

ACCESS TO FINANCE AND CORPORATE SOCIAL RESPONSIBILITY: EVIDENCE FROM A NATURAL EXPERIMENT

Despite being voluminous, the CSR literature has thus far produced equivocal results (Margolis et al., 2007). A general challenge is the potentially endogenous nature of the relationship between CSR activities and firm financial performance due to factors such as reverse causality. The complex relationship between these elements is illustrated by the conclusion in a review by Margolis et al. (2007) that the correlation between CSR and firm performance can largely be explained by firms' prior financial performance, a finding in line with that of other (meta-) studies (e.g. Krüger, 2009; Orlitzky et al., 2003). More importantly, the effect of financial performance on CSR activities is stronger than the reverse. Although this is an imperative finding for a better understanding of the complex relationships between CSR and firm performance, it is one that "tend[s] to get overlooked" (Margolis, Elfenbein, and Walsh, 2007, p. 24). In this paper, we provide causal evidence that changes in firms' cost of financing affect subsequent performance on CSR.

To overcome the serious challenge of endogeneity, we make use of an exogenous variation in firms' cost of internal financing that was generated by the passage of the American Jobs Creation Act (AJCA) of 2004. The act provided a significant and one-off reduction in tax-related costs to profits repatriated from foreign subsidiaries back to the U.S.-based parent firm (the tax rate was lowered to 5.25 percent from the standard 35 percent). The passage of the AJCA improved firms' access to their internal funds "trapped" in foreign subsidiaries (Blouin and Krull, 2009). The AJCA induced an exogenous variation in firms' internal costs of finance, which allows us to test for a causal relationship between a reduction in firms' (internal) cost of finance and subsequent firm performance on CSR.

We use a difference-in-difference (DiD) method to empirically test the relationship between improved access to finance and performance on CSR with a sample of 898 firms listed in the Standard & Poor's 1500 stock market index (S&P 1500) as well as in the Kinder, Lydenberg, Domini & Co. (KLD) social performance database, which we use to measure CSR¹. Information on firms' repatriation activity is not readily available in databases and had to be collected manually from thousands of firm filings. The results from the DiD estimation clearly indicate that reductions in firms' cost of financing lead to increase in firms' CSR performance. Additional tests indicate that the increase in social performance was due to increases in firms' strengths, whereas there was no effect for firms' CSR concerns.

Our paper makes important contributions to multiple streams of literatures. For example, we contribute to recent empirical studies on the direction of causality in the relationship between firms' CSR and financial performance (e.g., Flammer, 2015b). We add to this stream of literature by providing causal evidence that improved access to finance (lower internal costs of financing) affects firm-level performance on CSR. With this, we also contribute to the thriving literature that studies the drivers of firms' social performance. We add to this literature by providing causal evidence for a factor that is important to consider when studying firms' CSR performance and which was often times overlooked in empirical research (Margolis et al., 2007). Our study also adds to the literature that directly addresses the impact of CSR on firms' financial constraints. Cheng et al. (2014) show that financial constraints are sensitive to firm CSR performance in the respect that higher performance correlates with relaxed financial constraints. In contrast, we provide causal evidence for the reverse relationship². Finally, results of our paper challenge scholarship predominantly based on agency theory that suggests CSR is an outcome of agency conflicts (Bénabou and Tirole, 2010; Jensen and Meckling, 1976) or stems from managerial entrenchment (Cespa and Cestone, 2007). According to this line of argument, managers push for higher CSR performance not because it leads to higher value for

¹ We use $Total\ CSR = CSR\ Strengths - CSR\ Concerns$ and also $CSR\ Strengths$ and $CSR\ Concerns$ individually.

shareholders but to increase their private benefits of control (e.g., Friedman, 1970). However, we find evidence for the opposite. The reduction in the cost of financing leads to higher performance on CSR among firms with characteristics of strong and not weak corporate governance.

Establishing a causal relationship between cost of financing and firms' CSR activities is challenging due to the issue of endogeneity. To overcome this, we employed a DiD estimation method and made use of the exogenous variation in financing costs induced by the AJCA. We followed Faulkender and Petersen (2012), who argue that when using the AJCA as a shock it is imperative to control for both the firm's possibility to repatriate and the firm's actual decision to repatriate. This requires the use of DiD with three groups (2 control groups and 1 treatment group) instead of the usual set-up with two groups (1 control and 1 treatment group).

The final sample of 898 firms is the intersection of firms listed in the S&P 1500 index and in the Kinder, Lydenberg, Domini, & Co. (KLD) social ratings database as of 2001. The control variables are from Standard & Poor's Compustat database. The sample is an unbalanced panel with data for 5,267 firm-year observations for the period from 2001 through 2007.

As the decision to repatriate under the AJCA is made by managers it is endogenous. To account for this, we estimated a predicted probability of repatriation— $\text{Pr}(AJCA)_{it}$ —using a logistic regression. The predicted probability allows us to distinguish between firms that could not repatriate (group 1)—for example, because they did not have any foreign earnings—from firms that could repatriate but chose not to (group 2) and from firms that did repatriate (group 3) combine. To correctly identify treatment and control groups we follow Faulkender and Petersen (2012) and isolate the effect of the act for firms that had an opportunity to repatriate and did repatriate (group 3) as opposed to those that had an opportunity to repatriate but did not repatriate (group 2). The baseline specification is the following:

$$CSR_{it} = \beta_0 \text{Pr}(AJCA)_{it} + \beta_1 [AJCA_{it} - \text{Pr}(AJCA)_{it}] + \beta_2 X_{it} + \lambda_i + \mu_t + \epsilon_{it} \quad (1)$$

Variation across the sample in firms' probability of repatriation is captured by β_0 . The coefficient β_1 measures the variation in firms' actual decision to repatriate holding probability of repatriation constant. Hence, β_1 is the sole effect of the act for repatriating firms (group 3) vs non-repatriating firms (group 2). X_{it} contains the control variables used in the estimation. We further include firm (λ_i), and time (μ_t) fixed effects. Time dummies account for yearly changes in the general business environment that are common to all firms. Firm fixed effects control for unobserved heterogeneity on the level of the individual firm that is constant over time. Including each firm as a control means that we are running a dummy variable regression equivalent to a Fixed Effects (FE) estimator. An assumption of FE estimators is the absence of serial correlation in the error terms, which we address by using standard errors clustered by firm, a procedure that also accounts for heteroskedasticity.

Further, we account for the level of financial constrain firms faced prior to the act and isolate the effect of the act on firm CSR performance for constrained relative to unconstrained repatriating firms, by interacting the measure that distinguishes between firms that could and did and firms that could but did not repatriate with our measure of financial constraints. The empirical specification is the following:

$$CSR = \beta_0 \text{Pr}(AJCA)_{it} + \beta_1 [AJCA_{it} - \text{Pr}(AJCA)_{it}] + \beta_2 [AJCA_{it} - \text{Pr}(AJCA)_{it}] * \text{Fin Constraints} + \beta_3 X_{it} + \lambda_i + \mu_t + \epsilon_{it} \quad (2)$$

Effectively, β_2 captures the sole effect of loosened financial constraints for the constrained relative to the unconstrained firms. The effect for the unconstrained firms is captured by β_1 .

REFERENCES AVAILABLE FROM AUTHOR(S)