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## The Impact of Lender Social Responsibility on the Link between Borrower Social Responsibility and the Cost of Bank Loans

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**THE IMPACT OF LENDER SOCIAL RESPONSIBILITY ON THE LINK  
BETWEEN BORROWER SOCIAL RESPONSIBILITY AND THE COST OF  
BANK LOANS**

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# **THE IMPACT OF LENDER SOCIAL RESPONSIBILITY ON THE LINK BETWEEN BORROWER SOCIAL RESPONSIBILITY AND THE COST OF BANK LOANS**

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## **Abstract**

This study examines the effect of the lender's social responsibility on the link between borrower's social responsibility and the cost of bank loan. We argue that it is important not only to consider the social responsibility of the borrower but also that of the lender. Our sample consists of 3785 U.S. loan facilities and covers the period of 2000 to 2013. Our findings show that the borrower's social responsibility positively affects the loan spread and this effect is less pronounced when the lender's social responsibility is high. When the sample is divided into secured and unsecured loans, the results are confirmed only in the secured subsample. One important implication of our results is that socially responsible companies have the incentive to deal with socially responsible banks which can reduce the negative impact of social responsibility on the cost of their loans.

***Keywords:*** Loan terms, spread, corporate social responsibility, lender, borrower

***JEL Classification:*** G21, G32, M14

## 1. Introduction

In recent years, there has been significant growth in public concern and awareness for the social and environmental effects of business activities. For non-financial corporations, this trend translates in increasing stakeholders' expectations to behave in a more socially and environmentally ways. For financial corporations, in particular banks, little is known about this trend as they are different due to the nature of their business activities, accounting and regulatory frameworks. While their operations do not have significant and direct environmental and social consequences, the way their clients or investees manage their operations may expose these banks to significant corporate social responsibility (hereafter, CSR) issues and therefore to increased risks (IFC, 2018).

We argue that it is important to consider the effect of lender's CSR when assessing the impact of borrower's CSR on the cost of bank loans. In other words, lenders' CSR heterogeneity affects the link between borrower's CSR and the cost of bank loans. Understanding this effect is important because of the large size of bank loans as the major source of corporate external financing in the US<sup>1</sup>, and the possibility that the magnitude of the effect may be important.

While from a pure finance standpoint, CSR activities had to be value-increasing in order to justify their costs, there is no consensus, among practitioners as well as academics, on how they affect corporate performance in general and financial performance in particular. This has fuelled a large literature on the link between corporate social performance (CSP) and corporate financial performance (CFP) during the last three decades. Some recent studies explored the role of the financial markets as a channel through which CSP can affect CFP. Specifically, the impact of corporate social responsibility on the cost of equity (e.g., Derwall and Verwijmeren, 2007; Sharfman and Fernando, 2008; Chava, 2010; El Ghouli *et al.*, 2011), the risk premium of corporate bonds

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<sup>1</sup> In 2003 the aggregate amount of equity issued by US firms was \$106 billion while the aggregate amount of debt issued was \$1.6 trillion which is about fifteen times larger. In addition, with \$1.1 trillion out of the \$1.6 trillion of corporate debt issued in the same year, the private debt market (with 69%) dominates the public debt market in USA (Arena, 2011).

(Menz, 2010) and the cost of bank loans (Goss and Roberts, 2011) were investigated. This paper complements this literature, in particular the work of Goss and Roberts (2011).

The effect of borrower's CSR on the cost of bank loans might be explained using risk arguments. Under the risk mitigation view, higher borrower's CSR commitment reduces its risk through a decrease in its asymmetric information, agency costs and exposure to risk. This risk reduction will decrease the premium required by investors and thereby will materialize in reduced cost of bank loans. According to the risk enhancement view, CSR is an overinvestment that destroys corporate financial resources (Goss and Roberts, 2011). Consequently, borrower with more social and environmental activities will be charged a higher loan spread than a borrower with low CSR. A key point in these predictions is the assumption suggesting that banks assess the usefulness and the value of borrower's CSR in the same manner. However, we argue that depending on lender's CSR, this assessment may be different and hence may affect borrower's CSR-bank loan spread link. Mainly, due to their reputational risk and liability risk, banks with high CSR are more likely to pay more attention to borrower's social and environmental actions than banks with low CSR. Therefore, lender's CSR is expected to have an impact on the relation between borrower's CSR and the cost of bank loan.

In order to test this idea, we use a sample of 3785 U.S. loan facilities covering the period 2000 - 2013. To construct our sample, we merge four databases: MSCI ESG STATS (formerly KLD Research & Analytics, Inc.) for CSR data, Loan Pricing Corporation' (LPC) DealScan for loan facilities information, Compustat and Thomson Reuters for accounting and financial variables.

