Does Corporate Social Responsibility Lead to Superior Financial Performance?
A Regression Discontinuity Approach

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Abstract

This study examines the effect of corporate social responsibility (CSR) on financial performance. Specifically, we analyze the effect of CSR-related shareholder proposals that pass or fail by a small margin of votes. The passage of such "close-call" proposals is akin to a random assignment of CSR to companies and hence provides a clean causal estimate. Consistent with the view that CSR is a valuable resource, we find that adopting a CSR-related proposal leads to superior financial performance. The effect is weaker for companies with higher levels of CSR, suggesting that CSR is a resource with decreasing marginal returns. Finally, consistent with institutional theory, we find that the effect is stronger for companies operating in industries where institutional norms of CSR are higher.

Keywords: corporate social responsibility; financial performance; institutional theory; regression discontinuity; shareholder proposals.

1. Introduction

Does corporate social responsibility (CSR) lead to superior corporate financial performance (CFP)? Anecdotal evidence points toward a positive relationship between the two. For instance, the U.K. retailer Marks & Spencer implemented an ambitious CSR program in 2007, "with the ultimate goal of becoming the world's most sustainable major retailer". Five years later, this program turned out to be very profitable. In particular, CEO Marc Bolland qualifies the outcome as "a strong business case for sustainability, with £185 million in net benefits" (MIT Sloan Management Review 2012a). More generally, recent surveys indicate that a large majority of CEOs believe that CSR can improve a firm's competitiveness and is critical to its future success (see, e.g., Accenture and UNGC 2010, MIT Sloan Management Review 2012b).

Understanding the relationship between CSR and CFP has spurred a large academic literature. In their recent review, Margolis et al. (2007) report that 167 studies have examined the CSR-CFP link between 1972 and 2007. These studies have been surveyed in no less than 16 review articles. The typical approach in this literature is to regress measures of CFP (e.g., the firm's return on assets) on measures of CSR (e.g., the Kinder, Lydenberg, and Domini (KLD) firm-level index of social performance). In their meta-analysis of these studies, Margolis et al. (2007) conclude that the overall correlation between CSR and CFP—more precisely, the coefficient of CSR in the above regression—is positive but small.

A limitation of this literature is that CSR is endogenous with respect to CFP, i.e. a company's decision to engage in CSR activities likely correlates with unobservable firm characteristics that may also affect CFP. For example, it could be that companies engage in CSR *because* they are more profitable or expect their future profitability to be higher. Or it could be that CEOs who implement long-term CSR strategies are also those who are more likely to perform well (e.g., since they are more talented). In sum, the positive correlation between CSR and CFP that emerges from the literature, albeit interesting, does not warrant a causal interpretation.[1]

Going beyond such correlation is difficult. From an empirical perspective, the ideal experiment would be to randomly assign firms into a "high CSR group" and a "low CSR group" and compare their performance following this "treatment". Obviously, such ideal experiment would be difficult and unreasonably costly to implement in the field.

In this paper, we consider a quasi-natural experiment that is very close in spirit to this ideal experiment. Specifically, we compare the effect of shareholder-sponsored CSR proposals that pass or fail by a small margin of votes in annual meetings. The passage of such "close-call" proposals is akin to a

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[1] Similarly, Margolis et al. (2007) conclude their meta-analysis by highlighting the need to move beyond the "simple correlation between CSP and CFP" (p. 33).

random assignment of CSR to companies and hence is uncorrelated with firm characteristics. Intuitively, there is no reason to expect any systematic difference between a company for which a CSR-related proposal passes with 50.1% of the votes, and a company for which a similar proposal fails with 49.9% of the votes. Accordingly, close-call CSR proposals provide a source of random variation in CSR which can be used to estimate the causal effect of CSR on CFP. The general approach of comparing outcomes just above and below a discontinuous threshold is known as "regression discontinuity design" (RDD) in the economic literature. In this paper, the discontinuity arises because, around the 50% majority threshold, a minor difference in vote shares leads to a discrete change (i.e., a discontinuity) in the adoption of CSR policies.[2]

To identify shareholder proposals related to CSR, we search two databases (RiskMetrics and FactSet) that contain information on shareholder proposals of U.S. publicly-traded companies that came to a vote from 1997 to 2010. We only consider proposals that pass or fail by a small margin of votes. In our main analysis, we use a cutoff of +/–5% around the 50% majority threshold.

Our main finding is that CSR proposals that pass by a small margin lead to a significant improvement in firm performance (compared to proposals that are rejected by a small margin). More specifically, the company's return on assets (ROA) increases by 0.7 to 0.8 percentage points, while the company's net profit margin (NPM) increases by 1.1 to 1.2 percentage points. We also find that the stock market reacts positively to the passage of close-call CSR proposals. More precisely, in the two-day event window following the announcement of the vote, CSR proposals that pass yield a positive cumulative abnormal return (CAR) of 1.9% compared to proposals that fail. Overall, these results are consistent with the view that CSR generates valuable resources that allow companies to differentiate themselves and improve their competitiveness. This argument is in line with, e.g., the resource-based view of the firm (e.g., Hart 1995, Russo and Fouts 1997), instrumental stakeholder theory (e.g., Jones 1995), and Porter and Kramer's (2006, 2011) shared value argument.

