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THE EFFECT OF SOCIAL CAPITAL ON FINANCIAL CAPITAL

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Abstract

We study the effect of social capital on financial capital. Specifically, we study how similarity (matching) of borrowers' and lenders' cohorts along their corporate social responsibility dimension affects the cost of debt financing. The main finding is that borrowers' ethical posture alone is not enough for obtaining cheapest rates. Favorable loan conditions are obtained when both lenders and borrowers belong to similar cohorts attributing high value for social responsibility aspects. Employing an international database composed of 4,554 syndicated loans involving 175 corporations in 15 different countries for the period 2003-2006 we document a large and significant reduction in lending rates when both borrowers and lenders belong to similar cohort along the social responsibility dimension. These results withstand a battery of robustness tests.

Keywords: Corporate Social Responsibility; Financing Costs, Lenders

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1. INTRODUCTION

Information problems induce market failure since complete contracts are difficult to specify and enforce. This market failure induces different forms of opportunistic behavior on part of the contracting parties and is inherent in debt financing (Aghion and Bolton, 1992).

Syndicated loans are particularly affected by information problems (Sufi, 2007). Such type of lending involves several banks, with one (or few) of which acts as the lead bank or arranger and the rest, the participant banks. This distinction has important consequences for the assignment of tasks among participating banks. While participant banks maintain an "arm's-length" relationship with the borrower and only decide on their stake in the syndicated loan, the lead bank assumes a pivotal role in the negotiation with the borrower. Prior to signing, the lead bank collects information, negotiates terms and conditions, and prepares an information memorandum for the rest of lenders with detailed and confidential information. After the deal is signed, this bank has to monitor the borrower and its compliance with the loan covenants and, in case of default, has to renegotiate the terms of the contract. In such setup, information asymmetries are twofold: first, between the borrower and the lead bank regarding the quality of the former and, second, between the lead bank and participant banks regarding the monitoring intensity the leader implements as well as the information transferred to participant banks on borrower's quality (Dennis and Mullineaux, 2000).

The efforts to alleviate these exacerbated information problems leads contracting parties to write complicated and detailed contracts, including a large number of covenants on different issues such as minimum levels of some key financing ratios, collateral requirements or certain maturity requirements and more. The characteristics of these contracts will

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determine the level of risk sharing among banks as well as the loan spread (Dennis and Mullineaux, 2000).

In this study we focus on additional mechanism that can help reducing these contracting failures. In particular, our interest is in investigating whether social capital interpreted as a signal of trustworthiness, influences financial contracting and, specifically, the cost of debt financing. Social capital can be defined as the social skills and networks that enable an individual to overcome imperfect information problems and form contracts with others on the basis of trust and trustworthiness (Fukuyama, 1995; Glaeser et al., 2002; Ostrom, 1990). In business relationships, such propensity of contracting parts to cooperate for producing socially efficient outcomes may have different origins: it may emerge from the frequent and repeated interaction among agents, who may develop a solid reputation of commitment (Diamond, 1989), it may be a spontaneous behavior motivated by the religious beliefs (La Porta et al., 1997), or it may result from cultural, ethnic, racial or social similarities between contracting parties (Alesina and La Ferrara, 2002; Giannetti and Yafeh, 2008; Glaeser et al., 2000; Guiso et al., 2008; Mobius and Szeidl, 2007). In these situations agency costs are lower because an opportunistic behavior would eliminate the trust and degree of trustworthiness accumulated between contracting parties. At the macroeconomic level, Guiso et al. (2006) and Knack and Keefer (1996) have presented evidence indicating the positive influence of trust on aggregate economic outcomes. Also, Guiso et al. (2008) have shown that the relative trust among European citizens determines bilateral trade, investment, and financial flows among countries. At the microeconomic level, some studies have examined how trust affects contractual provisions in loans and have found that venture capitalists are less likely to fund entrepreneurs in countries in which their citizens have lower

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trust levels among themselves (Bottazzi et al., 2007), or where lending is plagued with discrimination for reasons unrelated to project risk (Alesina et al., 2008; Ravina, 2008).

This paper approaches the question of whether trust influences the contractual terms of loan from a new perspective. In particular, we ask whether loan terms, and in particular, loan spreads are affected by similarities in the social responsibility dimension among borrowers and lenders. Social responsibility refers to actions that "appear to further some social good, beyond the interests of the firms and that which is required by law" (McWilliams and Siegel, 2001), and describes a business philosophy under which firms behave honestly with its stakeholders, don't lie, cheat, or steal from them, and honor their commitments (Jones, 1995). By avoiding opportunism, firms signal their trustworthiness. Such characteristics are especially desirable in business relationships that take place under conditions of severe information problems, in which opportunistic behaviors are more likely. In such contexts, social responsible firms contract with other economic agents on the basis of mutual trust and cooperation, thereby reducing monitoring costs, bonding costs, search costs, warranty costs, and residual losses. Social responsible firms must choose their partners carefully in order to ensure that the desired benefits of the cooperation emerge. This means that socially efficient outcomes are obtained if a social responsible firm correctly discriminate the business philosophy of its potential contracting partners and selects those that are probed to be equally trustworthy. Thus, a correct matching between contracting parties' social responsibility is indispensable for building a valuable social capital.

Our main objective in this paper is to study whether indeed matching of social responsible borrowers and lenders is reflected in lower cost of capital born by the former. Our

contention is that social responsible borrowers may obtain better financing conditions, when their lenders are also social responsible institutions.

We provide evidence for the aforementioned contention using a sample of syndicated loans around the world in which information problem are relevant. The data, obtained from the DealScan database, has been matched with data on corporate social responsibility (CSR) of lenders and borrowers. The final sample contains 4,554 different facilities that correspond to 175 corporate borrowers for the period 2003-2006 for which we have information on their CSR as well as that of their lenders. Results indicate that there is a reduction in 2.1 basis points in the loan spreads when borrowers' CSR increases by one standard deviation and of 2.8 basis points if lenders' CSR increases by one standard deviation. Remarkably, there is an additional reduction of 2 basis points when there is a matching between social responsible borrowers and lenders. Thus, our results suggest that matching social responsibility positions of both lenders and borrowers provides superior debt financing conditions.

Our research contributes to the literature in two important ways. First, this study is one of the few to test the relationship between social capital and the cost of debt financing. In doing so, we provide evidence that CSR has an economic payoff, a finding contrasting those of Sharfman and Fernando (2008) and Goss and Roberts (2007), who showed how firms with high levels of CSR do not obtain better contractual terms, although those with the worst scores are penalized. Second, our paper is the first to focus on the complementary effect on loan spreads of matching social responsible borrowers and lenders. Such approach allows extending the related literature that analyzes the influence of cultural, ethnic, racial or social similarities between contracting parties on financial contracting (Alesina and La Ferrara,

2002; Giannetti and Yafeh, 2008; Glaeser et al., 2000; Guiso et al., 2008; Mobius and Szeidl, 2007).

The paper is organized as follows. Section 2 reviews the related literature and presents our hypotheses. Section 3 describes our sample, data, and research design. Section 4 presents the empirical results, and Section 5 concludes.

2. CSR AND THE COST OF DEBT FINANCING

Limited research has been done on the relationship between CSR and bank lending. Various arguments have been proposed to hypothesize that improvements in CSR should lead to lower costs of capital. First, according to stakeholder theory, "the survival and continuing profitability of the corporation depends upon its ability to fulfill its economic and social purpose, which is to create and distribute wealth or value sufficient to ensure that each primary stakeholder group continues as part of the corporations' stakeholder system" (Clarkson, 1995: 107). Thus, an effective stakeholder management ensures the continued participation of stakeholders in the firm and, importantly, can generate intangibles such as trust and long-term relationships with suppliers and customers (Hillman and Keim, 2001). In a context of incomplete contracting, where different parties may behave opportunistically, trusting and cooperative relationships will give the firm a competitive advantage (Jones, 1995) for two reasons: (i) a trusting and cooperative relationships reduces agency costs as it prevents opportunistic behavior; (ii) the development of long-term relationships with primary stakeholders like customers, suppliers, communities, and employees, allows firms to expand the set of value-creating exchanges beyond those made through regulated markets (Pfeffer, 1998; Prahalad, 1994). In case of financial suppliers, the level of mutual trust and cooperation

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between the borrowing firm and such stakeholder can affect the firm's financing cost significantly, especially if firms have few suppliers for establishing long-term relationships (Jones, 1995).

The second set of arguments supporting a negative association between CSR and cost of capital relies on the external effects citizenship activities have on organizational reputation. Supporting social responsibility goals helps firms to improve, both, brand and corporate image (Bramer and Pavelin, 2006; Rowley and Berman, 2000), which are important elements of reputation. Beyond achieving a good name for a firm, social responsiveness may influence its stakeholders' judgments, which are the foundation of reputation (Fombrun and Shanley, 1990). As corporate reputations are representations of public opinion about a firm, and as such opinions depend on a firm's success in meeting the expectations of those stakeholders, demonstrating a high degree of CSR is a signal that the firm will behave in accordance with stakeholders' expectations (Bramer and Pavelin, 2006), and the firm's reputation will consequently be augmented (Donaldson and Preston, 1995). This signaling effect of CSR is especially important in a context of information asymmetries, such as prevailing in bank lending (Brammer and Pavelin, 2006). In financing relationship, financial institutions often regard qualitative attributes of a firm as proxies of its commitment for repaying its loans (Denis, 2004). Building positive reputation through CSR activities may facilitate firms' access to capital (Spicer, 1978) and to negotiate better terms with capital suppliers (Fombrun and Shanley, 1990).

