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**The Price of Praise in the Market for Virtue:
A Paradox of Rating and Recognizing Responsibility**

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**The Price of Praise in the Market for Virtue:
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ABSTRACT

In this study, I investigate how organizations respond to positive social ratings. Drawing upon theoretical insights from the organizational literatures on reputation, information disclosure, and commensuration, I argue that positive social ratings that define a specific and fixed threshold for recognition can alter the market price for a signal of virtue, and thus lead high-performing organizations to reduce their subsequent social performance. To test this hypothesis, I examine how large public corporations responded to a social responsibility rating that evaluated and recognized their prior philanthropic efforts. I find that firms recognized for their generosity were more likely to reduce their subsequent philanthropic contributions, except when they were headquartered in charitable communities and operated in socially contested industries. Theoretically, these results provide new insights into the nuances of ratings and how they influence subsequent organizational performance and encourage scholars to reconsider long-held assumptions about when and how positively rated organizations will respond. From a practical perspective, these findings highlight an unintended consequence of social ratings and provide further insight for stakeholders interested in motivating improvements in corporate social performance.

Keywords: ratings, reputation, information disclosure, commensuration, corporate philanthropy

Private citizens, social activists, and nongovernmental organizations have long engaged in collective efforts to motivate improvements in corporate social performance (Soule, 2009; King and Pearce, 2010; Briscoe and Gupta, 2016). While much of these efforts have centered around direct forms of pressure, such as boycotts (King, 2008; McDonnell, King, and Soule, 2015), protests (Eesley and Lenox, 2006; Hiatt, Grandy, and Lee, 2015), direct appeals to management (Reid and Toffel, 2009; Lewis, Walls, and Dowell, 2014), and online campaigns (Zhang and Luo, 2013; Luo, Zhang, and Marquis, 2016), in recent years an increasing number of influential third-party organizations have indirectly sought to motivate improvements in corporate behavior by disclosing information and rating firms based on their past performance (Sadowski, 2010).¹

Given the proliferation of these rating systems and their motivations to drive social change, understanding how corporations respond to social ratings has become an important area of scholarly inquiry (Tolbert, 2018). To date, scholars in this area have examined how organizations respond to negative ratings and have generally found that poorly rated organizations tend to improve their subsequent performance (Chatterji and Toffel, 2010; Sharkey and Bromley, 2015; Rowley, Shipilov, and Greve, 2017). Little attention, however, has been devoted to the performance effects of positive social ratings—that is, ratings that praise rather than shame an organization’s exceptional social performance. This theoretical oversight may exist because both scholars and practitioners have generally assumed that the locus of change or improvement following a positive rating primarily lies with the unrecognized, or poorly performing organizations (Fombrun, 1996; Sharkey and Bromley, 2015; Rowley, Shipilov, and Greve, 2017), not the organizations that are recognized for their superior performance. Indeed, implicit

¹ In this study, I use the term social performance broadly to incorporate all issues of societal concern. Consequently, performance in this study, unless explicitly stated, refers to the dimensions upon which an organization is rated, not financial performance.

in this assumption is the notion that the positively recognized organizations would at minimum maintain consistent levels of performance.

A few recent studies at the individual level, however, call into question this assumption by showing that positive recognition may at times lead to reductions in future performance. Award-winning CEOs, for example, are more likely to subsequently underperform relative to their prior performance (Wade et al., 2006; Malmendier and Tate, 2009). Professional athletes who win tournaments or races are more likely to see their future performance decline (Bothner, Kim, and Smith, 2012). Although these studies all focus on *individual* responses to various forms of external recognition, these findings nevertheless raise concern that theories of *organizational* response to ratings might currently be inadequate. Given the possibility that positive ratings might similarly lead to unintended reductions in organizational performance (Chatterji and Levine, 2006) and the increased use of positive recognition as a method of motivating improvement (Sadowski, 2010), it becomes increasingly important that scholars understand whether and when organizations will respond to positive ratings (Chatterji and Toffel, 2010).

Contrary to the seemingly taken-for-granted assumption that only the unrecognized organizations will respond to positive ratings, I argue and explain how positive social ratings intended to recognize organizations for past socially responsible behavior can, under certain conditions, lead these organizations to subsequently reduce their social performance. I treat social ratings agencies as institutional intermediaries that broker information between organizations and socially conscious stakeholders in market-like setting (Rindova et al., 2005; Vogel, 2005; Fleischer, 2009; Lee, Hiatt, and Lounsbury, 2017). Drawing upon theoretical insights from the organizational literatures on reputation, information disclosure, and commensuration (Rindova et al., 2005; Espeland and Sauder, 2007; Chatterji and Toffel, 2010), I

maintain that social ratings serve as signals of virtue and explain how fixed and unambiguous rating thresholds can introduce a market price for these signals. Assuming that managers prefer not to pay more than is necessary to signal their organization's virtuous behavior, this new market price may cause stakeholders to perceive all organizations whose prior performance lies above the rating threshold as equal, which can lead high-performing organizations to reduce their subsequent performance. Recognizing that other organizational and institutional factors might alter the baseline market price, I also examine moderating conditions that explain when reductions in performance are most likely to occur.

I test these predictions using ratings data from KLD Research & Analytics (KLD). While KLD has rated public corporations across several dimensions of social performance, for this study, I focus on one particular rating that recognizes firms for their generous philanthropic contributions. My primary assertion is that the threshold required to receive the positive rating clarifies and formalizes the price of a signal of generosity. Taking advantage of an exogenous shock that occurred when KLD first issued the rating, I examine how the introduction of this new market price influenced subsequent corporate philanthropic contributions. Although prevailing theoretical assumptions about positive ratings would suggest that firms recognized for their generosity would at minimum maintain their subsequent level of contributions, I find that firms initially recognized as charitable organizations subsequently decreased their level of philanthropic giving. I explore the introduction of a new rating that established a price for a signal of generosity as one plausible explanation for this phenomenon.

THE PERFORMANCE EFFECTS OF POSITIVE SOCIAL RATINGS

As byproducts of the socially responsible investment (SRI) movement (Vasi and King, 2012), social ratings have been primarily designed to help socially-conscious investors “identify

which firms are more or less responsible “ (Vogel, 2005: 39). Although the stated objective of most social ratings agencies is to simply provide information to interested parties (Miller, Fugate, and Golicic, 2017), many implicitly hope that the newly disclosed information will incentivize organizations to modify their behavior and increase their subsequent social performance (Fung, Graham, and Weil, 2007). As Paul and Lydenberg note, “these systems clearly have an implicit social agenda. By publicizing assessments of how corporations rate relative to each other on these issues, these ratings systems intend to push corporate management to improve its rating—that is, these systems are intended not only to influence consumer or employee choices, but also, and of even greater importance, to directly influence corporate behavior” (Paul and Lydenberg, 1992: 6)

Given such motives, organizational scholars have recently sought to examine how organizations respond to ratings and whether and when these ratings influence subsequent organizational performance (Chatterji and Toffel, 2010; Sharkey and Bromley, 2015; Rowley, Shipilov, and Greve, 2017). Drawing upon economic theories of information disclosure (Jin and Leslie, 2003; Doshi, Dowell, and Toffel, 2013) and sociological theories of reactivity (Espeland and Sauder, 2007), this stream of research has primarily focused on the performance effects of negative ratings, arguing that the disclosure of potentially embarrassing information can provide strong incentives to managers to improve their organization’s subsequent performance. Consistent with this reasoning, studies have found that negative social ratings can lead restaurants to improve their hygiene quality (Jin and Leslie, 2003) and large public companies to reduce their toxic emissions (Chatterji and Toffel, 2010; Sharkey and Bromley, 2015) and improve their corporate governance policies (Rowley, Shipilov, and Greve, 2017). Indeed, a common thread among these studies is that organizations that receive negative social ratings tend

to improve.

Although these studies collectively provide evidence that negative social ratings can drive improvements in organizational behavior, scholars have yet to theorize and examine how positively rated organizations respond to social ratings. This theoretical oversight can likely be attributed to an implicit assumption that the locus of change or improvement following a positive rating primarily lies with the *unrecognized* or *poorly performing* organizations. Some scholars, for example, have suggested that rating systems are specifically designed “to motivate relatively low-rated firms to improve” (Rowley, Shipilov, and Greve, 2017: 821) or that organizations respond to ratings “primarily to avoid the negative consequences of a poor rating or to obtain the benefits of a good rating” (Sharkey and Bromley, 2015: 68). Many rating agencies have likewise expressed a belief that positive recognition will bring favorable attention and reputation to high-performing organizations, which will then encourage imitation or improvement by the low-performing organizations (Fombrun, 1996). Implicit in each of these statements is an assumption that not receiving a positive rating is indeed itself a form of punishment (i.e. a negative rating) (Kohn, 1999) and that the organizations most likely to respond would be the unrecognized, or poorly-performing organizations.²

The assumption that positive ratings will not have an effect on the subsequent performance of recognized organizations is nevertheless problematic for two primary reasons. First, recent

² While this assumption has yet to be tested rigorously, there are indeed plausible explanations for why scholars have not given sufficient research attention to positive ratings. First, positive ratings may provide little new information about an organization and may thus limit the incentives that organizations have to change their actions or behaviors (Dranove and Sfekas, 2008; Jin and Leslie, 2009). Second, positive ratings may induce little to no managerial response among positively rated organizations given the psychological tendencies to focus on the “bad” rather than “good,” with the “bad” being much stronger than the “good” (Kahneman and Tversky, 1979; Baumeister et al., 2001; Rozin and Royzman, 2001). Third, prior work suggests that organizations that receive a positive rating may face strong incentives to exert additional effort to maintain predictability and reliability (Fombrun, 1996), particularly when facing relative standards that increase over time (Sadowski, 2012; Carlos and Lewis, 2018). Given these findings, one might assume that an organization that receives a positive rating based on its past social performance would, at the very least, maintain that same level of performance in the future.

studies seem to suggest that external evaluations (both positive and negative) can lead to unintended consequences. For example, prior research at the individual level suggests that positive evaluations (i.e. awards, prizes, recognition) may at times lead to reductions in subsequent performance (Wade et al., 2006; Malmendier and Tate, 2009; Bothner, Kim, and Smith, 2012; Gubler, Larkin, and Pierce, 2016). Other scholars have noted how evaluations intended to improve social welfare in one domain can paradoxically lead to reductions in another domain (Chatterji and Levine, 2006). Given the capacity of ratings to enact unintended changes (Rowley, Shipilov, and Greve, 2017), it thus seems theoretically important to understand whether and when positive ratings at the organizational level might elevate or reduce subsequent performance (Chatterji and Toffel, 2010).