While the above findings suggest a positive relationship between CSR and CFP, a related question is what is the curvature of this relationship. Extending existing theories, we posit that CSR is a resource with decreasing marginal returns, i.e. for otherwise comparable companies the CSR-CFP relationship is concave. Intuitively, initial efforts to improve CSR may yield substantial benefits (the "low hanging fruits" of CSR). However, as companies keep increasing their social performance, the returns from an additional CSR initiative may decrease. Consistent with this decreasing marginal return argument, we find that the performance improvement following the adoption of close-call CSR proposals is smaller for companies with higher social performance, as proxied by the KLD index (on an industry-adjusted basis).

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[2] See Lee and Lemieux (2010) for a survey of RDD applications in the economic literature.

Finally, we examine how the relationship between CSR and CFP depends on the companies' external environment. In the spirit of institutional theory, we argue that institutional norms of CSR affect the financial returns from CSR investments. Arguably, in industries with higher institutional norms of CSR ("clean" industries), stakeholders such as customers and strategic partners are more responsive to CSR efforts. In turn, this may translate into higher returns from CSR initiatives. In contrast, in industries with lower institutional norms of CSR ("dirty" industries), stakeholders are more likely to be indifferent towards companies' engagement with CSR. Hence, the financial returns from CSR initiatives may be lower. We use two proxies for institutional norms of CSR, which both capture how "CSR-sensitive" the industry is. The first proxy is the prevalence of CSR initiatives in the industry, measured by the average KLD across all firms in the industry. The second proxy is the ratio of the number of CSR-related shareholder proposals to the total number of shareholder proposals submitted to all companies in the industry. Consistent with the above hypothesis, we find that—regardless of which proxy we use—the financial gains from the adoption of close-call CSR proposals are indeed larger in industries with higher institutional norms of CSR.

Overall, the findings of this study support the view of "CSR-as-a-resource" and shed light on how the value of this resource depends on the firm's social performance and institutional norms of CSR. In the following, we develop our theoretical arguments in detail, describe the methodology, present the empirical results, and conclude by discussing the implications and limitations of our findings.

2. Theory and Hypotheses

2.1. Relationship between Social and Financial Performance

Does CSR lead to superior financial performance? This question has received considerable attention in the literature. The early literature, in the spirit of shareholder theory (e.g., Friedman 1962, 1970), views social responsibility as a "donation" from shareholders to stakeholders that reduces profits. Similarly, CSR may be the outcome of an agency conflict between shareholders and managers (Jensen and Meckling 1976): companies' social engagement may be driven by managers' own social preferences or their desire to establish overly friendly relationships with specific stakeholders.

While the early literature predicts a negative relationship between CSR and financial performance, subsequent research emphasizes the potential value of CSR. For example, Freeman's (1984) stakeholder theory argues that companies should consider the interests of everyone who can substantially affect, or be affected by, the welfare of the company. This theory has been extended in various ways (for

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a review, see Agle et al. 2008). For instance, instrumental stakeholder theory argues that CSR efforts can be instrumental in obtaining necessary resources or stakeholder support (e.g., Jones 1995). Similarly, in line with the literature on sustainability in business and the resource-based view of the firm, companies may engage in CSR in order to improve their efficiency and enhance, e.g., their reputation, brand, and trust (e.g., Barney 1991, Hart 1995, Porter 1991, Porter and Kramer 2006, 2011, Russo and Fouts 1997). In turn, such actions may attract new customers (such as socially conscious consumers, "green" customers, etc.), increase the companies' profitability, and enhance their competitiveness.

A large set of anecdotal evidence suggests that a growing number of multinational companies—including, e.g., General Electric, Google, IBM, Intel, Johnson & Johnson, Marks & Spencer, Nestle, Unilever and Wal-Mart—see the benefits of creating "shared value" (Porter and Kramer 2011) and, in particular, expect to gain a competitive advantage from CSR initiatives. For example, General Electric's CEO Jeffrey Immelt stated about GE's "ecomagination" program: "We did it from a business standpoint from Day 1, […], it was never about corporate social responsibility" (*New York Times* 2011).

Similarly, shareholders from various companies seem to value not only the social, but also the economic benefits of CSR policies. For example, in the supporting statement of a proposal to implement a non-discrimination policy, shareholders of Gardner Denver Inc. argue as follows: "Employment discrimination on the basis of sexual orientation and gender identity diminishes employee morale and productivity. Because state and local laws are inconsistent with respect to employment discrimination, our company would benefit from a consistent, corporate-wide policy to enhance efforts to prevent discrimination, resolve complaints internally, access employees from the broadest talent pool, and ensure a respectful and supportive atmosphere for all employees. Gardner Denver will enhance its competitive edge by joining the growing ranks of companies guaranteeing equal opportunity for all employees" (SEC Form DEF 14A, filed by Gardner Denver, Inc. on March 17, 2010).