A final set of arguments connecting a borrower's CSR and its financing costs is related to risk management and the quality of firm's debt. The stakeholder literature documents that better social performance improves resource efficiency, which in turn causes

an increase in firm's revenues and/or a decrease in its costs. In addition to this direct effect on cash flows, Sharfman and Fernando (2008) have recently showed that CSR influences the perceived riskiness of a firm's cash flows. Improving CSR can reduce the likelihood that a firm will suffer negative social and environmental disasters that usually give rise to huge compensations and cleanup costs, which make a firm more vulnerable to bankruptcy. Citizenship activities also alleviate other forms of risk for lenders such as changes in legislation or in consumer preferences. Social responsible borrowing firms will have to attend to such changes in order to avoid negative media publicity, protests and consumers' boycotts, which erode firm's legitimacy and reputation and, ultimately, its profitability (Baron, 2001; Feddersen and Gilligan, 2001; John and Klein, 2003). Furthermore, pursuing a sustainable development strategy implies substantial long-term investment, which cannot be easily reversed and whose results will rarely be reflected in enhanced short-term profits. Hence, the implementation of such strategy requires a credible long-term commitment by the management of not engaging in risky behaviors (Hart, 1995). These characteristics may convey a good signal to banks and other financial institutions about creditworthiness of the borrowing firm. Therefore, if CSR reduces a borrower's default risk profile, banks should reward this borrower with lower spreads (Sharfman and Fernando, 2008).

The empirical support for the assertion that CSR may lead to lower loan spreads is scarce, although the predictions of stakeholder theory are clear. One of the few studies that examined the relationship between CSR and the costs of capital is Sharfman and Fernando (2008). These authors do not find support for that hypothesis. Contrarily, their results suggest a significant positive relation between the cost of debt and responsible business practices. In examining possible nonlinearities in that relationship, the authors do not find evidence of

banks penalizing with higher spreads those companies with the lowest or highest CSR scores. Precisely, such issue is analyzed by Goss and Roberts (2007) who find that those companies with poor social performance face higher cost of capital, which give them incentives to improve their CSR. For this reason, few firms show low levels of CSR in the long run. For responsible firms, these authors suggest that banks interpret high levels of investment in citizenship activities as evidence of agency conflicts and, therefore, they increase yield spreads. The result is that companies will move away from very high levels of CSR. In sum, these findings document a strategic use of CSR investments by firms, as companies migrate away from extreme levels of CSR.

There are alternative explanations for the lack of support of the hypothesis predicting a negative association between CSR and the cost of debt. It may be the case that debt markets see investments in CSR as inefficient and punish firms who engage in such investments. In fact, critics of CSR point out that it is costly and administratively burdensome for a firm to engage in citizenship activities, which will, in turn, result in lower performance levels (Friedman, 1970). One source of cost comes from the management of relationships with a wide set of stakeholders with conflicting objectives, which can result in an excessively rigid and resource-consuming organization (Aupperle et al., 1985). In addition, managers may behave opportunistically and follow entrenchment practices (Jones, 1995). According to this view, a manager set on entrenchment has incentives to collude with employees, communities, customers, and suppliers to protect themselves from disciplining mechanisms, causing a subsequent reduction in shareholders' wealth (Cespa and Cestone, 2007). With the implementation of a social responsible policy a manager set on entrenchment retains the confidence of stakeholders who generally acquire certain powers to promote or penalize top

executives (DeAngelo and DeAngelo, 1998; Hellwig, 2000; Rowley and Berman, 2000). Then, it will be difficult for displeased shareholders to remove such manager because they would have to face pressure from the non-shareholder stakeholders. Additionally, by colluding with stakeholders, the manager reduces a firm's attractiveness to potential raiders (Pagano and Volpin, 2005).

All these arguments suggest that firms engaging in citizenship practices bear costs that increase their default risk, which will be translated into higher loan spreads.

Remarkably, an underlying hypothesis in the previous arguments connecting a borrower's CSR and its loan financing costs is that banks are neutral regarding CSR. Banks, however, are also corporations that can have their own social agenda to promote and thus their own interpretation of CSR as an informative signal of a borrower's commitment and ability for attending their loan obligations.

Our contribution to the literature is that firm's engagement in citizenship activities will lead to lower spreads depending upon the congruence between a borrower's social responsible behavior and lenders' preferences over such social actions, process and outcomes. Incongruence of preferences reflects the situation where lenders perceive the deployment of resources away from core firm's activities toward CSR activities as wasteful managerial excess that damages firm's financial performance. In such context, investments in CSR lead to lower financial performance, thereby leading banks to demand higher spreads on loans to socially responsible corporations. Contrarily, similar preferences regarding citizenship activities between borrowers and lenders decrease the perceived intensity of information asymmetry and moral hazard problems, thus leading to better contractual terms for the borrower reflected by smaller spreads.

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3. DATA DESCRIPTION

Our sample is composed of 175 different corporations that operate in 16 different countries for the period 2003-2006. For these corporations, we have information on social responsibility, as well as a complete characterization of the syndicated loans in which each borrower participates. Also, we have information on the social responsibility of the banks that lend to these corporations through a syndicated loan arrangement. The information compiled is composed of 4 different databases.

First, for the information on social responsibility, we use SiRi PRO^{TM} database. These data are compiled by the Sustainable Investment Research International Company (SiRi) – the world's largest company specializing in the analysis of socially responsible investment, based in Europe, North America, and Australia. SiRi comprises eleven independent research institutions, such as KLD Research and Analytics in the USA, which are coordinated from the SiRi's headquarters, located at Freiburg, Switzerland.[4] For each company, there is a detailed, 20-to-30 page profile based on common methodology. The profile contains 199 items on the leading international corporations.[5] Items are extracted from multiples sources such as financial accounts, company documentation, databases, media reports, interviews with stakeholders, and ongoing contact with managers. SiRi translates this information into a comprehensive format—a rating—by implementing Likert-type scales and then grouping these scales into eight research sections, with an additional section containing general information about the company (location, number of employees, total turnover, etc.).

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[4] www.siricompany.com for more information.

[5] www.centreinfo.ch/doc/doc_site/SP-Novartis-06.pdf for an example of a detailed profile, and www.ais.com.es/ingles/productos/derivados.htm#1 for more information on SiRi Pro^{TM}.

The first research section provides a description of ethical and unethical corporate activities such as political donations, corruption and bribery, and the existence of business ethics programs addressing these issues. The last section measures the degree of involvement in controversial business activities like gambling, alcohol, pornography, animal testing, and tobacco. Participation in any one of these controversial activities is reason for exclusion from the SiRi sustainability index. The remaining six sections cover various issues related to distinct stakeholder groups (community, customers, employees, corporate governance, suppliers, and environment). For each stakeholder, the database addresses firm's attributes such as the level of transparency and disclosure; the existence of corporate policies and principles related to stakeholder; the importance of management procedures; and the level of stakeholder disputes. In each of these areas, the information on the various items is translated into a Likert-type scale score. Importantly, each item is sector and time-specific weighted. For example, "environment" is weighted more heavily for energy companies than it is for companies in the financial services industry. The final score provided by SiRi is the sum of each of the scores assigned to the 199 items, averaged by corresponding weight and rated on a scale from 0 (worst) to 100 (best).

Second, OSIRIS provides data on financial and ownership structure for borrowers. This is a database compiled by Bureau van Dijk (BvD) and provides information on financial, ownership and earnings for 38,000 companies from over 130 countries.

Third, the LPC Reuters *DealScan* database provides detailed data on loans made all over the world by banks to large firms. Such loan level information includes various characteristics of the loan contracts such as lender and borrower identities, dates of

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origination, purpose of loan, deal amounts, number of lenders, lender deal share, spread margins, loan maturity, covenants, and borrower sector and ratings.

Last, bank-level characteristics are collected from the *Bankscope* database, and matched with the aforementioned loan deal information. Raw data from *DealScan* was filtered to allow only confirmed loans, and to exclude loans made to firms in the financial and public sectors (first digit of SIC code equal to 6 or 9). These loans are dropped because the risks of firms in these sectors are argued to be very different from other firms, as they are likely to be government owned and government protected monopolies (Qian and Strahan, 2007). Our sample selection consists of taking, whenever possible, the 15 largest commercial banks or banking holding companies in terms of total assets, in 38 of the 49 countries included in the study of La Porta et al (1998). Besides establishing a limit in the number of countries included in the study, we believe that such selection allows comparability with other cross-country studies, mainly related to the "law and finance" literature.