Our results show that borrower's CSR increases the loan spread and this effect is less pronounced when the lender's CSR is high. When the sample is divided into secured versus unsecured loans, we find that our results are confirmed only for the secured subsample. Together, our results highlight the important effect of the lender's CSR on the link between the CSR of the borrower and bank loan cost and terms.

Our study contributes to the literature in different important ways. First, we contribute to the literature on the determinants of loan contract terms by considering the role of lender's CSR. To the best of our knowledge, we are the first to do so. Second, if financial monitoring provides value to borrowers (Leland and Pyle, 1977; Diamond, 1984; Allen, 1990), our results demonstrate that CSR monitoring is also valuable for borrowers with high levels of CSR. Third, we complement the literature of corporate social responsibility by showing that banks as creditors play a transmission role of CSR in their loan valuation.

The remainder of this paper is organized as follows. Section 2 provides an overview of the related literature. Section 3 describes the data, variables and the methodology used. Section 4 and Section 5 present the empirical results, robustness checks and discuss the implications of the findings. Finally, Section 6 concludes.

## **2. Literature review and research hypotheses**

In this section, we provide the theoretical framework for the relationship between borrower's CSR and the firm's cost of bank loans. We also discuss how lender's CSR affects this relationship.

### *2.1 Borrower corporate social responsibility and the cost of bank loans*

The theoretical literature offers two competing views about the link between borrower's CSR and the firm's cost of bank loans: the risk mitigation and the risk enhancement views.

Under the risk mitigation view, more "socially responsible" borrower who actively engage in social activities will be less risky and therefore will be charged a lower loan spread than a "socially irresponsible" borrower. Mainly, CSR activities can reduce firm's asymmetric information, agency costs and exposure to risk. First, high information asymmetry between debt-holders and firm's managers generates high agency costs related to gathering appropriate information and to making sure that managers work in the interest of debt-holders. If a firm initiates CSR activities, it signals its management quality to

investors (Akpınar *et al.*, 2008). Consequently, CSR activities decrease the agency costs needed to check and to monitor its activities and thereby, it reduces its interest rates on bank loans financing. Second, the more a firm behaves in socially and environmentally manners, the less likely it will have to spend cash flows due to its CSR misconducts such as fines related to environment pollution and to non-compliant employee working conditions.

By avoiding such potential cash outflows, a socially and environmentally responsible company will reduce its exposure to risk (Godfrey, 2005; El Ghouli *et al.*, 2011). This way, it can benefit from advantageous interest rates on bank loans (Waddock and Graves, 1997).

The results of different prior studies are in line with the above rational. For instance, Feldman *et al.* (1997) and Spicer (1978) find that firms with higher environmental performance tend to have lower risk. Also, Karpoff *et al.* (2005) provide evidence that the magnitude of the stock price reaction to environmental violations is related to regulatory and legal penalties.

Overall, based on the risk mitigation view, higher firm's CSR involvement will reduce its risk through a decrease in its asymmetric information, agency costs and its exposure to risk. This risk reduction will decrease the premium required by investors and thereby will materialize in reduced cost of financing including interest rates on bank loans.

According to the risk enhancement view, which relies on the agency theory, CSR is an overinvestment that destroys corporate financial resources (Goss and Roberts, 2011). Hence, more "socially responsible" borrower will be charged a higher loan spread than a less "socially responsible" borrower. Firm's managers overinvest for different reasons. First, they can overinvest to build their personal reputation and other personal benefits (Barnea et Rubin, 2010). Second, they can overinvest to obtain support of the different firm's stakeholders such as social and environmental activists, so that they can reduce the threat of their replacement (Cespa and Cestone, 2007). In summary, based on the overinvestment view, more firm's CSR commitment is expected to be associated with

higher bank loan spread while less firm's CSR is expected to be linked with lower bank interest rates.

Together, the theoretical literature predicts that the effect of borrower's CSR on the cost of bank loans might be negative or positive, respectively, based on the risk mitigation and risk enhancement views. A key point in these predictions is that banks are assumed to assess the value of the borrower's CSR in the same manner. In the following section, we discuss how, depending on lender's CSR, this assessment may be different and hence may affect borrower's CSR-bank loan spread link.

