

## DOES ENGAGEMENT IN CORPORATE SOCIAL RESPONSIBILITY PROVIDE STRATEGIC INSURANCE-LIKE EFFECTS?

YUNG-MING SHIU<sup>1†\*</sup> and SHOU-LIN YANG<sup>2</sup>

<sup>1</sup> Department of Risk Management and Insurance, Risk and Insurance Research Center, College of Commerce, National Chengchi University, Taipei, Taiwan

<sup>2</sup> Department of Business Administration, Da-Yeh University, Changhua, Taiwan

**Research summary:** This study examines whether the stock and bond prices of firms engaging in corporate social responsibility (CSR) can benefit from insurance-like effects during occurrences of negative events. Our results suggest that in the face of negative events, engagement in CSR on a continuous, long-term basis provides insurance-like effects on both the stock and bond prices of firms. Nevertheless, the effects are found to quickly disappear following the occurrence of a second, or subsequent, negative event. Although our results clearly indicate that firms need to allocate some of their available resources to long-term strategic CSR activities, managers must also realize that in a crisis communication, they will probably be able to use their CSR claims on one occasion only.

**Managerial summary:** The purpose of this article is to examine whether firms engaging in corporate social responsibility (CSR) can benefit from insurance-like effects during occurrences of negative events. We find that on the occurrence of a negative event, long-term CSR engagement does have insurance-like effects. We also find that these insurance-like effects may quickly disappear following the occurrence of a second negative event. Managers of firms with a long history of CSR activities need to realize that in a crisis communication, they can probably use their claims of adherence to CSR only once. Copyright © 2015 John Wiley & Sons, Ltd.

## INTRODUCTION

The issue of corporate social responsibility (CSR) has become increasingly important over recent years, with the motivation for the growing involvement of firms in CSR activities, including altruism, strategic choices, forestalling the setting of stricter regulations by governments (Baron and Diermeier, 2007), and acceding to the demands of “nongovernmental organizations” (NGOs) in an attempt to

avoid any potential boycotting (Fisman, Heal, and Nair, 2007).

However, CSR definitions vary quite considerably within the extant literature; for example, McWilliams and Siegel (2000) defined CSR as “corporate actions, not required by law, that attempt to further some social good and extend beyond the explicit transactional interests of the firm,” while the definition subsequently provided by Mackey, Mackey, and Barney (2007) referred to “voluntary corporate actions designed to improve social conditions.” Both definitions are, nevertheless, less encompassing and inclusive than the definition provided by Carroll (1979), who argued that, in descending order of their relative magnitude, the areas of social responsibility could be classified into economic, legal, ethical, and discretionary factors.

Keywords: corporate social responsibility; insurance-like effects; risk management; event study; negative events

\*Correspondence to: Yung-Ming Shiu, 64, Sec. 2, Zhi-Nan Road, Wen-Shan District, Taipei 11605, Taiwan. E-mail: yungming@nccu.edu.tw

†Yung-Ming Shiu is the designated contact author of this article. The authors have equal contributions.

Increasing numbers of firms have begun to exhibit greater social responsibility over recent years by adopting a policy of regular engagement in CSR activities, essentially in response to the call from society for greater corporate citizenship; and indeed, it was suggested by McWilliams and Siegel (2001) that when firms set out to formulate their corporate strategies, CSR activities should be routinely included. Other related studies have indicated that CSR is an important element of strategic investment, and as such, it should be regarded as a form of reputation building or maintenance (Fombrun and Shanley, 1990; McWilliams, Siegel, and Wright, 2006).

It has been further argued in several related studies that CSR engagement may produce insurance-like effects on the stock price of a firm (Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009). The term *insurance-like effects* refers to the ways in which, on the occurrence of a negative event relating to the corporate operations of a firm, CSR engagement can reduce any potential impact on its stock price; thus, engagement in CSR by a firm can be regarded as an insurance premium that the firm pays to avoid, or reduce, any loss of market value as a result of such negative events.

The question that this study aims to answer is whether, in the midst of occurrences of negative events, CSR provides insurance-like protection for firms through the preservation of shareholder and bondholder wealth. Although several studies have adopted a perspective of increasing financial performance to examine the empirical relationship between CSR and corporate financial performance (CFP) (Alexander and Buchholz, 1978; Aupperle, Carroll, and Hatfield, 1985; Waddock and Graves, 1997), the argument that participation in CSR activities can provide an insurance-like benefit for shareholders—by helping to avoid a reduction in shareholder value on the occurrence of a negative legal/regulatory event—is pursued in only a few of these studies (such as Godfrey *et al.*, 2009; Peloza, 2006).

We set out in the present study to fill the current gap in the literature by placing our research focus on three specific and important issues. First, as already noted, there has been precious little focus on the insurance-like effects of CSR engagement following occurrences of negative events, and even less so with regard to any specific focus on bond prices; we therefore carry out an examination into whether CSR activities can preserve bondholder

value. Second, the prior studies (such as Godfrey *et al.*, 2009) consider only the short-term CSR effects; however, even when expanding the scale of short-term CSR engagement (Nichols, 1990), such engagement cannot produce any immediate effects, since long-term efforts are required in order to reveal its influence (Cooper, 1997). The examination in the present study is therefore extended to include the influence of long-term CSR engagement. Third, we further argue that the preservation effect on shareholder and bondholder wealth is likely to be diminished if there is any repetition of negative events. We therefore examine whether the insurance-like effects are reduced with an increase in the number of negative events.

Consistent with our expectations, we find that on the occurrence of a negative event, CSR engagement does have insurance-like effects on both the stock and bond prices of a firm, thereby implying that CSR engagement can serve as a risk management tool for the preservation of corporate stock and bondholder wealth. We also find that these insurance-like effects may be reduced with an increase in the number of negative events; we refer to this phenomenon in the present study as the “diminishing marginal insurance-like effect.”

## THEORY AND HYPOTHESIS DEVELOPMENT

### CSR and CFP

According to “stakeholder contract costs” theory, corporate social performance (CSP) contributes to CFP, as firms with good CSP realize lower costs of managing stakeholder relationships, and thus, can potentially earn higher financial returns than firms with bad social practices (Jones, 1995). Under “private costs” theory, however, CSP merely represents a cost that the firm bears without any commensurate return (Friedman, 1970; Preston and O’ Bannon, 1997). In this case, CSR has a negative impact on financial performance.<sup>1</sup>

<sup>1</sup>In addition to the “stakeholder contract costs” and “private costs” theories, there are three other theories linking CSR to CFP, that is, “good management,” “managerial guile,” and “affordability” (Schuler and Cording, 2006). The theory of “good management” assumes that the same managerial skills and strategies necessary for good social performance are also prerequisites for good financial performance (Alexander and Buchholz, 1978; Anderson and Frankle, 1980; Waddock and Graves, 1997). “Managerial guile” theory argues that since it is difficult for owners to

Based on their adoption of the KLD (Kinder, Lydenberg, Domini & Co., Inc.) reputation rating scales as proxies for CSR, Waddock and Graves (1997) went on to demonstrate that both past and current KLD ratings have a positive correlation with the return on the assets of a firm. A positive relationship was also found in McGuire, Sundgren, and Schneeweis (1988), again based on KLD ratings, among CSR, return on assets, sales growth and risk-adjusted returns, with other studies documenting a similar positive relationship (see King and Lenox, 2002; Russo and Fouts, 1997). Acar, Aupperle, and Lowy (2001) further demonstrated that the relationship between CSR activities and CFP differed across various organizational types, from fully for-profit to fully nonprofit organizations.