Second, positive evaluations that recognize organizations for exceptional levels of performance are increasingly used to motivate changes in organizational behavior (Sadowski, 2010). The Dow Jones Sustainability Index (DJSI), for example, was primarily established to identify and recognize sustainability leaders within industries (Carlos and Lewis, 2018; Hawn, Chatterji, and Mitchell, 2018). Likewise, the magazine *Business Ethics* created the “100 Best Corporate Citizens” list with the explicit objective of “pushing the envelope on what represents good corporate citizenship” and “moving corporations towards better practices” (Waddock, Graves, and Kelly, 2000: 17). Finally, the Carbon Disclosure Project (CDP) recently established the Carbon Performance Leadership Index in 2010, an index focused on recognizing companies that are taking the greatest action to reduce global emissions (CDP, 2010). Given the increased use and reliance on positive ratings to shape organizations’ behaviors (Miller, Fugate, and Golicic, 2017; Tolbert, 2018), it also seems practically important to understand whether positive social ratings incentivize unrecognized organizations to imitate the recognized as previously

assumed or if and when they might unintentionally lead to adverse consequences.

The Paradox of Rating and Recognizing Responsibility

While prevailing assumptions about social ratings suggest that positively rated organizations would maintain or improve their subsequent social performance, I argue that positively rated organizations may at times reduce their subsequent social performance for strategic reasons. I build my theory on three core assertions which I support based on prior research. First, I argue that a common objective of many firms that engage in CSR initiatives is to develop and maintain a reputation for virtue. Second, I maintain that positive social ratings serve as both signals of virtue that help to build or maintain a firm's reputation for social responsibility and prices of praise that reduce uncertainty regarding the optimal level of CSR investment. Finally, I argue that social ratings can lead stakeholders to perceive two firms with different levels of social performance as essentially equivalent, thus reducing the incentive to exceed the market price.

My theory focuses on two groups of actors: managers, who make allocation decisions regarding a firm's social investments, and stakeholders who have an interest in the firm's social performance, whether they be investors, employees, customers, or members of the firm's local community. Consistent with prior work, I assume that managers will act rationally and intend to maximize shareholder wealth (Godfrey, 2005). I also assume that pressures from financial markets to maximize shareholder wealth will constrain firms from overinvesting in CSR (Margolis and Walsh, 2003; Vogel, 2005), thus limiting potential agency problems.

The Strategic Drive for a Virtuous Reputation. While motives for CSR indeed vary, most efforts underlying CSR investments are primarily strategic in nature. Indeed, a brief review of the CSR literature suggests that many firms are motivated to invest in CSR because they believe that doing so will have a direct impact on the firm's bottom line (Godfrey, Merrill, and Hansen,

2009; Cheng, Ioannou, and Serafeim, 2014; Flammer and Luo, 2017). Other studies demonstrate that companies engaged in CSR initiatives may also seek social or political benefits that indirectly accrue to companies deemed to be operating in a socially acceptable manner (Marquis and Qian, 2014; Werner, 2015; Flammer, 2018). Whether direct or indirect, the benefits that managers often seek when engaging in CSR suggest that they believe that enhancing social welfare will increase shareholder value (Galaskiewicz, 1997; Henisz, Dorobantu, and Nartey, 2014).

Despite these strategic motives, managers are unlikely to have a complete understanding about how their CSR investments affect their firm's long-term value (Wang et al., 2016). This causal ambiguity likely exists for two reasons. First, prior research suggests that managers may lack the necessary information required to calculate the optimal level of CSR activity due to poor internal systems and delays in feedback (Galaskiewicz, 1997; Wang et al., 2016). Second, multiple factors can affect broad financial measures, such as return on assets or stock returns, making it difficult for managers to isolate the specific underlying causal mechanisms (Lev, Petrovits, and Radhakrishnan, 2010). Collectively, these factors suggest that managers are unlikely to know with certainty the direct economic consequences of their firms' CSR efforts.

Although the relationship between CSR and financial performance is causally ambiguous (Margolis and Walsh, 2003), the relationship between CSR investments and corporate reputation has been found to be unequivocally strong (Fombrun and Shanley, 1990; Turban and Greening, 1997; Bermiss, Zajac, and King, 2014). A reputation for social responsibility is also a key intervening mechanism in several empirical studies that examine the consequences of CSR (Godfrey, Merrill, and Hansen, 2009; Lev, Petrovits, and Radhakrishnan, 2010; Werner, 2015), suggesting that many firms may see a virtuous reputation as a necessary step to achieve the

strategic outcomes that they desire. Given the tenuous relationship between CSR and financial performance and the mediating role of socially responsible reputation, I thus maintain that a more proximate outcome that firms hope to attain when making CSR investments is to “be known” as a virtuous organization (Lange, Lee, and Dai, 2011), that is, to have a reputation for social responsibility (Koh, Qian, and Wang, 2014; Tang et al., 2015; McDonnell, 2016).

Social Ratings in the Market for Virtue: Ratings as Signals and Prices of Praise

If the primary objective of a firm when engaging in CSR initiatives is to obtain a reputation for virtue, then one must consider how a virtuous reputation is developed. Drawing upon Vogel’s (2005) conception of a market for virtue, I maintain that firms acquire a reputation for social responsibility through a series of market-like exchanges with stakeholders with both firms and the stakeholders acting as buyers and sellers of valued goods or services. A firm, for example, acts as a buyer when it seeks to “purchase” a reputation for virtue. In exchange for a virtuous reputation, it “sells” a portfolio of CSR investments, a resource valued by the socially conscious stakeholder. Stakeholders likewise seek to “sell” favorable perceptions (i.e. a virtuous reputation) to the firm in order to “buy” socially responsible corporate behavior (Henderson and Malani, 2009). Theoretically, this idealized market for a virtue functions efficiently when (1) stakeholders readily observe a firm’s past CSR investments and (2) firms have clear information about the levels of CSR investment that they need to make in order to achieve the level of reputation that they desire.

Markets for virtue, however, are often characterized as having imperfect information (Chatterji and Toffel, 2010). High monitoring and evaluations costs can often make it difficult for stakeholders to “identify which firms are more or less responsible” (Vogel, 2005: 39). Likewise, a lack of understanding regarding how much firms need to invest in order to achieve

their reputational goals hampers a firm's ability to optimize their CSR investments (Graffin and Ward, 2010). Indeed, a market with imperfect information creates substantial uncertainty for both market participants. For stakeholders, that uncertainty lies in the lack of clarity regarding who is socially responsible. For managers, that uncertainty resides in the lack of a clear market price for a virtuous reputation.

While quality uncertainty and asymmetric information have long been known to complicate market transactions (Akerlof, 1970), they can be reduced through the third-party agencies that evaluate and assess the CSR performance of firms. As market intermediaries (Rindova et al., 2005; Fleischer, 2009; Lee, Hiatt, and Lounsbury, 2017), social rating agencies provide value to market participants by (1) helping stakeholders overcome an information disadvantage (Chatterji and Toffel, 2010) and (2) reducing uncertainty regarding the optimal levels of investment (Graffin and Ward, 2010).

Prior research, for example, suggests that when past performance is difficult to evaluate, stakeholders are likely to rely on strategic signals to form expectations about future behaviors (Rindova et al., 2005; Godfrey, Merrill, and Hansen, 2009; Graffin and Ward, 2010). While they are "not reputation ratings per se," social ratings can nevertheless serve as "inputs for individual stakeholder groups in their formulation of a firm's reputation for social involvement or social responsibility" (Godfrey, Merrill, and Hansen, 2009: 433). Thus one essential function of a social rating is to serve as an information signal upon which stakeholders can rely to make predictions about a firm's willingness to act with an "other-considering" disposition (Godfrey, Merrill, and Hansen, 2009: 428). In markets where monitoring costs are high, positive social ratings likely substitute for direct evaluations by stakeholders and can therefore serve as strong signals of a virtuous reputation (Rindova et al., 2005; Jin and Leslie, 2009; Bermiss, Zajac, and

King, 2014).

A second function of social ratings is to reduce uncertainty regarding the optimal level of CSR investment. In a world without ratings, the price required to be perceived as a virtuous firm is uncertain and variable, due to the high transactions costs of direct observation by stakeholders and the variation in local norms and standards regarding the appropriate and desirable levels of CSR (Marquis, Glynn, and Davis, 2007). When the market price for a given level of reputation is uncertain, firms are unlikely to know how much they need invest in order to achieve their desired reputation. Positive social ratings, however, can reduce uncertainty regarding the price of a virtuous reputation by defining fixed-standards of performance that must be met in order to be recognized (Graffin and Ward, 2010). When standards of performance are known and fixed, I argue that thresholds between social rating categories are likely to act as price points for various degrees of virtue, with higher ratings listed at a higher price, but also signaling greater levels of virtue. Such information provides substantial value to firms because it reduces uncertainty about the price that a firm will have to pay to signal virtuous behavior and achieve its reputational goals. Because social ratings serve as signals of virtuous behavior which can lead to the acquisition and maintenance of socially responsible reputation, I call these fixed thresholds between ratings categories the “prices of praise.”

Ratings as Filters: Information Reduction and the Commensuration of Virtue

While social ratings can indeed facilitate market transactions by serving as signals and prices of virtue, they also function as filters that aggregate and condense underlying performance differences into smaller discrete units (Fleischer, 2009). After all, ratings have been conceptualized as evaluations that compare actors against categorically defined standards of performance (Graffin and Ward, 2010). Central to this definition is the notion that variation in

performance is preserved between categories but not within. For example, a 4-star hotel would be perceived as better quality than a 3-star hotel given the higher rating. Within the 4-star category, however, two hotels would be perceived as equivalent even if their underlying quality were different.

Known as commensuration (Espeland and Stevens, 1998; Espeland and Sauder, 2007; Bermiss, Zajac, and King, 2014), this process of reducing and simplifying information into defined categories can provide value to stakeholders by reducing the amount of information they need to process in order to evaluate and compare rated firms. While cognitively efficient (Fleischer, 2009; Waguespack and Sorenson, 2011; Orlikowski and Scott, 2014), such ratings can nevertheless absorb important differences that exist within rating categories (March and Simon, 1958) causing stakeholders to view positively rated firms as conceptually equivalent (Espeland and Sauder, 2007).

Firm Response to the Price of Praise

Positively rated firms with prior levels of investment that exceed the price of praise are thus faced with a choice to either maintain a high level of performance or reduce their subsequent performance to the new market price. Because all firms within a rating category are viewed as equal, I expect that a firm whose prior social performance exceeds the rating threshold will decrease its subsequent performance. Central to my prediction is the notion that a positive social rating is an antecedent to a reputation for virtue as it substitutes for stakeholder's direct evaluation (Rindova et al., 2005). Stakeholders could indeed track the CSR performance of firms themselves, but high monitoring costs and the desire for cognitive efficiency (Fleischer, 2009; Waguespack and Sorenson, 2011; Orlikowski and Scott, 2014) likely incentivize stakeholders to rely on a firm's rating rather than the underlying measure of CSR performance, which can

ultimately lead stakeholders to view two positively rated firms with differing levels of investments as essentially equivalent. Assuming that firms are constrained by the financial markets from overinvesting in CSR, the rational response for a firm that receives a positive rating would be to reduce its subsequent social performance to the rating threshold given that there would likely be no additional benefit from exceeding the market price. Thus, contrary to previously held assumptions, I predict that positive social ratings that recognize firms for exceeding an established performance threshold should lead some firms to reduce rather than maintain their subsequent performance.

