

Golden Geese or Black Sheep: Are Stakeholders the Saviors or Saboteurs of Financial Distress?

Abstract

Is stakeholder management crucial for financial distress? Unlike the prior literature that shows the mitigating influence of corporate social responsibility (CSR) on distress risk, we find that social stakeholder initiatives can increase the likelihood of future financial distress. Using a quasi-experiment, we find that this relationship is likely to be causal. We further show that managerial focus and financial constraints are two possible channels through which the social dimension could impact distress. Investors should hence view firms' CSR investments with caution.

Keywords: Financial Distress, Firm Survival, CSR, ESG, Social Performance, Corporate Governance

JEL Classification: G14, G30, M14, Q50

1. Introduction

The determinants of bankruptcy and financial distress have been extensively investigated in the literature (e.g., Altman, 1968). While corporate failure is an intriguing event that results in considerable reorganization costs (Giammarino, 1989) and liquidation costs (Alderson and Betker, 1995), much of the literature has largely focused on the role of debt and equityholders in its propagation and resolution (e.g., Kahl, 2002). However, more recent research shows that financial distress can be influenced by other stakeholders such as suppliers (Lian, 2017) and employees (Cohn and Wardlaw, 2016). It is thus important to examine the role that stakeholder management plays in propagating or mitigating financial distress. This study investigates this role by examining the impact of stakeholder engagement on future financial distress.

Although stakeholder engagement initiatives target multiple groups such as customers, employees, and society at large, they are generally referred to in toto as corporate social responsibility (CSR). CSR's environmental, social, and governance (ESG) dimensions and their constituent stakeholder groups can have opposing effects on firms' financial distress depending on their impact on claim-holders' interests. This can be driven by the managerial response to internal and external stakeholders (Bénabou and Tirole, 2010) or the externalities accompanying ESG engagement that affect credit ratings (Sun and Cui, 2014). While the former represents the influence on cash flows and investment decisions, the latter reflects the outcomes of financing decisions. From an investment point of view, CSR can reduce firm value if ESG initiatives lead to an inefficient use of firms' resources (Liang and Renneboog, 2018), which may increase the likelihood of financial distress. Alternatively, CSR can be value-enhancing if positive externalities are associated with satisfied stakeholders, such as a good reputation, higher employee satisfaction, and increased customer loyalty. This in turn can reduce the possibility of financial distress by positively influencing future cash flows. From a financing perspective, ESG activities and the related CSR performance can raise credit rating and lower the costs of financing (Attig et al., 2013). This can incentivize firms to increase their leverage, which

increases the probability of default. Thus, information on CSR engagement and stakeholder management is important for debt providers to better assess default risks.

This study investigates the impact of overall CSR performance and its ESG dimensions on future distress risk (or the distance to default, DD). We focus on ESG dimensions to provide a detailed picture of their differential impacts, which may not be otherwise visible when investigating CSR itself. Indeed, our results show no impact of CSR initiatives on financial distress and, hence, on firms' default probability. This is different from CSR's significant positive effect on firms' credit ratings found by Attig et al. (2013), Jiraporn et al. (2014), and Sun and Cui (2014). Given that credit ratings are often used to proxy for default risk (e.g., Sun and Cui, 2014), our findings extend this literature as follows. First, although credit ratings are closely related to default and financial distress, they may not strictly measure firms' true financial distress. Credit ratings are merely credit analysts' "perception of distress." Analysts rely mostly on publicly available information to upgrade or downgrade a firm's rating and tend to avoid frequent revisions. However, firm-specific measures of distress such as DD can more reliably guide default forecasts (Bharath and Shumway, 2008), as they are constructed with up-to-date financial metrics. Second, while credit ratings are available for only a small subset of all MSCI ESG sample firms, financial distress metrics can be estimated for a larger number of firms, thus providing a more comprehensive sample for the analysis. Third, we provide a clean identification using a quasi-experiment that allows us to draw causal inferences.

Our analysis reveals that the governance and social dimensions of ESG can predict future distress. While social performance tends to aggravate distress likelihood by negatively affecting future DD, better governance has a positive influence on DD. This effect is not only statistically significant, but also considerably large in economic terms. We find that a 100% increase in the social dimension can reduce the firm's DD by almost 5.9%, whereas the same increase in the governance dimension increases DD by 6.3%. This finding implies that shareholder-oriented CSR activities (governance) are counterbalanced by societal CSR initiatives (social) to diminish

CSR's positive influence on financial distress.¹ We explore the community, diversity, employees, human rights, and product subcategories within the social dimension and find that only community- and product-related CSR activities consistently show an effect on future distress across all our specifications.

Many CSR-focused empirical studies are subject to endogeneity problems because stakeholder-oriented managerial decisions not only affect firms' future performance but are also subject to their past and present financial states. Moreover, potential endogenous omitted variables can lead to confounding inferences. To obtain robust causal estimates, we first employ firm fixed effects in our analysis and complement it with a quasi-experimental shock in a triple-difference (DDD) framework. This quasi-experimental set-up exploits the passing of state-level *other constituency statutes* (OCS). These statutes permit firms' directors to take all stakeholders' (not only shareholders') interests under advisement when making strategic decisions (Strine, 2014). We consider firms headquartered in a state with active OCS as the treatment group and those in a non-OCS state as the control group. We then conduct pre-post analysis around the date of these statutes being legislated. Our results from the DDD estimations confirm that the significant negative relationship between the social dimension (and its community subcategory) and future DD is causal. The results from the quasi-natural experiment are robust to propensity score matched selection, and the internal validity of our inferences is confirmed by the lack of treatment effects in placebo years.

We also examine possible explanations for stakeholders' critical influence on future financial distress. We first investigate the role of managerial attention toward the wealth/profit maximization objective. This is important because it can affect managerial actions that may alter the firm's operating risk when projects with higher variance are selected (Jensen and Meckling, 1976). We proxy for managerial shareholder orientation using the measures of managerial ability, earnings quality, and CEO tenure. As superior managerial ability ensures the efficient

¹All our analyses include governance within the CSR framework, as in Bereskin et al. (2018), to avoid category omission bias.

utilization of resources for the profit motive, better earnings quality is the outcome that follows. Moreover, CEOs with longer tenures are more likely to have their incentives tied to performance metrics involving profitability benchmarks. We find that only firms with high managerial ability, good earnings quality, and long-tenured CEOs show a negative impact of the social dimension on future DD. This finding implies that when managers are chiefly shareholder-focused, they tend to employ social stakeholder initiatives that result in detrimental costs for the firm instead of long-term reputational benefits, thereby increasing the likelihood of distress.

With firms' CSR performance affecting their financing costs and credit ratings (Attig et al., 2013), high CSR firms have an incentive to issue more long-term debt by exploiting their higher credit ratings. Thus, leverage could also be a channel that drives the relationship between CSR and DD. We capture the propensity to increase leverage using proxies for financial constraints and assess their role in affecting the relationship between CSR (or ESG and their subcategories) and distress risk. The two extreme states of financial constraints are represented by the case of firms with a high (versus low) cost of debt (COD) and years of the global financial crisis (versus more stable economic times). Our analysis reveals that only firms having a low COD and in non-crisis years show a statistically significant negative effect of the social dimension on future DD. This finding indicates that when firms have better access to external financing, they are more likely to employ CSR investments, and this in turn has a negative impact on future DD.

We contribute to the CSR and financial distress literature in several ways. First, to the best of our knowledge, this study is the first to describe the segregated effects of the ESG dimensions on future distress. Investigating these dimensions separately along with their respective subcategories, we can pinpoint all the stakeholders that are important determinants of distress risk. Second, we employ a novel and rarely exploited shock to firms' stakeholder orientation and explore the causal effects of CSR and its subcategories on future distress risk. While extreme cases of distress (i.e., bankruptcy and liquidation) affect firms' stakeholders (Titman, 1984), the role of stakeholders in propagating or avoiding distress has not yet been clearly established.