In line with the recent emphasis on the benefits of CSR, we argue that a company's social engagement with its stakeholders generates resources that create long-term benefits for the firm. Accordingly, viewing CSR as a valuable resource, we hypothesize a positive relationship between corporate social and financial performance:

HYPOTHESIS 1. *The passing of shareholder proposals on CSR leads to an increase in financial performance.*

In the following, we build up on this argument of CSR-as-a-resource and argue that the CSR-CFP relationship, or equivalently the return from the resource CSR, is influenced by both the company's social performance and institutional norms of CSR in the firm's industry.

2.2. Decreasing Marginal Returns of CSR

The "stock" of CSR resources that is already in place may influence the benefits from implementing an additional CSR program, i.e. the CSR-CFP relationship may not be linear. In order to characterize the curvature of this relationship, we use an argument in the spirit of neoclassical economic theory. Neoclassical models of the firm typically assume decreasing marginal returns of the production factors (e.g., capital and labor). By the same reasoning, CSR as a resource may exhibit decreasing marginal returns (see Flammer (2012) for a related argument in the context of green initiatives). Intuitively, in early stages of designing CSR policies, it may be fairly easy and inexpensive for companies to implement social programs that yield substantial monetary benefits. However, once the low-hanging fruits of CSR have been harvested, it may become increasingly difficult to adopt social policies that further improve the company's financial performance. This argument likely applies for otherwise comparable companies such as companies within the same industry. Accordingly, we propose the following hypothesis:

> HYPOTHESIS 2. *The passing of shareholder proposals on CSR leads to a smaller increase in financial performance for companies with higher levels of CSR within the same industry.*

2.3. Institutional Norms and the Returns from CSR

Corporations operate in different business environments and may face different degrees of institutional pressure to engage in CSR from their constituencies (including, e.g., activist groups, customers, competitors, legislators, and local communities). For example, companies doing business directly with end consumers (i.e. B2C companies) are likely more exposed to customer scrutiny and consumer activism than those who are dealing with other businesses or governments (i.e. B2B and B2G companies).

Companies may react to industry-specific institutional pressure by implementing more CSR initiatives, which in turn may lead to different standards of CSR across industries. This argument is in line with institutional theory and stakeholder theory (see, e.g., Agle et al. 2008, Bansal 2005, Bansal and Roth 2000, Campbell 2007, Delmas and Toffel 2004, Freeman 1984, Hoffman 1999, 2001, Jennings and Zanbergen 1995, Kassinis and Vafeas 2006, Sharma and Henriques 2005).

The above theories address the motivation of a company to engage in CSR, and can therefore explain different norms of CSR across industries. By the same reasoning, stakeholders in different industries may differ in their responsiveness to CSR efforts. Arguably, in industries with higher institutional norms of CSR ("clean" industries) stakeholders are more sensitive to companies' CSR efforts. This higher CSR-sensitivity may, in turn, translate into higher financial returns from CSR investments. Conversely, in industries with lower institutional norms of CSR ("dirty" industries), stakeholders are likely less responsive to companies' engagement with CSR, which may lead to lower financial returns from CSR initiatives. Thus, we propose the following hypothesis:

> HYPOTHESIS 3. *The passing of shareholder proposals on CSR leads to a larger increase in financial performance for companies in industries where institutional norms of CSR are higher.*

3. Data and Methodology

3.1. Shareholder Proposals

The data on shareholder proposals are obtained from two databases: RiskMetrics and FactSet. RiskMetrics covers shareholder proposals that came to a vote from 1997 to 2010 at S&P 1,500 companies (as well as approximately 400-500 additional widely held companies). FactSet's proxy voting database includes shareholder proposals from a broad universe of about 5,600 U.S. publicly traded companies between 2001 and 2010. Both databases include firm identifiers (company name and ticker), a description of the proposal, the date of the shareholders' meeting, the sponsor of the proposal, the voting requirement, and the outcome of the vote (percentage of favorable votes).

Our empirical approach follows Cunat et al. (2012) who study the causal effect of corporate governance on firm value by examining close-call shareholder proposals related to governance provisions. As in their study, we restrict our sample to shareholder-sponsored proposals. Unlike management-sponsored proposals, these cannot be withdrawn strategically by the firm's management, and hence their vote distribution is unaffected by selective withdrawal around the 50% threshold (see Section III of Cunat et al. 2012, Listokin 2008). Since our identification strategy relies on proposals that pass or fail by a small margin, we only include proposals that received favorable votes within a range of

+/–5% around the 50% majority threshold.[3] In robustness checks, we show that our results also hold if we use a +/–10% cutoffs.

