capital generated (i.e., the

negative event is attributed to managerial lack of skill rather than ill-will). In contrast, insurance-like protection is not found for CSR activities aimed at primary stakeholders as these generate exchange capital (i.e., are self-interested). Similarly, Groening and Kanuri (2016) find investors react less negatively to corporate social *irresponsibility* when CSR activities are aimed at secondary stakeholders, but the protection declines as these activities increase. Thus, investors' perceptions of managements' intentions for undertaking CSR activities appear to influence how investors judge corporate culpability differently.

Overall, we expect investors will perceive management's intent, expressed in the CSR disclosure, to benefit society when there is no expectation of future financial returns as important following a negative event. We expect they will consider the other-regarding/altruistic intent of CSR in evaluating the ethical culture of the company as they judge corporate culpability. Specifically, disclosure emphasizing no expectation of future financial returns signals that negative events experienced by the company might be due more to managerial lack of skill and less to ill-will (e.g., Godfrey et al. 2009; Godfrey 2005).⁶ We thus predict that when CSR disclosures highlight benefits to society with no expectation of future financial returns, investors' focus will shift from future cash flows to perceptions of management's ethical culture. Such 'purely' social disclosures signal that altruism is valued in that organization. The extent to which organizational leaders emphasize values like these is positively related to ethical culture (Mayer 2014).

H1b: In the *presence* of a negative event, the positive association of investor judgments with disclosure indicating management's intent in undertaking CSR without (versus with) the expectation of increasing future financial performance, will be mediated by perceptions of the company's ethical culture.

The Moderating Role of CSR Assurance

We next consider whether the impact of CSR disclosures on investor response to a negative event is contingent on assurance of the report by an independent party. The proportion of companies purchasing CSR assurance has risen steadily over the previous decade. Blasco and King (2017) reports that the rate of assurance among the largest one hundred

⁶ Some negative events can be caused by acts of God, industry-wide difficulties, or simply bad luck. We consider scenarios in which a company-specific event has occurred that may either be caused by management's purposeful actions (i.e., ill-will) or lack of skill. In such cases, investors may look to available information to judge culpability, including nonfinancial information such as CSR disclosures.

companies across 49 countries increased from 39% in 2008 to 45% in 2017.⁷ However, Junior et al. (2014) find only 9% of U.S. companies on the Fortune Global 500 list in 2010 purchased assurance. Therefore, despite the increasing rate of assurance, the majority of companies are not purchasing assurance (especially in the U.S.) leaving doubts about managers' perceptions of its value in this context.

Investors are increasingly looking to CSR disclosure to reduce information asymmetry when making capital allocation decisions (e.g., Cohen et al. 2011, 2015). Thus, companies have an incentive to use CSR disclosure as a tool to increase legitimacy (O'Dwyer et al. 2011; O'Dwyer 2011; Cho and Patten 2007) rather than signaling performance (Chung and Cho 2018). Prior research supports the quest for legitimacy as being at least part of the motivation for companies' reporting choices, as companies try to build or maintain their legitimacy by altering their disclosure practices due to pressure from external parties (i.e., investors, regulators, environmentalist and lobby groups) (e.g., Deegan and Blomquist 2006; de Villiers and van Staden 2006; Neu et al. 1998) or in response to a crisis (e.g., Blanc et al. 2019; Cho 2009). However, this motivation can cause companies to misrepresent their CSR activities, instead engaging in what the literature refers to as "greenwashing" (i.e., using CSR disclosures to manage company image; see Lyon and Maxwell 2011). Prior research supports the need to question the credibility of CSR reports. For example, companies use verbal tone and language to bias the message contained in the disclosures (Cho et al. 2010). Further, studies find inconsistencies between disclosure and actual performance (e.g., Clarkson et al. 2008; Patten 2005; Al-Tuwaijri et al. 2004; Wiseman 1982). This evidence suggests companies can and do use voluntary CSR disclosure as an impression management tool and most studies, but not all, consider a context in which the disclosure follows the event.

Seeking to improve credibility of reporting, companies can purchase independent assurance. Prior research finds that companies are more likely to purchase assurance of their CSR disclosure when trying to enhance credibility (Casey and Grenier 2015; Simnett et al. 2009). However, research is mixed on whether assurance is valued by users (Chung and Cho 2018). Some research finds assurance of CSR disclosure is associated with reductions of cost of capital, analyst forecast errors and analyst dispersion (Casey and Grenier 2015; Dhaliwal et al. 2011). Also,

experimental investigations (Cheng et al. 2015; Brown-Liburd and Zamora 2015; Pflugrath et al. 2011) show CSR disclosure assurance is associated with greater credibility and user reliance. In contrast, Cho et al. (2014) find no effect of CSR assurance while controlling for endogeneity in the decision to purchase assurance. In sum, the literature presents mixed findings of the effect of assurance in positive scenarios.

Mercer's (2004) framework concerning investor response to voluntary disclosure suggests that situational incentives influence how investors perceive disclosure credibility. Absent a negative event, managers' motivations for disclosure of CSR activities emphasizing improved future financial performance may be perceived as self-interested by investors. If so, investors might view the connection between CSR and increased future financial performance with greater skepticism, as management has an incentive to share this information. Prior research suggests that assurance improves users' perceptions about the company's incentives to issue disclosures, as incentive-consistent disclosures are perceived as less credible (e.g., Cheng et al. 2015; Brown-Liburd and Zamora 2015). Thus, absent a negative event, assurance of CSR disclosures might positively influence perceptions of the connection between managerial intent to earn future financial returns and investors' perceptions of future cash flows. In contrast, some prior research finds no role of CSR assurance in investor decisions (Cho et al. 2014). Based on variation in prior research findings we propose a nondirectional hypothesis for moderated mediation:

H2a: In the *absence* of a negative event, the role of investors' perceptions of future cash flows in mediating the association of management's CSR intent with investment judgments will be moderated when CSR disclosures are assured.