Conversely, it is also argued that corporate philanthropy may have a negative association with CFP. Anginer, Fisher, and Statman (2007) found that the stocks of "admired" firms generally had lower returns than the stocks of those firms that were not included in the list, with several other studies reporting similar findings (Barnett and Salomon, 2006; Surroca, Tribo, and Waddock, 2010). No evidence of any correlation between CSR and CFP was found in other related studies; for example, in Alexander and Buchholz (1978), no relationship was found to exist between social responsibility and stock market performance, while in Aupperle *et al.* (1985), no relationship was discernible between social responsibility and profitability.<sup>2</sup>

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monitor managerial behavior, particularly in large corporations (Berle and Means, 1932), some will engage in CSP for their own personal benefit, despite the fact that it is detrimental to overall firm performance (Preston and O'Bannon, 1997). "Affordability" theory focuses on the cost of social performance; since social activities are costly, only firms with adequate financial performance can afford to pursue them (Carroll, 1979). As will be shown later, the mixed results reported in the prior studies clearly indicate the complexity of the theoretical explanations on the relationship between CSR and CFP.

<sup>2</sup>Several potential reasons are offered for such mixed results; for example, the explanatory model presented by Ullmann (1985) indicated that the reasons included a lack of theoretical underpinning, data deficiencies and inappropriate definitions of the key terms. McWilliams and Siegel (2000) argued that most of the empirical models on the CSR-CFP relationship were misspecified, essentially because they lacked any controls for investment in R&D, which has often been shown to be an important determinant of firm performance. Barnett and Salomon (2006) further indicated that CSR and financial performance shared a curvilinear relationship, while Surroca *et al.* (2010) could find no direct relationship between CSR and CFP.

Although CSR research has yet to fully address the issues raised 30 years ago by Ullmann (1985), a number of remedies are proposed in the related studies for the theoretical and methodological problems associated with this field of research. For example, Ullmann (1985) highlighted the importance of examining CSR issues under a strategic framework with improved methodology, while Swanson (1995) provided a theoretical research framework for use in integrating economic and duty-aligned perspectives. Bolino (1999) subsequently discussed ways of isolating self-serving motives from various other motives for organizational citizenship behavior.

### CSR and insurance-like effects

Corporate philanthropic activities, and the underlying motives for such activities, are perceived and assessed by stakeholders. If the philanthropic activities of the firm are considered to be altruistic, or at least not completely self-serving, then stakeholders will ascribe moral value to these activities (Godfrey, 2005), with such moral value then constituting moral capital. The resultant moral capital protects relationship-based assets against loss by moderating the negative assessments of stakeholders (Godfrey, 2005), thereby serving as a buffer against reputation risk (Minor and Morgan, 2011).

Minor and Morgan (2011) argued that CSR provides a contingent benefit, since expenditure on CSR activities is very similar to paying premiums, thereby reflecting a cost to the firm. Peloza (2006) noted that CSR engagement can essentially act as insurance for performance during abnormal times, such as recessionary periods or unexpected negative firm-specific events; thus, the expenses of a firm associated with its engagement in CSR can be regarded as insurance premiums paid by the firm in order to avoid, or reduce, any loss of market value as a result of such negative events.

Godfrey (2005) presented a theoretical model designed to explain why corporate philanthropic activity generates a positive reputation and moral capital among the stakeholders of the firm, which in turn, provides the firm with insurance-like protection for its relationship-based intangible assets.<sup>3</sup> He argued that stakeholders have some

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<sup>3</sup>Godfrey (2005) indicated that relationship-based intangible assets cannot be insured against using a traditional insurance contract because they do not meet certain criteria for insurability, such

approbation toward corporate philanthropy, with such shareholder approval subsequently forming the moral capital of the firm, ultimately mitigating any adverse assessment by stakeholders of its bad acts, and thereby creating a case for leniency in any punishment that may be considered. Godfrey *et al.* (2009) found general support for the risk management view that CSR is a potential risk management tool capable of creating value for shareholders in the face of certain types of negative events. Based on the above discussion, we propose our first hypothesis:

*Hypothesis 1: When adverse events occur, CSR engagement will provide an insurance-like effect.*

If the firm has a short history of CSR engagement, it will probably only accumulate limited moral capital, which would then provide limited insurance-like effects. Godfrey (2005) highlighted the importance of stability in philanthropic activity, indicating that consistency in such activity avoids the impression of opportunism or ingratiations. Using an experimental design, Vanhamme and Grobben (2009) found that as compared to firms with a short history of CSR, those with a long history were better able to use CSR claims in their crisis communications to counter negative publicity. They further noted that consumer skepticism mediates the effectiveness of CSR history in countering the negative impact of a crisis. Based on the above discussion, we propose our second hypothesis:

*Hypothesis 2: When adverse events occur, the insurance-like effects will be greater for firms with long-term CSR engagement than those with short-term CSR engagement.*

### Insurance-like effects and repeated violations

When external stakeholders receive a signal of CSR engagement by a firm, that firm will accrue moral capital, which will then temper the reaction of such stakeholders to any negative events. It does, however, seem obvious that repeated negative events will deplete such moral capital; thus, when negative events are found to occur repeatedly, the

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as a large number of homogenous exposure units and accidental, unintentional and measurable losses.

firm's moral capital is reduced, as is the CSR protection arising from such moral capital.

If CSR really does communicate goodwill toward stakeholders, repeated violations will ultimately remove the "benefit of the doubt" that a firm may be afforded with regard to its intentions, such that the insurance-like effects arising from marginal returns to CSR activities may not be gradually diminishing; indeed, as opposed to "diminishing marginal returns," there may actually be a "credibility cliff" if skepticism with regard to the altruistic intent of CSR engagement is triggered by repeated violations.