## 2.2 *Why lender's CSR can affect the link between borrower's CSR and the cost of bank loan?*

Goss and Roberts (2011) show that when banks tailor loan terms they discriminate between firms with low and those with high levels of CSR. However, such effect of discrimination represents the average bank in the investigated sample and ignores lenders heterogeneity to do so. We argue that given the differences among banks in their incentives to discriminate between companies with low versus those with high CSR, one can expect this heterogeneity to impact the link between borrower's CSR and the cost of bank loan. These incentives might be rooted in the bank's reputational and liability risks.

The bank's reputational risk represents damages to a bank's reputation related to its association with a borrower facing opposition against its CSR misconducts.<sup>2</sup> Such damages might translate in loss of revenues; increase in operating, financial or regulatory costs; and ultimately in a destruction of shareholder value. The bank's liability risk originates from taking possession of collateral assets and the legal obligations associated with it. These obligations may generate cash outflows to clean the contaminated site up, and to pay regulatory fines, penalties and needed costs to address social and environmental consequences generated by borrower's operations (IFC, 2018).

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<sup>2</sup> According to Basel Committee on Banking Supervision (2009), reputational risk is the “*risk arising from negative perception on the part of customers, counterparties, shareholders, investors, debtholders, market analysts, other relevant parties or regulators that can adversely affect a bank's ability to maintain existing, or establish new, business relationships and continued access to sources of funding*”.



Overall, due to their reputational risk and to their liability risk, banks with high CSR are more likely to be attentive to firm's social and environmental actions than banks with low CSR. Accordingly, we expect that a more "socially responsible" lender to charge a lower loan spread to a borrower who engage in social and environmental activities than can do a less "socially responsible" lender. Under the risk mitigation (risk enhancement) view, we expect that lender's CSR impacts the negative (positive) effect of borrower's CSR on the firm cost of bank loan and this impact to be more (less) pronounced when lender's CSR is high. This leads to our first hypothesis:

*Hypothesis 1: Lender's CSR impacts the negative (positive) effect of borrower's CSR on the firm's cost of bank loan, and this impact is more (less) pronounced when lender's CSR is high.*

According to the literature, the presence of a security in a bank loan contract is an indicator of the credit quality of the borrower. While high-quality borrowers do not pledge security, low quality borrowers do. In this latter case, the presence of security may increase bank's liability risk as mentioned above. Consequently, a lender with high CSR will scrutinize more a borrower CSR when assessing the loan cost and when this borrower pledges security than when she/he does not. Therefore, we expect that:

*Hypothesis 2: The effect of lender's CSR will be stronger among low-quality (secured) borrowers.*

### **3. Data and methodology**

We use the MSCI ESG STATS (formerly KLD Research & Analytics, Inc.) database to obtain information about corporate social responsibility scores for borrowers as well as for lenders. We merge these data with the loan facilities variables gathered from the Loan Pricing Corporation' (LPC) DealScan database as well as with the available corresponding borrowers' financial variables obtained from Compustat and Thomson Reuters. After excluding financial (SIC codes 6000-6999) from the set of firms as borrowers, our sample consists of 3785 U.S. loan facilities covering the 2000-2013 period.

We follow the prior research on the determinants of loan spread to define our baseline empirical model to test the effect of the lender and borrower CSR on bank loan spread. In addition to lender and borrower CSR scores, we use borrower's characteristics and loan's characteristics to explain the loan spread. For comparison, our first model does not include lender's CSR. Our two tested models are as it follows:

$$Ln(Spread)_{i,t} = \alpha_0 + \alpha_1 BCSR_{i,t} + \sum_i \sum_t \alpha_{i+1} CV_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$Ln(Spread)_{i,j,t} = \alpha_0 + \alpha_1 BCSR_{i,t} + \alpha_2 BCSR_{i,t} * LCSRd_{j,t} + \sum_i \sum_t \alpha_{i+2} CV_{i,t} + \varepsilon_{i,j,t} \quad (2)$$

Where:

$Ln(Spread)_{i,j}$ : is the logarithm of the loan spread between the borrower  $i$  and the lender  $j$ . We use the loan spread at origination based on the "drawn all-in-spread" that the borrower pays in basis points over the LIBOR for each dollar drawn down plus any annual facility fees paid to the lender. Following the bank loan literature, we use the natural logarithm of the loan spread to account for the effects of skewness in the data.

We follow previous studies (e.g., Harjoto and Jo, 2008; Oikonomou *et al.*, 2012) in computing our CSR measures.  $BCSR_{i,t}$  represents borrower's CSR strengths (concerns). It is computed as the average of borrower's CSR strengths (concerns) for each firm in each year. For the lender CSR score  $BCSRd_{j,t}$ , we use a dummy variable based on the average of all strengths for each bank in each year. For each year we compute the industry median and we assign one (zero) for lenders with an average of all strengths above (below) the industry median.