Third, we shed light on the underlying mechanisms that drive the negative influence of social CSR activities on future DD. These insights are especially critical considering that financial distress can eventually push the firm toward bankruptcy.

The remainder of this paper proceeds as follows. Section 2 provides a brief literature review of stakeholders' influence on financial distress. Section 3 describes the data and methodology employed in our analysis. Section 4 presents the main results and robustness checks. In Section 5, we examine two possible explanations of the ESG–DD relationship. Section 6 concludes.

2. Literature Review and Hypotheses Development

CSR initiatives are often reported by ESG rating agencies that summarize firms' stakeholder orientation. Demand for ESG data and rankings has increased with the growth in impact investing and related socially responsible investment strategies (Renneboog et al., 2008; Cellier and Chollet, 2012). The association between CSR and financial performance has received a considerable amount of attention in both the media and scholarly research (e.g., Buchanan et al., 2018 and Chang et al., 2019). Whereas CSR may be considered to be an avoidable cost (Friedman, 1970) resulting from agency conflicts between managers and shareholders (Jensen and Meckling, 1976), it has been shown to positively influence firm valuation (Ferrell et al., 2016). Moreover, by including ESG considerations into their business decisions, firms can improve their investment efficiency (Benlemlih and Bitar, 2018) and hence reduce the risk of financial distress. Thus, good CSR firms have a lower probability of default than their poor CSR counterparts (Goss, 2009; Al-Hadi et al., 2017).² Nevertheless, the role of individual stakeholders with respect to distress risk has received less attention in the literature. The multidimensional nature of the CSR construct implies that its constituent dimensions and stakeholder groups can have different effects on performance (Galema et al., 2008) and risk (Bouslah et al., 2013). In a similar vein, we can expect differences in the way stakeholders influence financial distress.

²For a detailed review of the determinants of distress risk, see Habib et al. (2018).

2.1. Overall CSR

The recent literature shows that CSR can play an important role in mitigating the costs of high leverage in competitive markets (Sheikh, 2019) by increasing customer loyalty and reducing competitive predation (Bae et al., 2019). Moreover, CSR can also help firms improve their credit ratings (Attig et al., 2013; Jiraporn et al., 2014; Sun and Cui, 2014). This means that firms with better CSR engagement programs are more likely to have better access to debt markets (Cheng et al., 2014). These leverage-mitigating effects and increased capital market access make CSR activities attractive for managers to support their capital structure decisions. This is further supported by the fact that CSR can even benefit distressed firms by helping them recover from bankruptcy (Gupta and Krishnamurti, 2018). Thus, the literature suggests that CSR should reduce future financial distress. However, Bouslah et al. (2013) show that the individual ESG dimensions can have different impacts on firm risk. If these dimensions affect financial distress differently, then their combined effect through an overall CSR measure may be absent.

2.2. ESG dimensions

With respect to the ESG dimensions themselves, good corporate governance practices are known to reduce financial distress (Lee and Yeh, 2004). However, this relation disappears when endogeneity issues are addressed. Thus, the governance dimension should have an endogeneity-mitigating effect on future distress that disappears with a cleaner identification of the causal estimates. With respect to the environmental and social dimensions, the extant literature largely overlooks the impact on future distress. Given that good environmental performance has little impact on financial performance (Fernando et al., 2017), we hypothesize that only the social dimension affects financial distress.

Social CSR can affect a firm's risk in three ways (Attig et al., 2013): (a) by increasing the likelihood of its long-term survival, (b) by signaling the efficient utilization of resources, and (c) by reducing stakeholder controversies and "sin" costs. We can expect these channels to influence distress risk as well. First, survival likelihood is a direct outcome of a lower probability of default

(reflecting high DD). This entails a negative impact of the social dimension on distress driven by the reputational benefits of CSR through employee retention, customer loyalty, and brand value. Second, CSR activities require resource allocation that may affect debt covenants. On the one hand, when social engagement costs circumvent debt covenants, they can be a source of information asymmetry when debtholders are unaware of the associated costs or risks, leaving them more susceptible to default. This increases the likelihood of financial distress. On the other hand, when managers use these activities to show a positive social intent and, possibly, gain competitive advantage, they will be more willing to disclose the related costs (also affecting their credit ratings). In other words, the allocation of a firm's resources to social activities will be viewed positively as a strategic decision that may reduce the risk of future financial distress. Finally, engaging in positive social initiatives can overcome any possible disrepute that accompanies a firm's involvement in sin industries or ethical/moral controversies. These perceptual interventions, thus, help mask socially irresponsible behaviors to eventually have a negative influence on financial distress when it is merely used for corporate "greenwashing." Whether the social dimension has a positive or negative effect on DD, thus, remains an open empirical question that depends on the interplay between its related reputational benefits and greenwashing costs.

2.3. Stakeholders

Bankruptcy can also be costly for stakeholders other than debtholders when there are unpaid wages or other accumulating account payables. However, unlike bankruptcies, distressed firms are often able to meet their working capital requirements. Accordingly, the main conflict in the case of distress is between debtholders and residual claim-holders (i.e., shareholders). Nevertheless, since debt covenants are essentially composed of accounting ratios, other stakeholders' influence on distress may become exaggerated or dampened depending on how they affect these ratios. We hence seek to empirically investigate the role that firms' stakeholders play in their future financial distress. Can a specific stakeholder group help reduce financial

distress? Or does good corporate citizenship come with unnecessary costs that increase the likelihood of financial distress? If engaging with a stakeholder group can provide reputational benefits that outweigh the costs of external financing, then it will reduce future financial distress. By contrast, if stakeholder engagement is merely used for greenwashing as a means of improving credit ratings or issuing more debt, then firms will be more distressed in the future.

3. Data and Methodology

3.1. Data, sample, and variables

Our sample consists of the intersection of the CRSP, COMPUSTAT, and MSCI-KLD ESG databases. The measures of CSR performance, its three ESG dimensions, and the corresponding stakeholder categories are obtained from MSCI (formerly RiskMetrics-KLD) ESG data. The accounting and financial data for measuring distress risk and the control variables are obtained from the COMPUSTAT and CRSP databases. The data on managerial ability are from Peter Demerjian’s webpage and the data on CEO tenure are from Execucomp.³

In our sample period (1991–2015), MSCI ESG data have 35,711 firm-year observations for 3,724 unique U.S. firms. MSCI provides ratings for various ESG strengths (benchmarks) and concerns (controversies). Table A.1 in the Appendix lists all the MSCI ESG indicators in their respective subcategories. The CSR literature generally sums all the strengths (+) and concerns (–) to measure CSR performance (e.g., Withisuphakorn and Jiraporn, 2016; Sakunasingha et al., 2018). We follow Kim et al. (2014) and Lins et al. (2017) to standardize this measure industry-wise, so that the year-on-year changes remain comparable on the omission/addition of the MSCI criteria.⁴ Alternative measures without industry standardization are used for the robustness check.

Table 1 provides the definitions and computational details for each of the main CSR variables. The variable CSP is measured by aggregating all seven groups of MSCI ESG qualita-

³For more information on the definition and measurement of managerial ability, see Demerjian et al. (2012).

⁴MSCI introduced a new data collection and assessment methodology (focusing on industry-specific indicators) in 2010. The industry standardized ESG measures that we employ, however, were unaffected by this change.