Once we have crossed these 4 databases, we are left with an international sample of borrowers and lenders whose distribution by country of origin is shown in Table 1.

Insert Table 1 about here

Table 1 shows a similar dispersion of countries between borrowers and lenders: there are 16 different countries for borrowers and 15 for lenders. Also, among the 4,554 different facilities for which we have information on the CSR of lenders as well as of borrowers, in 462 (9.35%) there is a coincidence between the lenders' country of origin and that of the borrower. These figures suggest that home bias for the syndicated loan market is not very important in our study.

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In order to give a panel structure to the data, we have aggregated all the facilities involving each firm, on a yearly basis. Such aggregation is conducted by weighting the values of the different variables (*i.e.,* loan spreads, maturity and the like) in each facility by a weight that is equal to the funds granted to each facility averaged by the total financing of the firm.[6]

3.2. Measuring the CSR of borrowers and lenders, and the cost of debt financing

SiRi PRO^{TM} rating is used to measure lenders and borrowers CSR. In addition to providing a final overall rating, the database provides a score for each stakeholder. Consistent with previous studies (e.g., Hillman and Keim, 2001), we consider six stakeholder dimensions: community, customers, employees, corporate governance, suppliers, and environment. We therefore measure *corporate social responsibility* as the weighted sum of scores of these six stakeholder groups, using the corresponding SiRi weights. Note that these dimensions are similar to those of the KLD data (e.g., Goss and Roberts, 2007). The outcome is an index that can take any value between 0 and 100.

The cost of debt financing is measured using the yield spread (*Cost_Capital*). This variable describes the amount the borrower pays in basis points over LIBOR for each dollar drawn down. It adds the spread of the loan with any annual (or facility) fee paid to the bank group. This variable is the weighted average of all loans spreads borne by a borrower in one year, weighted by the facility amount (this variable is defined as All-in Spread Drawn in DealScan). All variables are defined in Appendix 1.

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[6] For example, if firm i receives 1 million funds in year t through 3 facilities of amounts 0.1, 0.3 and 0.6 million and spreads of 30, 40 and 60 basis points respectively; then, we compute the mean spread for firm i in year t as $0.1 \times 30 + 0.3 \times 40 + 0.6 \times 60$ basis points. We used such procedure to compute annual firm-level values of the different variables of the facility.

3.3. Control Variables Measures

We introduce various controls to account for borrower and lender rating, characteristics of the syndicated loan (duration, collateral, and number of lenders), firm's characteristics (growth opportunities, intangible assets, size, age, leverage, profitability, and ownership structure).

Borrower_Rating. These ratings represent firms' financial strength. As in Goss and Roberts (2007), the higher the rating, the lower the default probability, and the lower should be the expected loan rate.

Lender_Rating. For this rating, there are two opposite effects that may explain its impact on loan rates. On the one hand, most efficient banks are better able to discriminate among high quality and low quality firms, thus allowing lenders to reduce rates. On the other hand, credit agencies may grant higher ratings to those lenders with high loan rates since this may reflect borrowers willing to pay higher rates to banks exhibiting higher reputation as documented in Kim, Kristiansen and Vale (2005).

Maturity. There are opposite effects that explain the effect of maturity on loan rates. First, the "trade-off" hypothesis (Gottesman and Roberts, 2004) argues that longer maturities imply higher risk for the lender and, consequently, lenders will charge higher rates. In this line, Flannery's (1986) focuses on borrowers and argues that sound borrowers would prefer to obtain short-term funds with low rates as a signaling mechanism. Hence, both theories suggest a positive and monotonic risk-maturity relation. On the other hand, some authors (Dennis, Nandy and Sharpe, 2000) document that longer maturity is a signal of good credit quality, which, should be translated in a reduction of the loan rate. Empirically, Berger, Espinoza-Vega, Frame and Miller (2005), among others, find that risky borrowers use short-

term debt, whereas higher credit quality firms use longer maturities. Finally, Diamond (1991) synthesizes both views and predicts a non-monotonic, inversely U-shaped relation between borrower risk and debt maturity. While low risk and the very risky borrowers have short maturities, the medium risk borrowers choose long-term finance.

Collateral. There are opposing arguments explaining the effect of collateral on loan rates. The trade-off hypothesis (Gottesman and Roberts, 2004) suggests that collateral reduces risk. However, the "credit quality" hypothesis (Dennis, Nandy and Sharpe, 2000) suggest that precisely because credits are risky and have larger rates, lenders require collateral. Also, Manove, Padilla and Pagano (2001) find that collateral induces banks to be lazy monitors, ultimately increasing banks' risk.

Number_Lenders. A leader in a syndicate may want to increase the number of participants if credit is risky (risk sharing), according to the signaling hypothesis (Dennis, Nandy and Sharpe, 2000). However, Gomes and Novaes (2005), although in a context of banks as shareholders, suggest that the larger the number of lenders, the lower the expropriation incentives, which will translate to lower loan rates.

Market_to_Book. Such variable is a standard proxy of growth opportunities (Smith and Watts, 1992) given that it captures the value of long-term investments like intangibles, as explained in Dowell, Hart, and Yeung (2000). Then, such variable may determine a firm's cost of capital and it is also closely related to a firm's CSR (McWilliams and Siegel, 2000). Thus, the inclusion of such a variable will eliminate a source of spurious correlation between CSR and the cost of capital.

Intangibility. This variable is complementary to *Market_to_Book* because growth firms tend to have a large proportion of intangible assets. Also, such variable captures the

existence of a risk factor linked to information asymmetries given that investors tend to overreact to intangible information (Daniel and Titman, 2006).

Size. There are two countervailing effects this variable may induce. On the one hand, larger firms have higher reputation (Diamond, 1991); have more stable cash-flows and are less opaque and thus have larger bargaining power to obtain better financial conditions (Strahan, 1999). On the other hand, large firms may be "too-big-to-fail", generating serious agency problems (moral hazard). The reputation argument would suggest a negative effect of size on loan rates, while the moral hazard argument, suggests a positive impact.

Age. This variable is a proxy for reputation (Diamond, 1991), as only the most efficient firms survive in the long run. Then, we expect a negative relationship between that variable and the cost of capital.

Debt_to_Equity. The standard agency theory (Jensen, 1986) suggests the debt has a positive effect on risk as it reduces agency problems linked to managerial discretion. However, debt also stimulates risk-shifting behavior (Jensen and Meckling, 1976). Then, the final effect on the cost of capital is an empirical issue.

Profitability. We expect that more profitable firms obtain better financing conditions (Strahan, 1999).

Blockholders_Stake. The presence of institutional shareholders has two countervailing effects. On the one hand, they confer financial soundness onto firms, which should reduce the loan spread. Bhojraj and Sengupta (2003) find that institutional ownership is negatively associated with yields on public bonds. On the other hand, it is well known (Morck, Shleifer and Vishny, 1988) that blockholders tend to expropriate minority shareholders. Hence, lenders may want to reduce the expropriating rents by charging higher rates.

3.4. Descriptive and univariate statistics

Table 2 displays means, standard deviations, and correlations of the variables used in the study.

Insert Table 2 about here

Data show that, on average, lenders have larger values of CSR than borrowers (62.56 *versus* 56.59 respectively). Concerning borrowers characteristics, the average borrower has 34,000 million € in assets, is 20 years old since being listed on the stock market, has a ROA of 13.8%, a leverage of 63.7%, a proportion of 18.2% in intangible assets, and the combined stake of its 10 largest block holders is 49.85%. Concerning to the specifics of the syndicated loans, the collateral requirements are almost non-existent, the average maturity of the loans is 22.7 months, and the average number of lenders is almost 10 (9.79). Such information shows that firms participating in this market are mature and with good financial indicators. Both features indicate that the level of information asymmetries between borrowers and lenders is low and, therefore, the potential benefits of CSR as an informative signal for reducing financing costs would be lower. Hence, the results we provide represent quite a conservative and a lower bound of the connection between CSR and borrowers' cost of capital.

The analysis of correlations shows that the CSR of both borrowers and lenders is negatively correlated with the average syndicated loans' rate. Results depicted in Table 2 also document a negative relationship between borrowers' and lenders' bond ratings and the cost of debt financing. We also find a positive correlation between CSR and bond ratings, a result that may indicate that rating agencies take CSR as a credible signal. This evidence demonstrates the importance of including bond ratings in the estimations of loan rates in

order to avoid spurious correlation between such a variable and borrowers' CSR based on their mutual connection with bond rating. Loan maturity is positively correlated with loan rates, consistent with higher risks involved with long-term loans. Also, and consistently with the information value of CSR as a signal of trust, social responsible borrowers are rewarded with longer-duration loans (correlation of 10.1%). Moreover, social responsible lenders are positively correlated with loans' maturity (correlation of 9.7%). Such result is consistent with the social dimension of certain lenders, like S&L, which try to support certain firms by giving them some slack (longer length in the loans). Such result may also be explained by the existence of a matching between social responsible lenders and social responsible borrowers (although the correlation between *Borrower_*CSR and *Lender_CSR* is just 3%).