Based on survey evidence, Vanhamme and Grobben (2009) asserted that "companies with a long CSR track record can dismiss a crisis as a one-time incident, and consumers will tend to believe their more credible CSR claims"; however, when a CSR-driven firm has a second occurrence, or subsequent occurrences, of negative events, this could result in a dramatically less forgiving stakeholder set. Failing where one is never expected to fail (given that the firm has traditionally been so CSR responsible) may produce a very rapidly unforgiving stakeholder set, and thus, a reduced insurance effect. We therefore propose the following hypothesis.

*Hypothesis 3: The insurance-like effect of CSR will disappear after a second, or subsequent, occurrence of negative events.*

### Insurance-like effects and shareholder/bondholder value

The literature on the influence of CSR engagement on bonds is unfortunately quite sparse; hence, in the present study, we also consider the question of whether the insurance-like effects examined above also exist for bond prices. Although Menz (2010) found that CSR engagement had no influence on bond prices, based on monthly bond data and least-squared regressions, we nevertheless aim to provide an additional attempt at determining whether CSR can actually create wealth for bondholders.

We expect to find that on the occurrence of a negative event, in both statistically and economically significant terms, CSR engagement will have smaller insurance-like effects on the bond price of a firm, as compared to its stock price. This expectation is due, in part, to the fact that bondholders and

stockholders are very different in nature. Although bondholders, like stockholders, do care about negative events, particularly when such events may have adverse effects on the ability of the bond issuer to pay the promised cash flows, we nevertheless expect to find that bondholders will not be as concerned as stockholders about such negative events, for the following reasons.

First, bondholders are ranked ahead of stockholders in terms of claims on company income, or indeed, claims on company assets in the case of bankruptcy. Second, the payments promised to corporate bondholders represent a best-case scenario. The firm will never pay more than the promised cash flow, but in hard times (such as during occurrences of negative events), it may pay less; however, the occurrence of a negative event may have adverse impacts on the possible capital gains of stockholders. Based on the above discussion, we propose our final hypothesis:

*Hypothesis 4: When a negative event occurs, CSR engagement will have smaller insurance-like effects on a firm's bond price than its stock price.*

## METHODOLOGY AND DATA SOURCES

### Methodology

Following the approach proposed by Ball and Brown (1968), and Fama *et al.* (1969), we adopt an event study methodology in the present study to facilitate our examination of whether a particular event is capable of triggering abnormal stock price changes, ultimately leading to "abnormal returns" (AR). We also calculate "cumulative abnormal returns" (CAR) so as to analyze the continuing influence of the event on stock and bond prices throughout the event period; the event period includes the three days before and after the negative event.<sup>4</sup>

Specific negative events affecting our sample of firms were selected to facilitate our examination in the present study of whether CSR performance has insurance-like effects on stock and bond prices. We began by selecting 18 keywords based on the

multiplicated indices used in the KLD dataset for the measurement of CSR performance. We then searched the *Wall Street Journal* for any negative events relating to our sample of firms using specific keywords. They included "controversy," "dispute," "local," "compensation," "transparency," "discrimination," "minority," "damage," "fines," "pollution," "regulation," "labor rights," "product safety," "allegation," "fraud," "lawsuits," "litigation," and "scandal." This search yielded a total of 1,745 negative events.

In order to control for possible confounding effects from other events during the event window, we adopted the following robustness procedures proposed in Peterson (1989), and McWilliams and Siegal (1997). First, the focal event was removed if it occurred within a month of the occurrence of a previous event; and second, the event was removed if there were any materially confounding events within the 30-day period preceding the focal event (such as new products, strategic alliances, mergers and acquisitions, or announcements of financial statements). The resultant sample provided a total of 1,384 negative events.

The date on which the negative event was first reported in the *Wall Street Journal* is taken as the start date of the event for the calculation of the abnormal returns on stocks and bonds. There is no general consensus within the extant literature on the optimal length of the estimation period; however, if the period is too short, it can affect the predictive power of the model. Conversely, if the period is too long, it can result in structural changes of the data, and hence, an unstable model. We follow the suggestion of Peterson (1989) to use an estimation period of 120 days.

### Data sources

#### *CSR engagement measure*

We use the KLD 400 Social Index dataset (KLD dataset) to measure the CSR engagement of a firm; this dataset, which assesses firm performance under several dimensions relating to community, corporate governance, environment, employee relations, diversity, human rights, and products, has been adopted in many of the prior CSR-related studies (e.g., Godfrey *et al.*, 2009; King and Lenox, 2002; Russo and Fouts, 1997; Waddock and Graves, 1997).

Waddock and Graves (1997), for example, noted that the use of this dataset has several advantages,

<sup>4</sup>Other event periods involving 2-, 5-, and 10-day periods before and after the event were also examined; however, the results remained qualitatively unchanged.

not the least of which is the fact that KLD is an independent rating agency focusing exclusively on CSP assessment, with all S&P 500 firms being rated on multiple attributes relevant to CSP. Furthermore, the measures used in the dataset have been shown to exhibit robust construct validity (Godfrey *et al.*, 2009).

Nevertheless, while KLD has the advantages stated above, it inevitably has disadvantages. It is argued in some studies (such as Entine, 2003; Mattingly and Berman, 2006) that researchers should not combine item scores in the KLD dataset because they individually represent distinct constructs and there may be some key CSR components missing. However, as Mattingly and Berman (2006) put it: "The KLD data need not be perfect to be useful for the accumulation of knowledge, but the valid usefulness of the data requires further exploration."<sup>5</sup>

A firm is assigned a score of 1 if it conforms to the description of an assessment item; otherwise, 0; the total assessment item score therefore reflects the firm's overall level of CSR engagement. It should also be noted that there has been a steady increase in the assessment items of the KLD dataset over the years; consequently, the same score in different years may represent different levels of CSR engagement.<sup>6</sup> To overcome this potential conflict, we use the following equation to adjust the raw KLD score.

$$\begin{aligned} AKLD_{i,t} &= \frac{KLD_{i,t}}{TScore_t} \div \frac{IKLD_{i,t}}{TScore_t} \times 100 \\ &= \frac{KLD_{i,t}}{IKLD_{i,t}} \times 100, \end{aligned} \quad (1)$$

<sup>5</sup>We are grateful to an anonymous reviewer for pointing out the importance of inquiring into the validity of the KLD database. The components of this database and the weightings of each component are two key issues. According to KLD Research and Analytics (2009), KLD's research and ratings encompass a range of environmental, social, and governance (ESG) issues. A proprietary research methodology is employed to evaluate firms' ESG performance. KLD analyst teams perform an annual review of each firm's ratings and profile. These analysts come from a variety of professional backgrounds and are organized into sector-specific teams. The interested reader is referred to the "ESG Research and Ratings Methodology" (KLD Research and Analytics, 2009).