Table 1. Variable Definitions

Variable	Notation	Definition
Distance to Default	DD	Merton's (1974) DD is computed following Bharath and Shumway (2008) as: $DD = \frac{(\log \frac{V}{F}) + (r_{i,y-1} - \sigma_V^2/2)T}{\sigma_V \sqrt{T}}, \quad (1)$ <p>where, $\sigma_V = \frac{E}{V}\sigma_E + \frac{F}{V}(0.05 + 0.25\sigma_E)$, V is the firm's total value, F is the face value of debt, E is the market value of equity, $r_{i,y-1}$ is the past year's stock returns, σ_E is the stock return volatility estimated over the past year, and T is the number of years that is set to one.</p>
Altman's Z	AZ	Altman's (1968) Z-score calculated as: $AZ = 3.3 \frac{EBIT}{TA} + \frac{REVT}{TA} + 1.4 \frac{RE}{TA} + 1.2 \frac{ACT - LCT}{TA} + 0.6 \frac{MCAP}{LT}, \quad (2)$ <p>and all the variables are annual COMPUSTAT items: total assets (TA), earnings before interest and tax (EBIT), total revenue (REVT), retained earnings (RE), total current assets (ACT), total current liabilities (LCT), and the market value of equity (MCAP) computed as the product of common shares outstanding and the closing price.</p>
CSR Performance	CSP	$(TCSR - TCSRmin)/(TCSRmax - TCSRmin)$, where TCSR is calculated as total ESG strengths minus the concerns for sample firms in a year. Then, TCSRmin and TCSRmax are taken as the minimum and maximum TCSR score within each of the focal firm's industry identified using Fama and French's (1997) classification.
Environmental Performance	ENV	Standardized environmental score computed in the same manner as CSR, but by restricting the ESG indicators to the environmental strengths and concerns.
Social Performance	SOC	The social score, which is again standardized using the industry minima as shown for CSR, but only using the community, diversity, employees, human rights, and product subgroups.
Governance Performance	GOV	Using only the corporate governance strengths and concerns, using the same standardization procedure as for CSR, ENV, and SOC.
Community/Diversity/ Employees/Human Rights/ Product	COM/DIV/ EMP/HUM/ PRO	Similar to the standardized SOC score but using the respective subset of the CSR category from within the social characteristics.
Return on Assets	ROA	Operating income before depreciation (COMPUSTAT data item 13) / total assets (COMPUSTAT data item 6).
Leverage	LEV	The ratio of long-term debt (COMPUSTAT data item 9) to total assets (COMPUSTAT data item 6).
Firm Size	SIZE	The log of the market value of equity.
Book-to-Market Ratio	BM	The book value of common equity divided by its market value (in logs). The book value sums common equity and deferred taxes (COMPUSTAT items 60 and 74).
Illiquidity	ILLIQ	Amihud's (2002) measure, which is monthly absolute stock returns / dollar trading volume, annualized and multiplied by 1,000,000 for scaling purposes.
Sales Growth	RG ^{2y}	This measures the revenue growth over two years, computed as the current year t 's total revenue / year $t - 2$ revenues.
Firm Age	AGE	Firm's age (months) at the end of each calendar year since the listing month (in logs).
R&D Expenses	RD	The log of research & development expenses / total assets. Missing R&D values are treated as 0.
Capital Expenditure Opacity	CAPEXTA OPQ	Capital expenditure / total assets. Annual opacity as defined in Hutton et al. (2009) using a modified Jones model, taking the absolute value of one year's discretionary accruals.
Managerial Entrenchment	EINDEX	Bebchuk et al.'s (2009) E-Index, which is the sum of the presence of six anti-takeover provisions (staggered boards, poison pills, golden parachutes, limits to bylaws, limits to charters, and supermajority for mergers) for firm-years.
Institutional Ownership	IO	This is the percentage of shares owned by institutional investors, computed as the number of shares for a firm reported in quarterly 13f filings (for institutional holdings) divided by the total number of outstanding shares. Annual IO computed as the average of quarterly IO.
Blockholding	BHN	The number of blockholders in a firm, with blockholders defined as the institutional investors that have at least a 5% ownership in the firm. Quarterly data averaged over the year.
Cost of Debt	COD	Interest expenses / long-term debt (COMPUSTAT data item 9).
Managerial Ability	MA	The measure of managerial ability introduced in Demerjian et al. (2012).
Earnings Quality	EQ	The previous two-year moving average of the absolute values of discretionary accruals, which are computed using the modified Jones model (Hutton et al., 2009).
CEO Tenure	CEOT	Time (in years) since the CEO's appointment in the firm.

Table 2. Descriptive Statistics

This table shows the summary statistics for the distress proxies (*DD* and *AZ*), the aggregate CSR variable (*CSP*) as well as its three dimensions (*ENV*, *SOC*, and *GOV*) and five social subcategories (*COM*, *DIV*, *EMP*, *HUM*, and *PRO*), and our main set of control variables. Table 1 defines the distress proxies, ESG measures, and control variables.

	N	Mean	Median	SD	Min	Max	5 th	95 th
Distress Risk Measures								
DD	22,413	77.72	59.25	66.08	-7.37	334.86	5.82	217.59
AZ	22,914	4.85	3.54	5.41	-14.52	43.56	0.42	14.73
CSR Measures								
CSP	35,711	0.40	0.36	0.25	0.00	1.00	0.00	0.89
ENV	35,711	0.37	0.33	0.31	0.00	1.00	0.00	1.00
GOV	35,711	0.56	0.50	0.30	0.00	1.00	0.00	1.00
SOC	35,711	0.37	0.33	0.24	0.00	1.00	0.00	0.86
COM	35,711	0.29	0.25	0.31	0.00	1.00	0.00	1.00
DIV	35,711	0.31	0.25	0.29	0.00	1.00	0.00	1.00
EMP	35,711	0.42	0.40	0.27	0.00	1.00	0.00	1.00
HUM	35,711	0.52	0.50	0.44	0.00	1.00	0.00	1.00
PRO	35,711	0.63	0.67	0.29	0.00	1.00	0.00	1.00
Controls								
SIZE	27,895	7.33	7.17	1.61	1.19	13.30	5.04	10.22
BM	26,273	-0.74	-0.67	0.78	-8.65	3.29	-2.09	0.34
ROA	35,164	0.10	0.11	0.12	-0.73	0.41	-0.06	0.27
AGE	35,690	5.03	5.23	1.04	0.00	6.48	3.00	6.29
LEV	35,711	0.19	0.14	0.21	0.00	3.68	0.00	0.57
ILLIQ	27,360	0.04	0.00	0.80	110.68	0.00	0.08	0.57
RG ^{2y}	34,745	1.30	1.16	0.68	0.26	9.35	0.74	2.26
RD	35,711	-1.17	0.00	1.82	-11.42	10.15	-4.84	0.00
C CAPEXTA	35,711	0.04	0.03	0.06	-0.03	0.82	0.00	0.15
EINDEX	19,633	3.10	3.00	1.45	0.00	6.00	0.00	5.00
IO	19,902	0.74	0.77	0.20	0.06	1.00	0.35	1.00
BHN	20,211	2.56	2.50	1.61	0.00	14.25	0.00	5.50
OPQ	35,711	0.05	0.02	0.11	0.00	5.19	0.00	0.17
Financial Constraint and Agency Variables								
COD	19,592	0.07	0.06	0.06	0.01	0.67	0.02	0.14
MA	25,743	0.01	-0.03	0.15	-0.30	0.68	-0.16	0.35
EQ	30,959	0.11	0.06	0.28	0.00	23.27	0.00	0.33
CEOT	18,661	7.48	5.00	7.32	0.00	61.00	0.00	23.00

tive indicators (i.e., community, governance, diversity, employee relations, environment, human rights, and product). For each of the three ESG dimensions, we segregate CSP performance accordingly into environmental (*ENV*), social (*SOC*), and governance (*GOV*) measures. The *SOC* dimension is further subdivided into community (*COM*), diversity (*DIV*), employees (*EMP*), human rights (*HUM*), and product (*PRO*) following the categories provided by MSCI.

We study distress risk using two proxies: *DD* in the main analysis and *AZ* for the robustness check. Higher values of *DD* and *AZ* imply that firms have less chance of being under financial distress. Table 2 summarizes the basic descriptive statistics of the distress proxies, ESG-based measures, and control variables. The correlation matrix for all our main variables is provided in Table A.2 in the Appendix.