For the firm-level characteristics, we use the same variables used by Goss and Roberts (2011), namely, the firm's size measured by the logarithm of total assets, the market-to-book ratio, and the leverage ratio measured by the ratio of the book value of long-term debt scaled by the market value of equity. We also include the following profitability measures: the ratio of net working capital to total assets, the ratio of operating income to total assets, the ratio of retained earnings to total assets, and the ratio of earnings before interest and taxes to total assets. We use the following measures to proxy from firm's risk: probability of distress, credit rating and investment grade dummy. The probability of

distress is calculated using a logistic transformation of the Altman's (1968) Z-score with updated coefficients as in Hillegeist *et al.* (2004). S&P credit rating is a dummy variable that equals one if the long-term debt has an S&P credit rating at time of the signing of the bank loan and zero otherwise. The investment grade dummy variable takes the value of one if the firm's long-term debt is an investment grade (BB+ or higher rating) and zero otherwise.

Following the bank loan literature, we control for loan characteristics that influence loan spread, namely, the loan amount (in logarithm), the natural logarithm of the loan maturity in months, loan type, loan purpose and the quality of the loan (secured versus unsecured). In addition, we control for industry and year fixed effects in our regressions.

## **4. Empirical results**

### *4.1 Descriptive statistics*

Table 1 provides summary statistics of our main variables. In particular, our measure of bank loan cost which is the logarithm of the all-in drawn spreads has a mean (median) of 5.002 (5.165) for our sample. In table 2, we report the Pearson correlation coefficients among our main variables. The borrower's CSR strengths score is negatively associated with loan cost (Logspread) in line with the risk mitigation view. Also, the borrower's CSR strengths score is positively associated with the lender's CSR in line with our expectation in the first hypothesis.

Table 3 presents means and mean differences of loan spreads for the whole sample (secured and unsecured) as well as for the secured and the unsecured subsamples. The mean spread is 5.002 for the whole sample, 5.372 for the secured subsample and 4.693 for the unsecured subsample. When the sample is divided based on borrower's CSR strengths score, the paid spread by the borrower with high strengths is lower (higher) than that of the borrower of low strengths for the whole sample and the unsecured (secured) subsample. When we group firms based on lender's CSR, the spread of the borrower with high strengths is higher than that of the borrower with low strengths for the three samples (whole, secured and unsecured). Overall, these descriptive results show interesting

differences in the paid spread depending on the borrower and lender' CSR scores. However, these comparisons do not enable us to draw any conclusion regarding our hypotheses. Thus, we turn now to multivariate analyses in the next section.

#### 4.2 *Regression analysis*

In this study, we explore how bank's CSR affects the link between borrower's CSR and the cost of loan. Table 4 presents the results of the OLS regressions for our two baseline models in equation 1 and 2 using borrower's CSR strengths. The results in column 2, where the interaction term between borrower's CSR strengths and lender's CSR dummy variable (high versus low strengths around the industry median for each year) is not included, show that borrower's CSR strengths do not affect the loan spread. However, when the interaction term is included (column 3), results reveal that both borrower's CSR strengths and the interaction significantly affect the loan spread. Therefore, the borrower's CSR strengths positively affect the loan spread and this effect is less pronounced when the lender's CSR is high as predicted in our first hypothesis.

Using the subsample of secured loans, the results in column 5 confirm those of column 3. The findings for unsecured loans are insignificant. These results support our second hypothesis, namely the effect of lender's CSR will be more prevalent among low-quality borrowers. Table 5 reports the results of the OLS regressions for our two baseline models in equation 1 and 2 using borrower's CSR concerns. The results in column 2, where the interaction term between borrower's CSR concerns and lender's CSR dummy variable (high versus low strengths) is not integrated, indicate that borrower's CSR concerns positively affect the loan spread in support to Goss and Roberts (2011) findings. When the interaction term is included (column 3), results show that respectively borrower's CSR concerns and the interaction significantly positively and negatively affect the loan spread. Therefore, the borrower's CSR concerns positively affect the loan spread and this effect is less pronounced when the lender's CSR is high as predicted in our first hypothesis. Using the subsample of secured loans, the results in column 4 and 5 support those of column 2 and 3. The results of unsecured loans in columns 6 and 7 are insignificant.

In sum, our regressions show that the borrower's CSR strengths positively affect the loan spread and this effect is less pronounced when the lender's CSR is high in support to our first hypothesis. When the sample is divided into secured and unsecured loans, the results are confirmed only in the secured subsample in accordance with our second hypothesis. When we use borrower's CSR concerns and the whole sample as well as the secured subsample, we obtain a positive impact on the loan spread and this impact is less pronounced when the lender's CSR is high. This supports our first hypothesis. The results of unsecured loans are only marginally (at 10% level).

