

Does the Market Respond to an Endorsement of Social Responsibility? The Role of Institutions, Information, and Legitimacy

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A consensus has emerged in the burgeoning literature on corporate social responsibility (CSR) that “virtuous” firms are often rewarded by the marketplace. Unfortunately, the mechanisms through which those rewards materialize are not well understood. Furthermore, it is difficult for managers and investors to know whether a company is actually engaged in responsible behavior. Thus, many stakeholders rely on institutional assessments of a firm’s social practices to inform their own judgments about that company’s CSR reputation. In this article, we draw on institutional theory and research on reputation and legitimacy to investigate the relationship between institutional endorsements (and repudiation) of CSR and firm financial performance. Our empirical results indicate that institutional intermediaries influence market assessments of a firm’s social responsibility and highlight the importance of the legitimacy-conferring function of expert bodies in understanding the relationship between social and financial performance. Our findings also illustrate the delicate interplay among different social performance assessments, reputation, and measures of financial and operating performance such that operating

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performance may serve as an advanced indicator of social performance and one type of social performance assessment may temper market reactions to another.

Keywords: *corporate social responsibility; institutional theory (sociology); event study analysis; socially responsible investing (SRI)*

There is a burgeoning interdisciplinary theoretical and empirical literature on the antecedents and consequences of corporate social responsibility (CSR; e.g., Crane, McWilliams, Matten, Moon, & Siegel, 2008). Many scholars have attempted to determine whether socially responsible firms outperform companies who do not meet the same social criteria (see Orlitzky, Schmidt, & Rynes, 2003, for a review). A consensus has emerged from this literature that “virtuous” firms are often rewarded in the marketplace for being socially responsible (Margolis & Walsh, 2003; Orlitzky, Schmidt, & Rynes, 2003).

One particular mechanism by which stakeholders can express their appraisals of CSR is via socially responsible investing (SRI). According to the Social Investment Forum (SIF, 2007), assets in socially screened portfolios grew to \$2.71 trillion in 2007, a 324% increase from \$639 billion in 1995. Socially responsible mutual funds numbered 260 in 2007, up from 139 in 1997, and approximately 11% of assets under management in the United States—nearly one out of every nine dollars—are now involved in SRI (SIF, 2007). In addition, mainstream mutual funds and pension funds, such as TIAA-CREF, Vanguard, Fidelity, and the California Public Employees Retirement System, now provide employees with the option of directing investments toward SRI funds (Mincer, 2007). As SRI becomes more popular, investors are paying closer attention to CSR. However, it is sometimes difficult to measure whether a firm is socially responsible. As a result, the opinion of experts is likely to influence these perceptions.

Despite extensive research on the relationship between corporate social and financial performance (Orlitzky & Rynes, 2003), few studies have focused on the role of social indices in influencing the market appraisals of firms (e.g., Fowler & Hope, 2007), and none have simultaneously examined the interactions among different types of CSR assessments and their relationship to different measures of financial and operating performance.¹

The purpose of this study is to extend research on CSR and the role of institutional intermediaries in shaping perceptions regarding corporate social performance. We accomplish this objective by exploring the relationships among a one-time institutional endorsement of corporate responsibility (and, conversely, the withdrawal of such an institutional endorsement), prior cumulative CSR reputation, firm performance, and shareholder wealth. We move beyond established theory on the role of institutions in conferring legitimacy and existing research on the link between social and financial performance to examine how investors respond to these endorsements or censures and how prior firm CSR reputation and financial performance affects the magnitude of those responses.

We make three related contributions to the literature on institutions and CSR: (a) demonstrating the role of institutional intermediaries in shaping perceptions of and investor behavior toward a firm’s social responsibility, especially when firms are censured for their poor social performance; (b) revealing how operating performance may serve as an advanced

indicator of a change in assessment of a firm's social responsibility; and (c) uncovering how cumulative reputation for superior social performance both tempers the upside of a positive social responsibility assessment event and mitigates the downside penalty of a negative assessment event. Together, our findings highlight the importance of temporal information asymmetries in social responsibility assessments and provide a more nuanced and variegated account of the relationship between social and financial performance.

Institutions, Legitimacy, Information Asymmetry, and Reputation

To assess the predicted financial market response to institutional endorsement or repudiation of a firm's social practices, we draw on several related theories. These include the literature on institutional pressures on firms to pursue socially responsible actions, the effect that such demands have on firm behavior and reputation, the mechanisms by which firms attain a legitimate reputation for social responsibility, and the consequences of CSR actions and reputation for firm performance, including the role of SRI in that process.

Institutions and Organizations: The Quest for Legitimacy and Positive Reputation

Institutional theory predicts that firms adopt specific business behaviors to achieve access to resources and support by critical stakeholders (DiMaggio & Powell, 1983; Oliver, 1991; Scott, 1995; Tolbert & Zucker, 1983). This literature views institutions as "socially constructed, routine-reproduced, program or rule systems" (Jepperson, 1991: 149). The study of institutions is the study of norm-governed behavior and as such, it can be used to inform instances in which firms respond to pressures to adopt corporate responsibility policies and investors follow recommendations of institutional intermediaries regarding which corporations have commendable (or lamentable) social responsibility records. Indeed, Galaskiewicz (1991) suggested that normative or cultural institutions can create incentives to prompt actors to engage in socially responsible behavior.

DiMaggio and Powell (1983) identified three mechanisms by which the process of institutional isomorphism is realized: coercive, mimetic, and normative. Scott (1995) introduced a parallel framework for understanding the role of institutions in social life by identifying three pillars through which institutions constrain and encourage behavior: regulative, normative, and cognitive. We view the normative frame, as described by DiMaggio and Powell (1983) and interpreted and extended by Scott as a starting point for understanding the pressures for firms to be perceived as socially responsible. According to Scott, normative perspective includes value—conceptions of the preferred or the desirable—and norms—expectations of how things should be done, including informal expectations of fair and acceptable business practices. Hence, this normative perspective creates the conditions for conferrence of legitimacy: "Organizational legitimacy refers to the degree of cultural support for an organization—the extent to which the array of established cultural accounts provide

explanations for its existence, functioning, and jurisdiction. . . ." (Meyer & Scott, 1983: 201). Suchman (1995: 574) contends that "legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions." Legitimate organizations meet and conform to societal expectations and, as a result are accepted, valued, and taken for granted as right, fitting, and good (Aldrich & Fiol, 1994; Meyer & Scott, 1983). Therefore, legitimacy and legitimization are conceptually related to institutionalization.

Institutions, by definition, have substantial legitimacy. Therefore, assessments of legitimacy can be used as one measure of institutionalization. As one example of this relationship, Deephouse (1996) investigated the relationships between strategic isomorphism and regulatory endorsement in the U.S. banking industry, finding that banks that conform to expectations of good practice were more likely to receive formal endorsement by regulatory agencies. Another example is the recent growth of the environmental movement. This movement has been encouraged by the institutions and norms that have developed surrounding environmental conservation, the many corporations that are now much more attentive to those stakeholders concerned with environmental performance, and the formal and informal institutional pressures that have emerged regarding environmental social responsibility and the heightened public scrutiny surrounding those actions (Bansal & Clelland, 2004).