Most of the above cited assurance studies are set in positive information scenarios, and so do not provide evidence on whether the value of assurance also applies to a negative event context. In that situation, investors might lose trust in management (Elliott et al. 2011), leading to a reduction in the perceived credibility of CSR disclosures. While assurance by an independent professional could be perceived as important in the negative event context, few studies investigate this possibility. For example, Pflugrath et al. (2011) observe a credibility-enhancing effect of assurance when a CSR report is issued after the negative event, but only for certain industries and report types. Christensen's (2016) investigation of CSR reports issued before a negative event is also relevant. He finds that assurance does not moderate negative stock price reaction to disclosure of manager

⁷ Blasco and King (2017) reports that 67 percent of the top 250 companies listed in the Fortune Global 500 ranking for 2016 invest in third-party assurance compared to 46 percent in 2011, while only 45 percent of CSR reporters from the largest 100 companies in 49 countries purchase assurance compared to 38 percent in 2011.

malfeasance. In sum, the literature examining the value of assurance in the negative event context is very limited and has conflicting findings.

We predict in H1b that the importance of CSR disclosure in the presence of a negative event is derived from investors' perception of the company's ethical culture based on managerial intent as expressed in the CSR disclosure, a company might use that signal to manage its image (Cho et al. 2012; Lyon and Maxwell 2011). Because investors might find the signal of CSR disclosure more useful if they perceive it to be more credible, we also examine whether CSR assurance moderates the mediating relationship predicted in H1b (i.e., management intent to benefit society increases investor judgments of ethical culture). However, it is unclear how purchasing assurance on information contained in the disclosure might moderate this relationship. On the one hand, investors might perceive the company's willingness to have its CSR disclosures independently assured as a signal of other-regarding or altruistic behavior. If so, assurance could strengthen the potential advantage of management's intent to engage in CSR for social benefit in enhancing judgments of ethical culture. Alternatively, investors might perceive the voluntary purchase of assurance as a strong signal of the firm's ethical culture in its own right. If so, the potential disadvantage of management's CSR disclosure of intent to improve future financial performance (i.e., the appearance of self-interested action) would be mitigated. As the expected sign is not clear, we predict the following nondirectional moderated mediation hypothesis:

H2b: In the *presence* of a negative event, the role of investors' perceptions of ethical culture in mediating the association of management's CSR intent with investment judgments will be moderated when CSR disclosures are assured.

Research Design

Experimental Design

To examine investor reaction to CSR disclosure, we employ a $(2 \times 2 \times 2) + 1$ between-participants experimental design with participants taking the role of investor in a company. The three independent variables indicate negative event (present versus absent), signal of managerial intent (i.e., expectation of future financial returns versus no expectation of future financial returns) and CSR assurance (with versus without). The primary dependent variable is the change in investment judgments regarding an investment target, from before to after reviewing the voluntary CSR disclosure. Company characteristics are held constant across all groups in order to isolate the effects of the independent variables.

Participants

A total of 557 participants were solicited from Amazon Mechanical Turk (MTurk) and passed screening criteria to ensure they represent nonprofessional investors.⁸ Consistent with prior studies soliciting investor participants from MTurk (e.g., Asay et al. 2018; Koonce et al. 2016; Koonce et al. 2015; Rennekamp 2012), the criteria are: (1) over 18 years of age; (2) physically located in the United States; (3) an MTurk approval rate of 95% or higher on at least 50 or more completed assignments; (4) self-rated proficiency in the English language; (5) purchase or sale of individual stocks at least three times in the past; (6) familiarity reading financial statements; (7) at least two accounting and/or finance classes. Participants were paid \$2.00 upon completion of the experimental task.

Experimental Task

Participants are given background information on the company, condensed financial statements and summary financial performance data including common ratios (e.g., return on investment, debt to equity, etc.). Unlike prior studies examining investor reactions when there is strong financial performance (e.g., Cheng et al. 2015), we introduce business risk (suggested by Cohen and Simnett 2015) by explicitly stating that the financial results of XYZ, Inc., a food processing and wholesale company, are mixed compared to the industry average. While investors are more likely to excuse a negative event from strong financial performers, a mixed picture allows us to examine weaker companies that are more in need of "insurance-like" protection from CSR activity (e.g., Godfrey 2005). Similar to prior studies examining investor behavior, participants are prompted to consider this investment decision to be long-term in nature (e.g., Zahller et al. 2015) as CSR activities will likely not immediately impact financial performance. Following the background information, participants provide an initial valuation judgment for the common stock of the company.

Next, participants are randomly assigned to treatment groups to receive the CSR disclosure containing the manipulations of management's intentions and CSR assurance, presented as excerpts from the XYZ's most recent CSR report. Prior research suggests that investors' reactions to CSR disclosure are influenced by the level of disclosure quality (Zahller et al. 2015). Therefore, we hold high disclosure quality constant across all treatments, including quantifiable and verifiable performance indicators, as well as indicators of both good and bad CSR performance (i.e.,

⁸ Institutional Review Board approval was received for this study prior to any data collection.

completeness). To minimize the risk of order effects, we randomize the order of presentation of the negative event (described below) and the CSR disclosure. After receiving the manipulations, participants again provide an investment judgment for the common stock of the company. Next, they rate their perceptions of the connection between management's intent contained in the CSR disclosure and future net cash inflows, as well as whether the disclosure provides a signal of the company's ethical culture. Finally, demographic and manipulation check questions are answered. All variables are defined in the [Appendix](#).