In order to provide first initial evidence of the relationship between CSR and different loan characteristics, we conduct (Table 3) a series of t-tests to assess the differences between responsible (borrowers with a CSR above the sample mean) and irresponsible (borrowers with a CSR below the mean) borrowers. We repeated these analyses for lenders. Figures in Table 3 show that the cost of capital is lower when the social responsibility of borrowers and of lenders is above the mean (43.7 versus 53.5 basis points, in the case of borrowers, and 43.7 versus 54.3, in the case of lenders). The difference in the loan rates between responsible and irresponsible agents (both borrowers and lenders) is roughly 10 basis points, and it is statistically significant at 10% level of significance (two-tailed test). Remarkably, these differences in the cost of capital are independent of the identity of the agent: borrowers or lenders. In the regression analysis to follow, we extend this analysis by examining the interaction between borrowers' and lenders' social responsibility. Meanwhile, the analysis presented in Panel B provides a preliminary evidence of the combined effect of borrower and

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lender social responsibility. In this analysis, we assess the differences in loan rates when different types of borrowers contract with different types of lenders. Our results indicate that increases in lenders' CSR from below the sample mean to above the sample mean is associated with a larger reduction in loan rates in comparison with similar increases in borrowers' CRS. In particular, data show that when there is an increase in the lenders' CSR from below the sample mean to above that mean and the borrowers' CSR is above the sample mean, there is a significant decrease in the syndicated loan rate (from 51.1 basis points to 39.20 with a p-value of 0.08). However, this does not hold when the increase is in the borrowers' CSR from below to above the mean. In that case there is a non-significant decrease in loan rate from 47.4 to 39.2 when lenders' CSR is above the corresponding mean and from 59.6 to 51.1 when lenders' CSR is below the corresponding mean. Hence, it seems that an analysis of the effect of social responsibility on a firm's cost of capital should critically incorporate information of lenders' CSR.

The analysis of other contractual dimensions of debt financing reveals that loan maturity is longer when borrowers' CSR is above the mean (25.1 versus 19.9 months for socially irresponsible borrowers; although the p-value >0.10) and when lenders are socially responsible too (28.6 versus 15.8 months for irresponsible banks; with a p-value of 0.00). These results are consistent with the existence of a matching between social responsible borrowers and lenders. In fact, data show some evidence in that direction given that the superior CSR scores of those firms that borrow capital from lenders whose CSR scores are larger than the sample mean. Additionally, social responsible borrowers pledge lower collateral and borrow capital through syndicates with a larger number of members. This later result strengthen evidence presented in Sufi (2007), who demonstrates that borrowers with

strong reputations obtain syndicated loans from more dispersed syndicates and that the lead bank retains a smaller share of the loan. A reputable socially responsible borrower may prefer borrowing from different financial institutions because this can reduce informational capture. Once the other lenders in the syndicate acquire information on the borrowers' trustworthiness as a social responsible firm, they may be willing to provide future loans at lower rates to that social responsible firm. Social responsible lenders also prefer lending through syndicates with a larger number of participants.

Finally, data indicate that social responsible borrowers as well as social responsible lenders exhibit superior bond ratings. Thus, it seems that the most solvent institutions—lenders as well as borrowers—are those which follow social responsible practices.

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4. MULTIVARIATE RESULTS

4.1. Econometric specifications

In the basic specification we test the cross-sectional relation of the syndicated loan spread with borrowers' and lenders' CSR and control measures (see Berger and Udell, 1995; Guedes and Oppler, 1996, among others) as follows:

$$
\begin{aligned}
Cost\_Capital_{it+1} = {}& \alpha_0 + \alpha_1 Borrower\_CSR + \alpha_2 Lender\_CSR + \alpha_3 Collateral \\
& + \alpha_4 Borrower\_Rating + \alpha_5 Lender\_Rating + \alpha_6 Maturity \\
& + \alpha_7 Number\_Lenders + \alpha_8 Mark\_to\_Book + \alpha_9 Size \\
& + \alpha_{10} Age + \alpha_{11} Debt\text{-}to\text{-}Equity + \alpha_{12} Profitability \\
& + \alpha_{13} Intangibility + \alpha_{14} Blockholder\_Stake \\
& + \alpha_{15} Dummies(Temporal, Sectoral, Country) + \eta_i + \varepsilon_{it}
\end{aligned}
\tag{1}
$$

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It is important to keep in mind that in this type of estimation, there are two potential endogeneity problems that should be addressed. First, the unobservable heterogeneity that is time invariant (η_i) may be correlated with some of the explanatory variables. For example, the talent of a manager is not fully captured by the explanatory variables and may be related to, both, firms' cost of capital as well as to borrowers' CSR. Fixed-effect estimation (estimation in differences) may eliminate this problem. Second, there is a potential problem of reverse causality given that a firm's cost of capital may be a driver of a firm's CSR according to the slack resources hypothesis (Waddock and Graves, 1997). In order to prevent this (second) endogeneity problem which is particularly acute when combined with the first one, we lead the dependent variable (*Cost_Capital)* by one period, and instrument *Borrower_CSR* in a two-stage procedure. In the first stage, we estimate a specification of *Borrower_CSR* in terms of different firms' characteristics, including: *Borrower_Rating*; *Market_to_Book*; *Size*; *Age*; *Debt-to-Equity*; *Profitability*; *Intangibility*, and *Blockholder_Stake*. In the second stage, we use the prediction of the previous specification as the instrument of *Borrower_CSR* in the new specification of the loan rate regression. Such instrument produces consistent estimates given that, with such prediction, we have eliminated the error term which incorporates the effect of loan rate on the borrower social responsibility.

To accommodate possible curvilinear relationship between CSR and financial performance (Barnett and Salomon, 2006; Wang, Choi and Li, 2005), we investigate the existence of non-linearities between CSR and a firm's cost of capital by introducing in some of the specifications a quadratic term for the *Borrower_CSR* namely, *Borrower_CSR²*. Alternatively, we include a dummy variable (*High_Borrower_CSR*) for separating those firms whose CSR is above the sample mean (*High_Borrower_CSR*=1) from those below that

mean (*High_Borrower_CSR*=0). Additionally, we test the robustness of our results to different legal environments by crossing the variable *Borrower_CSR* with a set of dummies (*English*, *French* and *German*) that describe the origin of their legal codes according to La Porta et al. (1998). *English*=1 when borrower's country is one of the following: Australia; Canada; Great Britain; Chile; USA. *French*=1 when that borrower's country is one of the following: Belgium; Spain; France; Greece; Italy; Netherland; Portugal. *German*=1 indicates that borrower's country is one of the following: Switzerland; Germany and Austria.

Finally, we study the possible existence of interaction effects between borrowers' CSR and lenders' CSR, as discussed earlier. We model the interaction in two scenarios. Under the first scenario, we hypothesize that the effect of borrowers' CSR on loan rates is moderated by lenders' CSR. We capture such moderating effect through the interactive variable *Borrower_CSR×High_Lender_CSR* that crosses the variable *Borrower_CSR* with the dummy variable *High_Lender_CSR*, which is equal to 1 (0) when lenders' CSR is above (below) the sample mean. Alternatively, we explore a hypothetical complementarity between borrowers' and lenders' CSR. We have argued previously that only social responsible lenders correctly interpret the CSR signal of their borrowers and translate such information into reduced loan rates. We study such issue with a set of interactive dummy variables, *High_Borrower×High_Lender*; *High_Borrower×Low_Lender,* and *Low_Borrower×High_Lender*, that compare scenarios in which lenders and/or borrowers have scores on social responsibility above the sample mean with a scenario in which neither borrowers, nor lenders, have a value above the sample mean (*Low_Borrower×Low_Lender*=1*)*. A significant coefficient on the variable *High_Borrower×High_Lender* and non-significant in the remaining interactive dummies is

indicative that both large values of borrowers' CSR as well as of lenders' CSR are necessary for finding significant effects on the loan rates (complementary relationship).

4.2. Evidence on yield spreads with socially responsible contracting parties

Table 4 investigates whether borrowers' CSR influences the cost of debt financing. Column 1 shows results of specification (1), but without including the variable *Lender_CSR*. Column 2 includes the aforementioned *Borrower_CSR^2* variable exploring non-linearities. To study the robustness of our results to different legal environments, column 3 includes the aforementioned interactive variables that cross *Borrower_CSR* with the dummies (*English*, *French* and *German*) classifying countries according to their legal origin.

Insert Table 4 about here

Results presented in column 1 suggest that changes in borrowers' CSR lead to a reduction in the loan spreads in the following period (-0.152 with p=0.06), which confirms the main contention of the paper. In terms of the economic significance of such coefficient, one standard deviation of borrowers' CSR leads to a reduction of 1.8 basis point (-0.15×12), representing a reduction of 3.7% over the mean spread (48.8 basis points). Once, we study non-linear effects (column 2), we find the existence of an inverted U-shape relationship between *Borrower_CSR* and *Cost_Capital*. In particular, when borrowers' CSR is beyond 34.6%[7], that is, above the 5% lower tail of the Borrower_CSR distribution, there is a significant effect of CSR in reducing the *Cost_Capital*. Finally, column 3 indicates that the

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[7] This is the result of Coefficient of Borrower_CSR/(2 × coefficient of Borrower_CSR ^{2})= 0.395/(2 × 0.571)= 0.346.

negative effect of borrowers' CSR on loan rates holds independently of the origin of borrowers' country legal code.