<sup>6</sup>Prior to 2001, there were a total of 33 items in the KLD dataset; in 2002, two additional items were added, bringing the total number to 35; one more item was added in 2003, raising the total to 36; two more were added in 2005, bringing the total number to 38; one more was added in 2006, raising the total to 39; and one more was added in 2007, bringing the total number to 40.

where  $AKLD_{i,t}$  denotes the adjusted KLD score of the  $i$ th firm in year  $t$ ;  $KLD_{i,t}$  is the raw KLD score of the  $i$ th firm in year  $t$ ;  $IKLD_{i,t}$  represents the industry average raw KLD score for all firms in the industry in which the  $i$ th firm operates;  $TScore_t$  is the total KLD score in year  $t$ .<sup>7</sup>  $KLD_{i,t}$  and  $IKLD_{i,t}$  are deflated by dividing them by  $TScore$ . The ratio between the  $KLD_{i,t}$  and  $IKLD_{i,t}$  variables ultimately identifies how well the firm performs in its CSR activities, as compared to other firms within the same industry.

In terms of the CSR participation scores for both the financial and nonfinancial firms in our dataset (proxied by the average industry KLD [ $AIKLD_i$ ] during the 2001–2008 period), the overall level of CSR engagement by firms in the financial industry is generally found to be higher than that for firms in the nonfinancial industry. The nonfinancial firms were subsequently further subdivided into "final goods" firms and "nonfinal goods" firms. The overall level of CSR engagement for the "final goods" firms is generally found to be greater than that for the "nonfinal goods" firms.

Wallich and McGowan (1970) proposed the enlightened self-interest model to rationalize corporate social investment, while Keim (1978) indicated that the extent of corporate social investment in which a firm engages is dependent on the degree to which private benefits can be appropriated to the firm bearing the cost. As stated above, we initially classified our sample firms into financial and nonfinancial firms and then further subdivided the nonfinancial firms into final and nonfinal goods firms; however, we need to explain why we split the data into these broad sectoral groups.

As compared to their financial counterparts, the main customers of nonfinancial firms are businesses, rather than individuals. Businesses pursue profit maximization and are not too concerned with the level of social investment of a firm providing them with the products or services that they require; this is particularly so for nonfinal goods firms. Conversely, individuals tend to be more concerned than businesses with corporate social investment. Our argument is largely in line with that of Godfrey *et al.* (2009), who found that participation in CSR activities aimed at a firm's secondary stakeholders, or at society as a whole, provides an "insurance-like" benefit, while participation in those CSR activities that target a firm's trading partners does not.

<sup>7</sup>For example, as there were 40 items in the KLD dataset in 2007, the maximum total KLD score that a firm could achieve was 40.

### Data on stock and bond prices

The full sample period under examination in the present study comprises of complete balanced annual samples of KLD panel datasets covering the years from 2000 to 2008. Within the original dataset, the total number of firms that had received KLD scores for each year throughout the entire sample period was 522. Of these, a total of 399 firms were listed on the S&P 500; thus, we were able to obtain complete information on the daily stock prices of these 399 firms from the Compustat files, with the daily “floating rate note” (FRN) prices of these firms subsequently being collected from Bloomberg.

### Treatment of extreme values

In order to avoid any adverse impact on our results arising from outliers, we adopted 90 percent winsorization, which involved the inclusion of those observations that were less than the 5th percentile into the 5th percentile, and those that were greater than the 95th percentile into the 95th percentile.

## VARIABLES AND MODEL SPECIFICATIONS

### Dependent variables

Our primary aim in this study is to determine whether CSR engagement has insurance-like effects on the stock and bond prices of a firm following the occurrence of a negative event relating to the firm's operations. As explained later in this section, the dependent variables used in our analysis are “abnormal returns” (AR) and “cumulative abnormal returns” (CAR).

### Control variables

As suggested by Fama and French (1993), the market-to-book ratio and firm size may affect the return ratio of a firm; *Market-to-Book Ratio* and *Firm Size* (proxied by net assets) are therefore included as our control variables.<sup>8</sup>

<sup>8</sup>If we use sales revenue as a proxy for firm size, the main conclusions relating to CSR engagement remain the same. Similar results are also found for the other variables.

### Independent variables

#### Long- and short-term CSR engagement

The primary aim of CSR engagement is to engender positive identification with the firm among external stakeholders (Nichols, 1990), with such external identification also being effectively facilitated by the public-welfare reputation built through long-term, continuous inputs (Cooper, 1997). According to Mullen (1997), if a firm wishes to generate positive effects from, for example, a charitable program, the program should have been in existence for at least three to five years; therefore, in addition to short-term CSR engagement, we also need to take into account the effects on the dependent variables attributable to long-term CSR engagement.

Since the long-term effects of CSR have not been taken into consideration in the prior empirical studies (such as Godfrey *et al.*, 2009; Minor and Morgan, 2011), in the present study, we examine CSR engagement from both short- and long-term perspectives. As shown in Equation 1, short-term CSR engagement is proxied by the adjusted KLD score, while long-term CSR engagement is defined as:

$$\begin{aligned} LAKLD_{i,t} = & \frac{1}{2} AKLD_{i,t-1} + \frac{1}{4} AKLD_{i,t-2} \\ & + \frac{1}{8} AKLD_{i,t-3}, \end{aligned} \quad (2)$$

where  $LAKLD_{i,t}$  denotes the average long-term CSR engagement of firm  $i$  in year  $t$ .

Equation 2 assumes that the effects of long-term CSR engagement will be progressively reduced over a three-year period; thus, to balance out responsiveness versus stability, greater weight is placed on more recent observations, since recent short-term CSR engagement is likely to have a greater impact on long-term CSR engagement.<sup>9</sup>

### Industrial classification

Our sample of 399 firms was subsequently divided into 55 financial and 344 nonfinancial firms based

<sup>9</sup>We also run two alternative specifications for our decay model, with the first of these using a set of weights (1/2, 1/3, 1/6); the sum of the weights that are assigned to short-term CSR engagement, proxied by the adjusted KLD score, is 1. The second is based on Barron and Barrett (1994), who proposed the use of the Barron (1992) rank-order centroid weights to determine the best multi-attribute alternative; this set of weights is (11/18, 5/18, 2/18), also with a sum of 1. Our results remain qualitatively unchanged.

on the Global Industry Classification Standard (GICS), a standard jointly developed by Morgan Stanley Capital International (MSCI) and Standard & Poor's (S&P). We then further subdivided the 344 nonfinancial firms based on the nature of their products or services, into 236 "final goods" firms and 108 "nonfinal goods" firms.<sup>10</sup>