Hypothesis 1: Firms positively rated and recognized for their superior social performance will be more likely to decrease their social performance relative to other firms.

Variation in the Market Price for Signals of Virtue

While reducing subsequent social performance after receiving a positive social rating would presumably be an attractive option to many firms, the perceived costs and benefits of doing so may vary depending on various moderating institutional and organizational factors that can raise the implicit price for a signal of virtue.

The price of virtue within local communities. Studies on regional variation in CSR suggests that most firms face substantial local incentives to engage in socially responsible initiatives. Consistent with this notion, prior research has shown that corporate CSR activities tend to be highly oriented towards the community in which corporate headquarters reside (Galaskiewicz, 1997; Marquis, Glynn, and Davis, 2007). Indeed, these findings are in line with more recent empirical work that highlights the enduring influence of local communities on corporate behavior (Marquis, Davis, and Glynn, 2013; Tilcsik and Marquis, 2013; Marquis and Tilcsik, 2016).

Some of these incentives may arise from local institutions (Marquis, Glynn, and Davis, 2007). Galaskiewicz (1997), for example, described how business and community leaders in Minneapolis established the “5-Percent Club,” a tithing club that sought to incentivize members to give 5 percent of before-tax profits to charity. Members that met the high standard were recognized at an annual luncheon by their peers and the public. Such recognition arguably incentivized and encouraged philanthropic activity in the community and helped to build the firms’ reputations among local community stakeholders. Consistent with this finding, Navarro (1988), found that the average level of giving to be twice as high for firms in cities with tithing clubs versus cities without tithing clubs, thus indicating the power of a local signal of virtue.

Given these findings, I propose that firms headquartered in charitable communities historically known for high levels of corporate social action will be less likely to reduce their subsequent social performance. Such communities are likely to have local institutions such as tithing clubs that generate a local price for a signal of virtue that lies above the current market price established by a positive social rating. Because a local reputation for virtue is a primary objective when engaging in CSR, and that reputation is achieved when firms are perceived to be positively distinctive within their local peer group (King and Whetten, 2008; Gehman and Grimes, 2017), the existence of local price for a signal of virtue that lies above the global market price established by the rating would likely discourage recognized firms within charitable communities from reducing their subsequent social performance.

Hypothesis 2: Firms rated and recognized for their social performance will be less likely to reduce their subsequent performance when headquartered in charitable communities.

The price of virtue within socially contested industries. Recent work within the CSR literature has argued that a firm’s CSR investments can provide insurance-like protection for its intangible assets (i.e., reputation) and that this protection can help *preserve* shareholder wealth

(Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009). Known as the risk-management hypothesis, this literature proposes that two factors determine the optimal level of CSR investment: the level of reputational wealth at risk and the level of risk inherent in the firm's operations. While the level of operational risk surely has a firm-specific component, some significant portion of this risk is determined by the industry in which the company operates (King and Lenox, 2000; Godfrey, Merrill, and Hansen, 2009; Vasi and King, 2012).

Accordingly, an important prediction from this theoretical perspective is that the optimal level of CSR investment will be higher for firms with higher industry-specific risk profiles.

Consistent with this prediction, a number of studies have shown that higher-risk industries invest more in CSR (Williams and Barrett, 2000; Brammer and Millington, 2005; Brammer and Pavelin, 2005). For example, Brammer and Pavelin (2005) found that firms operating in "high-risk" sectors contributed to charity at much higher levels than other firms. Furthermore, scholars have found the relationship between industry-specific risk and corporate giving to be particularly strong for firms operating within industries with significant social externalities (e.g., alcohol, tobacco, gambling, firearms, etc.) (Brammer and Millington, 2005). Firms in the tobacco industry, for instance, have been known to give generously to charitable causes, presumably as a way to counter negative publicity about their products (Godfrey, Merrill, and Hansen, 2009; Koh, Qian, and Wang, 2014).

Given these findings, I thus predict that firms operating in socially contested industries will be less likely to reduce their subsequent performance when recognized for their past CSR investments. Such firms arguably face a greater likelihood of experiencing a reputational loss given the inherent risks associated with their business operations. Because CSR has been argued to provide insurance-like protection against such losses (Godfrey, 2005; Godfrey, Merrill, and

Hansen, 2009), firms operating in socially contested sectors that are recognized for their prior social performance may require a higher premium in order to insure its reputation (Godfrey, 2005) and thus continue to perform at levels that exceed the price for a positive social rating.

Hypothesis 3: Firms recognized for their superior social performance will be less likely to decrease their subsequent performance when doing business in socially contested industries.

METHOD

Empirical context: ratings that recognize corporate generosity

To test my hypotheses, I examine how large public corporations responded to the introduction of a positive social rating that recognized a company's social performance. As a relatively recent phenomenon emerging over the last 30 years (Sadowski, 2010; Flammer, 2013; Ioannou and Serafeim, 2015), the rise and proliferation of social ratings is a favorable context in which to study how organizations respond to positive ratings as it allows a researcher to examine changes in firm behavior and performance in response to an exogenous introduction of a rating.

Specifically, I use social ratings data from the KLD STATS database, generally considered the largest and most widely used corporate social performance database available to the public and the "de facto research standard" for CSR scholars (Chin, Hambrick, and Treviño, 2013; Flammer and Luo, 2017; Gehman and Grimes, 2017). Founded in 1988 (Godfrey, 2011), KLD began rating companies in 1991 with an explicit objective of providing information to socially-minded investors that would help them identify which companies were behaving in a more or less responsible manner (Chatterji and Toffel, 2010; Flammer, 2013; Carroll, Primo, and Richter, 2016). Implicit in this objective, however, was also a desire to bring about improvements in social responsibility (Lydenberg, 2005). As one of the founders once stated, "Our interest is to increase corporate accountability. The goal here is to have a long-term impact. I think that's the

big shift in social investing. Historically it was sin avoidance and now it's another voice for social change" (Gumbel, 1991).

While KLD has rated firms across several dimensions of social performance for many years, for this study, I focus on one sub rating that evaluates a firm's charitable giving practices. Corporate philanthropy is an ideal context in which to test my theory for a number of reasons. First, a reputation for generosity has been argued and shown to be a strategic goal for many large public corporations (Godfrey, 2005; Muller and Kräussl, 2011; Marquis and Lee, 2013). Second, costs of evaluating and comparing corporate generosity on an individual basis create substantial uncertainty in the minds of investors regarding which firms are more or less charitable, thus increasing the efficacy of social ratings as signals of corporate generosity. Third, the KLD rating that evaluates corporate giving is one of the few sub ratings that defines a specific performance standard required for recognition which, according to my theory, should be perceived as a new price for a generosity rating. Finally, long-held concerns about the legitimacy of corporate philanthropy likely constrain firms that do wish to acquire or maintain a reputation for generosity from "overinvesting" (Friedman, 1970; Jensen, 2002; Margolis and Walsh, 2003). Given these characteristics, corporate philanthropy appears to be an opportune context in which to test my theory as it closely fits the conditions under which I would expect positively rated firms to reduce their subsequent performance.

Data sources and sample

To construct my sample, I manually coded data on the level of corporate philanthropic contributions from the Taft Directory of Corporate Giving (TDCG), the National Directory of Corporate Giving (NDCG), and the National Center for Charitable Statistics (NCCS), sources on corporate philanthropy that have been used in prior organizational research (Wang, Choi, and Li,

2008; Lev, Petrovits, and Radhakrishnan, 2010; Tilcsik and Marquis, 2013). Using these data, I then created a panel of 475 firms over the period 1991–1996. Because I was interested in understanding how firms responded to the initial KLD rating, I compared the firms’ charitable contributions before and after being rated, and used as a control group firms that were not rated. Sample firms met all of the following criteria: (1) were listed at least once in the TDCG or NDCG during the pre-rating (1991–1993) and post-rating (1994–1996) periods, (2) were members of the S&P 500 or Midcap 400 Index at some point during the window of observation, and (3) were established public companies during or before 1991. I show a breakdown of the sample by rating status, community, and industry in Table 1. I also provide descriptive statistics and correlations in Table 2.

Insert Tables 1 & 2 here

Dependent variable

Scholars have evaluated corporate philanthropy as a dependent variable in a number of different ways. Some studies have used the total amount of contributions (Atkinson and Galaskiewicz, 1988; Galaskiewicz, 1997; Marquis and Lee, 2013) or have scaled philanthropy by total revenue as a way to control for differences in firm size (Brammer and Millington, 2008). Recent studies have also evaluated corporate generosity by examining the likelihood or speed of a philanthropic response following natural disasters (Muller and Kräussl, 2011; Zhang and Luo, 2013; Luo, Zhang, and Marquis, 2016; Zhang, Marquis, and Qiao, 2016). In this study, I chose to evaluate corporate generosity as the total amount of grants given to charity through a corporate foundation or given by the corporation directly, divided by the level of pretax income for each firm. Such a transformation facilitates the comparison of giving across various firms and is consistent with KLD’s evaluation of corporate philanthropic behavior (see below). Furthermore,

prior research suggests that the ratio of total giving to pretax profit is a commonly used metric when determining the optimal level of contributions for a given fiscal year (Lydenberg, Marlin, and Strub, 1986; McElroy and Siegfried, 1986; Coady, 2006).³

Independent variables

Positive rating. For this study, I specifically focused on a rating that evaluated a firm's charitable giving practices. KLD gave an initial positive rating to firms that had consistently given over 1.5 percent of trailing three-year net earnings before taxes, or had otherwise been notably generous in their giving. Because KLD's decision to initially rate these firms was unrelated to prior firm behavior or performance and because firms had no influence on the decision to be rated, I maintain that these initial ratings constitute an exogenous shock. To distinguish between charitable and non-charitable firms, I created a dummy variable, *initial positive rating*, for firms that were recognized for their charitable giving practices. I also created a dummy variable, *no initial positive rating*, for firms that were rated by KLD, but were not noted for their charitable giving practices. I then interacted these firm-level dummy variables with a time-varying dummy variable, *KLD rated*, coded "1" starting in 1994 for the years in which firms that were rated by KLD, and "0" otherwise.⁴

³ Using pretax income as a way to control for differences in firm size can nevertheless create problems for empirical analysis, especially when pretax income falls below zero. Rather than remove these observations from the analysis, however, I instead replaced negative values (approximately 6% of the sample) with predicted values generated through a linear interpolation. Because total contributions are divided by pretax income, empirical problems can also result when pretax income is very small. To address this concern, I replaced levels of giving that exceeded 10 percent of pretax profits (less than 1% of the sample) with predicted values generated through a linear interpolation. I specifically chose this threshold because 10 percent of pretax profits is the maximum deduction allowed for corporate charitable contributions. Although such transformations reduce the influence of outliers by smoothing levels of giving over time, removing these outliers did not substantively change the results or conclusions.