Concerning the control variables, in column 3 we find that collateral requirements reduces the loan rates, while maturity and number of lenders increases it (coefficients of 0.282 with p=0.07 and 0.193 with p=0.01, respectively). We have argued that riskier loans (*e.g.,* with longer maturity) trigger leading banks to include additional members in the syndicated loan as a way of diversifying risks. Focusing on firms' characteristics, larger and younger firms (growth firms) and firms with lager market-to-book ratios bear higher loan rates (coefficients of 2.413 with p=0.01; -2.318 with p=0.05 and 0.044 with p=0.01, respectively). Regarding lenders' characteristics, results indicate that high-rated lenders charge lower rates (coefficient of -0.246 with p=0.05), which is consistent with the contingency analysis shown in Table 3.

Table 5 incorporates the lenders' CSR into econometric specifications. In column 1, the lenders' CSR is included without interactive terms, while in column 2 it is included as a moderator through the interactive term *Borrower_CSR×High_Lender_CSR*. Column 3 focuses on significant changes in borrowers' and lenders' CSR through the dummy variables *High_Borrower_CSR* and *High_Lender_CSR* that are equal to 1 (0) when *Borrower_CSR* and Lender_CSR is above (below) the sample mean, respectively. Finally in column 4, we study the interaction between borrowers' CSR and that of lenders through the aforementioned variables *High_Borrower×High_Lender*; *High_Borrower×Low_Lender*; and *Low_Borrower×High_Lender*. The previous variables are equal to 1, when both components of the dummies that define each of them are equal to 1. By construction, the coefficients of these dummies are differential effects with respect to the reference control group that

corresponds to those facilities in which borrowers and lender have a value of CSR below the sample mean (*Low_Borrower×Low_Lender*=1).

Insert Table 5 about here

Table 5 shows that both borrowers' and lenders' CSR are significant determinants of the reduction in loan rates (coefficients of -0.127 with p=.01 and -0.124 with p=0.07 respectively). Remarkably, once we consider the interaction between both variables (column 4), we find that only when borrowers' CSR as well as lenders' are above the sample mean, there is a significant effect on reducing the syndicated loan rate. This indicates that it is very important to incorporate variables of lender's CSR in any analysis of the financing effects of borrower's CSR. Concerning the control variables, the results are consistent with those presented in Table 4.

Insert Table 6 about here

Finally, in Table 6 we replicate the analysis conducted in Table 5 but instrumenting the variable of *Borrower_CSR* by its predicted value.[8] Once we focus on the specification presented in column 1, we find that, both, increases in borrower's CSR as well as lender's CSR lead to a reduction in loan spreads. In particular, one unit standard deviation in *Borrower_CSR* leads to a reduction in 2.1 basis points in loan spread (-0.182×12). Also, one unit standard deviation in *Lender_CSR* leads to a reduction in 2.8 basis points in loan spread (-0.406×6.84). Then, both, lenders' CSR as well as borrowers' CSR are significant

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[8] We have also instrumented the variable *Lender_CSR* following the same two-stage procedure used for instrumenting *Borrower_CSR* indicating similar qualitative results to those displayed in Table 6.

determinants of syndicated loan spreads. Column 2 indicates that when lender's CSR is above the mean of the sample (*Lender_CSR*=1), there is an additional reduction of 2 basis point for one standard deviation in borrower's CSR (-0.169×12). Finally, we explore the complementarity between both variables in column 4. The result shows that there are two situations in which there is a decrease in the loan rates. First, when, both, borrowers' as well as lenders' CSR are above the sample mean (coefficient of -1.070 with p=0.01). Second, when lenders' CSR is above the sample mean and borrowers' CRS is below it (coefficient -0.382 with p=0.02). Thus, the participation of a social responsible lender in a syndicated loan is even more important than that of social responsible borrowers for achieving the reduction in the loan rate. Such a result confirms the critical importance of incorporating both borrowers' as well as lenders social responsibility in determining the effect on the cost of capital.

5. CONCLUSION

This paper extends the traditional vision of the linkage between a firm's corporate social responsibility (CSR) and its financing-investment decisions. Previous literature (Waddock and Graves, 1997; McWilliams and Siegel, 2001) has concentrated exclusively on the social responsible behavior of borrowing firms, while ignoring that of other stakeholders such as debtholders, which are capital providers. Such focus on the borrowers' side is striking because a firm's cost of capital, which is a major driver of a firm's financial performance, is the outcome of a bargaining process between lenders and borrowers and in which lenders usually have larger bargaining power compared to that of borrowers. Moreover, such bargaining process is conduced in an informationally asymmetric environment in which the

emergence of signals reducing such information problems would be highly valuable in order to reduce borrowers' financing costs. Notable, one could expect much stronger results when the degree of asymmetric information is larger as is among more opaque unrated firms. In such a context, lenders can interpret the social responsible behavior of borrowers as a credible signal of their trustworthiness and thus will reward borrowers with lower loan rates (in the case of debtholders) or lower cost of equity (in the case of shareholders). For equity financing, the literature has shown (Margolis and Walsh, 2003; and Orlitzky, et. al., 2003) that social responsible firms generate larger shareholders' returns. Then, as equity prices increase, the cost of new equity financing decreases. Such logic also applies for debt financing.

Our paper follows this research tradition but goes a step forward by introducing the linkage between CSR and the cost of capital, the social sensibility of capital providers. Our view is that borrowers' CSR investment can only be a valuable signal that will trigger reductions in the cost of capital if capital providers *are able of interpreting such signal in a positive way*. Obviously, such "interpretation" requires from capital providers a sensibility in social issues. Hence, our main hypothesis is that when capital providers are also social responsible institutions, borrowers with high rating in CSR will obtain lower cost of capital.

Summarizing our results, we find first, a reduction in 2.1 basis points in the loan spreads when borrower's CSR increases by one standard deviation. Second, a reduction in 2.8 basis points in syndicated loan spreads when lender's CSR increases by one standard deviation. Third, there is an additional reduction of 2 basis point for one standard deviation in borrower's CSR, if lender's CSR is above the sample mean. Finally, in analyzing the complementarity between borrower's and lender's ethical postures, we find that there are two

situations in which a reduction in loan spreads emerge: (1) when both lenders as well as borrowers are at a CSR levels above the sample mean; and (2) when the lender shows high score in social responsibility, independently of borrowers' CSR. Thus, the social responsibility awareness of lenders is of utmost importance for the provision of lower cost of capital and further be enhanced when matched with high social responsibility borrower awareness.

5.1. Implications for research

An explanation for the dispersion of results connecting financial performance and social performance can be derived from our analysis. Here, we have introduced the social responsibility of capital providers as an additional element in the specification explaining borrowers' cost of capital, in order to alleviate the problem identified by McWilliams and Siegel (2000). These authors argue that the relationships between financial performance (inversely related to cost of capital) and CSR may be spurious, and simply the result of the mutual connection of these variables with other omitted elements. We propose to treat social awareness of both contracting parties in the specification. Lenders CSR turns out to be an important factor, not only in the determination of loan rates, which also influence firm's financial performance, but also in its facilitation of the matching of similar borrowers and lenders along the social awareness dimension. Ignoring such dimension in the specification may indeed generate spurious correlations and inconsistent results.

5.2. Implications for practice

We suggest that the best way to stimulate firms to embrace social responsibility principles in a pure instrumental way is, paradoxically, emphasizing the social dimension of

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capital providers, particularly that of lenders. Only social responsible firms obtain the most tangible fruits from their social responsible efforts through lower loan rates if lenders are also social responsible institutions and "understand" such social dimension. Undoubtedly the current turmoil that have put banks on the spotlight for their malpractices, open a clear opportunity for achieving such issues.

5.3. Limitations and Future Research

In qualifying our conclusions, we recognize some weaknesses in our study. First, although we believe that the SiRi database improves the measurement of CSR, it is not free from criticism. The CSR index of SiRi aggregates multiple social dimensions, for example, with no theoretical basis for assuming that they are correlated (Waddock and Graves, 1997; Rowley and Berman, 2000). Disaggregating such score in order to find what specific component of CSR is the most significant in order to convince social responsible lenders of borrowers' trustworthiness is a natural extension of our paper. A second extension is to contemplate other forms of financing apart from syndicated loans. The extant literature suggests that syndicated loans are positioned between two extremes, having characteristics of both sole-lender bank loans and public debt (Dennis and Mullineaux, 2000). As may be expected, the information value of the social responsible signal may even be greater when borrowers use public debt. An exploration of these issues will be the subject of future research.

REFERENCES

Aghion, P., Bolton, P., 1992. An incomplete contracts approach to financial contracting. The Review of Economic Studies 59, 473–494.