These results are consistent with prior literature, including Goss and Roberts (2011). We extended this literature by showing the role of lender's CSR when the effect of borrower's CSR on the cost of loan is assessed. Specifically, we show that the borrower's CSR positively affects the loan spread and this effect is less pronounced when the lender's CSR is high. When the sample is divided into secured and unsecured loans, the results are confirmed only in the secured subsample.

## **5. Robustness checks**

In this section, we conduct robustness checks to ensure that our main finding is robust to endogeneity issue and alternative specifications. Specifically, we correct for the potential endogeneity problem of borrower's CSR variable and use a set of alternative measures of CSR and control variables.

### *5.1. Instrumental variable regressions*

The OLS estimation of equation 1 and 2 assumes that borrower's CSR is exogenous. However, borrower's CSR may not be exogenous, and therefore OLS results may suffer from an endogeneity problem making the results biased and inconsistent. For instance, borrower's CSR might not be independent from its cost of bank financing because of reverse causality. Two Stage Least Squares (2SLS) regressions enable us to correct for such potential endogeneity problem. In table 6 we present the results of the estimation of our equation 2 using 2SLS regressions. We follow past studies (e.g., Goss and Roberts, 2011) and use different instruments: average industry CSR score, 3-years lagged firm' CSR

scores and a dummy variable reflecting whether the state in which the firm operates voted for the Democratic Candidate in presidential elections. The obtained results using CSR strengths are qualitatively similar to those reported in Table 4. The estimates using CSR concerns confirm those in table 5 for the whole sample and the secured subsample. For the unsecured subsample, the coefficients of borrower's CSR and its interaction with lender's CSR are no more significant. Together, these findings support our two hypotheses.

### *5.2. Other robustness checks*

We also conduct additional robustness. First, we use alternative measures of CSR variable based on absolute sums of raw CSR scores instead of using averages. Second, we use lagged values of CSR scores instead of contemporaneous CSR scores. Third, we include Kaplan and Zingales (1997) index as an explanatory variable to control for the effect of borrower's level of access to external financing. Fourth, we rely on alternative measures of borrower risk namely the probability of distress and S&P rating dummy. All these tests show qualitatively similar results as those shown in Table 4 and 5. Therefore, our conclusions and inferences remain unchanged.<sup>3</sup>

## **6. Conclusion**

In this paper, we investigate the effect of lender's CSR on the link between borrower's CSR and the cost of bank loan. We argue that to assess the latter effect, it is important not only to consider the social responsibility of the borrower but also that of the lender. Our sample consists of 3785 U.S. loan facilities and covers the period of 2000 to 2013.

Our results show that the borrower' CSR (strengths and concerns) positively affect the loan spread and this effect is less pronounced when the lender's CSR is high in support to our first hypothesis. When the sample is divided into secured and unsecured loans, the results are confirmed only in the secured subsample in accordance with our second

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<sup>3</sup> Results are not reported but are available upon request.

hypothesis. Overall, our findings support the risk enhancement view of CSR. They also suggest that the lender's CSR could help mitigate this impact.

Our results have different implications such as the importance for a socially responsible firm to select a socially responsible bank in order to reduce the negative impact of CSR on the cost of loans. One important limit of our result is that our CSR measure represents an aggregation of all strengths and all concerns, respectively. Such aggregation may hide important differences depending on the MSCI-KLD CSR dimensions (community, environment, employee relations, product, diversity and human rights). Future research could explore our hypotheses for these individual CSR dimensions.

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**Table 1: Summary statistics**

Variable	N	Mean	Median	Std dev	Minimum	Maximum
logspread	3785	5,0022	5,1648	0,7950	1,5041	6,9613
logamount	3785	19,1610	19,1138	1,1970	12,4656	23,9013
logmaturity	3733	3,7126	4,0943	0,6681	0,0000	5,2575
distressprob	3553	1,5871	1,5526	0,1170	1,4020	2,7498
Market_Book	3769	1,6876	1,3969	0,9461	0,5042	11,2642
Debt_Equity	3769	1,8602	0,7619	15,1203	0,0196	805,4989
Size	3779	7,7710	7,6051	1,4512	3,5476	13,5694
EBIT_TA	3777	0,0872	0,0799	0,0884	-1,6580	0,9093
NWC_TA	3644	0,1326	0,1049	0,1605	-0,6477	0,7958
OI_TA	3767	0,1329	0,1220	0,0890	-1,4016	0,9489
RE_TA	3765	0,1069	0,1402	0,5506	-9,4946	2,0952