⁴ The initial rating was based on performance data from 1991, but not widely available to the public until 1993. See the Appendix for a brief history regarding the establishment and timing of the initial KLD ratings.

Prior to the issuance of the KLD ratings, few sources of information existed that would have facilitated the comparison of corporate generosity across a large number of firms.⁵ Such a lack of transparency and information made it both difficult for interested stakeholders to make comparisons among firms and thus form reputational beliefs about which firms were more or less responsible (Vogel, 2005). Indeed, this lack of information regarding corporate social performance was one of the primary motivating drivers behind the establishment of the KLD ratings (Godfrey, 2011). Given these assertions, it is therefore unlikely that any observed response by rated firms would have been caused by any factor other than the KLD rating.

Charitable communities. Following prior research (Marquis, Davis, and Glynn, 2013; Tilcsik and Marquis, 2013; Marquis and Tilcsik, 2016), I operationalized a local community as a core-based statistical area (CBSA) established by the Office of Management and Budget. According to the Census Bureau, a CBSA is a “core area containing a large population nucleus, together with adjacent communities having a high degree of economic and social integration with that core.” In his seminal work on corporate philanthropy, Galaskiewicz (1997) found that social clubs dedicated to local giving often led to an increase in corporate contributions. Known as tithing clubs, these organizations typically established recognition thresholds between 2 and 5 percent of pretax profits (Lydenberg, Marlin, and Strub, 1986) which are well above KLD’s

⁵ Although the Conference Board issued an annual industry-level survey of philanthropic donations beginning in 1974, firms were not individually recognized for superior levels of giving, nor were interested stakeholders able to make comparisons of generosity across a large number of firms. Fortune magazine also issued its well-known World’s Most Admired Companies rankings beginning in 1983, which a specific sub dimension that evaluated community and environmental responsibility. Only the top and bottom three ranked companies for this particular sub dimension, however, were actually listed in the magazine. Furthermore, companies could also demonstrate social and environmental responsibility in many other ways besides corporate donations. Given these factors, it is therefore unlikely that the Fortune rankings would have been used as a significant source of information on corporate giving. In 1986, Steven Lydenberg, a cofounder of KLD, published a book titled Rating America’s Corporate Conscience that compiled data and assessments of various social and environmental practices of corporations but was limited to approximately 100 firms (Godfrey, 2011). Given these historical facts, it becomes clear that the average investor who had interest in evaluating corporate generosity would have had a difficult time determining which firms were more or less charitable (Vogel, 2005) due to high transaction costs associated with monitoring and tracking corporate philanthropic behavior.

rating threshold of 1.5 percent. Indeed such high levels required for recognition likely incentivized interested firms to increase their level of giving. I therefore coded *charitable community* as “1” for CBSAs that have tithing clubs, and “0” otherwise (see Table 1b for a complete list). A dummy variable, *non-charitable community*, was coded as the inverse of *charitable community*.

Socially contested industries. Prior research indicates that firms with significant negative social externalities will donate more to charity (Brammer and Millington, 2005; Brammer and Pavelin, 2005), presumably because such firms require a higher premium to insure their reputational assets (Brammer and Pavelin, 2005; Godfrey, Merrill, and Hansen, 2009). Given these findings, I thus created a dummy variable *socially contested industry* for firms that were involved in at least one or more of the following industries: alcoholic beverage, firearms, defense, gambling, forestry, mining, and tobacco industries (Hong and Kacperczyk, 2009; Hong and Kostovetsky, 2012; Koh, Qian, and Wang, 2014). Such firms, I maintain, may have insurance premiums that lie above the rating threshold that can thus constrain them from reducing their subsequent levels of giving. A dummy variable, *non-socially contested industry*, was coded as the inverse of the variable *socially contested industry*.

Control variables. Because the level of corporate generosity is not likely to be unilaterally determined by a social rating, I sought to control for other factors that might also influence corporate philanthropic behavior. I controlled for effects of community norms (Marquis, Glynn, and Davis, 2007; Marquis and Tilcsik, 2016), corporate reputation (Zhang and Luo, 2013; Luo, Zhang, and Marquis, 2016), and other unobserved time-invariant factors using community (CBSA codes), industry (2-digit SIC codes), and firm fixed effects.⁶ I also controlled for time-

⁶ While a small number of firms experienced a change in firm headquarters or industry during the window of analysis, the majority experienced no change in geographic location or industry. Consequently, such effects, if they

variant factors such as organization size and slack using total *revenue* and *foundation assets* (Marquis and Lee, 2013; Tilcsik and Marquis, 2013), financial profitability using *return on assets* (ROA) (Luo, Zhang, and Marquis, 2016; Zhang, Marquis, and Qiao, 2016), and changes in tax positions using firm-specific *marginal tax rates* (Lev, Petrovits, and Radhakrishnan, 2010). Because the level of contributions is likely to be influenced by industry peers, I also include the *contributions of industry peers* at the 2-digit SIC level (Marquis and Tilcsik, 2016).⁷ Finally, I included year dummies to control for unobserved time-variant factors that affect all firms such as changes in societal norms.

Model specification

I tested my hypotheses using difference-in-differences (DID) estimation. The primary appeal of DID lies in its potential to circumvent many of the selection issues that can arise when evaluating the performance effects of ratings (Chatterji and Toffel, 2010). Employed widely within the field of economics, DID has become an increasingly popular way to estimate causal relationships (Bertrand, Duflo, and Mullainathan, 2004) and has been used in many recent studies within the management discipline (Bernstein, 2012; Flammer, 2015; Gubler, Larkin, and Pierce, 2016).

To evaluate the causal impact of being rated and recognized as a charitable organization on subsequent charitable donations, I compared the trends in philanthropic contributions for firms first rated and recognized by KLD with firms that were rated but not recognized and firms that were never rated. Including the latter group controlled for unobserved factors that could affect

do exist, will be subsumed within the firm-specific fixed effect.

⁷ I obtained this measure from IRS Source Book for the years 1988-1995 by calculating the level contributions as a percentage of total sales for all firms with more than \$250 million in assets.

the charitable contributions of all, not just rated, firms. I tested Hypothesis 1 by estimating the following ordinary least squares (OLS) regression:⁸

$$Y_{it} = \beta_1 KLD\ rated_{it} \times initial\ positive\ rating_i + \beta_2 KLD\ rated_{it} \\ \times no\ initial\ positive\ rating_i + \beta_3 X_{it} + \beta_4 \gamma_t + \alpha_i + e_{it}$$

Y_{it} refers to the charitable contributions of firm i in year t , X_{it} is a vector of control variables, α_i is a series of firm-fixed effects, and γ_t is a series of year dummies.

To test the moderating effects described in Hypotheses 2 and 3, I interacted all variables in the model shown above with two dummy variables. For example, the model that tests Hypotheses 2 interacts all variables with *charitable community* and *non-charitable community*. All models tested for significant differences between firms initially recognized for their charitable contributions, those rated but not recognized, and those never rated. These interactions not only allowed for comparisons between subcategories, but also within subcategories.⁹

Insert Figure 1 here

RESULTS

I first examined the raw data to look for evidence of whether firms' philanthropic donations changed after being rated. I found that firms initially recognized as charitable organizations gave on average 2.33 percent in the pre-rating period and 1.85 percent in the post-rating period (see Figure 1). This drop of 0.48 percentage points stands in contrast to the change experienced by firms not initially recognized for their giving, for which the level of giving increased only

⁸ Following Chatterji and Toffel (2010), I included two interaction terms in our model to facilitate interpretation of the regression coefficients. The coefficient on the first interaction term directly tests Hypothesis 1. An alternative way of testing the hypothesis would be to include the main effect (KLD rated) with one of the interaction terms (e.g., KLD rated X positive rating). In this instance, however, the two OLS coefficients would have to be added together to determine whether the performance effect of positive ratings differed from that of the unrated firms.

⁹ While the interaction models are identical to running separate regressions on split samples, interacting both dummy variables (e.g., charitable and noncharitable community) with all other variables facilitates the comparison of coefficients.

slightly from 1.10 percent to 1.11 percent. I found these differences to be statistically significant.¹⁰

The efficacy of this research design also depended on the assumption that the philanthropic contributions of each group of newly rated firms would have followed the trend of the unrated firms had KLD not issued their ratings. While not directly testable, this assumption would be strengthened if I found that the giving trends of all groups were similar during the pre-rating period. To test this assumption, I compared trends during the pre-rating period (1991–1993) across the three groups. Using a regression model (see Table A1 in the Appendix), I found no statistically significant differences in the trends of philanthropic contributions across the three groups—those initially rated and recognized, those rated but not initially recognized, and those never rated (see also Figure 1).

Insert Table 3 here

Table 3 presents the results of the models that test Hypothesis 1. The results of the baseline model indicate that firms initially recognized as charitable organizations reduced their subsequent charitable contributions by 0.48 percentage points less than firms never rated ($\beta = -0.477$, $p < 0.01$), a magnitude equal to approximately four tenths of one standard deviation (calculated as $\beta = -0.477$ divided by the standard deviation of philanthropic contributions = 1.27). A Wald test comparing the coefficients of the two interaction terms revealed that firms initially rated superior reduced their contributions more than firms that were rated but not

¹⁰ To determine whether the difference in trends was statistically significant, I used OLS pooled regression (with robust standard errors clustered by firm) to estimate the following model: $y = \beta_1 P_i + \beta_2 NP_i + \beta_3 (P_i \times R_{it}) + \beta_4 (NP_i \times R_{it})$ where y = total contributions as a percentage of pretax profits, P_i is a firm-level dummy coded '1' for firms that initially received a positive rating, NP_i is a firm-level dummy coded '1' for firms that were rated but did not receive a positive rating, and R_{it} is a dummy coded '1' for years in which a firm was rated by KLD. The statistical difference of the difference in trends was determined using a Wald test of the equality $\beta_3 = \beta_4$, which yielded $F = 6.26$, $p < .01$.

recognized for the charitable giving ($F = 8.37, p < 0.01$). These results are consistent with the predictions of Hypothesis 1.