3.2. Methodology

We examine the relationship between stakeholder management through CSR initiatives and firms' survival proxies (or the unlikelihood of distress) as follows:

$$DR_{i,t} = \beta_0 + \beta_1 CSR_{i,t-1} + \beta_2 X_{i,t-1} + \varepsilon_{i,t}, \quad (3)$$

where $DR_{i,t}$ is distress risk, which is proxied for using DD in our primary analysis as it can more accurately predict future default (Campbell et al., 2008; Lian, 2017). We employ the AZ score for the robustness check as it is a widely used proxy for financial distress in scholarly research (Habib et al., 2018). $CSR_{i,t-1}$ is one-year lagged CSR performance (CSP), a vector of the three ESG dimensions (ENV, GOV, and SOC) or a vector of all the CSR subcategories for firm i for year $t - 1$. We also use a series of controls that can affect firms' financial distress based on the literature (Schultz et al., 2017; Bae et al., 2019). These controls include the natural logarithm of market capitalization (SIZE), the natural logarithm of book-to-market (BM), return on assets (ROA), the firm's age (AGE), financial leverage (LEV), Amihud's (2002) illiquidity measure (ILLIQ), revenue growth over the previous two years (RG^{2y}), R&D expenditure (RD), and capital expenditure scaled by total assets (CAPEXTA). All these controls are lagged by one year. As firm size, profitability, and innovativeness (i.e., RD) should mitigate future financial distress, we expect them to have positive effects on DD. By contrast, more leveraged and older firms are more likely to be distressed in the future; hence, LEV and AGE should have negative relations with future DD. With respect to all the other controls including the additional agency variables, the extant literature has shown mixed results.

We first use ordinary least squares (OLS) regressions to get preliminary estimates, and then apply firm fixed effects to control for any unobservable time invariant firm characteristics. Furthermore, we employ dynamic GMM to account for any possible endogenous influences of control variables. Following Sakunasingha et al. (2018), we apply first-differenced lagged variables as instruments in our GMM estimations.

3.2.1. Quasi-natural experiment

Our main set of results that reveal the relationship between CSP and the ESG measure are not immune to endogeneity despite the implementation of fixed effects estimation. To alleviate additional endogeneity concerns, we employ a quasi-natural experiment set around the enactment of OCS in U.S. states that allow directors to overlook shareholders' interests if other corporate constituencies could be adversely affected by a decision (Strine, 2014). Thus, passing OCS can be considered to be an exogenous shock to firms' CSR motives and associated stakeholder orientation.⁵ As only a few states have passed OCS, we can identify the impact of stakeholder engagement on distress risk by comparing firms in a U.S. state that has passed OCS (treatment group; Maryland-incorporated firms) with those in a state that has not (control group; Delaware-incorporated firms).

The causal identification employs an indicator variable *Treated* representing Maryland-versus Delaware-incorporated firms and *Post* indicating post-OCS years in Maryland. The year of OCS adoption is 1999. Hence, we consider a four-year period (1998 to 2001, both inclusive) for our estimation, with two years each for the pre- and post-OCS periods. We model the impact of the OCS shock on stakeholder engagement using DDD estimations with the following specification:

$$\begin{aligned}
 DD_{j,t} = & a + b_1 CSR_{i,t-1} + b_2 Post + b_3 Treated_{i,t} + b_4 CSR_{i,t-1} * Post \\
 & + b_5 CSR_{i,t-1} * Treated_{i,t} + b_6 Post * Treated_{j,t} \\
 & + b_7 CSR_{i,t-1} * Post_{i,t} * Treated_{i,t} + c X_{i,t} + \varepsilon_{i,t}.
 \end{aligned} \tag{4}$$

$CSR_{i,t-1}$ represents *CSP*, the three ESG dimensions, or the seven MSCI ESG subcategories. Our estimation examines the effect of the ESG characteristics on distress risk for Maryland-based firms before and after the passing of the OCS, with the corresponding difference for Delaware-based firms taken as a reference. Thus, in Equation 4, the coefficient of the triple-

⁵For instance, when OCS are enacted in a U.S. state, if a strategic decision by directors (such as a merger) adversely affects a large number of stakeholders such as employees, the directors are allowed to decline an offer even if it bears a significant premium for shareholders.

interaction term (b_7) isolates the effect of exogenously treated stakeholders on distress risk.

3.2.2. The role of managerial attention and financial constraints

The final decision to invest in stakeholder engagement activities (that MSCI rates as strengths) or ignore stakeholder apprehension (leading to MSCI concerns) generally depends on managers. When managers align themselves with shareholders' interests, we can expect their stakeholder-related decisions to be adversely affected in terms of both proactivity and proclivity. Thus, managerial inattention toward stakeholders results in inefficient CSR investments or ineffective CSR outcomes, thereby exacerbating financial distress because of the deadweight loss (proactivity channel). Alternatively, similar inattention toward stakeholders may also lower firms' absolute CSR focus and performance, thereby resulting in the loss of potential reputational benefits and externality-driven value and indirectly increasing default probability (proclivity channel). To understand if and how managerial characteristics—and, more specifically, their commitment to the wealth maximization objective—can influence the relationship between stakeholders and financial distress, we employ several subsample tests. We apply three proxies to capture this managerial behavior: (a) managerial ability, which measures how well managers efficiently transform resources into revenues, (b) earnings quality, which is a signal of performance focus; and (c) CEO tenure, which can align managers' decision making through performance-based incentives. Based on these three proxies, we identify below- and above-median subgroups and study the differences in the way their ESG performance is reflected in future financial distress.

We further test the impact of the ESG score on default risk for firms with financial constraints. First, we divide our sample into two subsamples based on financial constraints. More specifically, we use the COD as a proxy for financial constraints and divide firms into low (below-median) and high (above-median) COD subgroups. Second, we divide our sample into crisis and non-crisis years, where the 2008 global financial crisis is representative of the financially constrained environment experienced by our sample firms. We define the crisis years as 2008

and 2009. For all these subsample tests studying managerial attention and financial constraints, we apply the specification in Equation 3.

4. Main Results

Table 3 shows the results of the specifications in Equation 3 for DD as the distress risk proxy. The first set shows the results for the OLS regressions with both year and industry fixed effects. The coefficients of Model (1) imply a statistically insignificant relationship between the aggregate CSR measure (CSP) and unlikelihood of default. CSP's insignificant coefficient could be due to the contradictory impact of its three constituents (i.e., ENV, SOC, and GOV) on DD. Hence, model (2) investigates the relationship between these three dimensions of CSP and DD. We find a positive and significant coefficient for GOV and a negative and significant coefficient for SOC. The latter finding implies that high SOC scores are associated with higher distress risk. To better understand the main contributors of the negative association between SOC and DD, model (3) considers the five MSCI subcategories of SOC. The results of model (3) show negative and significant coefficients of COM and DIV, whereas PRO and HUM are positively associated with DD.

The second and third sets of results in Table 3 presents the same three models as the first set but use panel regressions with firm fixed effects and dynamic GMM estimations, respectively. Models (4) and (5) confirm the results from models (1) and (2), respectively. These results are also consistent in Models (7) and (8) from GMM estimations. Although models (6) and (9) show slightly different results from model (3) of the OLS estimation, we find a consistent negative coefficient of COM and positive coefficient of PRO with the firm fixed effects. This finding shows that contradictory influences on DD exist within the SOC dimension as well. In terms of the economic significance of the panel estimations, while an average firm's DD is 77.72 units, this decreases (increases) by 4.5 (3.9) units when the social (governance) dimension increases within the firm from 0 to 1. In other words, the social (governance) dimension influences DD

Table 3. CSR and Financial Distress

This table reports the coefficients of the regression of the one-year lagged CSR measure, along with the lagged controls, on distress risk proxied by DD, as estimated in Equation 1. The first set of models use the OLS estimation with industry and year fixed effects. The second set of models use panel regressions with firm fixed effects, and the third set apply dynamic GMM. Models (1), (4), and (7) report the coefficients of the aggregate CSR measure (CSP). Models (2), (5), and (8) show the coefficients of the three ESG dimensions. Models (3), (6), and (9) show the results for the seven broad CSR categories. Standard errors are provided in parentheses. All the variables are defined in Table 1. Significance levels of 10%, 5%, and 1% are indicated by *, **, and ***, respectively.