### Model specifications

We subsequently applied a multiple regression analysis to examine whether CSR engagement can produce insurance-like effects on stock and bond prices. The models are expressed as follows:

$$\begin{aligned} AR_i = \alpha_0 + \alpha_1 SIZE_{i,t} + \alpha_2 MB_{i,t} \\ + \alpha_3 SAKLD_{i,t} + \alpha_4 LAKLD_{i,t} + \varepsilon_i \end{aligned} \quad (3)$$

and

$$\begin{aligned} CAR_i = \alpha_0 + \alpha_1 SIZE_{i,t} + \alpha_2 MB_{i,t} \\ + \alpha_3 SAKLD_{i,t} + \alpha_4 LAKLD_{i,t} + \varepsilon_i, \end{aligned} \quad (4)$$

where  $AR_i$  refers to the abnormal returns of firm  $i$  on a given event day;  $CAR_i$  are the cumulative abnormal returns of firm  $i$  on the given event day;  $SIZE$  refers to firm size, which is proxied by its net asset value;  $BM$  is the book-to-market ratio of the firm in the year in which the event occurred; and  $SAKLD_{i,t}$  and  $LAKLD_{i,t}$ , respectively, represent the average short- and long-term CSR engagement of the firm.

## EMPIRICAL RESULTS

The results on the full sample of firms are presented in Table 1, from which we can see that the  $F$ -tests

<sup>10</sup>The GICS structure comprises 10 sectors and 24 industry groups into which S&P categorizes all major public companies. In the present study, those falling under Code 40 of the GICS (financial sector) are classified as financial firms, while all others are categorized as nonfinancial firms. According to Varian (1992), final goods are those goods (including products and services) that are consumed by the end user, as opposed to being used in the production of other goods. Firms whose total product items fall within the Varian (1992) definition of final goods are classified as final goods firms, while those whose total product items do not fall within that definition are classified as nonfinal goods firms. Firms engaging in the production of both final and nonfinal goods may be classified as either type of firm; consequently, those with a greater proportion of final goods than nonfinal goods are defined as final goods firms, and vice versa.

on the overall statistical goodness-of-fit are found to be significant at the one percent level for all of the models, thereby indicating that the fitted models are better than the null model without any explanatory variables. The adjusted  $R^2$  for all of the models ranges from 0.0096 to 0.0383.

The short-term CSR activities of the firm are found to be insignificant, although they do exhibit the predicted signs, thereby suggesting that the short-term CSR activities of firms provide no insurance-like effects capable of preserving shareholder and bondholder wealth. Consistent with our expectations, both Panels A and C of Table 1 show that the long-term CSR engagement of a firm is found to be positive, with significance at the 10 percent level, thereby suggesting that a higher level of long-term CSR engagement leads to a smaller loss of shareholder value. Nevertheless, the bond data do not provide support for the long-term CSR engagement hypothesis.

The estimated results on financial firms are presented in Table 2, from which we can see that the  $F$ -tests on all of the models are significant at the one percent level, with the adjusted  $R^2$  for the models ranging from 0.0035 to 0.0242. Consistent with our expectations, as well as the results presented earlier, long-term engagement in CSR activities is found to have significantly positive effects on both  $AR$  and  $CAR$  within the models at the 5 percent level for stocks, and the 10 percent level for bonds, thereby providing support for our contention that long-term CSR engagement is capable of preserving both stockholder and bondholder wealth.

The regression results on "final goods" firms are reported in Table 3, from which we can again see that the coefficients on long-term CSR engagement are positive and significant, at least at the 10 percent level, thereby suggesting that increases in long-term CSR engagement are likely to lead to greater levels of insurance-like protection effects for both stockholders and bondholders.

The regression results on "nonfinal goods" firms are presented in Table 4, where the results are found to differ slightly from those of financial and "final goods" firms. The long-term CSR activities of a firm are found to have significant influences on  $AR$  and  $CAR$  for stocks, thereby indicating that CSR engagement by nonfinal goods firms has insurance-like effects on the wealth of stockholders. Conversely, with regard to bonds, although the long-term CSR activities of a firm are found to have significant influences on  $AR$ , this is not the case

Table 1. Overall regression results

Independent variables	Expected sign	Model (1)		Model (2)	
		Coefficient	S.E.	Coefficient	S.E.
<b>Panel A: Stocks (dependent variable: abnormal returns)</b>					
Constant		-0.0389*	0.0232	-0.0262*	0.0143
<i>Firm Size</i>	+/-	0.0021	0.0062	0.0011	0.0019
<i>Market-to-book Ratio</i>	+/-	-0.0017	0.0021	-0.0010	0.0011
<i>Short-term CSR Engagement</i>	+	0.0059	0.0039	0.0033	0.0019
<i>Long-term CSR Engagement</i>	+	-	-	0.0015*	0.0011
<i>F</i> -value ( <i>p</i> -value)		266.84	(0.0003)***	589.79	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0173		0.0383
<b>Panel B: Bonds (dependent variable: abnormal returns)</b>					
Constant		-0.0160*	0.0103	-0.0123*	0.0062
<i>Firm Size</i>	+/-	-0.0009	0.0034	-0.0001	0.0001
<i>Market-to-book Ratio</i>	+/-	-0.0033*	0.0020	-0.0017*	0.0011
<i>Short-term CSR Engagement</i>	+	0.0015	0.0017	0.0009	0.0008
<i>Long-term CSR Engagement</i>	+	-	-	0.0006	0.0004
<i>F</i> -value ( <i>p</i> -value)		252.62	(0.0003)***	497.63	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0135		0.0262
<b>Panel C: Stocks (dependent variable: cumulative abnormal returns)</b>					
Constant		-0.0628*	0.0339	-0.0461**	0.0246
<i>Firm Size</i>	+/-	0.0033	0.0050	0.0020	0.0021
<i>Market-to-book Ratio</i>	+/-	-0.0009	0.0011	-0.0004	0.0003
<i>Short-term CSR Engagement</i>	+	0.0053	0.0036	0.0029	0.0020
<i>Long-term CSR Engagement</i>	+	-	-	0.0095**	0.0041
<i>F</i> -value ( <i>p</i> -value)		176.95	(0.0006)***	449.39	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0102		0.0294
<b>Panel D: Bonds (dependent variable: cumulative abnormal returns)</b>					
Constant		-0.0126	0.0089	-0.0082**	0.0040
<i>Firm Size</i>	+/-	-0.0006	0.0061	-0.0002	0.0003
<i>Market-to-book Ratio</i>	+/-	-0.0012	0.0010	-0.0009	0.0006
<i>Short-term CSR Engagement</i>	+	0.0017	0.0021	0.0011	0.0010
<i>Long-term CSR Engagement</i>	+	-	-	0.0023	0.0016
<i>F</i> -value ( <i>p</i> -value)		247.35	(0.0002)***	418.59	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0096		0.0218

\* Indicates statistical significance at the 10% level; \*\* indicates statistical significance at the 5% level; and \*\*\* indicates statistical significance at the 1% level.