Alesina, A., La Ferrara, E., 2005. Ethnic diversity and economic performance. Journal of Economic Literature 43, 762-800.

Alesina, A., Lotti, F., Mistrulli, P., 2008. Do women pay more for credit? Evidence from Italy. Unpublished working paper. Harvard University.

Aupperle, K., Carroll, A., Hatfield, J., 1985. An empirical examination of the relationship between corporate social responsibility and profitability. Academy of Management Journal 28, 446–463.

Barnett, M., Salomon, R., 2006. Beyond dichotomy: the curvilinear relationship between social responsibility and financial performance. Strategic Management Journal 27, 1101–1122.

Baron, D., 2001. Private politics, corporate social responsibility, and integrated strategy. Journal of Economics and Management Strategy 10, 7–45.

Berger, A., Udell, G., 1995. Relationship lending and lines of credit in small firm finance. Journal of Business 68, 351–381.

Berger, A., Espinosa-Vega, M., Scott Frame, W., Miller, N., 2005. Debt maturity, risk, and asymmetric information. The Journal of Finance 60, 2895–2923.

Bhojraj, S., Sengupta, P., 2003. Effect of corporate governance on bond ratings and yields: the role of institutional investors and outside directors. Journal of Business 76, 455–475.

Bottazzi, L., Da Rin, M., Hellmann, T., 2007. The importance of trust for investment: evidence from venture capital. Unpublished working paper. University of British Columbia.

Brammer, S., Pavelin S., 2006. Corporate reputation and social performance: the importance of fit. Journal of Management Studies 43, 435–455.

Cespa, G., Cestone, G., 2007. Corporate social responsibility and managerial entrenchment. Journal of Economics and Management Strategy 16, 741–71.

Clarkson, M., 1995. A stakeholder framework for analyzing and evaluating corporate social performance. Academy of Management Review 20, 92–117.

Daniel, D., Titman, S., 2006. Market reactions to tangible and intangible information. The Journal of Finance 61, 1605–1643.

DeAngelo, H., DeAngelo, L., 1998. Ancient redwood and the politics of finance: the hostile takeover of the pacific lumber company. Journal of Financial Economics 47, 3–53.

Denis, D., 2004. Entrepreneurial finance: an overview of the issues and evidence. Journal of Corporate Finance 10, 301–326.

Dennis, S., Mullineaux, D., 2000. Syndicated loans. Journal of Financial Intermediation 9, 404–426.

Dennis, S., Nandy, D., Sharpe, I., 2000. The determinants of contract terms in bank revolving credit agreements. The Journal of Financial and Quantitative Analysis 35, 87–110.

Diamond, D., 1989. Reputation acquisition in debt markets. Journal of Political Economy 97, 828–862.

Diamond, D., 1991. Monitoring and Reputation: The choice between bank loans and directly placed debt. Journal of Political Economy 99, 689–721.

Donaldson, T., Preston, L., 1995. The stakeholder theory of the corporation: concepts, evidence, and implications. Academy of Management Review 20, 65–91.

Dowell, G., Hart, S., Yeung, B., 2000. Do corporate global environmental standards create or destroy market value? Management Science 46, 1059–1074.

Feddersen, T., Gilligan, T., 2001. Saints and markets: activists and the supply of credence goods. Journal of Economics and Management Strategy 10, 149–171.

Flannery, M., 1986. Asymmetric information and risky debt maturity choice. Journal of Finance 41, 19–37.

Fombrun, C., Shanley, M., 1990. What's in a name? Reputation building and corporate strategy. Academy of Management Journal 33, 233–258.

Friedman, M., 1970. The social responsibility of business is to increase its profits. New York Times Magazine, 13 September, 33ff.

Fukuyama, F., 1995. Trust: The social values and the creation of prosperity. Free Press, New York.

Giannetti, M., Yafeh, Y., 2008. Do cultural differences between contracting parties matter? Evidence from syndicated bank loans. CEPR Discussion Paper No. DP7020.

Glaeser, E., Libson, D., Scheinkman, J., Soutter, C., 2000. Measuring trust. Quarterly Journal of Economics 115, 811–846.

Glaeser, E., Laibson, D., Sacerdote, B., 2002. An economic approach to social capital. Economic Journal 112, F437–F458.

Gomes, A., Novaes, W., 2005. Sharing of control as a corporate governance mechanism. Unpublished working paper, The Wharton School.

Goss, A., Roberts, G., 2007. The cost of virtue: corporate social responsibility and the cost of debt financing. SSRN working paper.

Gottesman, A., Roberts, G., 2004. Maturity and corporate loan pricing. Financial Review 38, 55–77.

Guedes, J., Opler, T., 1996. The determinants of the maturity of new corporate debt issues. Journal of Finance 51, 1809–1833.

Guiso, L., Sapienza, P., Zingales, L., 2006. Does culture affect economic outcomes. Journal of Economic Perspectives 20, 23–48.

Guiso, L., Sapienza, P., Zingales, L., 2008. Cultural biases in economic exchange? Quarterly Journal of Economics, forthcoming.

Hart, S., 1995. A natural resource-based view of the firm. Academy of Management Review 20, 986–1014.

Hellwig, M., 2000. On the Economics and Politics of Corporate Finance and Corporate Control. In: Vives, X., (Ed.), Corporate Governance. Cambridge University Press, Cambridge, pp. 95–134.

Hillman, A., Keim, G., 2001. Shareholder value, stakeholder management, and social issues: what's the bottom line? Strategic Management Journal 22, 125–139.

Jensen, M., 1986. Agency costs of free-cash-flow, corporate finance, and takeovers. American Economic Review 76, 323–329.

Jensen, M., Meckling, W., 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. Journal of Financial Economics 3, 305–360.

John, A., Klein, J., 2003. The boycott puzzle: consumer motivations for sacrifice. Management Science 49, 1196–1209.

Jones, T., 1995. Instrumental stakeholder theory: a synthesis of ethics and economics. Academy of Management Review 20, 404–437.

Kim, M., Kristiansen, E., Vale, B. 2005. Endogenous product differentiation in credit markets: what do borrowers pay for? Journal of Banking and Finance 29, 681–699.

Knack, S., Keefer, P., 1997. Does social capital have an economic payoff? A cross-country investigation. Quarterly Journal of Economics 112, 1251–1288.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 1998. Law and finance. Journal of Political Economy 106, 1113–1155.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 1997. Trust in large organizations. American Economic Review Papers and Proceedings 87, 333–338.

Manove, M., Padilla, A., Pagano, M., 2001. Collateral versus project screening: a model of lazy banks. RAND Journal of Economics 32, 726–744.

Margolis, J., Walsh, J., 2003. Misery loves companies: rethinking social initiatives by business. Administrative Science Quarterly 48, 268–305.

McWilliams, A., Siegel, D., 2000. Corporate social responsibility and financial performance: correlation or misspecification? Strategic Management Journal 21, 603–609.

McWilliams, A., Siegel, D., 2001. Corporate social responsibility: a theory of the firm perspective. Academy of Management Review 26, 117–127.

Mobius, M., Szeidl, A., 2007. Trust and social collateral. Unpublished working paper. Harvard University.

Morck, R., Shleifer, A., Vishny, R., 1988. Management ownership and market valuation: an empirical analysis. Journal of Financial Economics 20, 293–315.

Orlitzky, M., Schmidt, F., Rynes, S., 2003. Corporate social and financial performance: a meta-analysis. Organization Studies 24, 403–441.

Ostrom, E., 1990. Governing the commons: The evolution of institutions for collective action. Cambridge University Press, Cambridge.

Pagano, M., Volpin, P., 2005. Managers, workers and corporate control. Journal of Finance 60, 841–868.

Pfeffer, J., 1998. The human equation: Building profits by putting people first. Harvard Business School Press, Boston.

Prahalad, C., 1994. Corporate governance or corporate value added? Rethinking the primacy of shareholder value. Journal of Applied Corporate Finance 6, 40-50.

Qian, J., Strahan, P. 2007. How laws and institutions shape financial contracts: the case of bank loans. The Journal of Finance 62, 2803–2834.

Ravina, E., 2008. Love & loans. the effect of beauty and personal characteristics in credit markets. Unpublished working paper. Columbia University.

Rowley, T., Berman, S., 2000. A brand new brand of corporate social performance. Business and Society 39, 397–418.

Sharfman, M., Fernando, C., 2008. Environmental risk management and the cost of capital. Strategic Management Journal 29, 569–592.

Smith, C., Watts, R. 1992. The investment opportunity set and corporate financing, dividend, and compensation policies. Journal of Financial Economics 32, 263–292.

Spicer, B., 1978. Investors, corporate social performance and information disclosure: an empirical study. Accounting Review 53, 94–111.

Strahan, P., 1999. Borrower risk and the price and nonprice terms of bank loans. Unpublished working paper. Boston College.

Sufi, A., 2007. Information asymmetry and financing arrangements: evidence from syndicated loans. Journal of Finance 62, 629–668.

