Does banks' corporate control benefit firms? Evidence from US banks' control over firms' voting rights

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Abstract

In this paper we examine the importance of banks' corporate control by investigating the loan policy pricing effect of banks' voting stakes on their borrowers. We exploit the fact that banks may hold shares of firms in a fiduciary capacity to identify a clean measure of banks' control over firms. These shares provide no direct cash incentives to banks, but they may give them control over a stake of the firm's voting rights. Using a sample of loans taken out over the 2000-2002 time period, we document the instances where firms borrow from banks that have a trust equity investment in the firm and determine the share of the firm's voting rights that the bank controls as a result. Our investigation of loan interest rates shows that banks charge lower rates on loans to firms in which they have a voting stake, and that the interest rate discount increases with the bank's voting stake. These findings are robust to a number of firm- and loan-specific controls as well as to banks' selection of trust investments. Our investigation into the covenants of loan contracts also shows that banks are less likely to demand collateral and to impose dividend restrictions when they have control over a stake of the borrower's voting rights. These findings, together with the interest rate discount the bank offers when it holds a voting stake in the borrower, support the hypothesis that banks' corporate control over their borrowers is effective at reducing the agency costs of debt.

1 Introduction

Agency theory shows that when a lender holds an equity stake in the borrower, his cash flow rights are important at reducing the agency costs of debt, suggesting that combining lending with shareholding is beneficial to borrowers. As shareholders lenders, however, also have the opportunity to exercise corporate control and the effects of their control on borrowers are far less clear. The theoretical literature, for example, suggests that lenders' corporate control can have mixed effects on borrowers. Identifying the effects of lenders' corporate control empirically, on the other hand, has proven to be difficult because it is hard to separate these effects from those associated with the lender's cash flow rights. We attempt to fill this gap in the literature by investigating the trust investments of US banks in non-financial firms. These investments provide a unique opportunity to study the effects of lenders' corporate control because they give banks control over firms' voting rights without entitling them to *any* cash flow rights. Our paper takes advantage of this distinction and investigates whether the corporate control that banks are able to exercise through their trust investments affect their lending policy.

Jensen and Meckling (1976) and Myers (1977), among others, point out that shareholders have an incentive to appropriate wealth from the firms' debtholders. This incentive derives from the fact that shareholders own the firm's profits when it does well, but they receive nothing when the firm goes bankrupt. Debtholders, in contrast, own the firm's assets when it goes bankrupt, but they receive a fixed payment when the firm does well. Under these circumstances, once shareholders are in the possession of debtholders' investment they have an incentive to increase the risk of the firm, even if that requires them choosing a suboptimal investment.[1]

Debtholders could protect themselves from shareholders' opportunistic behavior by adding provisions to their contracts specifying what shareholders could do once they are in possession of their investments. To offer complete protection these provisions, however, would have to be so detailed and cover so many operating aspects of the firm that the costs of writing and monitoring them would make debt financing prohibitively expensive. Diamond (1984) points out that banks can overcome the free riding problem that arises with the presence of multiple small debtholders and reduce monitoring costs by acting as delegated monitors to investors.[2] Despite this advantage, banks are still likely to charge a premium to account for the cost of borrowers' moral hazard because the loan covenants together with their monitoring

[1] This will happen if the wealth transfer gain they receive from debtholders outweighs the loss they incur in connection with their choice of a lower expected return project.

[2] A downside of concentrating borrowing in a bank pointed out by Sharpe (1990) and Rajan (1992) is that the private information which the bank gains through monitoring allows it to "hold up" the borrower – if the borrower seeks to switch banks, it is pegged as a lemon regardless of its true financial condition.

will not fully protect them from borrowers' ex post opportunistic behavior.

Given that the agency costs of debt arise from the inherent conflict that exists between shareholders' incentives and debtholders', one way to further lower these costs is for firms to borrow from a bank that has an equity stake in them.[3] As a shareholder, the bank is entitled to a share of the firm's profits and consequently becomes less exposed to policies aimed at transferring wealth from debtholders. By holding equal percentages of debt and equity in the firm, the bank could hedge against the wealth transfers of such policies. This strategy, though, will not "solve" the agency problem if the controlling shareholders still have an incentive to engage in risky suboptimal investments.[4] This is where the corporate control the bank can exercise in connection with the voting rights it acquires with its equity investments in borrowers could be valuable.