DD _t	OLS			Panel			Dynamic GMM		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CSP _{t-1}	1.630 (2.315)			-3.010* (1.661)			-13.912 (11.890)		
ENV _{t-1}		1.140 (1.891)	1.143 (1.867)		-2.225* (1.311)	-0.432 (1.321)		2.122 (11.807)	-6.098 (12.995)
GOV _{t-1}		5.232*** (1.489)	5.189*** (1.475)		4.751*** (1.154)	4.959*** (1.153)		21.841*** (7.987)	21.685** (9.461)
SOC _{t-1}		-4.259** (2.204)			-5.388*** (1.672)			-51.288*** (12.915)	
COM _{t-1}			-7.785*** (1.578)			-6.991*** (1.221)			-47.089*** (11.678)
DIV _{t-1}			-6.890*** (1.715)			0.222 (1.334)			-17.472* (9.123)
EMP _{t-1}			-1.310 (1.822)			-8.567*** (1.348)			-38.247*** (10.337)
HUM _{t-1}			2.767** (1.220)			-4.358*** (0.883)			-4.951 (7.864)
PRO _{t-1}			6.704*** (1.789)			2.110 (1.349)			-26.887** (11.405)
SIZE _{t-1}	3.595*** (0.518)	4.044*** (0.521)	4.903*** (0.514)	15.835*** (0.613)	15.814*** (0.613)	15.646*** (0.614)	3.252 (4.294)	7.946* (4.432)	8.011* (4.618)
BM _{t-1}	-15.609*** (0.904)	-15.681*** (0.904)	-15.522*** (0.894)	13.690*** (0.680)	13.378*** (0.679)	13.138*** (0.678)	31.895*** (2.181)	30.369*** (2.218)	28.005*** (2.420)
ROA _{t-1}	105.534*** (7.271)	105.460*** (7.252)	104.030*** (7.186)	77.344*** (5.448)	78.071*** (5.449)	77.156*** (5.441)	17.363 (15.594)	15.992 (16.074)	23.937 (17.307)
AGE _{t-1}	-1.466* (0.819)	-1.439* (0.817)	-1.271 (0.809)	-11.151*** (1.101)	-10.851*** (1.100)	-12.732*** (1.125)	39.711*** (14.282)	42.227*** (14.556)	36.120** (15.911)
LEV _{t-1}	-212.316*** (5.671)	-212.436*** (5.659)	-212.499*** (5.642)	-136.880*** (3.940)	-137.635*** (3.934)	-138.686*** (3.931)	-7.831 (22.822)	-5.092 (23.700)	-1.582 (25.289)
ILLIQ _{t-1}	-0.373 (1.226)	-0.278 (1.251)	0.027 (1.298)	2.226** (0.979)	2.208** (0.980)	2.155** (0.977)	-2.941** (1.350)	-3.554** (1.548)	-4.051** (2.018)
RG _{t-1} ^{2y}	0.006*** (0.001)	0.006*** (0.001)	0.005*** (0.001)	0.003 (0.006)	0.003 (0.006)	0.003 (0.006)	0.002*** (0.001)	0.002** (0.001)	0.001 (0.001)
RD _{t-1}	0.573 (0.420)	0.572 (0.419)	0.434 (0.417)	1.799*** (0.484)	1.874*** (0.483)	1.844*** (0.482)	3.743 (3.599)	2.898 (4.061)	2.658 (4.408)
CAPEX _{t-1}	-36.392*** (12.746)	-36.091*** (12.678)	-39.081*** (12.563)	-75.260*** (11.873)	-75.787*** (11.870)	-78.945*** (11.837)	-40.843 (34.633)	-26.881 (38.101)	-23.533 (41.697)
DD _{t-1}							-0.229*** (0.031)	-0.254*** (0.032)	-0.258*** (0.033)
Year Effects		Yes	Yes	No	No	No	Yes	Yes	Yes
Industry/Firm Effects		Industry	Industry	Firm	Firm	Firm	No	No	No
# Observation		19,721	19,778	19,721	19,778	19,778	15,881	15,940	15,940
Adj./Within R-sq		0.496	0.500	0.167	0.168	0.173			

by 5.8% (5%). Within the social dimension, the effect of each subcategory varies in economic terms, with employees and community initiatives reducing DD by 12% and 8.2%, respectively.

4.1. Robustness checks

Table A.3 in the Appendix replicates the three OLS models of Table 3 (i) using non-standardized ESG scores (Panel A), (ii) considering additional controls (first set in Panel B), and (iii) using *AZ* in place of *DD* as the distress risk proxy (second set in Panel B). We employ additional controls to subjugate possible omitted variable bias.⁶ The inclusion of these controls leads to a significant loss of observations and statistical power; hence, they are omitted when estimating the main results. We introduce managerial entrenchment, institutional ownership, blockholder dispersion, and opacity to isolate the agency-induced influences on financial distress. Across the two panels, the negative association for the social dimension and positive association for governance with the distance to financial distress remains consistent. This finding confirms our results in Table 3 that firms with higher social scores are more likely to face financial distress.

4.2. Quasi-natural experiment

Table 4 shows the results of our DDD regressions for DD. Panel A reports the results for aggregate CSR performance, whereas Panels B and C show those for the ESG dimensions and additional SOC subcategories, respectively. In the baseline model, while the DDD term for CSP indicates no causal effect on potential financial distress (Panel A), the same for the social dimension indicates a causal link (Panel B). We also find that only two SOC subcategories (i.e., community and diversity) have statistically significant DDD effects (Panel C), indicating that most of the association seen in Table 3 for the ESG subcategories is not causal.

To further check robustness, we apply propensity score matching (PSM) to counter selection bias. More specifically, we control for life cycle stage (Al-Hadi et al., 2017), size, and profitability (Opler and Titman, 1994) to ensure that the differences in these characteristics between control

⁶The use of firm fixed effects in Table 3 already controls for time-invariant omitted variables.

Table 4. Causal Estimates for CSR and Financial Distress

This table shows the DDD or causal results for the ESG-based measures on *DD*. All the controls are the same as in Table 3. The variable *Post* indicates post-OCS years in Maryland (i.e., 2000 and 2001), whereas the variable *Treated* takes 1 for Maryland-incorporated firms and 0 for Delaware-incorporated ones. Column 1 reports the baseline estimates without any correction for possible selection bias. Column 2 tests the robustness of the baseline results using propensity score matching (PSM) between the treated and control groups. We employ 0.001 caliper nearest-neighbor matches using size (log assets), life cycle (log age), and profitability (ROA) to identify one Delaware firm that is equivalent in these characteristics to every Maryland firm. Column 3 tests the treatment validity for the baseline results by assuming a placebo OCS implementation in 2009 (instead of 1999) for Maryland. Thus, the placebo results employ a *Post* dummy that represents 2010 and 2011, with 2008 and 2009 as the pre-OCS placebo years. Panel A reports the results for aggregate CSR performance. Panel B reports the results for the ESG dimensions and Panel C for the SOC subcategories. For the sake of brevity, only the *main effects* and *triple interaction effects* are shown. Significance levels of 10%, 5%, and 1% are shown using *, **, and ***, respectively.