Recent research on the validity of DID estimates, however, suggests that the serial correlation associated with repeated observations may lead to understated standard errors, leading to serious overestimation of t-statistics and significance levels (Bertrand, Duflo, and Mullainathan, 2004). To address this issue, I followed Bertrand *et al.*'s suggested remedy of aggregating the time-series data into a pre- and post-period for each firm. As shown in column 2, the results continue to hold with no substantive changes in estimates.

Insert Table 4 here

Table 4 presents the results for Hypotheses 2. As shown in column 1, the negative statistically significant coefficient on *non-charitable community x KLD rated x initial positive rating* indicates that firms in non-charitable communities that were recognized for their giving practices reduced their contributions by 0.55 percentage points ($p < 0.01$), about four tenths of one standard deviation (calculated as $\beta = -0.545/SD = 1.27$) more than firms in the control group (i.e., firms that were never rated). A Wald test comparing the coefficients C and D reveals that firms in non-charitable communities that were initially rated superior also reduced their contributions to a greater extent than firms in non-charitable communities that were not recognized for their giving (Wald test $F = 7.14, p < 0.01$). The insignificance on the first and second interaction terms indicates that the effect of an initial positive rating on a firm's philanthropic contributions is only present in non-charitable communities. Overall, the results support Hypothesis 2 by indicating that among firms in non-charitable communities, those that receive a superior rating will decrease their contributions to a greater extent than other firms.

Insert Table 5 here

Results for Hypothesis 3 are shown in Table 5. As displayed in column 1, the statistically negative coefficient on *non-socially contested industry x KLD rated x initial positive rating* indicates that firms operating in non-socially contested industries that were recognized for their giving practices reduced their contributions by 0.54 percentage points ($p < 0.01$), again about four tenths of one standard deviation (calculated as $\beta = -0.544/SD = 1.27$) more than did firms in the control group (firms that were never rated). A Wald test comparing the coefficients C and D reveals that firms in non-socially contested industries that were initially rated positive also reduced their contributions to a greater extent than firms in non-socially contested industries that were not recognized for their giving ($F = 8.80, p < 0.01$). No significant differences were found among firms operating in socially contested industries (comparison of coefficients A and B). These results support Hypothesis 3 by indicating that among firms in non-socially contested industries, those that receive a positive rating decrease their contributions to a greater extent than other firms.

Robustness tests

Although the findings are broadly consistent with our main theoretical arguments, there are indeed alternative explanations. The most threatening concern is that the observed reduction in contributions for recognized firms may simply be due to regression to the mean. This argument is particularly relevant if we assume that reductions in contributions may have occurred for purely stochastic rather than strategic reasons (Bothner, Kim, and Smith, 2012).¹¹

To thus rule out this concern, I first examined trends among the three groups six years prior to the time I would have expected firms to respond (1988-1993). If the subsequent reductions in

¹¹ For example, it could very well be that some firms randomly gave at higher levels in the years preceding the rating and were consequently recognized as charitable organizations by KLD. If this were indeed the case, subsequent reductions could be considered random fluctuations rather than actual responses.

charitable giving among the rated and recognized firms were indeed driven by mean reversion, then one would likely observe a random “bump” in charitable contributions for this group in the pre-treatment period. As shown in Figure A2 (see Appendix), there appears to be no random increase in charitable contributions during the pre-rating period for the rated and recognized firms. Indeed, firms ultimately rated and recognized for their generosity had for many years given more than 2% of their pretax profits to charity, thus casting doubt on mean reversion as a confounding explanation.

To more formally rule out mean reversion, I also performed a series of placebo regressions during the pretreatment period. First, using the same decision rules that KLD utilized in 1991 and 1992 to rate and recognize corporate generosity, I assigned firms to one of the three groups (rated and recognized, rated but not recognized, and never rated) based on their charitable contributions in 1988. The results for this *baseline* specification revealed that over this time period (1988-1993), firms that ultimately received a positive rating maintained similar trends in the corporate contributions when compared to the control group of firms (unrated) and the firms that were ultimately rated but not recognized (see column 1 in Table A4). If the findings in my main analysis were indeed driven by mean reversion, I would have likely found similar reductions in charitable reductions during the prerating period. The absence of such a decrease lends support to the notion that the actual decrease observed in Figure 1 is not driven by regression to the mean.

Following Chay et al. (2005), I also created two additional placebo treatments: *extreme* and *reverse*. In the *extreme* placebo treatment, I set the contribution threshold required for recognition at 2.25% of pretax earnings ($\approx 93^{\text{rd}}$ percentile) which was roughly twice as stringent as the original threshold of 1.5% of pretax earnings ($\approx 86^{\text{th}}$ percentile). In the *reverse* placebo

treatment, I falsely “recognized” firms that gave less than 0.45% of pretax earnings ($\approx 14^{\text{th}}$ percentile). If my results were indeed driven by mean reversion, I would have expected the *extreme* treatment regression to produce estimates similar in sign, but larger in magnitude and the *reverse* treatment to produce estimates of the opposite sign but similar magnitude. As shown in columns 2 and 3 of Table A4 respectively, these additional placebo tests do not falsely generate significant treatment effects as one would expect if the results were driven solely by mean reversion. Based on these findings and my main results, I thus conclude that firms that ultimately received a positive rating by KLD maintained consistently high levels of giving during the pre-rating period, and then responded to the rating beginning in 1994 by reducing their subsequent contributions (see Figure 1).

DISCUSSION

As strategic actors, organizations respond to various external signals such as ratings in order to manage their long-term objectives such as organizational reputation. Although prior studies have noted how organizations will respond to negative ratings by improving their subsequent performance, I argued and explained how positive ratings could also elicit an organizational response, albeit in ways that would paradoxically reduce rather than enhance performance. Drawing upon organizational theories of reputation, information disclosure, and commensuration, I proposed that positive ratings that defined a specific performance threshold for recognition could lead high-performing organizations whose prior performance exceeded the rating threshold to lower their subsequent performance by effectively setting a new “price” for signal of virtue, one that most organizations that wished to establish or maintain a reputation for virtue, barring other economic or institutional pressures, would strive not to exceed.

To test this assertion, I examined how being rated as a charitable organization influenced a firm's subsequent level of philanthropic contributions. Even after accounting for obvious confounding factors such as a mean reversion, I found that firms that exceeded the performance threshold were more likely to decrease their subsequent contributions than other firms, arguably because the firm could still achieve its goal of a reputation for virtue at a lower price. Such reductions, however, were less likely to occur in firms located in communities with strong normative pressures that favor corporate involvement in the community as well as in firms with higher levels of industry-specific risk, such as those operating in socially contested industries. In both instances, I maintain that the optimal level of giving likely exceeded the threshold required for recognition and thus constrained firms from reducing their subsequent charitable contributions.

Together, these findings extend scholarly work by refining our understanding about the performance effects of ratings and the costs of acquiring and maintaining a reputation. For scholars and practitioners interested in corporate responsibility, these findings also demonstrate that there are certain risks associated with recognizing responsibility: that efforts to promote increased social performance may paradoxically lead to reductions in social performance.

The Performance Effects of Ratings

The primary contribution of this study speaks to a recent stream of research that examines the performance impact of ratings on rated organizations (Chatterji and Toffel, 2010; Sharkey and Bromley, 2015; Rowley, Shipilov, and Greve, 2017). A common theme among this stream of research is that poorly rated organizations tend to improve. In this study, I extend this growing body of research by examining the performance effects of positive ratings. To date, the existing body of literature has implicitly assumed that the locus of change following a positive rating lies

with the unrecognized or poorly performing organization (Fombrun, 1996; Sharkey and Bromley, 2015; Rowley, Shipilov, and Greve, 2017). Contrary to this assumption, I find that positive ratings that define an unambiguous and fixed threshold for recognition can lead recognized organizations to reduce their subsequent performance. This finding thus demonstrates that is important for ratings scholars to examine the nuances of rating characteristics such as rating thresholds and how they might incentivize organizations to respond to ratings in ways that were previously unanticipated.

My findings also highlight the role of information disclosure in facilitating or impeding social comparison. Recent research, for example, has argued that rankings can facilitate social comparison and thus trigger an organizational response among the ranked entities (Espeland and Sauder, 2007; Luo, Zhang, and Marquis, 2016). While ratings can likewise facilitate comparison among organizations that fall into different rating categories (Fleischer, 2009; Wang, Wezel, and Forgues, 2016), my theory suggests that ratings may actually hinder social comparison among organizations in the same rating category by absorbing important differences in performance into one common metric. Such hindrance is particularly likely for binary ratings that clump rated entities into two distinct categories where variation within the category is by definition maximized. Coupled with stakeholders preferences' for cognitive efficiency and the lack of direct performance evaluations by stakeholders (Fleischer, 2009; Waguespack and Sorenson, 2011; Orlikowski and Scott, 2014), this process of commensuration can lead stakeholders to view similarly rated organizations as essentially equivalent, thus removing an incentive for positively rated organizations who previously sought to differentiate themselves to continue to maintain a level of performance beyond what is necessary to meet the rating criteria. Given these contrasting arguments, my findings suggest that scholars who study organizational responses to

information disclosure should carefully consider the ways in which differing forms of information (i.e. rankings vs. ratings) facilitate or impede social comparison.

While it was not a primary objective of this study, I did find that firms that were rated but not recognized seemed unresponsive to the initial rating (see Figure 1). Rather than increase their subsequent contributions in order to be rated, this group appeared to give at the same level as if the rating had never been issued. Because prior research has found that firms respond to negative ratings (Jin and Leslie, 2003; Chatterji and Toffel, 2010; Sharkey and Bromley, 2015), one could assume that firms that were unrecognized might increase the level of their contributions in subsequent years, that is, if not being recognized was equivalent to being shamed (Kohn, 1999). Such results would have been consistent with KLD's belief that the reputation that presumably follows positive recognition would motivate the unrecognized firms to improve (Fombrun, 1996). Although I did not directly observe the actual motivations underlying these firms' actions, scholars have long argued that CSR is better understood as one dimension of corporate strategy (Vogel, 2005) and that firms will choose different levels of investment on the risk and opportunities they face (Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009). Given this argument, it is therefore plausible that low-performing firms were unresponsive to the ratings simply because they did not view philanthropy as essential to the strategic purposes of their firm. The fact that these firms gave at all might be better explained by institutional mechanisms such as the desire for legitimacy (Marquis, Glynn, and Davis, 2007; Marquis and Tilcsik, 2016). Taken together, these findings suggest scholars should carefully consider the underlying motives of organizations and how they might amplify or attenuate an organization's response to a rating. After all, not all organizations will desire to be positively distinctive within their peer group

(Gehman and Grimes, 2017) but may simply seek to meet the minimum standards of acceptability (King and Whetten, 2008).