Management's CSR Intention Manipulation

We manipulate the signal of managerial intent expressed in CSR disclosure as either describing an expectation of future financial returns (i.e., increase in market share and future profitability) ($FIN_INTENT=1$) or no expectation of future financial returns ($FIN_INTENT=0$). Management's intention that its CSR initiatives provide societal benefit is held constant across conditions, consistent with McWilliams and Siegel's (2011) view that CSR always involves intent to do social good. The nature of the CSR investment is also held constant; i.e., "investing over \$10 million in our production process in order to reduce pollution and waste in our value chain." By holding the nature of CSR activities constant while varying management's rationale for performing them, we conduct a precise test of investor response to management's intent, which is not confounded by varying participant views about different types of CSR activities. When management expects future financial returns, case materials provide management's expectations of increased future profitability through specific cost savings from the activities, as well as of increased market share. Importantly for fulfilling this study's purpose, these are described as management's *expectations* of future outcomes, not yet realized. When management undertakes the CSR investment with no expectation of future financial returns, case materials explicitly state that they are not expected to directly impact market share and profitability.

CSR Assurance Manipulation

We manipulate CSR assurance ($CSR_ASSURANCE$) consistent with prior studies. We adapt the auditor report wording from Brown-Liburd and Zamora (2015). Participants in the with assurance treatment ($CSR_ASSURANCE=1$) are provided with an assurance report concluding that the disclosure provides an accurate and complete description of the CSR activities of XYZ for that year, implying reasonable assurance. We imply reasonable assurance rather than limited assurance because Fuhrmann et al. (2017) find that a high assurance level reduces information asymmetry

and enhances credibility of the report, while limited assurance does not. Following Cheng et al. (2015), participants in the without assurance treatment ($CSR_ASSURANCE=0$) are told that XYZ Inc. chose not to engage an independent assurer for their CSR disclosures.

Negative Event Manipulation

Following Zahller et al. (2015), participants in the negative event present condition ($NEGATIVE_EVENT=1$) read an excerpt from the business press, rather than receiving information directly from the firm (Reimsbach and Hahn 2015). This gives the negative event greater credibility since it is coming from an independent source. The business press article details a voluntary food safety recall that occurred at XYZ, Inc. following incidences of consumers becoming sick after eating their products.⁹ Because Godfrey et al. (2009) find that insurance-like protection from CSR is greater when the negative event challenges the integrity of the company, we choose an event that is harmful to the consumer stakeholder group and should elicit concern about the integrity of management because it might result from either management's lack of skill or ill-will (Godfrey et al. 2009). This negative event is externally valid (e.g., recent negative press about foodborne illnesses from products of Chipotle and General Mills) and has implications for the financial health of the company. Participants in the negative event absent treatment ($NEGATIVE_EVENT=0$) receive no information about a negative event.

Measured Variables

Consistent with the discretionary disclosure literature (Koonce et al. 2016; Rennekamp 2012), the primary measured variable is a valuation judgment; participants indicate on a 101-point scale what they believe is an appropriate value for the common stock of XYZ Inc., with labels of 0 (low), 50 (average) and 100 (high). Asking participants to provide this judgment both before ($VALUATION_1$) and after ($VALUATION_2$) receiving the manipulations allows isolation of their reactions to the treatments ($\Delta VALUATION$). We also capture a "willingness to invest" measure by asking participants their perceptions on the desirability of XYZ, Inc. as an investment opportunity (Koonce et al. 2016). Participants indicate their response on a 101-point scale with labels of 0 (not at all desirable), 50 (average) and 100 (very desirable) ($DESIRABILITY_1$; $DESIRABILITY_2$;

⁹ Product failure is an important class of negative events faced by companies. Kim (2014) summarizes literature showing that publicized product-harm crises are frequent and have considerable impact on corporate reputation.

ΔDESIRABILITY). The motivation for including a “willingness to invest” measure is that participants might differ in how they perceive the task. The primary valuation judgment elicits perceptions on how the overall market would value the investment, while the willingness to invest measure provides an individual reaction. The changes in participants’ valuation and desirability judgments load onto a single factor (*ΔINVESTMENT_JUDGMENT*; eigenvalue = 1.385, Cronbach’s Alpha = 0.81), which is the dependent variable used to test our hypotheses.

To test the mediation hypotheses, we also ask participants two questions (in randomized order) on how they perceive the CSR disclosure. Participants are asked about their perceptions of the likelihood that the CSR activities described will result in positive future cash inflows, on an 11-point scale ranging from 1 (highly unlikely) to 11 (highly likely) (*FCF_CONNECTION*). Also, participants are asked about their perceptions of whether the CSR disclosure provides a signal of the corporate ethical culture, on an 11-point scale ranging from 1 (definitely does not provide a signal) to 11 (definitely does provide a signal) (*ETHICS*).

Results

Manipulation Checks

A total of 557 participants passed the screening requirements and completed the study. To ensure that the negative event and CSR assurance manipulations (respectively) had the intended effects, the instrument asks two memory manipulation check questions: (1) whether the participant received information on a negative event occurring at the company; and (2) whether the company engaged an accounting firm as an independent assurer of the CSR disclosure. A total of 98 (19.7%) participants failed at least one of these manipulation checks and were removed from the sample.¹⁰ Our final sample comprises 459 participants (399 in the $2 \times 2 \times 2$ and 60 in the control group), with cell sizes ranging from 42 to 60. We test the CSR assurance manipulation by measuring investors’ perceptions of disclosure credibility. Consistent with the intended effect, investors in the with (without) assurance treatment perceived higher (lower) disclosure credibility (mean = 7.83 versus 6.16; $t = 6.81$, one-tailed $p < 0.001$).

We test the manipulation of management’s CSR intent using investors’ perceptions of whether management expects

the CSR investment to be associated with increased future cash inflows (*FCF_CONNECTION*), and whether management practices XYZ primarily to be a good corporate citizen. As expected, participants receiving disclosure of management’s expectation of future financial returns find it more likely that the company primarily practiced CSR to improve future net cash flows (7.05 versus 5.46; $t = 6.32$, one-tailed $p < 0.001$) and less likely that the company primarily practiced CSR to be a good corporate citizen (6.46 versus 5.64; $t = 3.27$, one-tailed $p = 0.001$). Thus, this manipulation was successful.