This form of institutionally conferred legitimacy results in attainment of a particular reputation. Reputation can be defined as a distribution of opinions about an entity, which results in a collective image about that actor (Bromley, 2001). Roberts and Dowling (2002) conceptualize reputation as a perceptual representation of a company's past actions and future prospects—describing the firm's overall appeal to key constituents compared with leading rivals. The role of institutionally conferred reputation has recently been identified as an important theoretical construct for the study of CSR (Orlitzky & Benjamin, 2001). A recent special issue of *Corporate Reputation Review* (e.g., Barnett & Hoffman, 2008) focused on the interdependence of corporate reputations and CSR. In that issue, Barnett and Hoffman (2008) argued, for example, that the CSR of one firm may affect its own reputation and that of others with which it competes.

Legitimacy, Reputation, and Information Asymmetry: The Role of Institutional Intermediaries

Scholars have differentiated among types of reputation and mechanisms by which reputation is attained. Rindova, Williamson, Petkova, and Sever (2005) proposed that reputation can be viewed from an economic perspective, in which stakeholders evaluate the particular organizational attributes of a firm, or from an institutional viewpoint, in which constituents assess the firm's prominence or position, often via institutional intermediaries and experts, within a broader organizational field. Love and Kraatz (2009) propose three distinct explanations for reputational change, which emphasize criteria of organizational "character," symbolic conformity, and technical efficacy, respectively. Symbolic conformity is most closely aligned to the institutional viewpoint described by Rindova et al. (2005) and the general perspective we adopt in this study.

King and Whetten (2008) note that the concepts of reputation and legitimacy are closely intertwined and propose a hierarchical ordering in their effort to explicate the relationship between the two. They argue that legitimacy captures an organization's conformity with a general set of expected standards, whereas reputation reflects a view that an organization has achieved a special, distinctive status among its peers. Consistent with this view, Deephouse and Carter (2005: 329) argue that organizational legitimacy and reputation have similar antecedents, social construction processes, and consequences; however, "legitimacy emphasizes the social acceptance resulting from adherence to social norms and expectations whereas reputation emphasizes comparisons among organizations." Drawing from these perspectives, we view reputation as a potential—but not automatic—consequence of the legitimacy. Stated differently, legitimacy is a necessary—but not always sufficient—condition for the attainment of positive reputation. As such, legitimacy may be viewed as a precursor or antecedent to reputation.

Galaskiewicz (1991) documented how the intervention of experts who are viewed as morally legitimate can begin a process of institutionalization of social responsibility on behalf of a community. He described how a critical presentation by a business school professor stimulated a series of events that created an environment conducive to and supportive of socially responsible behavior in Minnesota, eventually resulting in the creation of the Minnesota Project on Corporate Responsibility. Campbell (2007) makes the broader and intuitively logical argument that corporations are more likely to behave in socially responsible ways when their professional communities—as represented by business publications, chambers of commerce, business schools, and other professional associations—have institutionalized a normative call for them to do so. We view this basic normative stimulus to be critical in decisions by firms to become more socially responsible and to garner the favorable reputation that results from that adoption.

In the marketing literature, there has been considerable research on reputation from the perspective of consumers and customers (see Walsh & Beatty, 2007, for a review). This research has increasingly demonstrated that social and environmental responsibility are critical components of overall corporate reputation (Gassenheimer, Houston, & Davis, 1998). Furthermore, this research has demonstrated that firms may have distinct reputations among different groups of stakeholders and that reputations held with one stakeholder group can affect others (Dowling, 2001).

In the context of our research, consideration as a socially responsible firm constitutes a form of organizational legitimacy that is operationalized in a comparative sense (reputation) through inclusion in (or exclusion from) a social index. An external endorsement of legitimacy has the potential to increase resource flows to the firm. These resources can take several forms—financial, human, technological—all resulting, in part, from positive reputation benefits. For example, Roberts and Dowling (2002) found that firms with relatively good reputations were better able to sustain superior profit outcomes over time. Waddock and Graves (1997) asserted that firms with a strong reputation for CSR can generate enhanced support from consumers, employees, and investors. But how do stakeholders evaluate the social responsibility of firms and what challenges exist to their ability to accurately assess a firm's CSR practices?

Several researchers have proposed that, under conditions of evaluative uncertainty, one mechanism by which the capabilities of social actors are assessed is certification contests and

endorsements from reputable third parties (Rao, 1994; Scott, 1995). In this context, the role of information asymmetry in the provision and availability of knowledge of a firm's social practices can be critical. Although some social characteristics may be easy to observe, consumers and other stakeholders may find it difficult to assess a firm's social performance. The degree of asymmetric information relating to social practices can be reduced by the firm itself or intermediaries. For example, McDonalds, Motorola, and Nike publish annual CSR reports, which can be viewed as a form of reputation preservation and enhancement. Some consumers and investors, however, may perceive that company-based information on CSR is biased because it is filtered through senior management. Feddersen and Gilligan (2001) assert that activists and nongovernmental organizations (NGOs) can play an important role in addressing this concern by supplying consumers with a public good, that is, information they can rely on to choose socially responsible firms and that would otherwise be difficult to obtain in unbiased form.

The Role of Expert Bodies in Shaping Stakeholder and Investor Assessments of CSR

Institutional theory and research on reputation and legitimacy show how third-party expert bodies exert influence on perceptions and behavior toward organizations and individuals. But how might these assessments affect other aspects of firms' reputation and performance, such as stakeholders' and investors' perceptions of the attractiveness of a firm?

One mechanism by which stakeholders are able to evaluate the CSR reputation of firms is via the growing plethora of third-party CSR and corporate citizenship rankings and ratings undertaken by journals, financial institutions, and other organizations. These rankings include, inter alia, Fortune's "Most Admired" (which includes a social responsibility ranking), "Best Companies to Work For," Business Ethics Magazine's Annual Business Ethics Awards, and the various rankings and ratings by mutual funds and social responsibility indices that provide guidance to investors regarding the social performance of firms. The two most widely used social indices are the Domini social index and the Calvert social index. Both serve as institutional intermediaries in guiding investors who may find it difficult to gather knowledge independently about the CSR performance of firms. By including (or excluding) firms from their indices, these organizations send clear and strong signals to investors about whether firms have met the credible CSR criteria established by these organizations.