The effects of banks' corporate control are not as clear as those arising with the cash flow rights the bank earns with its equity stake in the borrower. This in part because the theoretical literature on banks' equity stakes in borrowers has focused on the effects arising from their cash flow rights while the literature on corporate governance has focused on the issues that arise with the separation of control from ownership and the conflicts between small and large shareholders.[5] The corporate control that an equity-owning bank can exercise is likely important because it gives the bank an opportunity to influence the borrower above and beyond its influence as a lender. By forcing the borrower to accept a set of loan covenants and business restrictions the bank defines the conditions under which it can intervene on the firm during the life of the loan. As a lender, the bank also earns the right to intervene when the firm misses payments on its loans.[6] Consequently, as long as the borrower complies with these restrictions and meets its debt payments, the bank can exert no further influence on the basis of its loan agreement.

As a shareholder with a voting stake in the borrower, the bank has an opportunity to influence the firm on a more diverse set of issues, including the management's most important

[3]See, for example, Pozdena (1991), John, John and Saunders (1994), Admati and Pfleider (1994), Holmstrom and Tirole (1997), and Santos (1999).

[4]In this case, an ownership of equal percentages of debt and equity in the firm will still incur a loss due to the suboptimal nature of such investments.

[5]See Santos (1998) for a review of the literature on bank's equity stakes in firms and Shleifer and Vishny (1997) for a review of the literature on corporate governance.

[6]In this case, the bank has the right to grab assets that serve as collateral for its loan, the right to vote in the decision to reorganize the firm, and the right to remove managers in reorganizations. There are limitations on these rights though. Managers, for example, can use the right of automatic stay of the creditors to keep them at bay even after they have defaulted. In addition, repossessing assets in bankruptcy is often difficult (White 1996), and bankruptcy proceedings can take years to complete (Weiss (1990), and Gertner and Scharfstein (1991)).

business and investment proposals, and the election of board members, which in turn have several rights vis-á-vis the management (Manne (1965) and Easterbrook and Fischel (1983)). As a shareholder, the bank is also likely to exert a disproportionately high influence over the firm relative to the share voting rights under its control. The reason is that small and less informed shareholders look to larger institutions for guidance in exercising their voting rights, and banks are usually believed to be well positioned to make these choices.[7] The bank, therefore, could use its influence as a shareholder to limit controlling shareholders' ability to undertake suboptimal investment projects. From this perspective, both the cash flow rights and the voting rights the bank receives as a shareholder in the borrower are valuable channels for reducing the agency costs of debt.

The effects of banks' corporate control, however, may not be entirely positive. For example, those opposed to allowing US banks to make equity investments in firms often argue that banks could use the corporate control provided by their voting rights to "pressure" firms to borrow from them at uncompetitive rates.[8] The firm could threaten to switch banks, but this response could be costly, particularly for bank dependent firms, as the firm would be pegged as a lemon regardless of its true financial condition. From this perspective, the voting rights the bank receives as a shareholder would be detrimental to the borrower.

An empirical study on the effect of a bank's corporate control over its borrowers should determine which of these competing theories holds true in practice. This is not an easy task, however. To start with, it is difficult to disentangle the effects of corporate control from the effects associated with the cash flow rights. For example, a finding that bank loan interest rates are negatively related with a bank's equity stake in the borrower could mean either that cash flow and voting control incentives are both beneficial at reducing the agency costs of debt or that the former incentives dominate the adverse effects of bank control. In addition, it is difficult to define a clean measure of banks' corporate control.

In this paper, we attempt to overcome these difficulties by considering a relatively unexploited, though quite important, source of corporate control for US banks – the voting rights they earn in connection with their trust investments in firms. A unique feature of these investments is that they "unbundle" the control rights from the cash flow rights of the firm's

[7]Körber (1989), for example, finds that only 3% of the shareholders in Germany who deposit their shares with banks give them instructions on how to vote their shares. German law requires banks to inform shareholders of how they intend to vote the stock they deposit with the bank and to accept instructions from shareholders if they wish their shares voted differently.

[8]Morck, Nakamura, and Shivdasani (2000) find a positive relationship between bank ownership and interest costs for Japanese firms that meet regulatory restrictions for issuing public debt, and Weinstein and Yafeh (1998) find that the cost of capital is higher for firms with close ties to banks than for their peers, but none of these studies attempt to isolate the effects of banks' voting stakes in firms.

stock. Berle (1959 pp. 63-64) noted the importance of this feature of trust investments when he wrote:

> "Now this stock certificate, carrying a right to receive certain distributions and to vote, begins to split. Once it is bought by a fiduciary institution $\cdots$ that institution becomes the 'stockholder,' holds legal title to the stock certificate and to its right to vote. But it has by contract dedicated the dividends or other benefits to distribution among [trust] beneficiaries $\cdots$ The one remaining power by which the recipient of corporate profits might have direct relation to corporate ownership has been divided from the benefit itself."