Waddock, S., Graves, S., 1997. The corporate social performance-financial performance link. Strategic Management Journal 18, 303–319.

Wang, H., Choi, J., Li, J., 2005. Too little or too much: reexamining the relationship between corporate giving and corporate financial performance. Academy of Management Best Conference Paper Proceedings, Social Issues in Management, G1-G6.

Appendix 1: Definition of the variables

Dependent Variables	
Cost_Capital	Describes the amount the borrower pays in basis points over LIBOR for each dollar drawn down. It adds the spread of the loan with any annual (or facility) fee paid to the bank group. This variable is the weighted average of all loans spreads borne by a borrower in one year, weighted by the facility amount (this variable is defined as All-in Spread Drawn in DealScan).
Main explanatory Variables:	
Borrower_CSR	SiRi score for borrowers' CSR. This score is the sum of each of the scores assigned to the 199 items that cover different social issues, averaged by corresponding weight for the different stakeholders(community, customers, employees, corporate governance, suppliers, and environment) and rated on a scale from 0 (worst) to 100 (best).
Lender_CSR	SiRi score for lenders' CSR computed following the same pattern as *Borrower_CSR*.
Control variables:	
Age	The number of years since first listed.
Borrower_Rating	Moodys rating on borrowers' riskiness. In particular, following Qian and Strahan (2007), this variable consists of an index ranging from 1 to 6, representing the Moody's senior debt rating at the close of the loan. When Moody's ratings are missing, S&P ratings are used. The index equal to 1 represents a rating of "Aaa", 2 indicates "Aa", and 6 indicates "B" or worse. If there is no rating information for the borrower, zero is assigned to this variable, and a separate indicator for unrated borrowers is included. Source: *DealScan*.
Collateral	Dummy that is equal to 1 if the loan requires a collateral and zero otherwise.
Debt_to_Equity	Book value of debt divided by total assets.
Intangibility	The ratio of intangible assets to total assets.
Lender_Rating	S&P ratings on lenders' riskiness. In particular, S&P level A corresponds to a level of 63, while D corresponds to 1. If there is no rating information for the lender, zero is assigned to this variable, and a separate indicator for unrated lenders is included. Source: *DealScan*.
Leverage	The debt-to-equity ratio.
Market_to_Book	Market equity value to equity book value.
Maturity	Maturity (in months) of the facility.
Number_Lenders	Number of lenders participating in the facility.
Blockholders_Stake	The stake of the 10 largest blockholders (%).

Profitability	Operating income divided by total assets.
Size	Total assets.

Table 1: Distribution of facilities by borrowers' and lenders' countries [1]

		LENDERS' COUNTRY																
		AU	BE	CA	CH	DE	DK	ES	FR	GR	GB	IT	NL	NO	SE	US		Total
BORROWERS' COUNTRY	**AU**	7	2	0	19	37	0	3	16	0	0	0	7	0	0	11		102
	BE	0	2	0	0	0	0	2	3	0	0	0	0	0	0	1		8
	CA	0	0	19	4	10	0	0	22	0	0	0	6	0	0	4		65
	CH	0	6	0	12	26	5	3	30	0	0	11	7	0	0	2		102
	CL	0	3	3	0	6	3	7	4	0	0	5	4	0	0	2		37
	DE	2	4	2	19	96	1	12	49	0	0	10	31	7	13	35		281
	ES	0	1	2	9	38	2	33	24	0	0	14	18	0	0	11		152
	FI	0	4	0	1	11	7	0	5	0	0	0	7	5	11	3		54
	FR	9	11	22	9	82	12	48	92	0	7	17	52	3	1	17		382
	GB	18	14	41	16	84	37	30	72	1	24	33	56	5	14	27		472
	GR	0	0	0	4	4	0	2	3	2	0	0	4	0	0	4		23
	NL	0	5	0	1	12	2	5	5	0	0	1	12	0	0	6		49
	NO	3	4	0	3	14	12	2	11	0	0	0	4	14	15	5		87
	PT	0	2	2	0	9	0	2	5	0	0	2	6	0	0	3		31
	SE	0	0	0	0	4	3	5	2	0	0	2	0	1	6	0		23
	US	107	36	434	152	501	28	119	643	0	15	107	364	15	46	119		2,686
	Total	146	94	525	249	934	112	273	986	3	46	202	578	50	106	250		4,554

[1] In the horizontal axis, there is the distribution of facilities by borrowers' country, while in the vertical axis there is the distribution by lenders' country. AU=Australia; BE=Belgium; CA=Canada; CH=Switzerland; CL=Chile; DE=Germany; DK=Denmark; ES=Spain; FI=Finland; FR=France; GB=Great Britain; GR=Greece; IT=Italy; NL=Netherland; NO=Norway; PT=Portugal; SE=Sweden; US=USA.

Table 2: Table of Means and Correlation Matrix [1]

	Mean	S. D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 *Cost_Capital*	48.797	41.288	1.000														
2 *Borrower_CSR*	56.591	12.009	-0.050	1.000													
3 *Lender_CSR*	62.533	6.846	-0.015	0.029	1.000												
4 *Collateral*	0.0101	0.103	0.257	0.055	-0.080	1.000											
5 *Borrower_Rating*	1.659	1.800	-0.077	-0.079	0.154	0.096	1.000										
6 *Lender_Rating*	24.269	25.480	-0.167	0.175	0.056	-0.100	-0.694	1.000									
7 *Maturity*	22.722	26.508	0.011	0.101	0.097	0.005	-0.612	0.681	1.000								
8 *Number_Lenders*	9.791	11.471	-0.090	0.134	-0.076	-0.035	-0.602	0.669	0.598	1.000							
9 *Market_to_Book*	2.533	23.500	0.117	-0.059	0.134	-0.011	0.089	-0.088	-0.066	-0.079	1.000						
10 *Size (10^6)*	34.000	58.800	0.143	0.244	-0.030	-0.053	-0.205	0.201	0.094	0.187	-0.054	1.000					
11 *Age*	20.189	19.153	-0.042	-0.093	-0.088	-0.069	-0.059	-0.037	-0.001	0.059	-0.024	0.053	1.000				
12 *Debt_to_Equity*	0.637	0.171	0.012	0.087	-0.121	0.046	-0.233	0.089	0.198	0.239	-0.220	0.259	0.065	1.000			
13 *Profitability*	0.138	0.103	0.056	-0.008	0.146	0.010	0.182	-0.103	-0.099	-0.149	0.109	-0.143	0.025	-0.171	1.000		
14 *Intangibility*	0.182	0.159	-0.110	-0.252	-0.050	-0.007	-0.091	0.054	0.032	0.012	-0.039	-0.039	0.172	-0.075	-0.183	1.000	
15 *Blockholders_Stake*	49.852	46.272	0.031	0.125	-0.154	0.113	0.112	-0.069	-0.033	-0.043	-0.103	-0.161	-0.161	0.129	0.012	-0.134	1.000

[1] See the definition of the variables in Appendix 1

Table 3: Contingency Analysis

PANEL A[1]				
	CSR_Borrower=1	CSR_Borrower=0	CSR_Lender=1	CSR_Lender=0
Cost_Capital T-test	43.711	53.569 (0.085)	43.746	54.307 (0.083)
Lender_CSR T-test	0.544	0.494 (0.183)		
Borrower_CSR T-test			0.401	0.354 (0.183)
Maturity T-test	25.137	19.973 (0.186)	28.675	15.849 (0.000)
Collateral T-test	0.352	1.394 (0.099)	0.000	2.247 (0.139)
Number_Lenders T-test	11.439	7.916 (0.036)	9.527	7.741 (0.030)
Borrower_Rating T-test	1.624	1.350 (0.033)	1.599	1.301 (0.017)
Lender_Rating T-test	27.238	20.890 (0.090)	26.753	21.074 (0.003)
PANEL B[1,2]							
	CSR_Borrower=1		CSR_Borrower=0		CSR_Lender=1		CSR_Lender=0	
	CL=1	CL=0	CL=1	CL=0	CB=1	CB=0	CB=1	CB=0
Cost_Capital T-test	39.197	51.144 (0.082)	47.437	59.579 (0.217)	39.197	47.437 (0.273)	51.144	59.579 (0.403)

[1] P-values in parentheses. See the definition of the variables in Appendix 1.

[2] CL=1 (0) indicates that Lender_CSR to be above (below) sample mean. CB=1 (0) indicates Borrower_CSR to be above (below) sample mean.

Table 4: The effect of Borrower's CSR on the cost of capital [1]

Table 4 reports the results of conducting fixed-effect regressions on the syndicated loans cost of capital in terms of borrower's CSR as well as different controls defined in Appendix 1. The interactive terms English_CSR, French_CSR, German_CSR are the result of multiplying Borrower_CSR by a set of dummies: English, French and German that describe the origin of their legal codes according to La Porta et al. (1988). English=1 means that borrower's country is one of the following: Australia; Canada; Great Britain; Chile; USA. French=1 means that borrower's country is one of the following: Belgium; Spain; France; Greece; Italy; Netherland; Portugal. German=1 means that borrower's country is one of the following: Switzerland; Germany and Austria. The coefficients are standardized and in parentheses there are the standard errors of each coefficient.