There have been several recent studies that have focused specifically on the performance of these socially responsible indices and mutual funds. Schroder (2007) examined the performance of 29 different SRI indices and found that the SRI indices do not have significantly different risk-adjusted returns from conventional benchmarks, although Lopez, Garcia, and Rodriguez (2007) concluded that firms that operate in a manner consistent with CSR practices underperform non-CSR counterparts. Collison, Cobb, Power, and Stevenson (2008) examined the financial performance of firms included in the FTSE4Good Indices (firms that meet certain social responsibility criteria) and found that the indices outperform benchmarks, concluding that the superior performance of the indices is primarily because of risk reduction. Consolandi, Jaiswal-Dale, Poggiani, and Vercelli (in press) investigated performance of the Dow Jones Social and Sustainability Index (DJSSI), finding that the DJSSI

roughly tracks the performance of the top 20% of DJ Stoxx 600 firms that lead the field in corporate sustainability. They found no significant overall difference in performance between firms included in the DJSSI and ones not included. Of direct relevance to our analysis, however, is the fact that they used event study analysis to determine that inclusion in the DJSSI results in a higher stock price, whereas deletion from the index leads to a reduction in the share price. Based on these results, the authors conclude that investors interpret the news of inclusion as a “certification” of a high degree of social responsibility of the firm and exclusion as news of a loss of CSR status. Our article builds on and extends the Consolandi et al. (in press) research by exploring the market response to a leading social index and examining the interrelationships among those events and prior operating performance and social assessment. Fowler and Hope (2007) reviewed literature on socially screened indices and the impact on both the firm and investors of the firm’s inclusion in a social index. They note the significant increase in investor and financial manager interest in CSR and sustainability indices and report anecdotal evidence of company interest in gaining inclusion on sustainable indices. They conclude, however, that there is little research on the actual process whereby firms are included or excluded from such indices and the potential connections among these decisions and other social and financial assessments. Our research begins to respond to this latter gap.

Hypotheses

The literature on the role of institutions in conferring legitimacy (Scott, 1995; Suchman, 1995) presents a deep and rich basis for our analysis of the potential market impact of inclusion in or removal from a social index. Indeed, the potential power of these normative signals is a consistent theme in the institutional literature (e.g., Scott, 1995; Suchman, 1995).

Empirical investigations of the role of third-party endorsements in firms’ realizations of legitimacy have been shown to have important implications for survival and performance (Rao, 1994). The strategic perspective on CSR underscores the potential benefits to firms of being viewed as good corporate citizens and the potential differential effects of this impact on firms with different characteristics and profiles. Baron (2001) and McWilliams, Siegel, and Wright (2006) provide additional insights into the strategic implications of CSR, especially the role of asymmetric information. Although some CSR attributes are easily observed, it is often difficult for consumers and other stakeholders to assess a firm’s social performance. Indeed, according to Strike, Gao, and Bansal (2006), many firms simultaneously engage in socially responsible and socially *ir*responsible behavior, making a net assessment of firm-level CSR especially difficult. This literature suggests, however, that the level of asymmetric information regarding internal operations can be mediated by the firm itself or by third parties, such as socially responsible investment indices.

There is a vast literature in finance on the listing and delisting of firms on equity indices, such as the Standard and Poor’s 500 index (e.g., Beneish & Whaley, 1996; Dhillon & Johnson, 1991; Harris & Gurel, 1986; Jain, 1987; Masse, Hanrahan, Kushner, & Martinello, 2000). These studies provide a tangible example of the measurable impact of third-party institutions on market perceptions of firm-level legitimacy and, as a consequence, firm

value. This literature has shown that listing and delisting from the S&P 500 and other mainstream indices is met with a commensurate increase or decrease in share value. It is important to note that Jain (1987) and Dhillon and Johnson (1991) concluded that market prices are affected through the transference of new information to the market, not from purchases and sales of the stock creating price pressure. The majority of studies that examine inclusion in an index find the announcement of inclusion is associated with a positive price reaction from the market, and exclusion is associated with a roughly symmetrical negative price reaction.

The literature on the overall performance of socially responsible indices and mutual funds is more mixed (Consolandi et al., in press) as is research on the market and operating performance effects of firms being added to or deleted from these social indices and funds (Fowler & Hope, 2007). When considered in the broader context of external institutional endorsements of firm-level CSR and the fairly definitive literature on additions to and deletions from more conventional indices we believe that there will be a financial market impact of additions to and deletions from an SRI.

Hence, we hypothesize that an expert endorsement (or removal of an endorsement) of good social behavior conveyed to investors through changes in a social responsibility index will positively (negatively) affect the stock price of the endorsed (repudiated) firm. We conjecture that the information contained in such announcements will influence not just perceptions of the firm but also markets' estimates of either future cash flows or the risk of these cash flows. Consistent with Consolandi et al. (in press), we expect that the share price will rise in the aftermath of an unexpected announcement of a firm's inclusion in a social index because of the newly revealed information conveyed in the announcement. An announcement of the addition to the index should cause the market to increase its estimate of the probability that a firm will be a good social performer and thus increase the estimate of expected future cash flows. Similarly, we expect that the share price will decline in the aftermath of an unexpected deletion from a social index.

Hypothesis 1a: There is a positive shareholder wealth effect associated with a firm's addition to a social index.

Hypothesis 1b: There is a negative shareholder wealth effect associated with a firm's deletion from a social index.

According to Waddock and Graves (1997), superior social performance is indicative of good management practices, which in turn yields better financial performance. Hillman and Keim (2001) argue that stakeholder management is indicative of sound management and is complementary to shareholder value creation, in that it creates a foundation for competitive advantage.

In the case of investor assessments of a firm's social responsibility, if the market has difficulty determining the difference between good and bad social performers because of evaluative uncertainty (Rao, 1994; Scott, 1995), the endorsement from an expert—such as a social index—can cause new information about social performance to be conveyed to the market. If a social index, on average, eliminates bad social performers from its index and adds good social performers, the change in index composition will affect stock prices by conveying new information on the social performance and, thus, financial performance of the firms involved.

However, it is conceivable that some of this positive or negative social performance has already been reflected in firm operating performance (although it may not yet be reflected in market value). If strong social performance is a reflection of ongoing investments that enhance both social and operating performance, we would expect firms that have been deemed socially responsible to demonstrate superior operating performance in the period immediately preceding that designation and for firms that have been deemed as underperformers from a social standpoint to demonstrate subpar operating performance in the period immediately preceding designation.

Therefore, the long-term operating performance of a firm prior to its addition to or deletion from a social index may provide an early clue as to these external assessments of the firm's social performance. Assessments of firm-level social performance through inclusion in or exclusion from a social index are mostly *ex post facto*; they occur after some level of social performance has been achieved. Because social and financial performance are linked, those firms added to a social index have been experiencing improvements in social—and most likely financial performance—for some time prior to the addition. An example would be an investment in employee training and development, which enhances the firm's human capital but also creates a more empowered and responsive workplace environment. This could result in higher worker productivity, leading to improved financial performance and social performance (because such “progressive” human resource management practices are considered to be socially responsible). Given that firms added to a social index are good social performers and firms that are deleted from such an index are poor social performers, we expect that the added firms will exhibit superior operating performance in the period leading up to the index change when compared with the deleted firms. It is important to note that we are not suggesting that superior social performance directly causes superior operating performance or that poor social performance directly causes poor operating performance (see Siegel & Vitaliano, 2007, for a rigorous test of the nature of the causal relationship between social and financial performance). Instead, we argue that financial operating and social performance covary (Margolis, Elfenbein, & Walsh, 2007).