Descriptive Statistics

Of the 399 participants included in the final $2 \times 2 \times 2$ sample, 72% are between the ages of 25–44, and 54% are male. In addition, 54% of participants earned a bachelor’s degree and participants took on average 3.15 accounting and 2.73 finance courses. In terms of work experience, 28% have between six to ten years of professional experience with a mean of eight years of personal investing experience. Further, 79% of participants responded that they are solely responsible for managing their investment portfolio and are likely to invest in the next 12 months (mean = 7.68, where 1 = Highly unlikely, 11 = Highly likely). Some participants note professional experience as CPAs ($n = 54$, mean = 3.92 years), lawyers ($n = 14$, mean = 4.93 years) and/or investors ($n = 231$, mean = 7.21 years). Participants also have a slightly optimistic overall view of the market (mean = 6.99, where 1 = Pessimistic, 6 = Neutral, 11 = Optimistic). Finally, participants rate themselves slightly above average on their CSR knowledge (mean = 6.33, where 1 = Below average, 11 = Above average) and their sustainability consciousness (mean = 7.00, where 1 = Not at all conscious, 11 = Very conscious).

Table 1 Panel A presents summary statistics for the dependent and mediator variables, overall and by negative event condition. Table 1 Panel B presents means (standard deviation) and number of observations by cell for the dependent variable *ΔINVESTMENT_JUDGMENT*, overall and by negative event condition. Table 2 displays the correlation matrix, showing that the component variables of *ΔINVESTMENT_JUDGMENT* are highly correlated (0.692), consistent with their combination into a single dependent measure for use in the models. Also, *ΔINVESTMENT_JUDGMENT* is negatively correlated on a univariate basis with *NEGATIVE_EVENT* (-0.393 ; $p < 0.01$), and positively correlated with *CSR_ASSURANCE* (0.175, $p < 0.01$), *FCF_CONNECTION* (0.157; $p < 0.05$), and *ETHICS* (0.295, $p < 0.10$). The highest correlation among the independent and mediator variables is 30.2% and variance inflation factors in the models are all less than 2.0, indicating no concern for multicollinearity.

¹⁰ This overall rate is comparable with prior CSR assurance studies (e.g., Brown-Liburd and Zamora 2015; Cheng et al. 2015). Failure rates are 12.3% for the negative event recall question, 12.5% for the CSR assurance recall question. On average, participants took slightly longer than eight minutes to complete the study.

Table 1 Descriptive statistics

Panel A: Summary Statistics

VARIABLE	All Conditions (n=399)			Negative Event Absent (n=187)			Negative Event Present (n=212)		
	MEAN	MEDIAN	STD	MEAN	MEDIAN	STD	MEAN	MEDIAN	STD
VALUATION_1	39.63	39.00	18.29	40.39	39.00	17.01	38.95	39.00	19.37
DESIRABILITY_1	36.92	35.00	22.68	36.98	34.00	22.82	36.87	35.00	22.61
VALUATION_2	39.00	39.00	20.45	45.54	46.00	19.23	33.24	30.00	19.78
DESIRABILITY_2	35.22	32.00	24.29	43.65	41.00	24.38	27.78	24.00	21.70
AVALUATION	-0.73	0.00	17.10	5.02	4.00	15.36	-5.80	-5.00	16.98
ADESIRABILITY	-1.73	0.00	19.73	6.52	5.00	17.01	-9.01	-7.50	19.13
AINVESTMENT_JUDGMENT	0.00	0.06	0.91	0.37	0.32	0.77	-0.33	-0.23	0.89
FCF_CONNECTION	6.28	6.67	2.63	6.08	6.27	2.63	6.45	6.87	2.61
ETHICS	7.15	7.16	2.37	7.62	7.87	2.28	6.73	6.99	2.37

Panel B: Descriptive Statistics for AINVESTMENT_JUDGMENT

CSR Assurance	Negative Event – Absent			Negative Event - Present			Overall
	Management's CSR Intent		Average	Management's CSR Intent		Average	
	No Financial Returns	Increased Financial Returns		No Financial Returns	Increased Financial Returns		
Without Assurance	0.04 (0.79) n=44	0.27 (0.93) n=42	0.15 (0.86) n=86	-0.45 (0.86) n=48	-0.40 (0.97) n=57	-0.42 (0.92) n=105	-0.16 (0.94) n=191
With Assurance	0.47 (0.62) n=50	0.64 (0.64) n=51	0.56 (0.63) n=101	-0.32 (0.80) n=52	-0.14 (0.90) n=55	-0.23 (0.85) n=107	0.15 (0.85) n=208
Overall	0.27 (0.73) n=94	0.48 (0.80) n=93	0.37 (0.77) n=187	-0.39 (0.83) n=100	-0.27 (0.94) n=112	-0.33 (0.89) n=212	0.00 (0.90) n=399

Notes: Table 1 Panel A displays descriptive statistics for the dependent and mediating variables used in the analysis, overall and by negative event condition. Panel B presents means (standard deviation) and number of observations by cell for the dependent variable AINVESTMENT_JUDGMENT. All variables are defined in the Appendix.

Table 2 Correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) ΔVALUATION	1.000							
(2) ΔDESIRABILITY	0.692***	1.000						
(3) ΔINVESTMENT_JUDGMENT	0.920***	0.920***	1.000					
(4) NEGATIVE_EVENT	- 0.316***	- 0.393***	- 0.385***	1.000				
(5) FIN_INTENT	0.060	0.078	0.075	0.031	1.000			
(6) CSR_ASSURANCE	0.138**	0.184***	0.175***	-0.035	-0.009	1.000		
(7) FCF_CONNECTION	0.129**	0.159**	0.157**	0.071	0.302***	0.230***	1.000	
(8) ETHICS	0.285***	0.258***	0.295***	- 0.188***	-0.062	0.124*	0.011	1.000

This table displays the correlation matrix for variables used in the analysis.