Because the hypotheses were tested in a very specific context, it is important to consider whether performance reductions following a positive rating would be found with other types of rating schemes. As noted earlier, one particularly important aspect of this study was that the rating defined a specific performance threshold. Not all ratings, however, define specific performance thresholds. In fact, some rating agencies may deliberately prefer ambiguous standards in order to maintain power and control over the rating process (Fleischer, 2009; Graffin and Ward, 2010; Waguespack and Sorenson, 2011; Hsu, Roberts, and Swaminathan, 2012). It could very well be a necessary condition for a rating to define a specific threshold in order for positively rated organization to reduce their subsequent performance. Scholars could therefore extend this work by examining how organizations respond to positive ratings that do not define specific performance thresholds.

In a similar manner, thresholds between rating categories may be specifically defined but nevertheless relative thus creating uncertainty about the standards of performance required to be recognized in the future. For example, while the Dow Jones Sustainability Index (top 10 percent within a sector) and 100 Best Corporate Citizens (top 100) list annually recognizes the top performing firms based on fixed criteria, the performance required to be included on these lists can change from year to year based on the relative performance of the rated company's peers (Carlos and Lewis, 2018; Lewis and Carlos, 2018). Such uncertainty regarding the level of performance required to be recognized arguably incentivizes previously recognized firms to continue to maintain or improve their performance. Given these arguments, it may also be necessary for a rating threshold to not only be specific, but also fixed in order for positively rated

organizations to reduce their subsequent performance. Future research could thus extend this work by examining and comparing the performance effects of fixed versus relative rating thresholds.

Finally, some ratings are binary (e.g. KLD ratings) while others contain multiple categories (e.g. 5-star rating) (Graffin and Ward, 2010; Bowers and Prato, 2018). Binary ratings, by definition, are the most likely ratings to create incentives for positively rated organizations to reduce their subsequent performance given that they necessarily clump, and thus mask a wider degree of performance levels within the same category. This masking effect, however, likely decreases as the number of rating categories increases. Consequently, future research could also examine whether the negative performance effect of a positive rating diminishes as the number of rating categories increase.

Reputation Acquisition and Management

My results also provide insights into the process by which organizations acquire and manage their reputation. While much has been written about benefits that accrue to organizations with a strong reputation (Fombrun, 1996; Pollock and Barnett, 2012; George et al., 2016a), scholars have given limited attention to costs of acquiring and maintaining a strong reputation.¹² Here, I address this issue directly by examining how an explicit market price for a signal of virtue can influence an organization's subsequent CSR investment.

Although I found that recognized firms on average did appear to desire continued recognition in order to develop a generous reputation (as evidenced by their continued investments above the rating threshold), they were nevertheless cognizant about the costs of acquiring and maintaining that signal (as evidenced by their subsequent decrease relative to their pre-rating investment

¹² Indeed, this gap in knowledge is somewhat understandable given that reputation can be impacted by multiple factors which can make it difficult to attribute enhancements in reputation to specific organizational investments.

levels). Despite these patterns of behavior, I did find that some firms maintained similar levels of corporate generosity when headquartered in communities with tithing clubs and when they operated in socially-contested industries. In such instances, the perceived benefits of a local reputation (Galaskiewicz, 1997; Doshi, Dowell, and Toffel, 2013) or more comprehensive insurance coverage (Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009) appeared to outweigh the additional costs of tithing club membership (2-5% of pre-tax profits) or a higher insurance premium (something above the market current price of 1.5%). Together, these findings demonstrate that firms will explicitly consider and compare the costs and benefits of acquiring and maintaining a reputation. Given these results, scholars of organizational reputation should likewise more carefully consider, when possible, the economic costs of acquiring or maintaining a reputation and how such knowledge could influence a firm's subsequent reputational investments. Incorporating the costs and benefits of reputation acquisition is indeed of theoretical value because it helps scholars to better understand whether and when positive ratings will lead to reductions in performance (Chatterji and Toffel, 2010).

The Paradox of Rating and Recognizing Responsibility

Rating agencies interested in corporate responsibility have often used their positive evaluations as a way to increase transparency and reduce information asymmetry (Chatterji and Levine, 2006; Chatterji, Levine, and Toffel, 2009). Frequently coupled with this objective is an implicit assumption that recognizing good behavior can motivate unrecognized corporations to improve their subsequent performance (Paul and Lydenberg, 1992; Fombrun, 1996; Waddock, Graves, and Kelly, 2000; Sadowski, 2010; Tolbert, 2018). Consistent with this assumption, many rating agencies continue to use positive ratings as a way to incentivize improvements in corporate accountability and performance (Waddock, Graves, and Kelly, 2000; CDP, 2010;

Sadowski, 2010).

Yet despite the fact that scholars and practitioners have for many years recognized the potential of social ratings to enact change in corporate social performance (Paul and Lydenberg, 1992; Sadowski, 2010), the effectiveness of positive social ratings has yet to be addressed. Seeking to extend this line of inquiry, I sought to understand how positively rated firms would respond to a social rating and whether and when such recognition could impact subsequent social performance. I found evidence to suggest that efforts to promote corporate responsibility through positive social ratings can paradoxically lead to reductions in social performance. Specifically, I found that ratings that were implicitly intended to drive increases in corporate philanthropy actually led to overall decline in the level of corporate philanthropic contributions, an outcome certainly unintended by KLD.

These findings thus suggest that there may be unintended consequences when recognizing social responsibility (Kerr, 1975; Chatterji and Levine, 2006; Wang et al., 2016): that efforts to promote responsible corporate behavior may prove to be unhelpful or even harmful. I do not mean to suggest that such efforts are useless, only that the potential negative effects need to be taken into consideration. Although we need more research regarding the performance effects of positive ratings, given what we know about the efficacy of negative ratings (Jin and Leslie, 2003; Chatterji and Toffel, 2010; Sharkey and Bromley, 2015), these findings imply that policy makers and stakeholders who have an interest in motivating increased corporate responsibility may want to focus on singling out the poor performers rather than recognizing the good.

From a practical perspective, these results also provide rating agencies with valuable information about how rating systems might be designed to more effectively maximize impact and minimize gaming (Paul and Lydenberg, 1992; Sadowski, Whitaker, and Ayars, 2011;

Gubler, Larkin, and Pierce, 2016; Luca and Zervas, 2016). For example, my theory and results suggest that positive ratings that are binary are more likely to cause strategic reductions in performance (i.e. gaming) by rated organizations. Consistent with this prediction, many social rating agencies, which were historically derived from positive and negative social screens, have since switched from a binary rating system to one that incorporates multiple performance categories and even continuous measures of performance.¹³ Future research could thus examine these new rating schemes to see whether multi-category ratings are more effective at increasing impact and reducing gaming behavior.

While my results suggest that recognizing firms for their corporate philanthropy led to an overall net decrease in the level of giving, I did not directly examine how such reductions would impact overall social welfare. Given that higher levels of corporate generosity were recognized as a strength, one could presume that KLD perceived higher (lower) levels of corporate philanthropy as an outcome that would be socially beneficial (detrimental). Although I did not empirically address this outcome, recent research suggests that corporate contributions can, under certain conditions, lead to increased social welfare (Kaul and Luo, 2018). Given this research, it is indeed plausible that KLD's generosity rating may have led to an overall decline in social welfare. Future research could therefore extend this work by directly addressing the welfare impacts of social ratings. By so doing, scholars could indeed contribute to a growing conversation to understand the conditions under which corporate social initiatives like philanthropy are most likely to yield societal benefits (George et al., 2016b; Wang et al., 2016; Ballesteros, Useem, and Wry, 2017).

¹³ The MSCI ESG ratings, the successor rating scheme to the KLD ratings, now evaluates key sustainability issues on a 1-10 scale (MSCI, 2018).

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Figure 1. Trends in Philanthropic Contributions

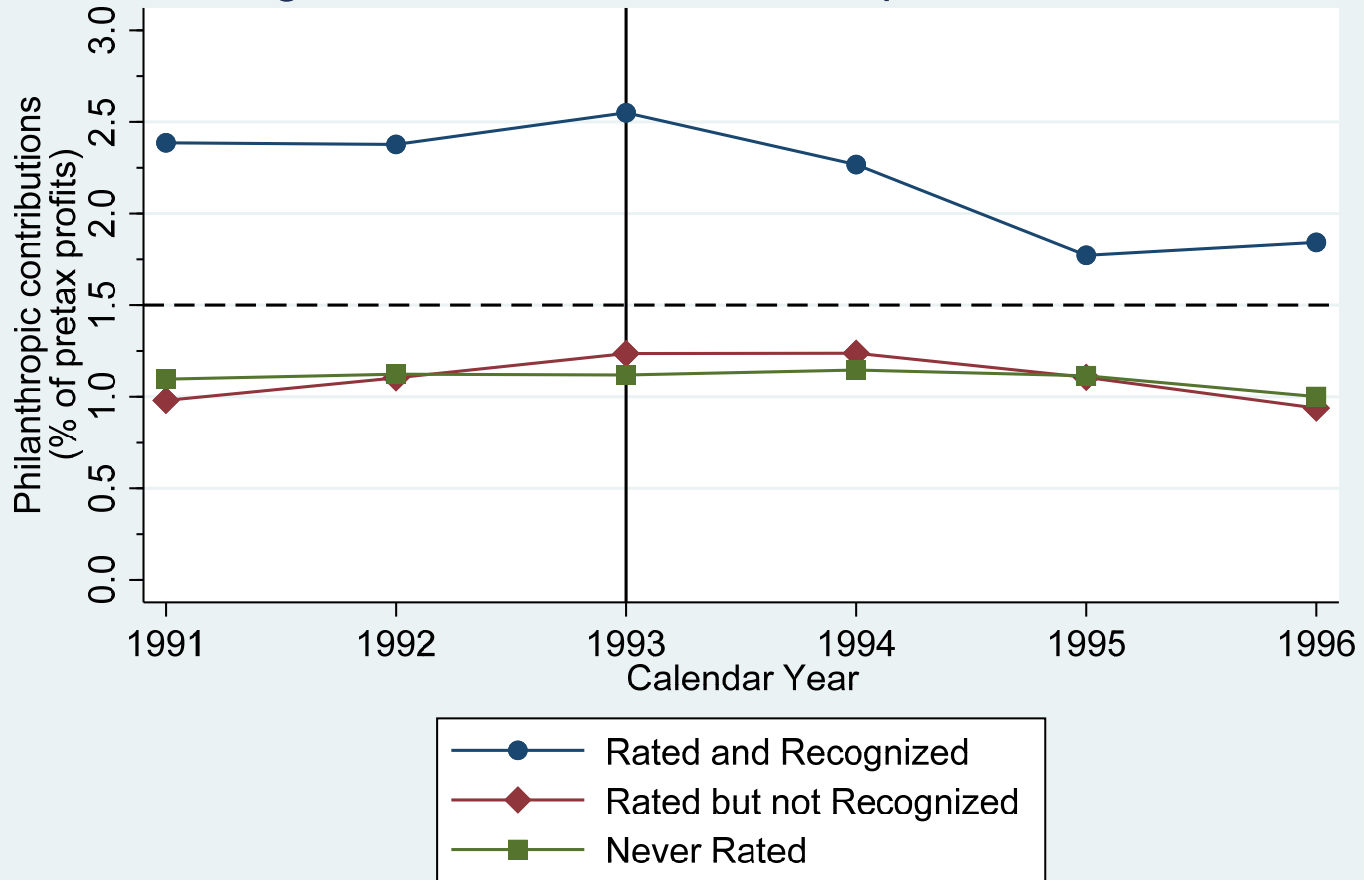


Table 1. Sample breakdown

Panel A. Number of firms in sample

	Total number of firms		Initial positive rating		No initial positive rating		Firms never rated	
	Count	%	Count	%	Count	%	Count	%
Full sample:	475	100	65	14	294	62	116	24
Split samples:								
Charitable community	62	13	13	3	36	8	13	3
Non-charitable community	413	87	52	11	258	54	103	22
Socially contested industry	50	11	11	2	35	7	4	1
Non-socially contested industry	425	89	54	11	259	55	112	24