To identify shareholder proposals related to CSR, we read the description of each proposal. In both databases, the description is sufficiently detailed so that the identification of CSR-related proposals is straightforward. For instance, proposals whose objective is to "reduce CO_2 emission," "issue a sustainability report," or "adopt a sexual orientation anti-bias policy" are clearly CSR-related. In contrast, proposals that aim at adopting "poison pills," "golden parachutes," or "classified boards" are not.[4]

Our search yields a final sample of 102 shareholder proposals within the +/–5% cutoff (234 proposals within the +/–10% cutoff). Table 1 contains two examples of shareholder proposals from our dataset. The first example (upper panel of Table 1) is Lear Corporation, a Fortune 500 company engaged in the manufacturing and distribution of automotive interiors systems. A proposal to implement human rights standards at the company's foreign production facilities was put to vote at the annual meeting on May 11, 2006. The proposal was rejected by a small margin: 49.2% of the votes supported the proposal, which was marginally below the 50% majority threshold. The second example (bottom panel of Table 1) is HCC Insurance Holdings, an international insurance group. On May 10, 2007, the company's shareholders voted on a proposal to implement equal employment opportunity (EEO) policies. The proposal was accepted by 52.2% of the votes, which is slightly above the majority requirement.

In Table 2, we further characterize the proposals in our sample according to their specific CSR category. We distinguish between four categories: 1) employee satisfaction (e.g., an increase in pension benefits), 2) non-discrimination (e.g., the implementation of EEO policies), 3) environment (e.g., the reduction of coal combustion waste), and 4) human rights (e.g., the implementation of human rights standards in developing countries). As can be seen from Table 2, the first category accounts for about two thirds of our sample. Nevertheless, we show in robustness checks that our results hold regardless of whether we consider only the first category, or the other three categories combined.

3.2. Methodology

For each proposal in our sample of 102 CSR-related proposals that pass or fail by a small margin, we examine how the financial performance of the corresponding company changes after the vote. Specifically, we compute the difference in the firm's average return on assets (ROA) in the two fiscal years following the vote minus the firm's average ROA in the two fiscal years preceding the vote. We

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[3] For companies that have a stricter majority requirement (e.g., a "supermajority" requirement of two-thirds of the votes), we apply the +/–5% cutoff around the corresponding voting threshold.

[4] The categorization was conducted by a faculty and an undergraduate research assistant. Inter-rater agreement was 98%.

denote this difference by ΔROA_{it}, where i indexes the company (or, equivalently, the proposal), and t indexes the fiscal year of the proposal. ROA is obtained from Standard & Poor's Compustat, and is defined as the ratio of earnings before interest and taxes (EBIT) to the firm's book value of total assets. As an alternative measure of performance, we also consider net profit margin (NPM) throughout the analysis. NPM is defined as the ratio of EBIT to the firm's net sales.

To determine the causal effect of CSR on firm performance, we estimate the following regression:

$$\Delta ROA_{it} = \alpha_t + \beta \times Pass_{it} + \gamma'\mathbf{X}_{it} + \varepsilon_{it} ,$$

where α_t are year fixed effects, *Pass* is a dummy variable that equals one if the proposal passes by a small margin (and zero if the proposal fails by a small margin), $\mathbf{X}$ is the vector of control variables, and ε is the error term. We use heteroskedasticity-robust standard errors throughout. (We obtain similar results if instead we cluster standard errors at the industry level, at the year level, or along both dimensions simultaneously.) The coefficient of interest is β which measures the difference in ΔROA for firms whose CSR proposal passes by a small margin compared to firms whose CSR proposal fails by a small margin. In other words, it measures the increase in financial performance for firms that are randomly "treated" with an increase in CSR.

The controls in $\mathbf{X}$ include size (the logarithm of the firm's book value of total assets), the market-to-book ratio (the ratio of the market value of the firm's equity to its book value), leverage (the ratio of the sum of long-term debt and debt in current liabilities to total assets), and cash holdings (the ratio of cash and short-term investments to total assets). All these variables are obtained from Compustat and are measured in the fiscal year preceding the shareholder vote.[5]

Our identification strategy is based on the assumption that firms whose votes fall just within the +/−5% interval around the 50% majority threshold have very similar ex ante characteristics, which allows us to estimate the causal effect of an increase in CSR. In the following, we provide two sets of auxiliary evidence suggesting that this assumption is indeed correct in the context of our study.

Uniform distribution of the voting results in the +/–5% interval. Our main sample of 102 shareholder proposals consists of 52 proposals that were passed by a small margin (up to 5% above the majority cutoff) and 50 proposals that failed by a small margin (up to 5% below the majority cutoff). The fact that both numbers are so close is reassuring: if the vote share is truly random within the +/–5% interval, we would expect the frequency of failed and passed proposals to be identical. Formally, a

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[5] The results are unchanged if we further include in $\mathbf{X}$ profitability (ROA or NPM) in the fiscal year preceding the vote.

binomial test of the null hypothesis that the number of approved and rejected proposals is identical cannot be rejected with a *p*-value of 0.902.

No systematic difference in ex ante characteristics in the +/–5% interval. If the randomness assumption is correct, observable characteristics of companies whose voting shares are immediately below or above the majority threshold should not be significantly different. Table 3 documents this similarity along the variables that are included in **X** (size, market-to-book ratio, leverage, and cash holdings) as well as profitability (ROA and NPM), all measured in the fiscal year preceding the vote. The table reports means and standard deviations of these variables in the two border groups, as well as the *p*-value of the difference-in-means test in the last column. As is shown, all characteristics are very similar across both groups. In particular, for all characteristics, the null hypothesis of equal means cannot be rejected.