Significant correlations are shown in bold with significance levels defined as: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. All variables are defined in the Appendix.

Hypothesis Tests

Because we estimate our hypothesis testing models separately in the negative event absent/present conditions, we first perform a preliminary test showing that the means of ΔINVESTMENT_JUDGMENT (i.e., the factor score of changes in participants' valuation and desirability judgments) differ in those conditions (0.37 and -0.33,

respectively, as shown in Table 1 Panel A; $t = 8.323$, $p < 0.01$). Also, we replicate prior research by testing whether disclosure of CSR activities provides insurance-like protection for the company following a negative event. The mean change in ΔINVESTMENT_JUDGMENT of -0.33 for participants informed of the negative event as well as CSR disclosures is significantly higher than the mean of -0.71 for the control group, who were also informed of

Table 3 Regression results: moderated mediation models**Panel A: Negative Event Absent; Tests of H1a and H2a**

Variable	(1) <i>FCF_ CONNECTION</i>	(2) <i>ETHICS</i>	(3) <i>ΔINVESTMENT_ JUDGMENT</i>
	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
<i>FCF_CONNECTION</i>			0.062*** (2.863)
<i>ETHICS</i>			0.071*** (3.034)
<i>FIN_INTENT</i>	1.840*** (3.491)	0.217 (0.445)	0.108 (0.680)
<i>CSR_ASSURANCE</i>	0.843* (1.670)	1.081** (2.319)	0.305** (2.032)
<i>FIN_INTENT * CSR_ASSURANCE</i>	0.028 (0.039)	-0.849 (-1.282)	-0.005 (-0.022)
<i>Intercept</i>	4.701*** (12.90)	7.159*** (21.28)	-0.764*** (-3.60)

Panel B: Negative Event Present; Tests of H1b and H2b

Variable	(1) <i>FCF_ CONNECTION</i>	(2) <i>ETHICS</i>	(3) <i>ΔINVESTMENT_ JUDGMENT</i>
	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
<i>FCF_CONNECTION</i>			0.038 (1.553)
<i>ETHICS</i>			0.090*** (3.537)
<i>FIN_INTENT</i>	1.642*** (3.465)	-1.079** (-2.354)	0.086 (0.488)
<i>CSR_ASSURANCE</i>	1.848*** (3.816)	-0.378 (-0.807)	0.090 (0.507)
<i>FIN_INTENT * CSR_ASSURANCE</i>	-0.553 (-0.830)	1.578** (2.451)	0.009 (0.036)
<i>Intercept</i>	4.800*** (13.87)	7.078*** (21.17)	-1.275*** (-5.11)

Notes: This table presents the full OLS regression results of the conditional process analysis shown in Figure 1. All variables are defined in the Appendix. Significance levels are defined as: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All p-values are one-tailed for directional predictions and two-tailed for non-directional predictions.

the negative event but did not receive the CSR disclosures ($t = 3.35$, one-tailed $p < 0.01$). This finding reflects prior research implying that presence of CSR disclosure provides insurance-like protection following a negative event.

Our research hypotheses concern whether differing mechanisms drive investor response to the signal of management's CSR intent based on the presence of a company-specific negative event, and whether assurance moderates those mechanisms. To test these hypotheses, we analyze the mediating influence of judgments of future cash flows versus ethical culture and whether assurance moderates these mediating relationships, using conditional process analysis (using SPSS PROCESS; see Hayes 2013; Preacher and Hayes 2004).

Tests of Mediation Hypotheses (H1a and H1b)

H1a predicts that *absent a negative event*, the influence of management's CSR intent on $\Delta INVESTMENT_JUDGMENT$ will be mediated by perceptions of future cash flows. This implies that the associations of FIN_INTENT with $FCF_CONNECTION$, and of $FCF_CONNECTION$ with $\Delta INVESTMENT_JUDGMENT$, will be both positive and significant. Table 3 Panel A shows results of testing H1a in the negative event absent condition. Column 1 shows that the association of FIN_INTENT with $FCF_CONNECTION$ is positive ($\beta = 1.840$, $SE = 0.527$, $p < 0.01$). This implies that investors perceive a stronger link with future cash flows when disclosure does (versus does not) signal management's expectation that CSR will improve future financial returns. Further, Column 3 shows that the association of $FCF_CONNECTION$ with $\Delta INVESTMENT_JUDGMENT$ is significantly positive ($\beta = 0.062$, $SE = 0.022$, $p < 0.01$), supporting H1a.¹¹ Together, these results confirm the expectation in H1a that absent a negative event, $\Delta INVESTMENT_JUDGMENT$ is influenced by disclosure communicating management's intent to undertake CSR to earn future financial returns, through judgments of expected future cash flows.

While $ETHICS$ does not play a mediating role in the absence of a negative event (i.e., the association of FIN_INTENT with $ETHICS$ in Table 3 Panel A Column 2 is insignificant), that does not imply that ethical judgments are unimportant in this condition. Columns 1 and 2 show that $CSR_ASSURANCE$ has an unpredicted positive and significant effect on both $FCF_CONNECTION$ ($\beta = 0.843$, $SE = 0.505$, $p < 0.10$) and $ETHICS$ ($\beta = 1.081$, $SE = 0.466$, $p < 0.05$), and Column 3 shows that $ETHICS$ is positively associated with $\Delta INVESTMENT_JUDGMENT$ ($\beta = 0.071$,

$SE = 0.023$, $p < 0.01$). Thus, the company's decision to purchase independent assurance on CSR disclosures improves investors' perceptions of its ethical culture, and those perceptions impact their investment decisions.