Borrower_CSR	-0.152***	0.395**	-0.143**
	(0.060)	(0.210)	(0.079)
Borrower_CSR^2		-0.571**	
		(0.251)	
English_CSR			0.041
			(0.092)
French_CSR			0.149
			(0.099)
German_CSR			0.108
			(0.085)
Collateral	-0.035	-0.047**	-0.048*
	(0.035)	(0.026)	(0.027)
Borrower_Rating	-0.073	-0.081	0.032
	(0.053)	(0.084)	(0.079)
Lender_Rating	-0.244***	-0.259***	-0.246**
	(0.066)	(0.104)	(0.122)
Maturity	0.140**	0.188	0.282*
	(0.074)	(0.137)	(0.157)
Number_Lenders	0.174***	0.180***	0.193***
	(0.052)	(0.064)	(0.076)
Mark_to_Book	0.033	0.031**	0.044***
	(0.031)	(0.014)	(0.017)
Size	2.154***	2.228***	2.413***
	(0.328)	(0.675)	(0.626)
Age	-1.257**	-1.870**	-2.318**
	(0.668)	(0.886)	(1.188)
Debt_to_Equity	0.017	0.003	0.028
	(0.122)	(0.171)	(0.180)
Profitability	0.024	0.017	-0.032*
	(0.035)	(0.079)	(0.020)
Intangibility	0.055	0.023	-0.064
	(0.109)	(0.129)	(0.151)
Blockholders_Stake	0.031	-0.173*	0.039
	(0.043)	(0.098)	(0.046)
Intercept	-0.114	-0.140**	-0.528**
	(0.075)	(0.059)	(0.221)
R^2	31.51%	36.24%	42.53%
Fitness (F test)	4.72 (0.000)	4.78 (0.000)	5.36 (0.000)
Hausman Test	180.39 (0.000)	70.18 (0.000)	149.71 (0.000)
Type of Estimation	Fixed Effects	Fixed Effects	Fixed Effects
Number of observations	290	290	290

***p-value 0.01, ** p-value 0.05, *p-value 0.10.

Table 5: The effect of Borrower's CSR and Lender's CSR on the cost of capital

Table 5 estimates syndicated loans cost of capital in terms of borrower's CSR, lender's CSR as well as different controls defined in Appendix 1. High_Borrower_CSR=1 (0) if Borrower_CSR is above (below) sample mean; High_Lender_CSR=1 (0) if Lender_CSR is above (below) sample mean. From these variables, we define the interactions *High_Borrower×High_Lender*; *High_Borrower×Low_Lender*; and *Low_Borrower×High_Lender*. The coefficients are standardized and in parentheses there are the standard errors of each coefficient.

Borrower_CSR	-0.127***	-0.164***		
	(0.051)	(0.067)		
Borrower_CSR×High_Lender_CSR		-0.129**		
		(0.073)		
Lender_CSR	-0.124**	0.037		
	(0.069)	(0.068)		
High_Borrower_CSR			-0.409**	
			(0.190)	
High_Lender_CSR			-0.251**	
			(0.113)	
High_Borrower×High_Lender				-0.604***
				(0.175)
High_Borrower×Low_Lender				-0.299
				(0.172)
Low_Borrower×High_Lender				-0.150
				(0.154)
Collateral	0.025	0.007	0.014	-0.003
	(0.055)	(0.035)	(0.025)	(0.039)
Number_Lenders	-0.118	-0.010	-0.123*	-0.060
	(0.091)	(0.065)	(0.076)	(0.064)
Borrower_Rating	-0.362***	-0.104*	-0.286***	-0.236***
	(0.130)	(0.130)	(0.105)	(0.085)
Lender_Rating	-0.306**	-0.229***	-0.261	-0.334***
	(0.146)	(0.090)	(0.190)	(0.097)
Maturity	0.026	0.2400***	-0.013	-0.053
	(0.103)	(0.101)	(0.062)	(0.062)
Mark_to_Book	-0.097	-0.028	0.013	0.031
	(0.422)	(0.311)	(0.013)	(0.034)
Size	0.240***	0.234***	0.219***	0.293***
	(0.081)	(0.088)	(0.065)	(0.080)
Age	-0.044	-0.035	-0.085**	-0.111
	(0.080)	(0.086)	(0.041)	(0.077)
Debt_to_Equity	-0.009	0.080	0.027	0.072
	(0.095)	(0.091)	(0.083)	(0.087)
Profitability	-0.043	0.023	-0.067	-0.093
	(0.122)	(0.041)	(0.088)	(0.079)
Intangibility	-0.103	-0.084	-0.109	-0.187**
	(0.100)	(0.093)	(0.073)	(0.089)
Blockholders_Stake	0.196**	0.076	0.148	0.094
	(0.090)	(0.060)	(0.104)	(0.071)
Intercept	-0.566	0.355	-0.200	0.028
	(0.448)	(0.474)	(0.382)	(0.307)
R^2	23.62%	26.14%	35.17%	35.50%
Fitness of the model (F test)	40.90 (0.000)	44.59 (0.001)	49.42 (0.018)	100.86 (0.000)
Hausman Test[1]	5.93 (0.980)	22.48 (0.167)	25.11 (0.102)	7.42 (0.964)
Type of estimation	Random Effects	Random Effects	Random Effects	Random Effects
Number of observations	290	290	290	290

***p-value 0.01, ** p-value 0.05, *p-value 0.10. Fitness test is the Wald test as all are random-effects estimations

Table 6: The effect of Borrower's CSR and Lender's CSR on the cost of capital

Table 6 estimates syndicated loan rates in terms of borrower's CSR, lender's CSR as well as different controls defined in Appendix 1. High_Borrower_CSR=1 (0) if Borrower_CSR is above (below) sample mean; High_Lender_CSR=1 (0) if Lender_CSR is above (below) sample mean. From the previous variables we define the interactions *High_Borrower×High_Lender*; *High_Borrower×Low_Lender*; and *Low_Borrower×High_Lender*. We instrument the variables that rely on *Borrower_CSR* following a two-stage procedure described in the text. The coefficients are standardized and in parentheses there are the standard errors of each coefficient.

Borrower_CSR	-0.182***	-0.401**		
	(0.062)	(0.211)		
Borrower_CSR×High_Lender_CSR		-0.169***		
		(0.072)		
Lender_CSR	-0.406**	0.078		
	(0.198)	(0.067)		
High_Borrower_CSR			-0.581***	
			(0.182)	
High_Lender_CSR			-0.515***	
			(0.102)	
High_Borrower×High_Lender				-1.070***
				(0.232)
High_Borrower×Low_Lender				-0.257
				(0.189)
Low_Borrower×High_Lender				-0.382***
				(0.121)
Collateral	-0.056*	0.025	-0.054**	-0.011
	(0.032)	(0.036)	(0.027)	(0.032)
Number_Lenders	0.095	-0.111*	0.074	-0.026
	(0.067)	(0.070)	(0.064)	(0.065)
Borrower_Rating	-0.008	-0.236***	-0.095	-0.199***
	(0.064)	(0.092)	(0.099)	(0.084)
Lender_Rating	-0.122*	-0.257***	-0.502***	-0.590***
	(0.078)	(0.103)	(0.215)	(0.115)
Maturity	0.205**	0.061	0.068	0.050
	(0.0903)	(0.080)	(0.053)	(0.065)
Mark_to_Book	0.039	-0.017	-0.112***	-0.108**
	(0.035)	(0.317)	(0.018)	(0.050)
Size	2.058***	0.352***	1.856***	0.333***
	(0.312)	(0.119)	(0.484)	(0.113)
Age	-1.924	-0.052	-1.297	-0.143
	(0.662)	(0.087)	(0.827)	(0.101)
Debt_to_Equity	0.214	0.045	0.323	0.093
	(0.153)	(0.091)	(0.212)	(0.117)
Profitability	-0.009	-0.032	0.419**	0.353**
	(0.037)	(0.042)	(0.110)	(0.119)
Intangibility	0.223*	-0.197	0.247	0.180**
	(0.154)	(0.119)	(0.119)	(0.100)
Blockholders_Stake	0.059	0.070	0.022	0.044
	(0.057)	(0.060)	(0.036)	(0.053)
Intercept	-0.134**	0.363	-0.801***	-0.013
	(0.065)	(0.231)	(0.108)	(0.247)
R^2	43.21%	57.26%	32.86%	37.49%
Fitness of the model (F test)	4.72 (0.000)	44.05 (0.007)	14.20 (0.000)	100.86 (0.000)
Hausman Test[1]	89.09 (0.000)	17.33 (0.567)	97.19 (0.000)	5.12 (0.998)
Type of estimation	Fixed Effects	Random Effects	Fixed Effects	Random Effects
Number of observations	290	290	290	290

***p-value 0.01, ** p-value 0.05, *p-value 0.10. Fitness test is the F test for the fixed-effect estimations, while it is the Wald test as the random-effects estimations.