Finally, it should be noted that shareholder proposals are generally not binding. Nevertheless, this caveat is mitigated, for three reasons. First, while the passing of a proposal does not automatically guarantee its implementation, the probability of implementation is substantially higher for proposals that pass (see, e.g., Cunat et al. 2012, Ertimur et al. 2010). Second, even if some proposals that successfully pass the vote are not formally implemented, they may still be put into effect informally. For example, following the adoption of EEO policies, companies may not formally amend their charter. Yet, the company's HR department may still implement these policies in their daily operations. Third, if some of the approved proposals in our sample are not implemented (neither formally nor informally), this would merely bias β towards zero and hence go against us finding any significant results.

3.3. Cross-Sectional Analysis

To test Hypotheses 2 and 3, we extend the above regression specification by interacting the pass dummy with a variable capturing the cross-sectional characteristic of interest (this variable is also included as an additional control in **X**). We consider three such variables, which are described below. The first variable (firm-level social performance) is used to test whether the passing of close-call proposals has a stronger effect for companies with lower social performance (within their respective industry). Finding such evidence would be consistent with Hypothesis 2 according to which CSR is a resource with decreasing marginal returns. The other two variables (the prevalence of CSR initiatives and CSR-related proposals at the industry level) capture how "CSR-sensitive" the industry is, and therefore proxy for the strength of institutional norms of CSR within the industry. We use these two proxies to test Hypothesis 3 that predicts stronger performance gains from CSR for companies operating in industries where institutional norms of CSR are higher.

Firm-level social performance. We measure social performance by using the Kinder, Lydenberg, and Domini (KLD) index of social performance. The KLD index rates companies on several dimensions that reflect their social performance, including community, diversity, employee relations, environment, human rights, product quality, corporate governance, and whether firms' operations are related to alcohol, firearms, gambling, tobacco, nuclear power, and military contracting. To construct a composite index, we sum up all strengths along these dimensions. In addition, to account for the fact that certain industries may differ in their degree of social performance, we industry-adjust the KLD index by subtracting the average KLD across all firms in the same 2-digit SIC industry and year.

Prevalence of CSR initiatives at the industry level. This measure is the industry-level analog of the previous measure, i.e. it is computed as the average KLD across all firms in any given 2-digit SIC industry and year. It proxies for the CSR-sensitivity of the industry.

Prevalence of CSR-related proposals at the industry level. This measure is obtained by computing the fraction of shareholder proposals related to CSR to the total number of shareholder proposals submitted to all companies in any given 2-digit SIC industry and year. The data on shareholder proposals are obtained from the two databases (RiskMetrics and FactSet) described above. Similar to the previous measure, it reflects how CSR-sensitive a given industry is.

4. Results

4.1. Main Results

The main results are presented in Table 4. In the first three columns, we use changes in ROA as dependent variable. In Model 1, the regression only includes the pass dummy as explanatory variable. In Model 2, we also include year fixed effects, and in Model 3, we further include firm-level controls (size, market-to-book ratio, leverage, and cash holdings, all measured in the fiscal year preceding the vote). For each specification, the table reports the coefficient on the pass dummy and its standard error in parentheses. As is shown, in Models 1-3, the coefficient on the pass dummy is very similar. Specifically, the coefficient lies between 0.007 and 0.008 and is always significant. This implies that, in the two years following the vote, ROA increases by 0.7 to 0.8 percentage points for companies whose votes are marginally above the majority threshold (within 5% above) compared to companies whose votes fall right below the threshold (within 5% below). This finding is consistent with Hypothesis 1 that predicts higher financial performance following an exogenous increase in CSR.

In the last three columns of Table 4, we repeat the anlaysis with NPM instead of ROA as measure of financial performance. As can be seen, we obtain very similar results across all three specifications. More precisely, the coefficients imply a significant increase in NPM by 1.1 to 1.2 percentage points.

4.2. Robustness

We have performed a battery of robustness checks that address potential concerns. These robustness checks are presented in Table 5. In what follows, we briefly discuss each of them.

Voting results within the +/–10% interval. Any regression discontinuity design entails a tradeoff between a tight "bandwidth" and sample size. Our paper is no exception. On one hand, focusing on the +/–5% interval around the majority threshold provides us with a very sharp identification, as it seems very likely that the voting outcome is random within this tight interval. On the other hand, only 102 proposals fall within this interval. To examine whether our results are sensitive to the relatively small sample size, we extend the bandwidth by considering voting results that fall within the +/–10% interval (with the caveat that the randomness requirement is less likely to be fulfilled). The sample now consists of 234 observations. The results based on this sample are presented in Models 1 and 2 of Table 5. As can be seen, the coefficient on the pass dummy is similar to before, both for ROA and NPM as dependent variables.