H1b predicts that *in the presence of a negative event*, the influence of management's CSR intention on investment judgments will be mediated by perceptions of the company's ethical culture. This implies that the association of FIN_INTENT with $ETHICS$ will be negative and significant (i.e., $ETHICS$ will be lower when management expects a financial return from CSR activities; $FIN_INTENT = 1$), and the association of $ETHICS$ with $\Delta INVESTMENT_JUDGMENT$ will be positive and significant. Table 3 Panel B shows results of testing H1b in the negative event present condition. Column 2 shows a negative and significant association of FIN_INTENT with $ETHICS$ ($\beta = -1.079$, $SE = 0.458$, $p < 0.05$), implying investors perceive the company's ethical culture as weaker when management discloses its intent to earn future financial returns from CSR activities. Column 3 shows a significant positive association of $ETHICS$ with $\Delta INVESTMENT_JUDGMENT$ ($\beta = 0.090$, $SE = 0.026$, $p < 0.01$). Taken together, these results support H1b; i.e., in the presence of a negative event, perceptions of the company's ethical culture mediate the influence of FIN_INTENT on $\Delta INVESTMENT_JUDGMENT$. In contrast, the insignificant coefficient of $FCF_CONNECTION$ in Column 3 implies that perceptions of future cash flows do not fulfill criteria for mediating the influence of FIN_INTENT on $\Delta INVESTMENT_JUDGMENT$ in the negative event scenario.

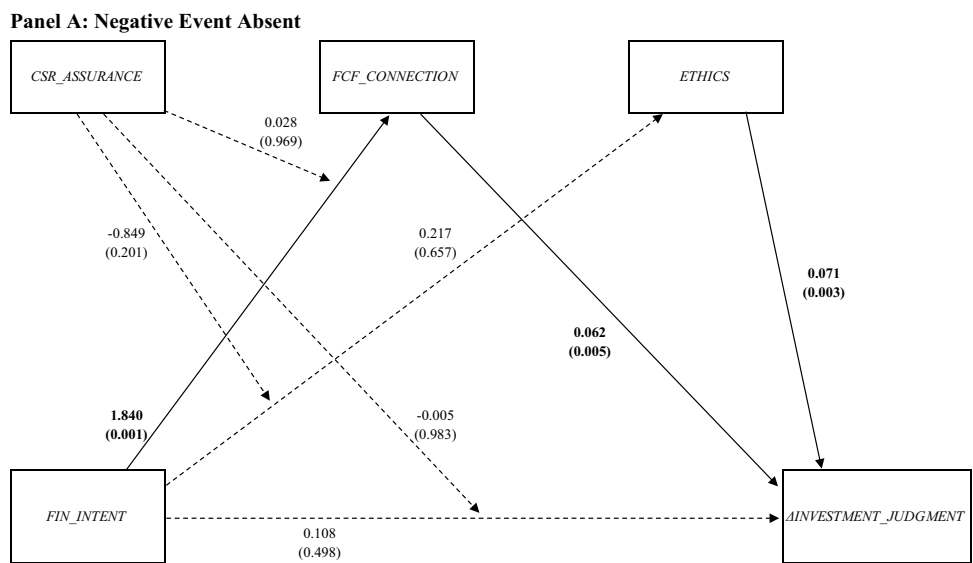
Tests of Moderated Mediation Hypotheses (H2a and H2b)

H2a predicts that in the *absence of a negative event*, CSR assurance will moderate the mediating effect of $FCF_CONNECTION$. We test for moderated mediation by examining the conditional indirect effects of $FCF_CONNECTION$ by $CSR_ASSURANCE$ (Hayes 2013), depicted in Fig. 1 Panel A. The statistics below the Panel A figure quantify the indirect effects, showing that without assurance, the indirect effect of FIN_INTENT on $\Delta INVESTMENT_JUDGMENT$ through $FCF_CONNECTION$ is significant at 0.114 (bootstrapped $CI_{90\%} = [0.044, 0.231]$ excludes zero); with assurance the indirect effect is also significant at 0.116 (bootstrapped $CI_{90\%} = [0.046, 0.228]$ excludes zero). The index of moderated mediation is insignificant at 0.002 (bootstrapped $CI_{90\%} = [-0.072, 0.084]$ includes zero), and thus H2a is not supported. This implies that in the absence of a negative event, management's disclosure of expected financial returns from CSR activities similarly increases investment judgments regardless of assurance.

H2b predicts that *in the presence of a negative event*, the mediating effect of perceptions of ethical culture on the

¹¹ Because H2a and H2b propose moderation of the mediating paths, we discuss quantification of the indirect effects below, when presenting results of testing those hypotheses.

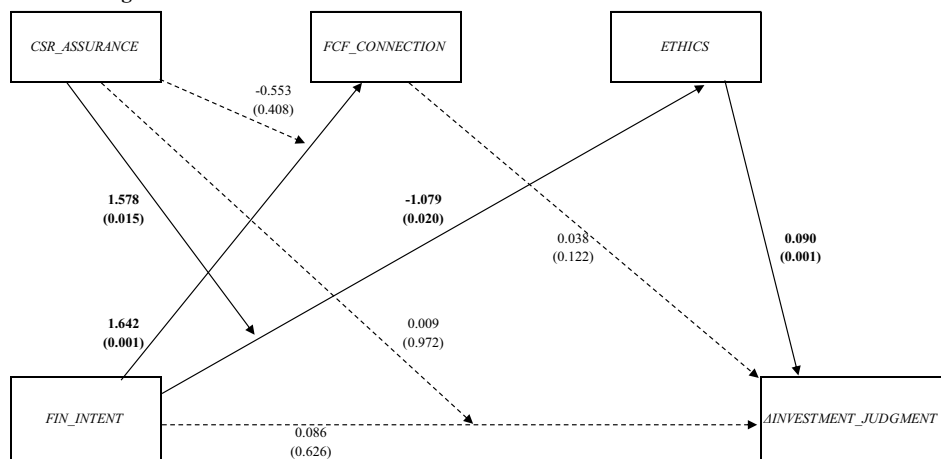
Fig. 1 Conditional process analysis



Conditional Indirect Effects of FCF_CONNECTION on AINVESTMENT_JUDGMENT by CSR_ASSURANCE:

Without Assurance ($CSR_ASSURANCE = 0$): 0.114**
 (Bootstrapped CI: 0.044 → 0.231)
 With Assurance ($CSR_ASSURANCE = 1$): 0.116**
 (Bootstrapped CI: 0.046 → 0.228)
 Index of moderated mediation: 0.002 (H2a)
 (Bootstrapped CI: -0.072 → 0.084)

Panel B: Negative Event Present



Conditional Indirect Effects of ETHICS on AINVESTMENT_JUDGMENT by CSR_ASSURANCE:

Without Assurance ($CSR_ASSURANCE = 0$): -0.098**
 (Bootstrapped CI: -0.208 → -0.035)
 With Assurance ($CSR_ASSURANCE = 1$): 0.045
 (Bootstrapped CI: -0.014 → 0.145)
 Index of moderated mediation: 0.143** (H2b)
 (Bootstrapped CI: 0.051 → 0.314)

Notes: This Figure reports coefficients (p-values) for hypothesis tests derived from conditional process analysis. All variables are defined in the Appendix. Statistical significance of conditional indirect effects at the 5 percent and 10 percent levels are denoted by ** and *, respectively, in two-tailed tests. To test the significance of indirect effects (Hayes, 2013) we use confidence intervals from bootstrapped sampling distributions (based on 10,000 bootstrap samples). To test for moderated mediation, we examine whether the difference of the conditional indirect effects of the mediator on $AINVESTMENT_JUDGMENT$ is statistically significant. All intervals are reported at 90 percent confidence intervals. Table 3 contains the full OLS regressions of these models.

association of management's intent with investment judgments will be moderated by assurance of CSR disclosures from an independent provider. Again quantifying the indirect effects using statistics below the Panel B of Fig. 1, we find that without assurance, the indirect effect of *FIN_INTENT* on Δ *INVESTMENT_JUDGMENT* through *ETHICS* is significant at -0.098 (bootstrapped $CI_{90\%} = [-0.208, -0.035]$ excludes zero); with assurance the indirect effect is insignificant at 0.045 (bootstrapped $CI_{90\%} = [-0.014, 0.145]$ includes zero). The index of moderated mediation is significant at 0.143 (bootstrapped $CI_{90\%} = [0.051, 0.314]$ excludes zero), and thus H2b is supported. Taken together, these results imply that when prior CSR disclosures are not assured, insurance-like protection from CSR activities only arises when management signals its intent to benefit society without also intending to increase future financial returns. However, independent assurance of CSR disclosures removes that difference, implying that investors draw some reassurance about management's ethics from their willingness to submit CSR disclosures to independent assurance review. This finding builds on prior archival studies finding that insurance-like protection only applies when CSR signals altruistic intentions (e.g., Godfrey et al. 2009; Godfrey 2005).

Conclusion, Limitations, Future Research

This study of investor response to CSR disclosures builds on prior research across several literatures to investigate the contingent effects of management's CSR intent, the occurrence of a company-specific negative event and management's decision to purchase independent assurance on CSR disclosures. Much of the CSR disclosure research focuses on stakeholder response when times are good (e.g., Cheng et al. 2015). We build on those studies by using a controlled setting to investigate what happens when difficult times, perhaps inevitably, arise. Motivated by the importance of considering contingent variables (see Lindgreen and Swaen 2010), we specifically examine how disclosure of management's CSR intent and assurance of CSR disclosures influences investors' response when a negative event is reported in the media. Thus, we also complement research focusing on how companies change their CSR disclosure *after* negative events (e.g., Blanc et al. 2019; Cho 2009).

Our results suggest that occurrence of a negative event changes how management's CSR intent and assurance are incorporated into investor judgments. *Absent* a negative event, investors focus on expected future cash flows in their response to CSR disclosures. When management signals their intent to undertake CSR was to improve future financial performance, as well as to benefit society, investors are drawn to the promise of future cash flows even though that benefit is not yet achieved. However, the importance of

cash flows changes as a mediator based on occurrence of a negative event and assurance of CSR disclosures. Specifically, ethical judgments take prominence when a negative event arises as investors look for management actions that might help them attribute the cause of corporate difficulty to lack of skill or ill-will. Our results imply that when management's intent is to engage in CSR only to benefit society it is viewed as other-regarding or altruistic, providing reassurance that management was not at fault. However, assurance of CSR disclosures also provides evidence of a positive ethical culture in the negative event scenario when disclosures indicate that CSR is intended to increase future financial performance. As perceptions of ethics judgments drive investor judgments in that scenario, assurance is key to removing the disadvantage of CSR intended to improve future financial performance when negative events occur.

These findings provide important contributions to several literatures. First, we respond to the call of Moser and Martin (2012) and Malik (2015) for experimental research investigating issues difficult to address in archival research. While Christensen's (2016) archival study does not find an assurance effect for companies with management malfeasance, our controlled experiment shows a positive impact of a report implying reasonable assurance in a more frequent type of negative event. Second, we address the need identified by Gödker and Mertins (2017) for additional research investigating investors' information processing when receiving CSR disclosures. Specifically, we contribute to the literature by showing the importance of investors' perceptions of the company's ethical culture, factors that influence those perceptions, and how the occurrence of a negative event shifts investors' information processing from cash flows to ethics. Prior research has not captured the decision pathways through which such effects occur.