Panel A: Aggregate CSR Performance			
	Baseline	PS Matched	Placebo
Post	2.2445 (5.498)	-4.7968 (10.570)	7.6303** (3.518)
Treat	-30.3205 (28.985)	-52.7494 (41.870)	-50.8588*** (12.797)
CSP _{<i>t-1</i>}	-2.5524 (7.280)	-17.8647 (13.903)	1.4211 (6.095)
CSP_{<i>t-1</i>} * Post * Treat	-37.6924 (49.106)	-149.8500 (90.703)	-2.9997 (23.985)
# Observation	738	127	3,378
Adj. R-sq	0.427	0.506	0.323
Panel B: ESG Dimensions of CSR			
	Baseline	PS Matched	Placebo
Post	5.7347 (6.315)	-7.8150 (13.244)	10.7385** (5.196)
Treat	-16.9706** (7.037)	-45.6830*** (14.827)	-66.2269*** (22.476)
ENV _{<i>t-1</i>}	13.5325* (7.400)	9.1641 (18.408)	1.4717 (5.049)
ENV _{<i>t-1</i>} * Post * Treat	9.8305 (34.602)	-10.9246 (42.918)	-21.4837 (26.652)
GOV _{<i>t-1</i>}	0.3124 (7.459)	-13.1576 (17.845)	5.1092 (6.189)
GOV _{<i>t-1</i>} * Post * Treat	22.5678 (36.215)	-8.8126 (52.375)	9.2286 (23.795)
SOC _{<i>t-1</i>}	-9.4562 (7.879)	-23.5608 (19.338)	-4.2766 (6.116)
SOC_{<i>t-1</i>} * Post * Treat	-79.3466*** (24.276)	-142.923*** (39.466)	-26.8422 (41.110)
# Observation	747	132	3378
Adj. R-sq	0.436	0.521	0.321
Panel C: Subcategories of SOC			
	Baseline	PS Matched	Placebo
Post	1.6337 (7.290)	-0.8580 (16.063)	8.4293 (6.333)
Treat	-25.3204*** (6.709)	-45.1228*** (14.284)	-30.2652 (27.955)
ENV _{<i>t-1</i>}	11.8735** (4.847)	13.8217 (15.729)	-2.3195 (3.892)
GOV _{<i>t-1</i>}	-0.4620 (5.223)	-8.4544 (9.995)	-3.7546 (3.931)
COM _{<i>t-1</i>}	-20.7515*** (6.498)	-1.3756 (15.700)	-12.7935** (5.188)
COM_{<i>t-1</i>} * Post * Treat	-124.0286***	-134.3052***	-31.2262 (54.463)
DIV _{<i>t-1</i>}	-8.7825 (8.689)	-26.6308 (21.607)	-15.5380** (6.634)
DIV_{<i>t-1</i>} * Post * Treat	-252.5414***	-377.9820***	28.2134 (29.706)
EMP _{<i>t-1</i>}	(42.975) (7.318)	-4.8938 (21.155)	8.4260 (6.103)
EMP_{<i>t-1</i>} * Post * Treat	-118.7158**	-131.9517*	-36.5379 (40.607)
HUM _{<i>t-1</i>}	-9.7515 (5.976)	9.7923 (18.719)	10.7152*** (3.397)
HUM_{<i>t-1</i>} * Post * Treat	171.9856***	217.5911***	47.2796* (27.448)
PRO _{<i>t-1</i>}	9.1402 (7.684)	-1.8043 (16.666)	12.4856** (5.361)
PRO_{<i>t-1</i>} * Post * Treat	7.0537 (41.692)	47.5248 (55.077)	50.3296 (52.344)
# Observation	747	132	3378
Adj. R-sq	0.451	0.521	0.329

and treatment group firms do not drive our results.⁷ Using the PSM estimation in Table 4, we find that our baseline results hold even after controlling for the differences in size, profitability, and age of the control and treatment groups. Finally, the last column of Table 4 shows the results of a placebo test that assumes an ad hoc treatment year (2009 instead of 1999) for the same two groups. These placebo results confirm that our main conclusion about the causal relationship between SOC and distress risk is only visible for the quasi-experimental period taken in the baseline and PSM estimations.⁸

5. How Does the Social Dimension Affect Financial Distress?

Our primary findings imply that a high SOC score is associated with higher default risk. In this section, the mechanism through which this relationship prevails is discussed.

5.1. *The role of managerial attention and shareholder orientation*

The first three subsampling categories in Table 5 summarize our results for the ESG–DD relationship with respect to managerial attention. In Panel A, aggregate CSP remains statistically insignificant across all the proxies’ subgrouping. Next, Panel B explores the three ESG dimensions. We find that managerial attention does play a role, mainly on the social dimension’s relation with future DD. Only subgroups that have high managerial ability, good earnings quality, and long-tenured CEOs show statistically significant negative effects on future DD. Whereas the environmental dimension largely shows no relation to distress risk across all the subgroups, the governance dimension shows a persistent relation as expected, with DD higher for subgroups with shareholder-focused managers. Panel C, meanwhile, largely supports the results in Panel B by showing that even within the five subcategories of the social dimension, managerial attention has a role to play. In short, the results in Table 5 indicate that when managers are more

⁷PSM is conducted using one-to-one nearest-neighbor matching without replacement (i.e., each firm in Maryland is matched with only one firm in Delaware).

⁸We additionally run two-stage least squares (2SLS) estimation using the instrumental variables proposed in Jiraporn et al. (2014) i.e., the industry average and geographical peer average ESG scores. The results are reported in Table A.4 in the Appendix. All our DDD results hold with respect to the SOC and most of its subcategories.

attentive to shareholder needs than those of stakeholders, social CSR initiatives merely act as a distraction, resulting in avoidable costs that can be detrimental to financial distress.

5.2. The role of leverage and financial constraints

The previous literature has shown that CSR score is associated with lower financing costs and higher credit ratings (e.g., Attig et al. (2013)). This can stimulate firms to increase their level of leverage to exploit this financial benefit. We test this conjecture by studying the relationship between leverage and ESG score. More specifically, in Table A.5 in the Appendix, future leverage is regressed on current ESG score along with the controls. The results indicate a significant positive relationship between the firm's SOC score and future leverage level. Moreover, increasing leverage tends to increase default risk (Miller, 1991). This finding implies that leverage could be a plausible channel that drives the negative effect of the social dimension on DD. If this is indeed true, firms would be more likely to increase their leverage when they face lower financial constraints.

The last two subsampling categories of Table 5 show the results for financial constraints. For brevity, we focus on the three ESG dimensions (Panel B). For COD, in line with the results in Table 3, we find that the social dimension is associated with high default risk (lower DD); however, this relationship is only significant for firms that have low COD.⁹ During crisis years, firms tend to spend less on CSR activities in general. Thus, the relationship between default risk and the social dimension is not significant during crisis periods, as shown in Table 5. On the contrary, the negative relationship between social CSR and DD persists during non-crisis years. Overall, our results imply that leverage could be a possible channel through which the social dimension affects distress risk conditional on the firm's internal and external financial constraints. We find that when firms are severely constrained, they have a lower propensity to invest in social initiatives and hence there is no clear relationship between SOC and DD for

⁹Moreover, in untabulated results, we find that COD is negatively related to future leverage and social CSR, implying that a lower cost of financing would stimulate firms to increase their investment in SOC-related activities.

Table 5. Role of Managerial Attention and Financial Constraints

This table reports the coefficients of the OLS regressions of DD on the lagged ESG measures (along with the lagged controls) for different levels of managerial attention (the first two subsampling groups) and financial constraints (the last two subsampling groups). Panel A considers the aggregate CSR measure (GSP). Panel B considers the three ESG categories and Panel C includes the subcategories of the social dimension. Standard errors are shown in parentheses. Significance levels of 10%, 5%, and 1% are shown using *, **, and ***, respectively.