CSR categories. In the data and methodology section, we pointed out that approximately two thirds of our 102 close-call proposals pertain to employee satisfaction, while the remaining proposals pertain to non-discrimination, environment, and human rights (see Table 2). To examine whether our results are driven by improvements in employee satisfaction, we reestimate our baseline specification separately for the sample of shareholder proposals on employee satisfaction (69 proposals) and the sample of shareholder proposals in the other three CSR categories (33 proposals). The results are presented in Models 3-6 of Table 5. As is shown, our results hold regardless of the type of proposal.[6] While the coefficient on the pass dummy is somewhat larger for proposals on employee satisfaction (for both ROA and NPM), it is not significantly larger than for proposals in the other CSR categories.[7]

Median regressions. ROA and NPM are ratios of profitability to total assets and net sales, respectively. Accordingly, they will take on large values if the scaling variable becomes too small. To mitigate the effect of large realizations of ROA and NPM, we reestimate our baseline specification using a median (least absolute deviation) regression instead of OLS. The results are presented in Models 7 and 8

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[6] The results in Models 3 and 4 suggesting that employee satisfaction improves firm performance are consistent with Edmans' (2011, 2012) finding that employee satisfaction is positively correlated with shareholder returns.

[7] The *p*-value for the null hypothesis that the coefficient on the pass dummy is identical in Model 3 and Model 5 (Model 4 and Model 6) is 0.683 (0.492).

of Table 5. As can be seen, the coefficient on the pass dummy is slightly smaller than in the baseline specification. Specifically, the median increase in ROA is 0.6 percentage points, while the median increase in NPM is 1.0 percentage point. Importantly, the increase in performance remains significant in both Models 7 and 8.

      Stock market reaction. So far, we measured corporate financial performance on the basis of profitability ratios from accounting statements. The observed increase in profitability may translate into a positive stock market reaction on the day of the vote—the stock market may react given that the outcome of the vote is likely random and hence unanticipated by investors. To examine whether this is the case, we compute the cumulative abnormal returns (CAR) of the company's stock in the two-day window following the vote. The two-day window includes the day of the shareholders' meeting (the so-called "event date" or "day 0" in the event study terminology), and the following trading day (day 1). Including day 1 accounts for the fact that the outcome of the vote may not be known by the time the stock exchange closes on the day of the shareholders' meeting. We compute CAR on the basis of the market model (a detailed description of the CAR computation is provided in Appendix A). We then use CAR as dependent variable in our regression specification. The results are reported in Model 9 of Table 5. The coefficient on the pass dummy is 0.019, which is significant at the 5% level. Accordingly, in the two-day event window following the announcement of the voting results, a CSR proposal that passes yields a positive CAR of 1.9% compared to a proposal that fails.

4.3. Cross-Sectional Evidence

      Curvature of the CSR-CFP Relationship. To study the curvature of the relationship between CSR and firm performance, we interact the pass dummy with the KLD index. (To filter out industry effects, we industry-adjust the KLD index by subtracting the average KLD across all firms in the same 2-digit SIC industry and year; see the methodology section.) The results are presented in Table 6.[8] As can be seen, we find that the coefficient on the interaction term pass × KLD is significantly negative, regardless of whether ROA or NPM is used as dependent variable. This implies that companies with stronger social performance benefit less from the passing of an additional CSR resolution. This finding is consistent with Hypothesis 2, which predicts a concave relationship between CSR and CFP (i.e., CSR exhibits decreasing marginal returns).

      Institutional Norms of CSR. In Table 7, we examine whether the passing of close-call CSR proposals leads to stronger financial performance in industries with higher institutional norms of CSR. To

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[8] Note that the KLD index is only available for a subset of the companies in our sample, so that the sample size in Table 6 decreases to 91 close-call proposals (compared to 102 in our main sample).

do so, we interact the pass dummy with two proxies for institutional norms of CSR: the average KLD index in the 2-digit SIC industry of the company (Models 1 and 2) and the ratio of the number of CSR-related shareholder proposals to the total number of shareholder proposals submitted to all companies in any given 2-digit SIC industry (Models 3 and 4).[9] As is shown, regardless of which proxy we use and regardless of whether ROA or NPM is the dependent variable, we find that the coefficient on the interaction term pass × institutional norm is always positive and significant (at least) at the 10% level. This suggests that investing in CSR pays off more in industries that face higher institutional norms of CSR, as predicted in Hypothesis 3.

5. Discussion and Conclusion

Is there a business case for CSR? Using the passage of close-call shareholder proposals on CSR as a source of exogenous variation in CSR, we find evidence suggesting that the answer to this question is affirmative.

In this study, we view CSR as a valuable resource for the company and argue that it leads to superior long-term financial performance. Building up on this view of CSR as a resource, we further posit that the CSR-CFP relationship is influenced by both the company's social performance and institutional norms of CSR in the firm's industry. By developing this framework and empirically testing its predictions, we obtain three main insights.