This table displays descriptive statistics of our key variables. Logspread is logarithm of the loan spread between the borrower  $i$  and the lender  $j$ ; Logamount: is logarithm of loan amount; Logmaturity: is logarithm of loan maturity in months; Distressprob: probability of distress calculated using a logistic transformation of the Altman's (1968) Z-score with updated coefficients as in Hillegeist *et al.* (2004); Market\_Book: Market-to-book ratio; Debt\_Equity: ratio of the book value of long-term debt scaled by the market value of equity; Size: logarithm of total assets; EBIT\_TA: Earnings before interest and taxes to total assets; NWC\_TA : Net working capital to total assets; OI\_TA : Operating income to total assets; RE\_TA : Retained earnings to total assets. All the continuous variables are winsorized at the first and the 99<sup>th</sup> percentile.

**Table 2: Correlation matrix**

	(1)	(2)	(3)	(4)	(5)
logspread (1)	1.000				
Borrower CSR strengths (2)	-0.113***	1.000			
Lender CSR strengths (3)	0.234***	0.232***	1.000		
Borrower CSR concerns (4)	-0.045***	0.203***	0.062***	1.000	
Lender CSR concerns (5)	-0.002	-0.004	0.309***	0.146***	1.000

This table reports the Pearson correlation coefficients among our main variables. Logspread is logarithm of the loan spread. \*\*\*, \*\*, \* indicate significance at the 1%, 5% and 10% levels, respectively.

**Table 3: Mean comparison of loan spreads**

	Secured and Unsecured	Secured	Unsecured
All sample	5,0022	5,3725	4,6929
Borrower with high CSR strengths	4,8557	5,4136	4,5320
Borrower with low CSR strengths	5,1199	5,3494	4,8653
<b>Mean difference high vs low</b>	-0,2642	0,0641	-0,3333
Lender with high STR	5,1315	5,4397	4,8481
Lender with low STR	4,9413	5,3383	4,6242
<b>Mean difference high vs low</b>	0,1902	0,1014	0,2239
Borrower with high CSR concerns	4,9598	5,3880	4,6451
Borrower with low CSR concerns	5,0378	5,3610	4,7374
<b>Mean difference high vs low</b>	-0,0781	0,0270	-0,0922

This table provides means and mean differences of the loan spread depending on borrower and lender CSRs. STR\_index (CON\_index) is the average of CSR strengths (concerns) for each firm and for each year. All mean differences are significant at least at 10% significance level.

**Table 4: Corporate social responsibility strengths of the borrower and the cost of bank loans**

	Secured and Unsecured		Secured		Unsecured	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CSR_b	0.033 (0.266)	3.084*** (3.653)	0.798*** (3.131)	3.250*** (3.906)	-0.071 (-0.464)	3.533 (1.591)
Interaction		-3.092*** (-3.636)		-2.571*** (-3.011)		-3.622 (-1.635)
Logamount	-0.113*** (-9.408)	-0.108*** (-9.174)	-0.066*** (-5.051)	-0.064*** (-4.939)	-0.147*** (-8.409)	-0.140*** (-8.198)
Secured	0.337*** (16.067)	0.335*** (15.965)				
Logmaturity	0.020 (0.711)	0.016 (0.557)	-0.005 (-0.116)	-0.008 (-0.197)	0.024 (0.681)	0.018 (0.513)
Distressprob	-0.676*** (-3.798)	-0.665*** (-3.764)	-0.854*** (-3.016)	-0.823*** (-2.947)	-0.621*** (-2.976)	-0.617*** (-2.966)
Market_Book	-0.065** (-2.489)	-0.064** (-2.483)	-0.053 (-1.618)	-0.055* (-1.690)	-0.023 (-0.734)	-0.022 (-0.708)
Debt_Equity	0.002* (1.948)	0.002** (1.972)	0.001* (1.910)	0.001* (1.953)	0.010*** (2.662)	0.010*** (2.738)
Size	-0.075*** (-6.171)	-0.079*** (-6.546)	-0.019 (-1.297)	-0.018 (-1.264)	-0.103*** (-5.964)	-0.109*** (-6.459)
EBIT_TA	-1.250*** (-3.561)	-1.257*** (-3.565)	-0.973** (-2.512)	-0.988** (-2.532)	-1.062* (-1.825)	-1.074* (-1.839)
NWC_TA	0.107 (1.276)	0.124 (1.481)	-0.033 (-0.325)	-0.011 (-0.105)	0.221* (1.765)	0.228* (1.834)
OI_TA	0.575* (1.754)	0.568* (1.727)	0.526 (1.302)	0.523 (1.289)	0.267 (0.582)	0.268 (0.582)
RE_TA	-0.157*** (-4.973)	-0.153*** (-4.953)	-0.082*** (-3.528)	-0.079*** (-3.529)	-0.360*** (-4.966)	-0.358*** (-5.000)
sp_rat_dum	0.019*** (10.346)	0.020*** (10.590)	0.008*** (2.849)	0.008*** (2.983)	0.024*** (10.006)	0.024*** (10.196)
Constant	8.699*** (25.890)	8.619*** (25.789)	7.916*** (14.575)	7.850*** (14.549)	9.279*** (22.933)	9.196*** (22.844)
Observations	3,073	3,065	1,375	1,372	1,698	1,693
R-squared	0.615	0.617	0.441	0.444	0.620	0.622
Loan type FE	YES	YES	YES	YES	YES	YES
Loan purpose FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