Hypothesis 2: Firms added to a social index will have superior operating performance in the period prior to their inclusion, relative to companies that have been deleted from the index.

Another related variant in the relationship between preannouncement company characteristics and postannouncement effects concerns the firm's (external) reputation. Reputation is accumulated and depleted through temporal flows. Although some aspects of reputation are “sticky” and enduring, stakeholders change their evaluations, sometimes quite significantly. Roberts and Dowling's (2002) conceptualization of reputation as a perceptual representation of a firm's past actions and future prospects positions reputation as an assessment of the firm's overall appeal to key stakeholders compared with leading rivals. Although organizations will have a different reputation for different aspects of their activities, Fombrun (1996) argues that observers will tend to give a net assessment of the organization's reputation that incorporates both instrumental and normative concerns. Hutton, Goodman, Alexander, and Genest (2001: 257) suggest that reputation is “an overall, affective impression.”

In the realm of CSR, we envision the principal reputation-granting dynamic as occurring through a process of normative institutionalization in which reputational evaluations are

arrived at by assessments of the organization's conformity with external standards and categories (Rao, 1994). This normative neoinstitutional view focuses on where organizations are situated within broader institutional environments, especially within subfields in which standards, norms, and expectations emerge and endure (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1995). The third-party assessment organizations referenced above serve as institutional mediators that provide a normative benchmark for firms seeking to achieve a positive reputation for CSR and as a guidepost for audiences concerned about the socially responsible practices of the companies they invest in or from which they purchase products or services. Staw and Epstein (2000), for example, found that firms increase their status and reputation by adopting certain management practices that were valued by their stakeholders.

In this regard, however, there are competing predictions as to whether a strong, long-standing positive reputation serves to mitigate the impact of a negative reputation event or whether such a reputation would accentuate such an effect because of the unexpected nature of the negative event. A simple information asymmetry perspective would suggest that the "surprise" effect of firms with poor past reputation experiencing positive reputation events or those with a good prior reputation experiencing a negative reputation event would outweigh any potential mitigating impact. On the contrary, however, Love and Kraatz (2009) propose that past positive reputation will mitigate reputational damage that downsizing may otherwise cause. They suggest that firms with a record of "good behavior" will be given the benefit of the doubt and stakeholders will be less quick to judge firms poorly in the face of a potential negative event, such as a decision to downsize. They also maintain that the inverse should be true: "Marginal firms lacking a strong history of reliability may suffer greater reputational damage from downsizing" (Love & Kraatz, 2009: 321).

In reconciling these competing perspectives, we argue that the effect will diverge, depending on whether the direction is from negative to positive or positive to negative. Hence, we predict that firms with strong, positive and improving reputation for CSR will have the least to gain from additions to a social index, and their positive announcement day returns will be lower than for those with poorer CSR reputations. This information asymmetry argument essentially posits that the market has already factored in some of the net positive effect of the addition and that the prior CSR reputation is effectively a substitute for the immediacy effect of the addition.

Conversely, we subscribe to the view that firms with strong CSR reputations that experience a negative reputation event such as deletion from a social index will have garnered some social "protection" from that negative event, such that their removal from a social index will be partially mitigated by their prior positive reputation. This is similar to what Love and Kraatz (2009) proposed with regard to a downsizing event. In these circumstances, we expect that the positive prior reputation will be "sticky" and help buffer the firm from the negative reputation event associated with the deletion.

Hypothesis 3a: The magnitude of the positive shareholder wealth effect associated with a firm's addition to a social index is tempered by the firm's prior CSR reputation, that is, the better the prior reputation, the less positive will be the shareholder wealth effect resulting from inclusion.

Hypothesis 3b: The magnitude of the negative shareholder wealth effect associated with a firm's deletion from a social index is tempered by the firm's prior CSR reputation, that is, the better the prior reputation, the less negative will be the shareholder wealth effect resulting from deletion.

Data and Methods

We gathered data from a range of sources and used several methodological techniques to explore our research questions. Data sources included a comprehensive collection of announcements of additions to and deletions from the Calvert social index, various financial data from COMPUSTAT and other sources, and KLD ratings of firms' social responsibility and social irresponsibility. We used event study, analysis of differences, and regression analysis to test our hypotheses.

Overall Sample and Data Collection, and Event Study Analysis

For most of the sample period, there were two major social indices available: the Calvert and Domini social indices. Because of Regulation Fair Disclosure, Calvert is legally required to publicly release changes made to its index because it is a manager of mutual funds. The Domini index, in contrast, is not directly tied to a mutual fund manager and does not release changes in its index publicly in a timely manner. Hence, we use the Calvert index specifically because of the way it releases information about the composition of the index. The Calvert social index is a widely followed and publicly available listing of firms that the Calvert group considers socially responsible. This index—and the mechanism Calvert uses to include or delete firms from it—is described in the appendix. Calvert is required to publicly announce index changes, which allows us to create a well-defined event window.

To construct our sample, we used Lexis Nexis to identify all announcements of changes in the Calvert social index and the reasons for these changes over a 6-year period: January 1, 2000, to December 31, 2005. We selected 2000 as our starting date because announcements prior to 2000 appeared to be released less consistently than after 2000. We searched 6 months prior to the official release of index changes to see if any information about the change was released to the financial press early. We define the event date as the earliest date that an index change is announced in the financial press. We found announcements of 56 additions and 69 deletions over the sample period. The sample represents broad industry representation from all 2-digit Standard Industrial Classification (SIC) codes; the largest number of firms (5 each) were from the pharmaceutical preparations and services, and computer programming and data processing industries.

To test Hypotheses 1a and 1b, we use event study methodology, which was developed in finance (e.g., Brown & Warner, 1985) and has been widely used in management (McWilliams & Siegel, 1997; Johnson, Ellstrand, Dalton, & Dalton, 2005). There have been numerous event studies of CSR, including analyses of the impact of affirmative action programs (Wright, Ferris, Hiller, & Kroll, 1995), discrimination (Wright et al., 1995), withdrawal from South Africa (Meznar, Nigh, & Kwok, 1994), plant closings (Clinebell & Clinebell, 1994), product recall (Davidson & Worrell, 1992), layoff programs (Worrell, Davidson, & Sharma, 1991), and protests (King & Soule, 2007). McWilliams and Siegel (1997) and McWilliams, Siegel, and Teoh (1999) critique these studies on both theoretical and empirical grounds and provide specific suggestions for the use of event methodology, emphasizing the importance of adequate sample size, identification of nonparametric tests to identify outliers, identification and

remediation of confounding events (such as earnings announcements, stock buybacks, legal issues, etc.), inclusion of an appropriate (short) event window, and development of a theoretically robust explanation of abnormal returns.