First, in support of the view that CSR is a valuable resource for firms, we find that CSR-related shareholder proposals that are adopted by a small margin of votes lead to superior financial performance (compared to firms whose CSR-related shareholder proposals are rejected by a small margin). More specifically, for proposals whose votes fall within a +/–5% interval around the 50% majority threshold, we find that adopting the proposal leads to an increase in ROA by 0.7 to 0.8 percentage points, and an increase in NPM by 1.1 to 1.2 percentage points in the two fiscal years following the vote. We also find that the stock market reacts positively to the passage of close-call CSR proposals: in the two-day event window following the announcement of the vote, a CSR proposal that passes yields a positive cumulative abnormal return of 1.9% compared to a proposal that fails.

Second, we posit that CSR is a resource with decreasing marginal returns. In other words, for otherwise comparable companies, initial efforts to improve CSR may yield substantial benefits (harvesting the low hanging fruits of CSR). However, as a company keeps increasing its social performance, the performance gains from an additional CSR policy may decrease. Consistent with this

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[9] See the data and methodology section for a description of these two proxies.

view, we find that the performance improvement following the adoption of close-call CSR proposals is smaller for companies with higher social performance, as proxied by the KLD index (net of the industry average).

Third, we argue that the effect of CSR on financial performance is larger for companies operating in industries with higher institutional norms of CSR ("clean" industries). Arguably, in such industries stakeholders are more sensitive to companies' social engagement, which may translate in higher payoffs of CSR initiatives. Using two proxies for CSR-sensitive industries—the average KLD across all firms in the industry and the ratio of the number of CSR-related shareholder proposals to the total number of shareholder proposals submitted to all companies in the industry—we find that the performance gains from the adoption of close-call CSR proposals are indeed stronger in industries with higher institutional norms of CSR.

To the best of our knowledge, this study is the first to provide empirical evidence on the causal effect of CSR on CFP. While a large empirical literature points toward a positive correlation between CSR and CFP (for detailed reviews of this literature, see, e.g., Margolis et al. 2007, Margolis and Walsh 2001, 2003, Orlitzky et al. 2003), this correlation does not warrant a causal interpretation. This limitation arises because CSR is endogenous with respect to CFP—a company's decision to engage in CSR activities likely correlates with firm characteristics that may also affect CFP. In this study, we overcome this limitation by exploiting exogenous variation in CSR in the form of close-call shareholder proposals on CSR. The adoption of such close-call proposals is akin to a random assignment of CSR to companies and hence is uncorrelated with firm characteristics. Accordingly, it allows us to estimate a clean causal effect of CSR on CFP. In the previous literature, the papers that are closest to making causal statements are Dowell et al. (2000), Lev et al. (2010), Preston and O'Bannon (1997), and Waddock and Graves (1997). These four articles rely on so-called Granger causality tests (the comparison of leads and lags of CSR and CFP). However, as Lev et al. (2010) emphasize, while this methodology has its merits, it does not establish causality.[10] Accordingly, it does not substitute for the need to look for (quasi-)natural experiments like the one we consider in this study.

Our specific finding that CSR is a resource with decreasing marginal returns is related to recent research on environmental CSR. More precisely, Flammer (2012) shows that companies experience a significant stock price increase upon the announcements of eco-friendly initiatives, but less so if companies have more green initiatives in place. She interprets this result as evidence that the

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[10] As Leamer (1995) points out, Granger causality does not imply "causality," but rather "precedence" in a lead-lag relationship. In the CSR-CFP context, finding that CSR precedes (i.e. predicts future values of) CFP does not necessarily imply that CSR causes CFP. For example, it could be that companies engage in CSR because they expect their future profitability to be higher. In this scenario, CSR predicts future CFP; yet, there is no causal relationship between the two.

implementation of green initiatives exhibits decreasing marginal returns. Our results confirm her findings and extend them to general CSR and companies' long-term financial performance.

A limitation of our analysis, like most studies that rely on regression discontinuity designs, is that internal validity (due to the tight identification within the +/–5% interval) comes at the cost of external validity (due the relatively small sample size). Extending the external validity of our findings by identifying natural experiments that apply to a broader universe of firms is an exciting and challenging avenue for future research.

Finally, our finding that "doing good" pays off has potentially far-reaching implications for corporate decision making and strategic management. In particular, companies may find it worthwhile to devote sufficient resources to developing and implementing their CSR strategy. From a broader perspective, this insight suggests an important, and perhaps unique, feature of CSR: everybody wins—shareholders, employees, environment, and society at large.

Appendix A. Computation of Cumulative Abnormal Returns (CAR)

For each firm i, we compute the abnormal returns using the market model. The coefficients a_i and b_i of the market model are estimated by OLS on the basis of 200 trading days prior to the day of the shareholders' meeting (day 0) using daily return data from the Center for Research in Security Prices (CRSP). Formally, we estimate

$$R_{it} = a_i + b_i \times R_{mt} + e_{it} \, ,$$

where R_{it} is the return on the stock of company i on day t, R_{mt} is the daily return of the equally weighted CRSP market portfolio on day t, and e_{it} is the error term. The corresponding estimated return on the stock of firm i on day t is given by

$$\hat{R}_{it} = a_i + b_i \times R_{mt} \, .$$

We then calculate the daily abnormal return (AR) of company i on day t as follows:

$$AR_{it} = R_{it} - \hat{R}_{it} \, .$$

Finally, we compute the cumulative abnormal returns (CAR) for company i by summing up the abnormal returns on day 0 (the day of the shareholders' meeting) and day 1 (the next trading day).