This table reports results from OLS regressions of our two baseline models in equation 1 and 2 using borrower' CSR strengths (CSR\_b). CSR\_b is the average of CSR strengths for each firm and for each year. Interaction is the interaction between CSR\_b and the dummy that represents lender' CSR. sp\_rat\_dum: S&P rating dummy which takes the value of one if the long-term debt has an S&P credit rating at the moment of the signing of the bank loan and zero otherwise. All other variables are defined in Table 1. All the continuous variables are winsorized at the first and the 99<sup>th</sup> percentile. \*\*\*, \*\*, \* indicate significance at the 1%, 5% and 10% levels, respectively.

**Table 5: Corporate social responsibility concerns of the borrower and the cost of bank loans**

	Secured and Unsecured		Secured		Unsecured	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CSR_b	0.293*	2.122**	0.686***	2.878***	0.148	2.367*
	(1.690)	(1.995)	(3.479)	(2.604)	(0.613)	(1.890)
Interaction		-1.874*		-2.208**		-2.293*
		(-1.765)		(-2.015)		(-1.831)
Logamount	-0.112***	-0.107***	-0.065***	-0.064***	-0.147***	-0.138***
	(-9.361)	(-9.088)	(-4.951)	(-4.877)	(-8.418)	(-8.108)
Securedd	0.337***	0.336***				
	(16.134)	(16.094)				
Logmaturity	0.021	0.019	-0.005	-0.008	0.024	0.022
	(0.737)	(0.666)	(-0.108)	(-0.181)	(0.702)	(0.644)
Distressprob	-0.671***	-0.671***	-0.807***	-0.799***	-0.618***	-0.625***
	(-3.777)	(-3.794)	(-2.917)	(-2.891)	(-2.968)	(-3.024)
Market_Book	-0.065**	-0.065**	-0.045	-0.045	-0.024	-0.024
	(-2.502)	(-2.496)	(-1.379)	(-1.380)	(-0.780)	(-0.779)
Debt_Equity	0.002*	0.002*	0.001*	0.001*	0.010***	0.010***
	(1.932)	(1.951)	(1.755)	(1.795)	(2.659)	(2.733)
Size	-0.083***	-0.087***	-0.024*	-0.025*	-0.109***	-0.116***
	(-6.622)	(-7.008)	(-1.663)	(-1.706)	(-6.236)	(-6.715)
EBIT_TA	-1.260***	-1.253***	-1.080***	-1.085***	-1.052*	-1.048*
	(-3.609)	(-3.574)	(-2.781)	(-2.781)	(-1.806)	(-1.793)
NWC_TA	0.102	0.119	-0.060	-0.045	0.219*	0.237*
	(1.210)	(1.420)	(-0.589)	(-0.442)	(1.756)	(1.914)
OI_TA	0.585*	0.569*	0.597	0.597	0.260	0.246
	(1.791)	(1.738)	(1.483)	(1.478)	(0.568)	(0.536)
RE_TA	-0.155***	-0.153***	-0.078***	-0.077***	-0.358***	-0.357***
	(-4.933)	(-4.919)	(-3.425)	(-3.424)	(-4.936)	(-4.979)
sp_rat_dum	0.019***	0.020***	0.008***	0.008***	0.024***	0.024***
	(10.431)	(10.636)	(2.987)	(3.065)	(10.048)	(10.253)
Constant	8.690***	8.620***	7.917***	7.895***	9.296***	9.194***
	(26.023)	(25.852)	(14.798)	(14.777)	(23.153)	(22.977)
Observations	3,073	3,065	1,375	1,372	1,698	1,693
R-squared	0.615	0.617	0.441	0.442	0.620	0.622
Loan type FE	YES	YES	YES	YES	YES	YES
Loan purpose FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