The total number of events = 1,384.

for *CAR*. Perhaps such firms are not highly visible, and as a result, are partially protected from negative events.

The results of the test for the insurance-like effects of repetitive negative events for "all firms" are presented in Table 5. For space saving, we do not report the results for "financial firms," "final goods firms," and "nonfinal goods firms." All these results show that our data provide clear support for the assertion of Vanhamme and Grobben (2009); that is, as opposed to "diminishing marginal returns," the results are much more indicative of a "credibility cliff."

The following findings are derived from the empirical results presented above. In line with Godfrey *et al.* (2009), we find evidence in support of

the notion that on the occurrence of negative events, CSR engagement produces insurance-like effects; however, in contrast to their study, we find that the effects persist only if the firm exhibits continuous and long-term CSR engagement. The influence of short-term CSR engagement is found to be insignificant in our study, which, within the overall process of decision-making relating to corporate philanthropy, is consistent with the importance of continuously "doing good" (Godfrey, 2005).

Our findings demonstrate that the insurance-like effects of CSR engagement are stronger in financial and final goods firms than in nonfinal goods firms, which partly explains why the CSR engagement performance of nonfinal goods firms is consistently found to lag behind that of financial and final goods

Table 2. Regression results for financial firms

Independent variables	Expected sign	Model (1)		Model (2)	
		Coeff.	S.E.	Coeff.	S.E.
<b>Panel A: Stocks (dependent variable: abnormal returns)</b>					
Constant		-0.0426**	0.0210	-0.0243***	0.0112
<i>Firm Size</i>	+/-	0.0075	0.0332	0.0045	0.0122
<i>Market-to-book Ratio</i>	+/-	-0.0029	0.0237	-0.0015*	0.0008
<i>Short-term CSR Engagement</i>	+	0.0068	0.0046	0.0042	0.0027
<i>Long-term CSR Engagement</i>	+	-	-	0.0040**	0.0018
<i>F</i> -value ( <i>p</i> -value)		210.65	(0.0005)***	418.69	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0087		0.0242
<b>Panel B: Bonds (dependent variable: abnormal returns)</b>					
Constant		-0.0187*	0.0110	-0.0137*	0.0073
<i>Firm Size</i>	+/-	-0.0015	0.0021	-0.0007	0.0007
<i>Market-to-book Ratio</i>	+/-	-0.0040	0.0027	-0.0019*	0.0011
<i>Short-term CSR Engagement</i>	+	0.0019	0.0021	0.0013	0.0011
<i>Long-term CSR Engagement</i>	+	-	-	0.0022*	0.0012
<i>F</i> -value ( <i>p</i> -value)		261.52	(0.0002)***	402.17	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0101		0.0223
<b>Panel C: Stocks (dependent variable: cumulative abnormal returns)</b>					
Constant		-0.0718*	0.0417	-0.0596*	0.0322
<i>Firm Size</i>	+/-	0.0037	0.0101	0.0017	0.0027
<i>Market-to-book Ratio</i>	+/-	-0.0060	0.0074	-0.0021	0.0022
<i>Short-term CSR Engagement</i>	+	0.0069	0.0065	0.0055	0.0041
<i>Long-term CSR Engagement</i>	+	-	-	0.0103**	0.0052
<i>F</i> -value ( <i>p</i> -value)		271.60	(0.0003)***	502.42	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0066		0.0181
<b>Panel D: Bonds (dependent variable: cumulative abnormal returns)</b>					
Constant		-0.0129	0.0118	-0.0109	0.0095
<i>Firm Size</i>	+/-	-0.0012	0.0046	-0.0008	0.0012
<i>Market-to-book Ratio</i>	+/-	-0.0017	0.0015	-0.0010	0.0007
<i>Short-term CSR Engagement</i>	+	0.0020	0.0021	0.0013	0.0013
<i>Long-term CSR Engagement</i>	+	-	-	0.0028*	0.0016
<i>F</i> -value ( <i>p</i> -value)		245.71	(0.0004)***	487.24	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0035		0.0172

\* Indicates statistical significance at the 10% level; \*\* indicates statistical significance at the 5% level; and \*\*\* indicates statistical significance at the 1% level.

The total number of events = 218.

firms. We also find that the insurance-like effects disappear after a second occurrence, or further occurrences, of negative events, which is consistent with Vanhamme and Grobben (2009), in which it was noted that firms with a long CSR history could “dismiss a crisis as a one-time incident.”

In summary, it seems that CSR engagement on a short-term basis provides very little protection, if any, essentially because stakeholders (consumers, shareholders, and bondholders) can be rather skeptical about the true motives of the firm. However, firms with a long-term commitment to CSR activities can readily earn the trust and goodwill of stakeholders. These firms are more likely to accumulate sufficient moral capital to provide insurance-like effects when negative events occur.

Given that bondholders have a priority claim on assets ahead of stockholders, and that they do not enjoy the positive effects of CSR on the financial performance of the firm, CSR engagement is found to have smaller insurance-like effects on a firm’s bond price than its stock price. Furthermore, we find that when firms are faced with a crisis communication, they will probably be able to use their claims of CSR on one occasion only; that is, the protection effects are likely to drop off very quickly for any firm with repeated violations, essentially because stakeholders would begin to doubt the motives behind the firm’s engagement in CSR activities.

Our findings have some strategic implications for managers. First, given the adverse impact