Third, we extend prior research on the value of assurance by examining a setting in which management's decision to obtain assurance predates a negative event, in contrast to the event timing of Pflugrath et al. (2011) but similar to Christensen (2016) and Godfrey et al. (2009). Our setting reflects investors' responses to voluntary CSR assurance, absent the specific incentive of management to skew reporting to counteract the impact of a recent crisis (Blanc et al. 2019; Cho 2009). Our findings in this setting are important as they imply investors view the company's prior investment in assurance as a signal of ethics, when a later situation arises in which they might otherwise lose trust in management (Elliott et al. 2011). Further research should investigate whether our findings hold in other voluntary disclosure contexts and under differing conditions.

Our study also has implications for business practice by providing information on the mechanisms influencing investors' reactions to managerial intent communicated via CSR disclosure, as well as evidence on when companies

experience benefits from purchasing CSR assurance. Our findings suggest that if companies consider investor reaction to be the main goal of CSR activity and disclosure, companies choosing to disclose intent to increase financial returns by engaging in CSR activities (i.e., “shared value”) should also invest in assurance to allow their CSR initiatives to provide insurance-like protection if a future negative event occurs. Our finding that CSR assurance provides an ethical signal in difficult times should be considered by entities in their process of weighing the benefits and costs of purchasing assurance on their disclosures. Finally, our study informs regulators by supporting that CSR disclosure is incrementally informative to investors when negative events are both present and absent. Future research could examine whether this result also holds when disclosures are mandatory.

This study has several limitations that provide opportunities for future research. First, we investigate nonprofessional investors’ reactions to CSR disclosures using MTurk participants. While it is important to understand judgments of nonprofessional investors, reactions of professional investors and other stakeholders could differ. Further research should also explore generalizability of our findings to other stakeholder groups (for example, consumers; e.g., Kim 2014; Lii and Lee 2012). Second, our study presents investors with an excerpt of a company’s annual CSR report. However, investors may receive CSR information from a variety of sources (e.g., news releases, company website, etc.). Further research could examine whether the influence of CSR information on investors’ judgments vary with different information sources. Third, the focus of this paper is to compare investors’ reactions to CSR disclosure when a negative event is present or absent. As such, we do not study investors’ reactions to positive events, which might not be symmetrical to negative event reactions. Fourth, there are limitations associated with our specific choices to represent the constructs studied. Our company-specific negative event is a product safety failure, which is a serious and fairly common event for companies. However, the circumstances around other negative events and the frequency of those events over time could lead to different investor decisions. Future research could examine whether an array of negative event scenarios influence investor reaction differently. Another empirical choice is our operationalization of CSR disclosure assurance as binary. In practice, CSR assurance varies in nature and extent: (1) companies can purchase assurance for specific portions of the disclosures; (2) the level of assurance can be limited (i.e., a review) or reasonable (i.e., an examination); and (3) assurance engagements can be performed by accounting firms or other providers. Because our results suggest the intriguing implication that management’s voluntary choice to assure its CSR disclosures is viewed as a signal of ethical culture, future research should investigate whether our results are generalizable to other forms of assurance.

In sum, negative events commonly impact businesses and are often debilitating (Coombs 2014). Given the use of assurance continues to lag CSR disclosure rates (Blasco and King 2017), the movement toward CSR that improves financial performance (Kramer and Porter 2011; Porter and Kramer 2006) and the shift toward assessing the firm’s ethical culture (Treviño et al. 1998), understanding the ramifications of these interrelated issues in negative event scenarios is worthwhile. Our results imply that companies should consider the value of CSR assurance in signaling the company’s ethical culture to investors, as the moral capital that is built may be useful when later difficulty arises.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Research involving Human Participants and/or Animals Bentley Institutional Review Board (IRB#1: FWA00007335) exempted the proposal under NSF’s Protection of Human Research Subjects, 45 CFR Part 46.101 [b] (2).

Informed consent Informed consent was obtained from all individual participants included in the study.

Appendix: Definitions of Variables

Variable name	Description
Independent variables	
<i>FIN_INTENT</i>	= 1 if management’s CSR intent is to achieve future financial returns; = 0 if no expectation of future financial returns, holding constant the expectation of societal benefit

Variable name	Description
<i>CSR_ASSURANCE</i>	= 1 if CSR disclosures are independently assured; 0 otherwise
<i>NEGATIVE_EVENT</i>	= 1 if a company-specific negative event has occurred (a press release describing the company's product recall due to cases of foodborne illness among customers); 0 otherwise
Dependent variables	
<i>VALUATION_1</i>	Initial valuation judgment after receiving background information, but before receiving manipulations (101-point scale, where 0 = low, 50 = average, and 100 = high)
<i>DESIRABILITY_1</i>	Perception of investment desirability after receiving background information, but before receiving manipulations (101-point scale, where 0 = not at all desirable, 50 = average, and 100 = very desirable)
<i>VALUATION_2</i>	Valuation judgment after receiving manipulations (101-point scale, where 0 = low, 50 = average, and 100 = high)
<i>DESIRABILITY_2</i>	Perception of investment desirability after receiving the manipulations (101-point scale, where 0 = not at all desirable, 50 = average, and 100 = very desirable)
Δ VALUATION	= (<i>VALUATION_2</i> - <i>VALUATION_1</i>)
Δ DESIRABILITY	= (<i>DESIRABILITY_2</i> - <i>DESIRABILITY_1</i>)
Δ INVESTMENT_JUDGMENT	A single factor (eigenvalue = 1.385) derived from factor analysis of Δ VALUATION and Δ DESIRABILITY
Mediator variables	
<i>FCF_CONNECTION</i>	Perceptions of the connection between the company's CSR activities and future financial performance (11-point scale, where 1 = highly unlikely, and 11 = highly likely)
<i>ETHICS</i>	Perceptions of the connection between the company's CSR activities and the ethical culture of the company (11-point scale, where 1 = definitely does not provide a signal, to 11 = definitely does provide a signal)

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