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TABLE 1

Examples of Shareholder Proposals

Example of CSR Proposal that was Closely Rejected

Company:	Lear Corporation
Meeting Date:	May 11, 2006
Proposal:	(...) [T]he shareholders request that the company commit itself to the implementation of a code of conduct based on the aforementioned ILO human rights standards and United Nations' Norms on the Responsibilities of Transnational Corporations with Regard to Human Rights, by its international suppliers and in its own international production facilities, and commit to a program of outside, independent monitoring of compliance with these standards.
Voting result:	Rejected (49.8% Yes versus 50.2% No)
Source:	FactSet

Example of CSR Proposal that was Closely Approved

Company:	HCC Insurance Holdings, Inc.
Meeting Date:	May 10, 2007
Proposal:	The Shareholders request that management implement equal employment opportunity policies based on the aforementioned principles prohibiting discrimination based on sexual orientation and gender identity.
Voting result:	Passed (52.2% Yes versus 47.8% No)
Source:	FactSet

TABLE 2

Proposal Categories

	Frequency	Percent
Employee Satisfaction	69	67.6%
Non-Discrimination	21	20.6%
Environment	10	9.8%
Human Rights	2	2.0%
Total	102	100.0%

TABLE 3

Summary Statistics

	Proposals that were Closely Rejected (N = 50)		Proposals that were Closely Approved (N = 52)		p-value of Difference in Means
	Mean	Std. Dev.	Mean	Std. Dev.	
Size (logarithm)	8.327	1.659	8.055	1.854	0.437
Market-to-book	2.513	1.734	2.827	1.600	0.343
ROA	0.130	0.068	0.124	0.085	0.699
NPM	0.169	0.115	0.162	0.136	0.793
Leverage	0.243	0.187	0.214	0.176	0.422
Cash	0.155	0.140	0.144	0.120	0.671

TABLE 4

Changes in Firm Performance around Close Votes on CSR

Dependent Variable:	Δ ROA	Δ ROA	Δ ROA	Δ NPM	Δ NPM	Δ NPM
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Pass (-5%, +5%)	0.007**	0.007**	0.008***	0.011***	0.012***	0.012***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Control Variables	No	No	Yes	No	No	Yes
Year Fixed Effects	No	Yes	Yes	No	Yes	Yes
R-squared	0.05	0.13	0.19	0.11	0.20	0.24
Observations	102	102	102	102	102	102

All tests two-tailed. * $p < 0.10$; ** p < 0.05; *** p < 0.01.

TABLE 5

Robustness Checks

Dependent Variable:	Extended Sample (-10%, +10%)		Sample with Only Employee Satisfaction		Sample Excluding Employee Satisfaction		Median Regression		Stock Market Reaction
	Δ ROA	Δ NPM	Δ ROA	Δ NPM	Δ ROA	Δ NPM	Δ ROA	Δ NPM	CAR
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Pass (-10%, +10%)	0.006***	0.007**							
	(0.002)	(0.003)							
Pass (-5%, +5%)			0.008**	0.013***	0.006*	0.008*	0.006**	0.010**	0.019**
			(0.003)	(0.004)	(0.004)	(0.005)	(0.003)	(0.004)	(0.009)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.09	0.08	0.23	0.29	0.32	0.40	-	-	0.15
Observations	234	234	69	69	33	33	102	102	102

All tests two-tailed. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

TABLE 6

Curvature of the CSR-CFP Relationship

Dependent Variable:	Δ ROA	Δ NPM
	Model 1	Model 2
Pass (-5%, +5%)	0.008**	0.011***
	(0.003)	(0.004)
Pass (-5%, +5%) × KLD[a]	-0.002*	-0.002**
	(0.001)	(0.001)
Control Variables	Yes	Yes
Year Fixed Effects	Yes	Yes
R-squared	0.21	0.22
Observations	91	91

[a] Industry-adjusted.

All tests two-tailed. * $p < 0.10$; ** p < 0.05; *** p < 0.01.

TABLE 7

Institutional Norms of CSR and the CSR-CFP Relationship

Dependent Variable:	Δ ROA	Δ NPM	Δ ROA	Δ NPM
	Model 1	Model 2	Model 3	Model 4
Pass (-5%, +5%)	0.005*	0.009**	0.005*	0.008**
	(0.003)	(0.004)	(0.003)	(0.004)
Pass (-5%, +5%) × Institutional Norm (KLD$_{industry}$)	0.002*	0.002**		
	(0.001)	(0.001)		
Pass (-5%, +5%) × Institutional Norm (Proposals$_{industry}$)			0.015*	0.019*
			(0.009)	(0.010)
Control Variables	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
R-squared	0.24	0.27	0.24	0.27
Observations	102	102	102	102

All tests two-tailed. * $p < 0.10$; ** p < 0.05; *** p < 0.01.