We adopted these suggestions and also supplemented our event study analysis with additional tests to further explicate our hypotheses regarding the underlying dynamics of how firms are affected by third-party endorsements of CSR practice. Specifically, we sampled a sufficiently large number of events to attain both statistical power and conceptual relevance, used a short event window (0 to 2 trading days) to ensure that we were isolating the actual impact of the CSR-related event (and not another event that could have influenced the firm's share price, such as a merger or acquisition), incorporated nonparametric tests to identify outliers, and identified and excluded confounding events. We analyzed all the sample firms and removed four firms (all deletions) because of concerns about confounding events. The final sample therefore comprises 65 deletions from and 56 additions to the Calvert social index. The data used in this study, including company names and event dates, identification of confounding events, and other variables, are available on request.

In implementing our event study analysis, we used share price data from the Center for Research in Security Prices daily database. We calculated abnormal returns for the day prior to the announcement (-1), the announcement day (0), and the 2 days following the announcement (+1 to +2). McWilliams and Siegel (1997) recommend a maximum of a 3-day event window to minimize the impact of outside events on stock prices. Because of the nature of our event, we expect any impact to be observed on the day of or the day after the index change announcement depending on when the announcement is released. We included the day prior to the event to examine if there is any information leakage on the day prior to the announcement, and we also include 2 days following the announcement to ensure that any price change is not temporary and driven by supply/demand adjustments following the announcement. We repeated the analysis with the window extending as far as 10 days, with no significant abnormal returns in the days subsequent to the announcement of the index change outside of days 0 and 1.

We test the significance of the stock price reaction using two separate methods. The parametric approach tests if mean abnormal returns are significantly different from 0 using a *t* test. The nonparametric statistic tests the hypothesis that the returns are ranked as expected. We use a signed rank test to calculate the nonparametric statistic. Brown and Warner (1985) find that this approach is most appropriate for event studies.

Preannouncement Analysis

To test Hypothesis 2, we analyzed the extent to which improving social performance is associated with financial performance by examining operating performance, as measured by operating income/total assets, in the year prior to the index change. This measure is widely used as a barometer of operating performance (Chan, Cooney, Kim, & Singh, 2008; Freund, Trahan, & Vasudevan, 2007; Grullon & Michaely, 2004), is recommended by Barber and Lyon (1996) as among the most accurate and stable measures of financial performance, and is most closely correlated with social performance (Orlitzky et al., 2003). We calculated the ratio for

each sample firm in the last full year prior to the announcement. Orlitzky et al. (2003) find that the best measure of social performance is the closest possible information release, optimally within a year prior to the social performance measure.

Industry average operating performance values are also calculated for the industry of each firm in our sample based on three-digit SIC codes. We include in the industry average all firms that were in the same three-digit SIC code as the firm in our sample. Industry-adjusted operating performance measures are found by subtracting the mean or median industry measure from the corresponding measure for the individual firm (Jain & Kini, 1994). These performance measures adjust for industrywide events that are not directly attributable to an individual firm's organization or actions. Using a Wilcoxon rank sum test to account for the potential nonnormality of operating performance measures, we compare the operating performance of firms that were added to the Calvert social index with those that were deleted from the index and test whether those differences are statistically significant.

Ordinary Least Squares (OLS) Regression on Announcement Day Returns

To test Hypotheses 3a and 3b, we rely on cumulative firm-level social responsibility data provided by Kinder, Lydenberg, and Domini (KLD), a company that has evaluated the social performance of approximately 650 publicly listed U.S. firms since 1991. The KLD evaluation of social performance is based on a wide range of data sources, including company survey, expert panel assessment, and public disclosures. KLD evaluates each firm along 13 different categories of CSR strengths or concerns (weaknesses). Within each of these categories are items to which KLD assigns a "1" or "0" according to whether or not a firm meets certain criteria. Seven of these categories are qualitative and consist of both strengths and concerns; six are exclusionary and comprised only concerns. The KLD data have been used widely in management and economics research, and although not perfect, they are acknowledged to be the best available measure of this sort (Hillman & Keim, 2001; McWilliams & Siegel, 2000; Strike et al., 2006; Waddock & Graves, 1997).

To address some criticisms regarding limitations in the positive nature of KLD rankings, we followed Strike et al. (2006) and used the KLD data to calculate measures of CSR and corporate social *ir*responsibility (CSiR) by summing values of the strengths to represent CSR and the values of concerns to represent CSiR. The higher the value of each variable, the greater was the firm's CSR and CSiR.² We used the available KLD data in advance of—but most temporally proximate to—the addition/deletion announcement to ensure that the data were available to the market at the time of the announcement.

Two control variables are included in the econometric analysis: firm size and sales growth. We include a control for firm size because size has been shown to influence information production of the firm. Put differently, size is a proxy for the overall visibility and presence of the firm in the marketplace. In this study, we are especially concerned about potential information leakage in advance of the event announcement. Because firms with larger market capitalization are more likely to receive coverage from financial analysis (see Duarte, Han, Harford, & Young, 2008; Krishnaswami, Spindt, & Subramaniam, 1999), we calculate firm size as the natural log of the market value of equity. We calculate the size variable at

the end of the year prior to the addition or deletion. We use changes in revenues prior to the index change to capture any effects that could be attributable to the firm's overall reputation and visibility in the marketplace. We calculate sales growth as the percentage change in revenues between year -5 and year -1 . Using the last annual report prior to the index change announcement allows the analysis to use the same accounting information that would have been available to market participants at the time of the announcement and provides the closest temporal match between the firm's financial performance measure and the announcement of the change in an external social performance measure. We used stepwise OLS regressions to explore the impact of preannouncement variables on the magnitude of announcement period returns. We computed 2-day standardized abnormal returns and used them as the dependent variable in our regressions. These returns were calculated by dividing the abnormal return on Day 0 and the abnormal return on Day +1 by the standard error. The result was then summed and then divided by the square root of two to create a 2-day standardized abnormal return, following Johnson et al. (2005). We use two trading days instead of three because studies have shown that the full reaction to the announcement occurs within the first two trading days after the event. Such returns are typically assumed to be normally distributed and homoscedastic. We tested for the presence of heteroscedasticity using both the Breusch-Pagan test and White's test. Neither test rejected the hypothesis of homoscedasticity.

To examine the differences in impact for additions and deletions, we include a dummy variable that is equal to 1 if the firm is deleted from the index and 0 if it is added. We then create deletion dummy interaction terms by multiplying the deletion dummy by the CSR and CSiR variables to measure the marginal impact of these variables for deletions. In the hierarchical models, the parameters of the noninteraction variable represent the linear relation between this variable and market reaction for the added firms in the sample. The interaction term represents the marginal effect of these variables for firms that are deleted from the CSI. Because we expect different relationships under deletions versus additions, the interaction terms allow an interpretation of this differential impact. This model is designed to maximize the power of the regression over our full sample in that the dummy variable and interactions allow us to run the model over the full sample as opposed to splitting the sample. The F statistic reported tests the overall explanatory power of the model, and the partial F statistic tests the marginal explanatory power when variables are added to a model.