DD _{<i>t</i>}	Managerial Ability		Earnings Quality		CEO Tenure		Cost of Debt		Financial Crisis	
	High MA	Low MA	Good EQ	Poor EQ	Long	Short	High COD	Low COD	Yes	No
Panel A: Aggregate CSR Performance										
CSP _{<i>t-1</i>}	2.3954 (3.985)	0.8762 (2.550)	2.0123 (2.554)	1.6559 (3.199)	-0.1782 (2.826)	1.5715 (2.768)	5.4465* (3.265)	0.0865 (2.858)	6.5839 (5.163)	0.6238 (2.409)
Controls + Year Effects + Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Observation	7,101	7,960	11,181	8,038	13,547	7,120	7,146	9,102	2,666	16,992
Adj. R-sq	0.466	0.475	0.529	0.456	0.480	0.538	0.503	0.502	0.491	0.499
Panel B: ESG Dimensions of CSR										
ENV _{<i>t-1</i>}	5.5508 (3.389)	-4.4686* (2.417)	2.2259 (2.125)	-1.2676 (2.702)	1.8601 (2.200)	-1.1222 (2.555)	1.7402 (2.779)	-1.1258 (2.484)	6.247 (4.965)	1.814 (1.969)
GOV _{<i>t-1</i>}	9.1381*** (2.485)	3.2510 (2.013)	6.8678*** (1.804)	3.6572* (2.200)	3.9909** (1.849)	5.9456*** (2.063)	3.5756 (2.327)	7.8076*** (1.917)	15.691*** (4.660)	4.465*** (1.522)
SOC _{<i>t-1</i>}	-7.8692*** (3.600)	-1.8766 (2.649)	-5.5742*** (2.490)	-1.2441 (3.032)	-6.1693** (2.660)	-1.7770 (2.723)	-1.0365 (3.129)	-6.0678** (2.710)	-4.660 (5.240)	-4.589** (2.293)
Controls + Year Effects + Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Observation	7,113	8,005	11,227	8,041	13,572	7,152	7,171	9,134	2,666	17,049
Adj. R-sq	0.469	0.476	0.532	0.456	0.482	0.537	0.502	0.506	0.494	0.500
Panel C: Subcategories of SOC										
ENV _{<i>t-1</i>}	4.8690 (3.414)	-4.6639** (2.369)	2.2914 (2.099)	-1.5088 (2.681)	1.9249 (2.196)	-1.5419 (2.472)	1.6233 (2.770)	-1.5150 (2.449)	6.2233 (4.992)	1.7656 (1.950)
GOV _{<i>t-1</i>}	8.8668*** (2.464)	3.3078* (2.005)	6.9181*** (1.788)	3.4997 (2.198)	4.0212** (1.846)	6.0270*** (2.031)	3.4563 (2.307)	7.6246*** (1.888)	14.2788*** (4.610)	4.4006*** (1.509)
COM _{<i>t-1</i>}	-3.6337 (2.510)	-4.6242** (2.035)	-9.1411*** (1.857)	-1.0175 (2.201)	-8.1877*** (1.870)	-4.8355* (2.213)	-4.4173* (2.402)	-8.3340 (1.929)	-7.8125 (5.024)	-7.9656*** (1.651)
DIV _{<i>t-1</i>}	-10.5293*** (2.892)	-5.8184*** (2.130)	-6.5880*** (2.018)	-9.6693*** (2.383)	-5.8561*** (2.145)	-8.9976*** (2.163)	-6.9833*** (2.492)	-10.3092*** (2.097)	-16.4225*** (4.945)	-6.2323*** (1.739)
EMP _{<i>t-1</i>}	-1.9138 (2.923)	0.2584 (2.330)	-1.4373 (2.142)	0.9933 (2.588)	-3.5191* (2.120)	0.8360 (2.394)	3.2623 (2.710)	-1.1615 (2.353)	4.3712 (4.520)	-1.5786 (1.880)
HUM _{<i>t-1</i>}	1.1816 (2.002)	2.1973 (1.664)	3.6414** (1.482)	0.5326 (1.756)	0.6814 (1.448)	6.1405*** (1.816)	0.6933 (1.770)	4.2845*** (1.633)	5.2674 (5.339)	2.8594** (1.279)
PRO _{<i>t-1</i>}	4.1816 (2.871)	5.2068** (2.176)	5.1860** (2.018)	5.0595** (2.431)	4.8911** (2.189)	6.4808*** (2.253)	5.2977** (2.379)	9.8040*** (2.296)	20.5560*** (4.544)	5.5770*** (1.842)
Controls + Year Effects + Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Observation	7,113	8,005	11,227	8,041	13,572	7,152	7,171	9,134	2,666	17,049
Adj. R-sq	0.470	0.478	0.535	0.457	0.484	0.541	0.504	0.512	0.502	0.502

these firms. Only when firms have low or no financial constraints they do invest in social CSR engagement with fewer restrictions, and hence the negative relationship between SOC and DD is more pronounced.

6. Conclusion

Cellier and Chollet (2012) state that “to understand market reaction [to CSR] one needs to use disaggregated rating data.” We show that disaggregating the ESG dimensions of CSR ratings is not only important for stock markets, but also important for debt markets, as it can provide crucial predictors of financial distress. We find that the social and governance dimensions of ESG can both explain cross-sectional and temporal variations in firms’ future DD. Using a quasi-natural experiment to account for the endogenous nature of firms’ CSR outlook, we find that only ratings on the social dimension have a causal influence on financial distress. Furthermore, within the social dimension, only the community (negative) and product (positive) categories show consistent influences on distress unlikelihood.

Subsequent tests based on financial constraints and managerial attention to shareholders (or, in other words, shareholder orientation) reveal that firms having shareholder-oriented managers (with high managerial ability, good earnings quality, and long CEO tenures) are more likely to experience the detrimental effects of social stakeholder engagement on financial distress. Since managerial ability is defined in terms of efficiency aimed at profitability and earnings quality is another signal of the same, we consider these to be proxies of the wealth maximization motive. Similarly, long-tenured CEOs are more shareholder-aligned because their incentives are often tied to stock performance. We conclude that stakeholders’ influence on financial distress is not driven by managerial myopia. We also find that firms that are less constrained (during non-crisis years or those with low COD) are more likely to experience the detrimental effects of social stakeholder engagement on financial distress. Firms with easy access to external financing are more likely to indulge in corporate greenwashing.

Our results have implications for both firms and financial markets, as we provide novel insights into the relation between social stakeholders and distress risk. Investors in debt markets should be wary of firms' CSR investments, as social initiatives can have unintended effects. Moreover, policymakers should scrutinize the possible tradeoffs associated with "doing good" versus "financial health," as improved credit ratings and financing costs (as a result of social CSR activities) may induce firms to further increase debt. This can be better tracked by up-to-date financial metrics and the availability of detailed CSR scores.

Our findings have some possible limitations. First, as is the case with most single country-focused studies, generalizations to other countries should be made with caution. Future research could study the relationship between CSR and its ESG dimensions across multiple countries to highlight country-level differences. Second, our sample only comprises U.S. firms covered by MSCI. Since MSCI essentially covers large companies (within the U.S. context, these are mainly S&P1500 companies) for our sample years, our results may not be representative of small enterprises or privately owned firms. However, considering the importance of these firms for financial markets in terms of their total market capitalization, our results have consequences for all debt market participants. Third, we only studied the financial constraints and managerial attention channels that drive social CSR's relation with future distress. Examining other underlying mechanisms could provide us with a more comprehensive understanding of stakeholders' influence on distress risk. These could be the focus of future studies.