This table reports results from OLS regressions of our two baseline models in equation 1 and 2 using borrower' CSR concerns (CSR\_b). CSR\_b is the average of borrower' CSR concerns for each firm and for each year. Interaction is the interaction between CSR\_b and the dummy that represents lender' CSR. sp\_rat\_dum: S&P rating dummy which takes the value of one if the long-term debt has an S&P credit rating at the moment of the signing of the bank loan and zero otherwise. All other variables are defined in Table 1. All the continuous variables are winsorized at the first and the 99<sup>th</sup> percentile. \*\*\*, \*\*, \* indicate significance at the 1%, 5% and 10% levels, respectively.

**Table 6: 2SLS regressions**

	CSR Strengths			CSR Concerns		
	Sec + Uns	Secured	Unsecured	Sec + Uns	Secured	Unsecured
CSR_b	13.424*** (2.618)	10.414*** (3.732)	-68.600 (-0.950)	13.280* (1.935)	26.021*** (4.075)	6.142 (0.248)
Interaction	-12.181** (-2.375)	-9.494*** (-3.361)	69.086 (0.959)	-12.406* (-1.836)	-24.498*** (-3.900)	-5.792 (-0.239)
Logamount	-0.110*** (-4.289)	-0.002 (-0.073)	-0.184*** (-4.896)	-0.078*** (-2.940)	0.004 (0.110)	-0.164*** (-4.627)
Secured	0.288*** (5.573)					
Logmaturity	-0.034 (-0.693)	-0.071 (-1.216)	0.249* (1.878)	0.001 (0.018)	-0.051 (-0.830)	0.135* (1.691)
Distressprob	0.266 (0.604)	-0.025 (-0.052)	-0.427 (-0.536)	0.094 (0.203)	0.026 (0.051)	-0.627 (-0.491)
Market_Book	-0.172*** (-2.972)	-0.014 (-0.205)	0.019 (0.156)	-0.114* (-1.915)	0.026 (0.381)	-0.013 (-0.125)
Debt_Equity	0.099*** (8.751)	0.088*** (8.993)	0.272** (2.274)	0.109*** (9.222)	0.083*** (8.080)	0.147*** (2.645)
Size	-0.086*** (-3.263)	-0.030 (-0.989)	-0.101* (-1.864)	-0.125*** (-4.537)	-0.049 (-1.516)	-0.131*** (-2.907)
EBIT_TA	-1.868*** (-3.218)	-1.669** (-2.413)	-0.175 (-0.171)	-1.652*** (-2.825)	-1.661** (-2.287)	-0.392 (-0.498)
NWC_TA	0.275 (1.335)	0.108 (0.468)	0.136 (0.316)	0.323 (1.554)	0.013 (0.055)	-0.036 (-0.103)
OI_TA	1.583*** (2.804)	1.426** (2.006)	-0.485 (-0.528)	1.203** (2.070)	1.428* (1.906)	-0.509 (-0.643)
RE_TA	-0.084 (-1.447)	0.181** (2.056)	-0.151* (-1.941)	-0.127** (-2.388)	0.171** (1.976)	-0.164*** (-2.738)
sp_rat_dum	0.010** (2.303)	-0.001 (-0.168)	0.010 (1.273)	0.013*** (2.834)	0.000 (0.064)	0.015* (1.833)
Constant	7.176*** (8.924)	5.512*** (5.819)	9.278*** (6.540)	7.057*** (8.618)	5.240*** (5.355)	10.103*** (5.453)
Observations	606	286	320	606	286	320
R-squared	0.551	0.398	0.562	0.532	0.330	0.735
Loan type FE	YES	YES	YES	YES	YES	YES
Loan purpose FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

This table reports results from 2SLS regressions of our SECOND baseline model in equation 2 using borrower' CSR strengths and concerns (CSR\_b). CSR\_b is the average of borrower' CSR strengths (concerns) for each firm and for each year. Interaction is the interaction between CSR\_b and the dummy that represents lender' CSR. sp\_rat\_dum: S&P rating dummy which takes the value of one if the long-term debt has an S&P credit rating at the moment of the signing of the bank loan and zero otherwise. All other variables are defined in Table 1. All the continuous variables are winsorized at the first and the 99<sup>th</sup> percentile. \*\*\*, \*\*, \* indicate significance at the 1%, 5% and 10% levels, respectively.



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