Results

Here we report results of our event study, preannouncement analysis, and regression analysis.

Event Study

Mean abnormal returns for the sample firms during the event window are presented in Table 1. Note that the abnormal return for additions is not statistically different from zero, whereas the abnormal return on Day 1 for deletions is negative and significant at the 5% level. Firms that are deleted from the index lose more than 1.2% of their market value on the

Table 1
Abnormal Returns for Firms Added to and Deleted From the Calvert Social Index

Day	Additions			Deletions		
	Abnormal Returns	Standardized Abnormal Returns	<i>t</i> Value	Abnormal Returns	Standardized Abnormal Returns	<i>t</i> Value
-1	-0.003	-0.177	-1.476	0.001	0.032	0.244
0	0.001	0.150	1.476	-0.002	-0.009	-0.080
1	0.001	0.071	0.704	-0.011	-0.267	-1.986*
2	0.003	0.135	1.343	-0.004	0.028	0.244

*significant at the 0.05 level.

**significant at the 0.01 level.

Table 2
Preannouncement Characteristics of Firms Added to and Deleted From the Calvert Social Index

Variable	Additions		Deletions		Difference
	Mean	Median	Mean	Median	<i>p</i> Value
Year-1 OI/TA	0.151	0.137	0.115	0.120	.032
Year-1 Industry OI/TA	0.069	0.081	0.049	0.051	.147
Year-1 Adjusted OI/TA	0.083	0.076**	0.067	0.034**	.064

Note: OI/TA = operating income/total assets.

***p* < .01.

announcement day and the day following the announcement. In dollar terms, the average deleted firm loses 4 million dollars in market capitalization on the day of and the day following the deletion announcement. Standardized abnormal returns after Day 1 are not significantly negative or positive, suggesting that the impact of the announcement is isolated in Day 1. (It is possible that the announcements for the index changes come after the close of trading on Day 0, and the impacts are not seen until the first trading day following the announcement, Day 1.) Thus, our results are consistent with Hypothesis 1b (there is a negative shareholder wealth effect associated with a firm's deletion from a social index) but not Hypothesis 1a (there is a positive shareholder wealth effect associated with a firm's addition to a social index).³

Preannouncement Analysis

Relevant industry-adjusted preannouncement variables for both additions and deletions are presented in Table 2. The number in the difference column represents the *p* value for the Wilcoxon rank sum test statistic testing the differences between the additions and deletions.

Table 3
Descriptive Statistics and Pearson Correlations for the Full Sample^a

Variable	Mean	1	2	3	4	5	6
1. 2-Day SAR ^b	-0.029	0.912					
2. Sales growth	0.792	2.245	-.22**				
3. Log of firm size	8.496	1.255	.17*	-.07			
4. Search dummy	0.056	0.228	-.11	-.06	-.02		
5. CSR	1.924	1.855	.11	-.15	.36**	-.14	
6. CSiR	2.118	2.293	.18*	-.08	.25**	-.14	.40**
7. Deletion dummy	0.515	0.502	-.19**	.06	.04	-.04	-.22**

Note: SAR = standardized abnormal returns; CSR = corporate social responsibility; CSiR = corporate social irresponsibility.

a. $n = 121$.

b. The sum of Day 0 and Day 1 standardized abnormal returns divided by the square root of 2.

* $p < .05$. ** $p < .01$.

The preannouncement differences in performance for additions and deletions are consistent with Hypothesis 2. The operating income/total assets measure is significantly higher for firms that are added to the index than for deleted firms. Even after adjusting the performance measures for possible industry effects, we find that performance is significantly better for firms that are added to the index than for deleted firms in the period prior to the announcement change.

OLS Regression on Announcement Day Returns

The means, standard deviations, and correlations for the variables used in the regression analysis are presented in Table 3, and the econometric results are presented in Table 4. The correlation coefficients indicate that intervariable correlation is within acceptable levels (no bivariate correlation is greater than .4). The models in Table 4 indicate the stepwise process whereby new variables are added at each stage. Model 1 includes our control variables only. Model 2 includes CSR, deletion dummy, and deletion interaction variables. Model 3 includes CSiR, CSiR/deletion interaction, and all other variables.

In Model 1, the coefficient of the sales growth variable is negative and significant, and the coefficient on firm size is positive and significant. In Models 2 and 3, the deletion dummy is negative and significant as expected; given our results of the event study, firms that are deleted experience poorer postannouncement market performance relative to those that are added. Sales growth, one of our controls, is inversely related to the abnormal returns such that firms with faster sales growth that are deleted have poorer returns than firms with slower sales growth, and firms with slower sales growth that are added have better returns than firms with faster sales growth—results consistent with our expectations.

In Models 2 and 3, the coefficient on the CSR variable is negative and significant, whereas the coefficient on the CSR deletion dummy is positive and significant. In conjunction, these results imply that the market performance of firms engaged in CSR is more

Table 4
Regression Results Using 2-Day Standardized Abnormal
Returns (Day 0 and +1) as the Dependent Variable

Variable	Model 1		Model 2		Model 3	
	Parameter	<i>t</i> Statistics	Parameter	<i>t</i> Statistics	Parameter	<i>t</i> Statistics
Sales growth	-0.101	-2.30*	-0.094	-2.19*	-0.095	-2.20*
Size	0.152	1.84	0.166	1.93	0.147	1.69
CSR			-0.168	-1.91	-0.237	-2.23*
CSiR					0.088	1.21
Deletion dummy			-0.852	-2.91**	-0.830	-2.66**
Deletion* CSR			0.261	2.46*	0.321	2.59*
Deletion* CSiR					-0.035	-0.36
Adjusted R^2	0.082	$n = 86$	0.141	$n = 86$	0.142	$n = 86$
<i>F</i> statistic	4.81*		3.79**		3.01**	
Partial <i>F</i> statistic			2.88*		2.03	

Note: CSR = corporate social responsibility; CSiR = corporate social irresponsibility.

* $p < .05$. ** $p < .01$.

sensitive to changes in the social index. Firms that have a stronger reputation for CSR do not experience as much of a decline in their market value when they are deleted from the social index as do companies with a weaker reputation for CSR. In the case of additions, the magnitude of the announcement day reactions is inversely related to prior CSR reputation, such that the higher the prior reputation, the less positive are the announcement day returns.

Note that the coefficient on the CSiR variable is not significant. The adjusted R^2 for Model 3 is 14.2%, and Models 2 and 3 are significant at the .01 level. The partial *F* statistic shows that Model 2 has significantly more explanatory power than Model 1, and Model 3 has more explanatory power than both Models 1 and 2, although the improvement is not significant at the .05 level.