Table 1. Sample breakdown

Panel B: Community composition		
CBSA Code	CBSA Name	Number of firms
35620	New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	58
16980	Chicago-Joliet-Naperville, IL-IN-WI MSA	42
33460	Minneapolis-St. Paul-Bloomington, MN-WI MSA	18
37980	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	18
31100	Los Angeles-Long Beach-Santa Ana, CA MSA	17
14460	Boston-Cambridge-Quincy, MA-NH MSA	16
41180	St. Louis, MO-IL MSA	15
14860	Bridgeport-Stamford-Norwalk, CT MSA	12
41860	San Francisco-Oakland-Fremont, CA MSA	12
12060	Atlanta-Sandy Springs-Marietta, GA MSA	11
17460	Cleveland-Elyria-Mentor, OH MSA	11
19100	Dallas-Fort Worth-Arlington, TX MSA	11
19820	Detroit-Warren-Livonia, MI MSA	11
40060	Richmond, VA MSA	11
38300	Pittsburgh, PA MSA	10
47900	Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	9
16740	Charlotte-Gastonia-Rock Hill, NC-SC MSA	7
25540	Hartford-West Hartford-East Hartford, CT MSA	7
26420	Houston-Sugar Land-Baytown, TX MSA	7
42660	Seattle-Tacoma-Bellevue, WA MSA	7
17140	Cincinnati-Middletown, OH-KY-IN MSA	6
33340	Milwaukee-Waukesha-West Allis, WI MSA	6
38900	Portland-Vancouver-Hillsboro, OR-WA MSA	6
41940	San Jose-Sunnyvale-Santa Clara, CA MSA	5
12580	Baltimore-Towson, MD MSA	4
14260	Boise City-Nampa, ID MSA	4
19740	Denver-Aurora-Broomfield, CO MSA	4
28140	Kansas City, MO-KS MSA	4
33100	Miami-Fort Lauderdale-Pompano Beach, FL MSA	4
Various	Other charitable communities	13
	Other non-charitable communities	109
	Total	475

Charitable communities are highlighted in bold (Lydenberg, Marlin, and Strub, 1986; Navarro, 1988). Other charitable communities not listed (with number of firms in parentheses) include Birmingham, AL (2), Duluth, MN (1), Jacksonville, FL (2), Louisville, KY (1), Norfolk, VA (1), Phoenix, AZ (3) and Rochester, NY (3).

Table 1. Sample breakdown

Panel C: Industry composition		
SIC code	Description	Number of firms
49	Electric, Gas, And Sanitary Services	56
28	Chemicals And Allied Products	47
60	Depository Institutions	40
20	Food And Kindred Products	27
37	Transportation Equipment	24
35	Industrial And Commercial Machinery And Computer Equipment	23
63	Insurance Carriers	20
27	Printing, Publishing, And Allied Industries	19
26	Paper And Allied Products	18
48	Communications	16
38	Measuring, Analyzing, And Controlling Instruments	16
29	Petroleum Refining And Related Industries	15
36	Electronic And Other Electrical Equipment And Components, Except Computer Equipment	15
33	Primary Metal Industries	12
53	General Merchandise Stores	8
30	Rubber And Miscellaneous Plastics Products	8
61	Non-depository Credit Institutions	6
51	Wholesale Trade-non-durable Goods	6
73	Business Services	6
25	Furniture And Fixtures	6
	Other Industries	87
	Total	475

Table 2. Descriptive statistics and correlations

	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9
1. Philanthropic contributions	1.24	1.27	0	9.38									
2. KLD rated \times Initial positive rating	0.07	0.25	0	1	0.13								
3. KLD rated \times No initial positive rating	0.32	0.46	0	1	-0.07	-0.10							
4. Charitable community	0.13	0.34	0	1	0.06	0.05	-0.01						
5. Socially contested industry	0.11	0.31	0	1	0.15	0.06	0.03	-0.05					
6. Revenue (log) _{t-1}	8.08	1.16	4.78	12.02	0.06	0.10	0.21	-0.01	0.25				
7. Foundation assets (log) _{t-1}	1.21	1.21	0	5.94	0.06	0.11	0.07	0.00	0.10	0.37			
8. Return on assets (ROA) _{t-1}	14.05	8.20	-12.66	93.90	-0.17	0.03	0.07	0.04	0.05	-0.10	0.02		
9. Contributions of industry peers _{t-1}	0.09	0.05	0.00	0.30	-0.01	0.06	0.10	-0.02	-0.06	-0.14	0.02	0.16	
10. Marginal tax rate _t	31.24	7.58	0.00	35.00	-0.07	0.03	0.02	0.04	-0.05	-0.02	0.06	0.09	0.13

Note. 2,714 firm-year observations

Table 3. Firm response after initial KLD rating

	(1)	(2)
	Baseline	Aggregated
(A) KLD rated × Initial positive rating	-0.477 ** (0.165)	-0.490 ** (0.152)
(B) KLD rated × No initial positive rating	-0.001 (0.094)	-0.026 (0.089)
Revenue (log) _{t-1}	-0.545 *** (0.131)	-0.436 * (0.189)
Foundation assets (log) _{t-1}	-0.132 * (0.051)	-0.099 (0.077)
Return on assets (ROA) _{t-1}	-0.037 *** (0.007)	-0.038 *** (0.011)
Contributions of industry peers _{t-1}	-1.804 * (0.789)	-3.796 * (1.756)
Marginal tax rate _t	0.013 ** (0.004)	0.017 (0.009)
Year Fixed Effects	Yes	Yes
Firm Fixed Effects	Yes	Yes
Community Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
Observations	2,714	950
Firms	475	475
R-squared (within)	0.16	0.17
Wald test: coefficient (A) = (B)?	8.37 **	8.57 **

OLS regression coefficients with robust standard errors in parentheses. *** p < 0.001, ** p < 0.01, * p < 0.05. Wald test displays F test statistic where the null hypothesis is that the coefficients are statistically indistinguishable. The baseline model is displayed in column 1 and the aggregated model to adjust for serial correlation in column 2.

Table 4. Rating effects moderated by community norms

	(1)
(A) Charitable community × KLD rated × Initial positive rating	-0.183 (0.171)
(B) Charitable community × KLD rated × No initial positive rating	0.102 (0.176)
(C) Non-charitable community × KLD rated × Initial positive rating	-0.545 ** (0.193)
(D) Non-charitable community × KLD rated × No initial positive rating	-0.019 (0.095)
Year Fixed Effects	Yes
Firm Fixed Effects	Yes
Community Fixed Effects	Yes
Industry Fixed Effects	Yes
Observations	2,714
Firms	475
R-squared (within)	0.16
Wald test: coefficient (A) = (B)?	1.71
Wald test: coefficient (C) = (D)?	7.14 **

OLS regression coefficients with robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Wald test displays F test statistic where the null hypothesis is that the coefficients are statistically indistinguishable. Control variables are not displayed to preserve space but are available in Table A2 in the Appendix.

Table 5. Rating effects moderated by industry risk

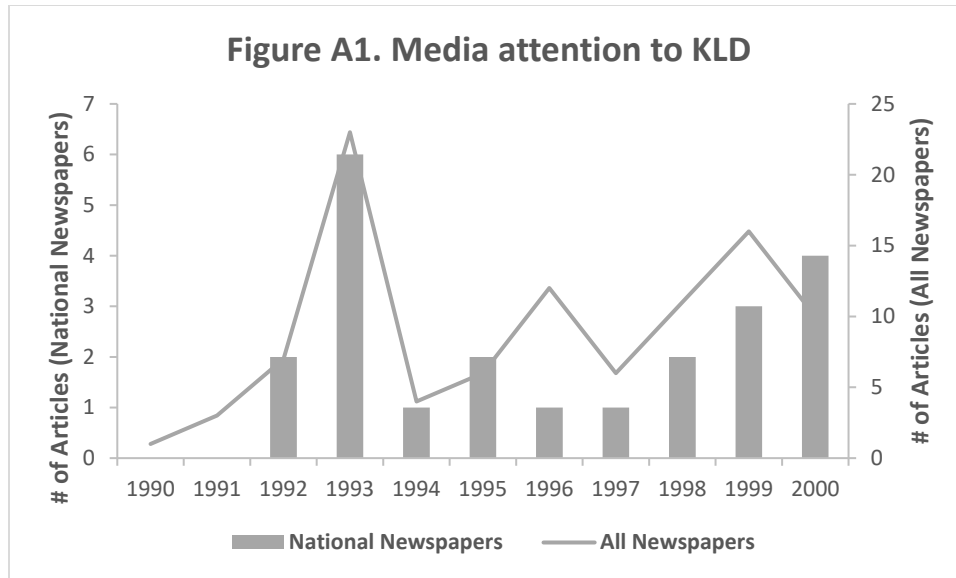
	(1)
(A) Socially contested industry × KLD rated × Initial positive rating	-0.166 (0.157)
(B) Socially contested industry × KLD rated × No initial positive rating	-0.143 (0.265)
(C) Non-socially contested industry × KLD rated × Initial positive rating	-0.544 ** (0.190)
(D) Non-socially contested industry × KLD rated × No initial positive rating	0.026 (0.091)
Year Fixed Effects	Yes
Firm Fixed Effects	Yes
Community Fixed Effects	Yes
Industry Fixed Effects	Yes
Observations	2,714
Firms	475
R-squared (within)	0.17
Wald test: coefficient (A) = (B)?	0.01
Wald test: coefficient (C) = (D)?	8.80 **

OLS regression coefficients with robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Wald test displays F test statistic where the null hypothesis is that the coefficients are statistically indistinguishable. Control variables are not displayed to preserve space but are available in Table A3 in the Appendix.