Table 3. Regression results for final goods firms

Independent variables	Expected sign	Model (1)		Model (2)	
		Coeff.	S.E.	Coeff.	S.E.
<b>Panel A: Stocks (dependent variable: abnormal returns)</b>					
Constant		-0.0437*	0.0258	-0.0301*	0.0179
<i>Firm Size</i>	+/-	0.0066	0.0119	0.0030	0.0036
<i>Market-to-book Ratio</i>	+/-	-0.0033	0.0048	-0.0010	0.0013
<i>Short-term CSR Engagement</i>	+	0.0052	0.0043	0.0043	0.0027
<i>Long-term CSR Engagement</i>	+	-	-	0.0016**	0.0009
<i>F</i> -value ( <i>p</i> -value)		182.37	(0.0007)***	388.10	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0102		0.0328
<b>Panel B: Bonds (dependent variable: abnormal returns)</b>					
Constant		-0.0176	0.0108	-0.0132*	0.0075
<i>Firm Size</i>	+/-	-0.0013	0.0023	-0.0006	0.0008
<i>Market-to-book Ratio</i>	+/-	-0.0023	0.0014	-0.0010*	0.0006
<i>Short-term CSR Engagement</i>	+	0.0016	0.0021	0.0009	0.0008
<i>Long-term CSR Engagement</i>	+	-	-	0.0007*	0.0004
<i>F</i> -value ( <i>p</i> -value)		192.54	(0.0007)***	348.01	(0.0001)***
Adjusted <i>R</i> <sup>2</sup>			0.0097		0.0274
<b>Panel C: Stocks (dependent variable: cumulative abnormal returns)</b>					
Constant		-0.0523*	0.0316	-0.0438*	0.0244
<i>Firm Size</i>	+/-	0.0021	0.0049	0.0017	0.0015
<i>Market-to-book Ratio</i>	+/-	-0.0053	0.0061	-0.0036	0.0028
<i>Short-term CSR Engagement</i>	+	0.0026	0.0019	0.0020	0.0013
<i>Long-term CSR Engagement</i>	+	-	-	0.0072*	0.0038
<i>F</i> -value ( <i>p</i> -value)		237.69	(0.0004)***	489.55	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0132		0.0320
<b>Panel D: Bonds (dependent variable: cumulative abnormal returns)</b>					
Constant		-0.0077	0.0084	-0.0038	0.0032
<i>Firm Size</i>	+/-	-0.0014	0.0022	-0.0007	0.0008
<i>Market-to-book Ratio</i>	+/-	-0.0012	0.0014	-0.0008	0.0006
<i>Short-term CSR Engagement</i>	+	0.0015	0.0035	0.0010	0.0013
<i>Long-term CSR Engagement</i>	+	-	-	0.0018*	0.0010
<i>F</i> -value ( <i>p</i> -value)		202.77	(0.0005)***	400.57	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0101		0.0204

\* Indicates statistical significance at the 10% level; \*\* indicates statistical significance at the 5% level; and \*\*\* indicates statistical significance at the 1% level.

The total number of events = 801.

of negative events on stock prices, firms should consider using their available resources to alleviate the impact, as opposed to "nonproductive" efforts such as philanthropic activities. Social performance programs on a long-term basis help to manage the risk of such negative events occurring; however, one of the primary aims of business is to maximize its profits, and firms will have their own intended aims with regard to the efficient and strategic use of their available resources. Although CSP represents a cost to a firm, possibly without any commensurate short-run return, CSR engagement may support the viability of a firm's business when a negative event occurs; thus, long-term CSR commitment provides firms with long-run benefits. If firms

engage in CSR for only a short period of time with the aim of preserving the wealth of shareholders and bondholders, then the results of our study raise questions as to what they hope to achieve.

Second, managers of firms with a long history of CSR activities need to realize that in a crisis communication, they can probably use their claims of adherence to CSR only once, since the insurance-like effects arising from corporate CSR engagement may disappear with the occurrence of subsequent negative events. Third, CSR engagement leads to value creation through wealth preservation; thus, managers who are able to develop and implement effective CSR strategies can generate benefits for their firm in the form

Table 4. Regression results for nonfinal goods firms

Independent variables	Expected sign	Model (1)		Model (2)	
		Coeff.	S.E.	Coeff.	S.E.
<b>Panel A: Stocks (dependent variable: abnormal returns)</b>					
Constant		-0.0288*	0.0171	-0.0212*	0.0117
<i>Firm Size</i>	+/-	0.0036	0.0086	0.0016	0.0020
<i>Market-to-book Ratio</i>	+/-	-0.0032	0.0023	-0.0020	0.0012
<i>Short-term CSR Engagement</i>	+	0.0028	0.0021	0.0018*	0.0011
<i>Long-term CSR Engagement</i>	+	-	-	0.0006*	0.0004
<i>F</i> -value ( <i>p</i> -value)		265.08	(0.0004)***	476.03	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0052		0.0135
<b>Panel B: Bonds (dependent variable: abnormal returns)</b>					
Constant		-0.0110	0.0075	-0.0086*	0.0050
<i>Firm Size</i>	+/-	-0.0006	0.0011	-0.0001	0.0001
<i>Market-to-book Ratio</i>	+/-	-0.0010	0.0008	-0.0007	0.0005
<i>Short-term CSR Engagement</i>	+	0.0009	0.0014	0.0005	0.0005
<i>Long-term CSR Engagement</i>	+	-	-	0.0002*	0.0001
<i>F</i> -value ( <i>p</i> -value)		212.03	(0.0005)***	365.10	(0.0001)***
Adjusted <i>R</i> <sup>2</sup>			0.0079		0.0177
<b>Panel C: Stocks (dependent variable: cumulative abnormal returns)</b>					
Constant		-0.0603*	0.0340	-0.0369*	0.0183
<i>Firm Size</i>	+/-	0.0056	0.0072	0.0025	0.0030
<i>Market-to-book Ratio</i>	+/-	-0.0026	0.0056	-0.0015	0.0024
<i>Short-term CSR Engagement</i>	+	0.0046	0.0045	0.0035	0.0031
<i>Long-term CSR Engagement</i>	+	-	-	0.0063*	0.0037
<i>F</i> -value ( <i>p</i> -value)		214.55	(0.0005)***	393.47	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0067		0.0162
<b>Panel D: Bonds (dependent variable: cumulative abnormal returns)</b>					
Constant		-0.0102*	0.0063	-0.0079*	0.0045
<i>Firm Size</i>	+/-	-0.0015	0.0022	-0.0008	0.0009
<i>Market-to-book Ratio</i>	+/-	-0.0059	0.0058	-0.0028	0.0018
<i>Short-term CSR Engagement</i>	+	0.0025	0.0028	0.0011	0.0011
<i>Long-term CSR Engagement</i>	+	-	-	0.0012	0.0011
<i>F</i> -value ( <i>p</i> -value)		233.64	(0.0004)***	409.10	(0.0000)***
Adjusted <i>R</i> <sup>2</sup>			0.0049		0.0141

\* Indicates statistical significance at the 10% level; and \*\*\* indicates statistical significance at the 1% level.  
The total number of events = 365.

of better protection from adverse events. Fourth, the insurance benefits of CSR may enable firms to engage in riskier (not morally riskier) strategic behaviors or possess more strategic options because of the overall risk reduction that is produced by previously engaging in responsible actions. Reduced risk is equivalent to producing higher returns from strategic options that are pursued.

## CONCLUSIONS

Using Compustat files and the KLD dataset (covering the period from 2000 to 2008), we set out in this study to examine whether CSR has insurance-like effects on the stock and bond prices

of firms following occurrences of negative events. However, in contrast to the majority of the prior studies, we simultaneously consider both the short- and long-term influence of CSR on a firm.