Discussion and Implications

Our findings are consistent with the notion that investors are concerned about the social performance of firms in which they invest and that third-party endorsement is one mechanism through which information is conveyed to investors, who then act on this information in making their investment decisions. We contend that financial institutions serve as a critical signaling mechanism in which information about firms' social and financial performance is communicated to the market. Indeed, a large industry of financial intermediaries such as banks, securities analysts, credit rating agencies, and financial advisors has emerged, in part, on the assumption of partially resolving the adverse effect of information asymmetry (Fama, 1991; Leland & Pyle, 1977). In addition, firms seeking external endorsement of CSR, conveyed by social indices, appear to undertake reforms that improve their financial and social responsibility standing so that they will receive these institutional endorsements. This

relationship is consistent with institutional theory and its expectations about how institutions promote norm-governed conformity to standards and practices (e.g., Scott, 1995)—in this case, those associated with CSR.

In our study, the addition of firms to the Calvert social index can be viewed as conferring an external endorsement of company legitimacy in the realm of CSR. We found that the reaction to announcements, however, were limited to firms that are deleted from the index, suggesting that removal of an endorsement of social responsibility is more important to investors than a positive endorsement. There are several plausible explanations for this finding, the most likely of which is an information asymmetry argument.

We believe that there may be an imbalance in information available regarding the risk assessment of added and deleted firms prior to the announcement of the additions and deletions. Firms with positive social performance will be likely to share this news with stakeholders, whereas firms with deteriorating social performance would tend to suppress or at least not publicize this news to stakeholders, leading to the observed asymmetry in the reaction to additions versus deletions. More specifically, as a strategic perspective on CSR would suggest, if firms have improving social performance, they are likely to let others know of their improved social behavior because there are discernible benefits associated with having a reputation for being a good corporate citizen (Bansal & Clelland, 2004; Greening & Turban, 2000). Hence, this preannouncement information asymmetry effect should be less intense for firms added to a social index. Executives of firms whose social performance is improving would have no reason to protect that information. On the contrary, they would seek to share this information widely. Firms with improving operating performance have a credible signal that they are improving, and the addition to the index should be anticipated because managers will share news of their improvements. If this improvement is clear to investors prior to the announcement of an addition, the announcement comes as less of a surprise and offers investors little additional information.

Conversely, if the firm is doing well, is in the index, has a large following, and the market confers a relatively high value on it, the removal from the index will be especially surprising and unanticipated. Firms that are currently in an index and defined as good social performers will not want to reveal their bad performance to the market. Because poor social performance is difficult for individual investors to ascertain, firms that are not performing well on this metric have less exposure to outsiders learning of this poor performance. Hence, in the case of deletions, the inherent risk associated with the social performance (or lack thereof) of the firm is at least partly concealed. Firms with significant exposure, which are facing a potential environmental lawsuit, for example, would have every reason to keep this information private prior to the deletion. Calvert, with its team of social analysts, is in a position to pick up information that is not widely available, and so the announcement of a deletion provides a release of genuinely “new” information in a way that additions do not. There are, of course, other plausible explanations for this finding, which we detail in the next section.

Our analysis also suggests that prior operating performance is related to the social performance that is the criterion used for decisions about whether to add or delete a firm from an SI. Firms that were added to the index had better operating performance in the period immediately prior to an index change than their deleted peers. Although Calvert does not explicitly

consider operating performance in its decision to add or delete firms, it appears that improving operating performance covaries with improving social performance. Hence, our analysis of preannouncement firm characteristics supports the contention that corporate social and operating performance move in tandem: Improving operating performance appears to signal improving social performance, which, in our study, is then codified via the endorsement of inclusion to a social index. Conversely, poor operating performance appears to be a reflection or harbinger of declining social performance and therefore a predictor of removal from a social index.

Our regression analysis supports the argument that prior reputation for CSR matters in terms of explaining the magnitude of how investors react to social responsibility events but that this effect differs depending on whether the event is positive or negative. We also interpret our findings as being consistent with the notion, articulated by Peloza (2006), that CSR is an instrumental tool that companies use to preserve sources of competitive advantage through “reputation insurance.” Smith (2003) and Peloza (2006) have asserted that companies use CSR to develop a strong reputation, which helps them withstand negative CSR events, perhaps including actions such as deletions from a social index.

It is useful to consider the event study (abnormal returns associated with an addition to or deletion from a social index) and the regression results (explaining those abnormal returns) in tandem. We see relative information asymmetry or more accurately, information awareness, as a common explanatory phenomenon throughout our findings. Firms that have strong CSR and will eventually be added to the index have a clear incentive to publicize this information. As a result, we believe that some of the market premium is incorporated into the price prior to the announcement. Firms that have poor CSR do not go out of their way to make investors aware of their bad behavior, so the news of a deletion should be less anticipated and result in more surprise. Similarly, prior social performance results in some awareness leakage, tempering the impact of the announcement. When prior social performance reputation is incorporated into our regression model, we find that the magnitude of the decline in share value of index deletions is partially mitigated by a strong prior reputation for social performance. That is, firms that have earned the trust and respect of stakeholders as being socially responsible actors are not as damaged when they are dropped from a social index as peers that have not earned such a reputation.

A key implication for managerial practice is that the role of social investors should be factored into strategic choices firms make regarding CSR (McWilliams et al., 2006). This stakeholder group can clearly influence the firm’s reputation and, ultimately, its financial performance. Managers also need to be mindful of the social criteria used by institutions, such as Calvert and KLD, to rate social performance, because it is clear that social investors react to new information provided by these institutions.

Another practical recommendation is that companies should actively court social investors. Social investors are a growing share of the overall investment community, and attention to their interests could broaden the pool of capital available to firms and help bolster firm reputation and legitimacy more broadly. In particular, attention to “green” investors may be especially advantageous, given the increasing interest in sustainable enterprise and additional investment capital that is being channeled to green business.

Conclusions, Limitations, and Suggestions for Future Research

CSR is an increasingly important issue to policymakers, managers, and shareholders. The link between social performance and financial performance has been closely examined in both the finance and strategy literatures. Two recent studies have summarized the many results concerning the link between social and financial performance. Orlitzky, Schmidt, and Rynes (2003) and Kurtz (2005) conclude that there is a link between social and financial performance. Because social performance is difficult for investors to track, we examine whether the market reacts to expert endorsements of social responsibility. The experts examined in the current study are the Calvert group. Calvert maintains a social index and requires that the firms included pass a rigorous screening process. Inclusion in the index indicates an endorsement from Calvert that a firm is acting in a socially responsible way. Firms are removed from the index when they fail to meet Calvert's strict criteria, which results in what we classify as a removal of an expert endorsement. If the market is concerned with social performance and Calvert's endorsement is a signal of valuable information about that performance, there will be an effect following announced index changes.