APPENDIX

History and Timing of KLD's Initial Ratings

Established in 1988, KLD's original objective was to build an index of stocks that would track the costs and benefits of applying social screens to investments decisions (see Godfrey, 2011 for a more detailed overview). This index was later named the Domini 400 Social Index and was launched on June 1, 1991. To justify their decisions to investors, the founders established a research database that would provide structure and a rigorous selection criteria to their burgeoning index. Initially the database and its underlying ratings was seen as a tool that would facilitate the production and maintenance of the Index (i.e. a means to an end). The founders, however, soon realized that their most valuable product was the ratings database, not the index. Accordingly, KLD quickly shifted their marketing strategy from providing investment services via the fund to selling their research database. According to Sharfman (1996), the 1991 ratings were first made available to researchers in August of 1992. The ratings, however, did not appear to gain widespread publicity until 1993 (see Figure A1). Given these findings, I thus consider 1993 to be the first rating year, even though the rating decisions were based on performance data from 1991. Because inertial factors such as budgets and commitments to nonprofits would have likely constrained an immediate response, I did not expect them to have any significant influence on corporate donations until 1994.



Notes: Counts were obtained from Factiva for all newspaper articles that referenced the term “Kinder, Lydenberg, Domini” from 1990-2000. Newspapers of national repute include the New York Times, Washington Post, Wall Street, Journal, Chicago Tribune, USA Today, and the Los Angeles Times (McDonnell and King, 2013; McDonnell and Werner, 2016).

Parallel Trends Assumption

I examine the trends among the three groups during the pre-rating period (1991-1993) using a regression model which includes lags of the treatment variables (KLD rated \times initial positive rating and KLD rated \times no initial positive rating). I designate 1993, treatment year, as the omitted category. Significant coefficients would indicate that pre-treatment trends for firms that were rated by KLD differed significantly from firms that were never rated. As can be seen in Table A1, the coefficients were not statistically significant indicating that firms that were rated by KLD displayed similar trends in charitable contributions to firms that were never rated in the pre-treatment period. A Wald Test comparing the coefficients of the two interaction terms in t-2, and t-1 similarly indicate that firms initially rated as charitable exhibited similar pre-treatment trends to firms that were initially rated but not recognized. Coupled with a visual depiction of these trends in Figure 1, these results provide strong support for the parallel trends assumption.

Table A1. Test for Parallel Trends

	(1)
(A) KLD rated × Initial positive rating (t-2)	-0.043 (0.261)
(B) KLD rated × No initial positive rating (t-2)	-0.155 (0.100)
(C) KLD rated × Initial positive rating (t-1)	-0.151 (0.186)
(D) KLD rated × No initial positive rating (t-1)	-0.049 (0.088)
Revenue (log) _{t-1}	-0.490 *
Foundation assets (log) _{t-1}	-0.228 *
Return on assets (ROA) _{t-1}	-0.014 (0.012)
Contributions of industry peers _{t-1}	-2.135 (1.267)
Marginal tax rate _t	0.015 ** (0.006)
Year Fixed Effects	Yes
Firm Fixed Effects	Yes
Community Fixed Effects	Yes
Industry Fixed Effects	Yes
Observations	1,371
Firms	475
R-squared (within)	0.12
Wald test: coefficient (A) = (B)?	0.19
Wald test: coefficient (C) = (D)?	0.33

OLS regression coefficients with robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Wald test displays F test statistic where the null hypothesis is that the coefficients are statistically indistinguishable. Subsample includes all firm-year observations in the pre-rating period (1991-1993).

Table A2. Rating effects moderated by community norms

		(1)
(A)	Charitable community × KLD rated × Initial positive rating	-0.183 (0.171)
(B)	Charitable community × KLD rated × No initial positive rating	0.102 (0.176)
	Charitable community × Revenue (log) _{t-1}	-0.521 (0.315)
	Charitable community × Foundation assets (log) _{t-1}	-0.118 (0.114)
	Charitable community × Return on assets (ROA) _{t-1}	-0.022 (0.022)
	Charitable community × Contributions of industry peers _{t-1}	-2.522 (1.621)
	Charitable community × Marginal tax rate _t	0.013 (0.012)
(C)	Non-charitable community × KLD rated × Initial positive rating	-0.545 ** (0.193)
(D)	Non-charitable community × KLD rated × No initial positive rating	-0.019 (0.095)
	Non-charitable community × Revenue (log) _{t-1}	-0.548 *** (0.138)
	Non-charitable community × Foundation assets (log) _{t-1}	-0.130 * (0.058)
	Non-charitable community × Return on assets (ROA) _{t-1}	-0.038 *** (0.008)
	Non-charitable community × Contributions of industry peers _{t-1}	-1.696 (0.881)
	Non-charitable community × Marginal tax rate _t	0.013 ** (0.005)
	Observations	2,714
	Firms	475
	R-squared (within)	0.16
	Wald test: coefficient (A) = (B)?	1.71
	Wald test: coefficient (C) = (D)?	7.14 **

OLS regression coefficients with robust standard errors in parentheses. *** p < 0.001, ** p < 0.01, * p < 0.05. Wald test displays F test statistic where the null hypothesis is that the coefficients are statistically indistinguishable. This model includes firm, year, community and industry, fixed-effects

Table A3. Rating effects moderated by industry risk

	(1)
(A) Socially contested industry × KLD rated × Initial positive rating	-0.166 (0.157)
(B) Socially contested industry × KLD rated × No initial positive rating	-0.143 (0.265)
Socially contested industry × Revenue (log) _{t-1}	-0.562 (0.441)
Socially contested industry × Foundation assets (log) _{t-1}	-0.384 (0.252)
Socially contested industry × Return on assets (ROA) _{t-1}	-0.079 * (0.036)
Socially contested industry × Contributions of industry peers _{t-1}	1.704 (2.499)
Socially contested industry × Marginal tax rate _t	0.021 (0.012)
(C) Non-socially contested industry × KLD rated × Initial positive rating	-0.544 ** (0.190)
(D) Non-socially contested industry × KLD rated × No initial positive rating	0.026 (0.091)
Non-socially contested industry × Revenue (log) _{t-1}	-0.548 *** (0.140)
Non-socially contested industry × Foundation assets (log) _{t-1}	-0.081 (0.046)
Non-socially contested industry × Return on assets (ROA) _{t-1}	-0.032 *** (0.007)
Non-socially contested industry × Contributions of industry peers _{t-1}	-2.347 ** (0.809)
Non-socially contested industry × Marginal tax rate _t	0.012 * (0.005)
Observations	2,714
Firms	475
R-squared (within)	0.17
Wald test: coefficient (A) = (B)?	0.01
Wald test: coefficient (C) = (D)?	8.80 **

OLS regression coefficients with robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Wald test displays F test statistic where the null hypothesis is that the coefficients are statistically indistinguishable. This model includes firm, year, community and industry, fixed-effects

Figure A2. Trends in Philanthropic Contributions

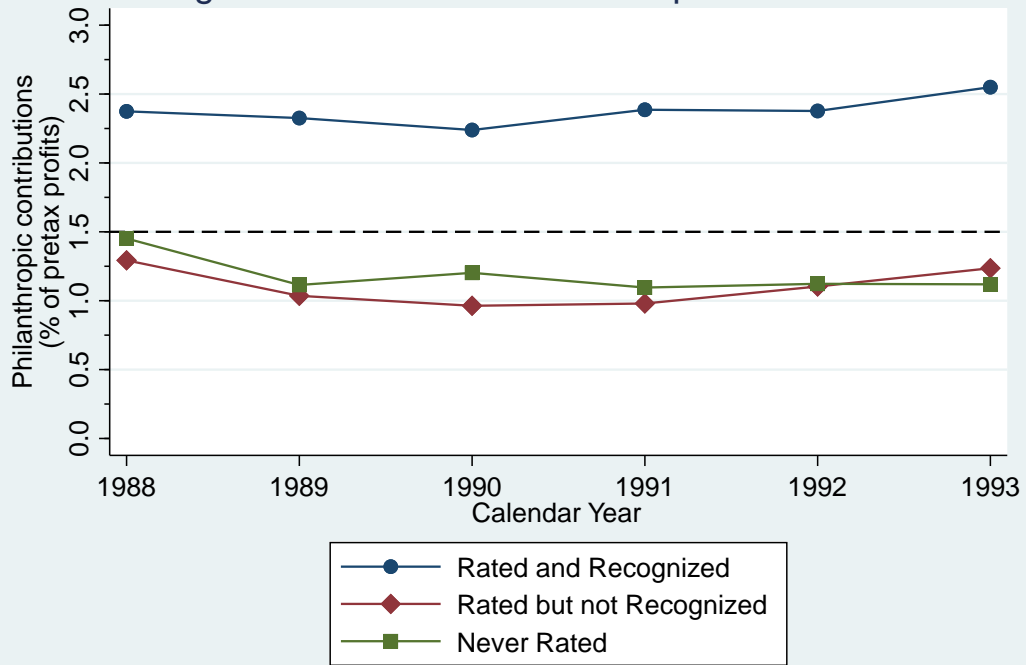


Table A4. Firm response after initial KLD rating - Placebo Tests (1988-1993)

	(1)	(2)	(3)
	Baseline	Extreme	Reverse
(A) KLD rated × Initial positive rating	0.033 (0.140)	-0.102 (0.218)	0.243 (0.148)
(B) KLD rated × No initial positive rating	0.163 (0.099)	0.165 (0.093)	0.085 (0.100)
Revenue (log) _{t-1}	-0.784 *** (0.219)	-0.785 *** (0.218)	-0.776 *** (0.219)
Foundation assets (log) _{t-1}	-0.033 ** (0.010)	-0.034 ** (0.010)	-0.034 ** (0.010)
Return on assets (ROA) _{t-1}	-0.109 (0.059)	-0.106 (0.058)	-0.114 (0.060)
Contributions of industry peers _{t-1}	-0.315 (0.640)	-0.339 (0.633)	-0.312 (0.642)
Marginal tax rate _t	0.001 (0.006)	0.001 (0.006)	0.001 (0.006)
Year Fixed Effects	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes
Community Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
Observations	2,537	2,537	2,537
Firms	448	448	448
R-squared (within)	0.09	0.09	0.09
Wald test: coefficient (A) = (B)?	0.88	1.56	1.16

OLS regression coefficients with robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Wald test displays F test statistic where the null hypothesis is that the coefficients are statistically indistinguishable. I display the baseline placebo treatment in column 1 (recognition threshold $> 1.5\%$), the extreme placebo treatment (recognition threshold $> 2.25\%$) in column 2, and the reverse placebo treatment (recognition threshold $< 0.5\%$) in column 3.