Our results reveal that CSR engagement does appear to produce insurance-like effects on stock and bond prices alike, provided that it is undertaken on a continuous, long-term basis. This effect is found to be of particular significance for both financial firms and nonfinancial firms producing final goods. However, with an increase in the number of negative events, the insurance-like effects arising from CSR activities are found to diminish dramatically, thereby suggesting that the effects will be very quickly exhausted with any repeated occurrences of negative events. We add a cautionary

Table 5. Insurance-like effects of repetitive negative events for all firms

Independent variables	Occurrences of negative events				
	First	Second	Third	Fourth	Fifth ( $\geq$ )
<b>Panel A: Dependent variable: abnormal returns</b>					
Constant	-0.0249*	-0.0367**	-0.0409**	-0.0436***	-0.0445***
(0.0130)	(0.0175)	(0.0189)	(0.0151)	(0.0157)	
<i>Firm Size</i>	0.0031	0.0019	0.0025	0.0045	0.0037
(0.0023)	(0.0022)	(0.0018)	(0.0034)	(0.0031)	
<i>Market-to-book Ratio</i>	0.0015*	0.0035	0.0032	0.0012*	0.0016
(0.0008)	(0.0030)	(0.0026)	(0.0007)	(0.0013)	
<i>Short-term CSR Engagement</i>	0.0036	0.0009	0.0006	-0.0005	0.0026
(0.0024)	(0.0019)	(0.0021)	(0.0028)	(0.0025)	
<i>Long-term CSR Engagement</i>	0.0022**	0.0009	0.0011	0.0005	0.0007
(0.0009)	(0.0010)	(0.0068)	(0.0013)	(0.0018)	
Adjusted $R^2$	0.0632	0.0163	0.0092	0.0076	0.0059
<i>F</i> -value	769.3741***	154.8410**	87.1955*	56.0239*	43.1050*
<b>Panel B: Dependent variable: cumulative abnormal returns</b>					
Constant	-0.0410**	-0.0606**	-0.0597**	-0.0632***	-0.0654***
(0.0213)	(0.0285)	(0.0187)	(0.0166)	(0.0157)	
<i>Firm Size</i>	0.0027	0.0015	0.0032	0.0061	0.0041
(0.0029)	(0.0020)	(0.0023)	(0.0046)	(0.0051)	
<i>Market-to-book Ratio</i>	0.0016	0.0035	0.0009	0.0019	0.0020
(0.0013)	(0.0027)	(0.0018)	(0.0013)	(0.0019)	
<i>Short-term CSR Engagement</i>	0.0030	0.0017	0.0006	0.0005	0.0017
(0.0021)	(0.0016)	(0.0022)	(0.0015)	(0.0022)	
<i>Long-term CSR Engagement</i>	0.0077**	0.0058	0.0030	0.0024	0.0036
(0.0035)	(0.0042)	(0.0033)	(0.0032)	(0.0038)	
Adjusted $R^2$	0.0297	0.0092	0.0036	0.0039	0.0032
<i>F</i> -value	189.4320**	93.0815*	65.1027*	71.0913*	31.1128*

\* Indicates statistical significance at the 10% level; \*\* indicates statistical significance at the 5% level; and \*\*\* indicates statistical significance at the 1% level. Figures in parentheses are standard errors.

note here to emphasize that that our study provides an examination of the pure relationships and does not suggest evidence of any causal relationship.

A potential limitation of our study is the effective measurement of CSR engagement. KLD data are used in this study as a proxy for the CSR involvement of a firm, from which we have found that on the occurrence of a negative event, investors will tend to sell less of the stocks or bonds of those firms that are perceived to have a long CSR history; indeed, it is worth noting that KLD data represent “perceived CSR engagement” rather than “actual CSR engagement,” with the latter requiring a form of triangulation not addressed in the KLD data. Nevertheless, for the purpose of this study, “actual CSR engagement” is not a particularly crucial issue, essentially because the insurance notion is closely connected with “perceived” CSR engagement. In addition, perhaps a useful avenue for future research is to more thoroughly explore the KLD database that prior studies such as Godfrey *et al.* (2009) find to

be reasonably valid and robust in terms of construct validity. However, while the manner this database is constructed may be proprietary and protection is needed to safeguard it, it still remains a research mystery or enigma. Given the importance of an ethical research tool being ethical itself, more transparency is essential.

There is some general agreement that a gap may exist between the actual CSR involvement of a firm and its engagement in CSR activities as perceived by stakeholders; however, based on the efficient market hypothesis (Fama, 1970), this gap should not prove to be substantial, essentially because markets are regarded as being “informationally efficient,” and as such, the share or bond prices of a firm should reflect all information, including involvement in CSR activities.

Future related works could focus on an examination of the insurance-like effects of CSR engagement using data on emerging markets or economies, with the results subsequently being

compared with the findings of the present study and other related studies. Presumably, as compared to investors in the developed economies, investors in the emerging markets will not have such great expectations of socially-responsible investment from firms. Furthermore, investors in the emerging markets may exhibit quite different responses toward the CSR commitment or involvement of firms to those of investors in the developed economies as a result of differences in cultural and/or socioeconomic development. It is also natural to expect that the insurance-like effects of CSR will be dependent on the general perceptions among investors of a firm's engagement in CSR since these effects are closely related to such perceptions, which will ultimately be significantly influenced by the level of media pervasiveness and CSR news coverage. Future research may also explore the ways in which the level of media pervasiveness and how the offending firm responds to a negative event may affect the insurance-like effects of CSR. Perhaps an organization's ability to identify and respond timely plays a role in whether CSR insurance benefits can be beneficial. In addition, our findings can be extended to the analysis of sales, revenue, or market share growth.

A further interesting avenue for future research could be to investigate the ways in which the insurance-like effects of CSR engagement may have changed in the pre- and post-subprime crisis periods. We would arguably expect to find that the effects would have been reduced by the crisis. In addition, a negatively impacting event due to an honest strategic error in judgment is likely to be regarded as less serious than an issue such as a major legal contravention by a firm; thus, one of the potential next steps for future research would be to examine whether the insurance-like effects of CSR engagement differ for negative events of a legal or illegal nature. It would be also interesting for future research to examine whether the insurance-like effects of CSR engagement differ for negative indiscretions driven by a single individual or many people with an organization. Finally, we have found that the insurance-like effects disappear after a second negative event; thus, it may be interesting to determine whether firms with long-term CSR commitment were more likely to have had better long-term financial performance or more long-term protection effects prior to the occurrence of the first negative event.

To sum up, firms with a long-term commitment to CSR activities are more likely to accumulate sufficient moral capital to provide insurance-like effects when negative events occur. The insurance-like effects disappear after a second occurrence of negative events. The examination of insurance-like benefits from CSR is a very relevant and important research area given that strategy makers will actually have language that is tangible for them and can be easily translated for their other stakeholders. Our research will be of great interest to managers who are regularly engaging in strategic behaviors.

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