Our results indicate that the addition of firms to the Calvert social index does not stimulate a positive market reaction. However, deletions result in a significant decline in stock prices of more than 1.5%, on average. A closer inspection of added and deleted firms reveals that the added firms have significantly better operating performance, as measured by operating income/total assets, in the year leading up to the index change when compared with their deleted counterparts. The intensity of the market response to additions and deletions appears to vary in relation to the amount of information available for the firms in question. More broadly, asymmetric information provides a plausible explanation for the differential impact of additions and deletions on firm value and further illuminates the results regarding difference in preannouncement performance among firms added to and deleted from the Calvert social index.

In a cross-sectional regression, however, we found a further refinement of these relationships: The magnitude of the announcement day returns is associated with prior CSR reputation, such that firms with a better reputation for CSR are somewhat buffered from the downward pressure on their shares associated with deletions but those with poorer reputations actually experience a greater stimulus to their price appreciation when added to a social index than do their peers with better CSR reputations. This suggests that the market interprets the interaction among prior CSR reputation and subsequent CSR events in a more finely variegated manner than found in previous studies. From a managerial perspective, this finding suggests that investment in CSR may protect or insure the firm from a negative CSR event, but at the same time, a positive CSR event can help redeem past poor CSR performance.

Our study has several important limitations. First, the constraints of our data and time period naturally limit the scope of validity and reliability beyond the specific circumstance that is the subject of our analysis. For example, other social indices might have different effects on markets than those we tested and measured. (We did, however, compare the performance of firms in the Calvert social index and the Domini social index over 1-, 3-, and 5-year periods. We found correlations of .989, .987, and .987, respectively, suggesting that

it would be very likely that the majority of firms included in the Calvert index are also included in the Domini index.) As noted above, there are also other plausible explanations for our findings, especially those implied by our information asymmetry explanation of announcement day returns. For example, the psychology field has documented the tendency of individuals to react more intensely to negative, versus positive, information (see Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). This negativity bias might suggest that the stronger response by investors to social index deletions versus additions might be attributable to these psychological factors. Prospect theory (e.g., Kahneman & Tversky, 1979), which explores how people make choices in risk-based situations and evaluate potential gains and losses, offers a similar explanation. Yet prior research on responses to changes in other indices does not show the differential effects that we find. Also, our differential findings could be a result of massive buying and selling by institutional investors; that is, the effects are attributable to simple supply–demand pressures within the world of institutional investing. The fact that Pruitt and Wei (1989) found that institutional investors were more likely to react positively to additions than negatively to deletions (the opposite of what we found—in their study, institutional holdings increased by 2% following a firm’s addition and fell less than 1% following a deletion) would, however, contradict these alternate interpretations. In addition, the cross-sectional results with respect to prior external measures of performance and the fact that there are no abnormal returns outside of the event window also contradict alternative explanations of our results.

Normative perspectives on institutional theory have been applied in a wide range of contexts and settings (e.g., Scott, 1995; Suchman, 1995). In this study, we have extended theories of normative institutional pressures and related research on reputation and legitimacy by incorporating a relatively new social phenomenon—the quest for individuals and collectives to learn more about the social responsibilities of the companies in which they invest and the concurrent desire by firms to be viewed as responsible contributors to society. This application of institutional theory and recent research on the antecedents and consequences of reputation demonstrates that the institutional view is robust, adaptable, and quite suitable in efforts to understand many social and organizational relationships. As SRI becomes more mainstream, social indices will likely gain influence as important institutions that shape behavior and reflect broader social trends and norms.

Appendix

The Calvert Social Index

The Calvert social index is one of the most widely recognized indices of socially and environmentally responsible corporations. Calvert searches for firms that “are good corporate citizens today” and that (it believes) “will remain leaders tomorrow.” These firms are then considered for inclusion if they meet specific screening criteria. The categories Calvert uses for screening include governance and ethics, workplace, environment, product safety and impact, international operations and human rights, indigenous peoples’ rights, and community relations. Within each of these areas, Calvert focuses on more specific issues of concern. For example, in workplace, Calvert’s analysts look at diversity, labor relations, and employee health and safety.

(continued)

Appendix (continued)

To determine whether firms meet the appropriate social criteria, Calvert has developed a rigorous social screening process. Calvert's social research department uses a variety of publications, both general and industry specific, to gather information on the firms in their universe. Calvert researchers supplement this information with direct conversations with and interviews of company management, data from environmental and social regulatory agencies, and discussions with advocacy organizations. The information gathered from all these resources is used to determine if the firms meet the social criteria.

Calvert constructs its social index by starting with the 1,000 largest firms in the United States, based on the firm's stock listing on the NYSE or NASDAQ-AMEX. As of September 2006, 641 firms comprised the index, but this number varies over time as firms are added and deleted. Calvert reconstitutes the social index in September of every year as of the third Friday in June. The index is also reviewed on a quarterly basis (and on an ad hoc basis as necessary) to account for mergers and acquisitions and changes in social criteria. Firms are then added or deleted from the index for any of the following reasons: annual reconstitution, merger or acquisition, or that the firm now, or no longer, meets the appropriate social criteria. All index additions and deletions that we considered are changes made for the reason that the firm meets (in the case of additions) or does not/no longer meets (in the case of deletions) Calvert's social criteria.

An example of an action taken in 2002 by Calvert that is included in our sample is the addition of American Standard Companies. The news release by Calvert states that American Standard Companies "will be added to the Calvert social index, as it meets Calvert's social screen criteria." A deletion example also occurred in 2002 when Calvert announced that Oracle Corporation "will be deleted from the Calvert social index, as it no longer meets Calvert's business practices criteria." News releases of actions by Calvert like these examples are the basis for the index changes considered in our article. Over time, Calvert has varied the amount of information released on why a firm is added or deleted. At some points in time, the only information given is that the firm met the social criteria; at other times, more specific information is offered such as that the firm no longer meets the *environmental* social criteria. As the amount of information given changes across time, we were unable to examine whether the size of the reaction is related to the reason given for adding or deleting a firm.

Calvert describes the process used to construct its social index on its Web site and in other public documents. We also had discussions with Calvert's chief social investment strategist to verify our understanding of the process used to construct the social index and the methodology used by Calvert to make changes to firms included in the index (i.e., the additions and deletions covered in the article). In separate discussions with one of Calvert's independent auditors, it was confirmed that the process used to add and delete firms from the social index has been reasonably consistent over the time period covered in our study and is fully independent of any considerations about the financial performance of firms. It is important to note that because Calvert also manages mutual funds, many of which have a social responsibility orientation, the process of establishing and maintaining the social index must, by law, be strictly separate from the selection of stocks included in its mutual funds.

Notes

1. In this article, we incorporate two different measures of financial performance. One is market-based firm performance in which we measure share price performance in the context of our event study analysis. The second is operating performance, as measured by operating income/total assets, an accounting-based measure of firm performance that we use in our preannouncement analysis.

2. We followed the methodology in Strike, Gao, and Bansal (2006) to ensure valid formative index construction.
3. The nonparametric Wilcoxon test results are not reported, but the direction and significance of the returns are identical to that reported using *t* tests.

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