Table A.1. List of All MSCI ESG Indicators

Community	
<i>Strengths</i> Generous Giving Innovative Giving Support for Housing Support for Education (added 1994) Indigenous Peoples Relations Strength Non-US Charitable Giving Volunteer Programs Strength Community Engagement Other Strength	<i>Concerns</i> Investment Controversies Negative Economic/ Community Impact Indigenous Peoples Relations Concern Tax Disputes (moved from Governance in 2005) Other Concern
Diversity	
<i>Strengths</i> CEO Diversity Promotion Board of Directors - Gender Diversity Work-Life/ Family Benefits Women and Minority Contracting Employment of the Disabled Progressive Gay/ Lesbian Policies Employment of Underrepresented Groups Other Strength	<i>Concerns</i> Employee Discrimination Non-Representation (1993-2011) Board Diversity - Gender Board of Directors - Minorities Other Concern
Employees	
<i>Strengths</i> Union Relations Strength No Layoff Policy (to 1993) Cash Profit Sharing Employee Involvement Strong Retirement Benefits (1991-2009) Employee Health and Safety (added in 2003) Supply Chain Labor Standards Compensation and Benefits Employee Relations Professional Development Human Capital Management/ Developments Labor Management Controversial Sourcing Other Strength	<i>Concerns</i> Union Relations Concern Health and Safety Concern Workforce Reductions Pension/ Retirement Benefits Concern (1992-2009) Supply Chain Controversies Child Labor Other Concern/ Labor-Management Relations
Environment	
<i>Strengths</i> Beneficial Products / Env. Opportunities Pollution Prevention/ Waste Management Recycling/ Packaging Materials and Waste Climate Change/ Alternative Fuels/ Clean Energy Property, Plant, and Equipment (through 1995) Environmental Management Systems Water Stress Biodiversity and Land Use Raw Material Sourcing Natural Resource Use Green Buildings Renewable Energy Waste Management - Electronic Waste Climate Change - Energy Efficiency Climate Change - Carbon Footprint Climate Change - Insuring CC Risk Other Strength	<i>Concerns</i> Hazardous Waste Regulatory Compliance Ozone Depleting Chemicals Toxic Spills and Releases/ Substantial Emissions Agricultural Chemicals Climate Change (added in 1999) Negative Impact of Products (from 2010) Land Use and Biodiversity (from 2010) Non-Carbon Releases/ Operational Waste (from 2010) Supply Chain Management (from 2012) Water Management (from 2012) Other Concern
Governance	
<i>Strengths</i> Limited Compensation Ownership Strength Transparency/ Reporting Quality Strength Political Accountability Strength Public Policy Strength	<i>Concerns</i> High Compensation Tax Disputes (moved to Community 2005) Ownership Concern Accounting Concern Reporting Quality/ Transparency Concern

Continued on next page

Table A.1 – *Continued from previous page*

Corruption and Political Instability	Political Accountability Concern
Financial System Instability	Public Policy Concern
Other Strength	Governance Structure Controversies
	Controversial Investments
	Business Ethics
	Other Concern
Human Rights	
<i>Strengths</i>	<i>Concerns</i>
Positive Operations in South Africa (1994–1995)	South Africa Concern (through 1994)
Indigenous Peoples Relations (moved in 2002)	Northern Ireland Concern (through 1994)
Labor Rights Strength	Support for Controversial Regimes
Other Strength	Mexico (1995–2002)
	International Labor Rights Concern
	Indigenous Peoples Relations (moved in 2002)
	Operations in Sudan (2010–2011)
	Freedom of Expression
	Human Rights Violations
	Other Concern
Product	
<i>Strengths</i>	<i>Concerns</i>
Quality	Product Quality and Safety
R & D/ Innovation	Advertising and Marketing/ Contracting Controversy
Benefits to Economically Disadvantaged	Antitrust and Anticompetitive Practices
Access to Capital	Customer Relations
Social Opportunities - Access to Communications	Privacy and Data Security
Social Opportunities - Nutrition and Health	Other Concern
Product Safety - Chemical	
Product Safety - Financial	
Product Safety - Privacy and Data	
Product Safety - Responsible Investment	
Product Safety - Insuring Health & Demographics	
Other Strength	

Table A.2. Correlations Between the Main Variables

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]
DD [1]	1.000																			
AZ [2]	0.547***	1.000																		
CSP [3]	0.027***	-0.009	1.000																	
ENV [4]	0.067***	-0.024***	0.473***	1.000																
GOV [5]	-0.017*	0.052***	0.198***	0.038***	1.000															
SOC [6]	0.036***	-0.015*	0.839***	0.243***	0.002	1.000														
COM [7]	-0.055***	-0.066***	0.400***	0.227***	0.052***	0.407***	1.000													
DIV [8]	0.024***	-0.046***	0.393***	0.055***	-0.050***	0.542***	0.197***	1.000												
EMP [9]	0.023***	0.007	0.514***	0.225***	-0.012*	0.527***	0.159***	0.039***	1.000											
HUM [10]	0.019**	0.061***	0.126***	0.189***	0.106***	0.079***	0.142***	-0.092***	0.072***	1.000										
PRG [11]	-0.041***	0.015*	0.217***	0.081***	0.171***	0.227***	0.068***	-0.069***	0.092***	0.129***	1.000									
SIZE [12]	0.218***	0.081***	0.196***	0.137***	-0.201***	0.277***	0.159***	0.349***	0.100***	-0.089***	-0.170***	1.000								
BM [13]	-0.317***	-0.205***	-0.024***	-0.022***	0.074***	-0.058***	0.012	-0.058***	-0.023***	-0.094***	0.015*	-0.210***	1.000							
ROA [14]	0.175***	0.212***	0.008	0.001	-0.007	0.015**	0.024***	0.007	0.006	-0.005	-0.009	0.248***	0.057***	1.000						
AGE [15]	0.041***	-0.123***	0.083	0.051***	-0.085***	0.106***	0.071***	0.145***	0.031***	-0.116***	-0.100***	0.316***	0.082***	0.022***	1.000					
LEV [16]	-0.408***	-0.397***	0.028***	0.038***	-0.063***	0.048***	0.048***	0.022***	0.022***	0.006	0.047***	0.105***	-0.012**	-0.004	0.039***	1.000				
ILLIQ [17]	-0.012*	-0.006	0.016**	-0.004	0.024***	0.002	-0.007	0.016**	-0.009	-0.005	-0.002	-0.037***	0.024***	-0.002	0.003	-0.002	1.000			
RG ^{2y} [18]	-0.000	0.000	0.004	-0.009	0.001	0.005	-0.008	-0.001	0.012*	0.005	0.008	-0.001	-0.011*	-0.002	-0.042***	0.005	0.000	1.000		
RD [19]	-0.133***	-0.021***	-0.005	-0.052***	0.129***	-0.021***	-0.000	-0.055***	0.009	-0.011*	0.150***	-0.098***	0.088***	-0.022***	-0.125***	0.038***	-0.003	0.009*	1.000	
CAPEXTA [20]	0.044***	-0.020***	0.123***	0.140***	-0.009	0.097***	0.160***	0.046***	0.077***	0.008	0.052***	0.018***	-0.088***	0.002	-0.045***	0.093***	-0.005	0.014***	-0.006	1.000

* $\rightarrow p < 0.05$

** $\rightarrow p < 0.01$

*** $\rightarrow p < 0.001$

Table A.5. ESG & Leverage

This table reports the coefficients of the panel regressions of leverage on lagged ESG measures (along with lagged controls). Leverage is estimated as total debt to assets (column 1) and total debt to equity (column 2). Standard errors are shown in parentheses. Significant levels at 10%, 5%, and 1% are shown using *, ** and *** respectively.

	(1) LEV _t	(2) LEVE _t
ENV _{t-1}	0.003 (0.003)	-0.014 (0.011)
GOV _{t-1}	0.001 (0.002)	-0.004 (0.009)
SOC_{t-1}	0.011*** (0.003)	0.035** (0.014)
Controls + Year Effects + Firm Effects	Yes	Yes
# Observation	23,621	23,497
Within R-sq	0.081	0.081

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