As the quote implies, shares which are held in a fiduciary capacity can be separated into two components: the voting rights, which may be held by the fiduciary manager, and the cash flow rights which accrue to the beneficiaries of the fiduciary arrangement. Since the fiduciary manager is not entitled to the cash flow from these shares, the voting rights fiduciary managers obtain through this mechanism are a "clean" measure of their corporate control in the sense that it is not affected by cash flow rights of the investments.

While historically US lawmakers have prohibited banks from investing in the stock of firms for their own account, the laws they have passed have not prohibited banks from making these investments through their trust business and from voting the stock they hold in trust.[9] As a result, according to Santos and Rumble' (2005) investigation of banks' trust business in 2000, the largest 100 banks in the country control on average 10% of the voting rights of S&P 500 firms. Still according to their study, there are several firms in the S&P 500 index in which the top banks altogether control more than 20% of their voting rights and several firms in the country in which these banks control more than 60% of their voting rights. US banks' trust investments, therefore, are a good place to look for evidence of the effects of banks' corporate control derived from their voting stakes in firms.

Banks trust investments, in fact, provide us with a unique opportunity to identify the effects of their corporate control because even when banks have full discretion to select their trust investments, they do not automatically gain control over the voting rights that come with these investments. Rather, in many cases their trust clients choose to retain the authority to exercise these voting rights. This is quite important to identify the effects of control because it introduces a difference between the bank's equity stake in the firm and its stake in the firm's

[9] US banks are allowed to own equity stakes in firms, but only under a rather limited set of circumstances. See Haubrich and Santos (2003) for the regulations on banking and commerce.

outstanding voting rights. Furthermore, it also gives rise to situations where the bank has a trust equity investment in a given firm but has *no* control over voting rights of that firm.

Of course, the trust business provides only a valuable opportunity to investigate the effects of banks' corporate control to the extent that banks actually use their trust votes to exert influence over firms. Prowse (1990), for example, argues that banks can not use these rights to influence firms because "they [are] required by law to vote them in the interest of the beneficial owners." He further argues that the legal doctrine of equitable subordination makes US banks reluctant to use these voting rights to influence corporations for fear of loosing their credit rights should bankruptcy occur.[10] Roe (1990), in turn, argues that banks' trust business is not an important source of power because it is difficult for them to hold large equity stakes in firms through their trust departments. Soldofsky (1971) is of a different opinion. His concerns with the corporate control banks could exercise through their trust business led him to propose that the banks voting function be moved to an independent organization, e.g., a Stockholders' Voting Council, when the bank has a stake in a corporation that exceeds a certain level.

While it is true that banks that offer trust business do need to meet federal and state trust laws as well as their supervisors' regulations, as we will see in the next section, this regulatory framework leaves banks plenty of discretion both to select their trust investments and to determine how to exercise the voting authority when their trust clients confer on them the voting rights. There is limited information on banks' voting policies as fiduciaries because they usually do not disclose these policies. However, the information available shows that many fiduciaries do not follow the so-called "Wall Street Rule" of voting with management or selling the stock, suggesting that trust voting rights are a source of corporate control. For example, the voting policy of a large manager described by Useem (1993) shows that on many non-routine issues, including restructurings, acquisitions and divestitures, the manager's policy is to vote on a case-by-case basis and thus not necessarily to vote with management. Consistent with this policy, an SEC survey of the trust business of 49 large banks in the late 1960s found that 57% of them voted against management at least once during 1967-1969 time period.[11] More recently, the role played by Deutsche Bank in Hewlett Packard's acquisition of Compaq is also evidence that trust voting rights can be an importance source of corporate control. Deutsche Asset Management's proxy committee initially decided to cast its 17 million proxies on HP's

[10] According to this doctrine, a bank that is actively involved in the management of a client experiencing financial distress could lose its senior status and become liable for losses to other claim holders.

[11] Kotz (1978) for examples of banks' votes against management.

shares against the deal, but it subsequently decided to vote in favor of the acquisition. This switch, according to Walter Hewlett, a dissident director and shareholder of HP, happened because HP management threatened to end its business relationships with Deutsche Bank.[12]

In this paper we build on the unique aspects of banks' trust business to investigate the effect of banks' corporate control in connection with their voting stakes in firms. In particular, we investigate whether there is a significant difference in the interest rates that banks charge on loans to firms in which they have a voting stake. We complement this investigation with an analysis of the effects of banks' voting stakes on the covenants of loans that banks extend to these firms. Our results show that banks charge lower rates on loans to firms in which they have a voting stake, and that the interest rate discount increases with that stake. These findings are robust to a number of loan- and firm-specific controls as well as to banks' selection of trust investments. Our investigation into the covenants of loan contracts shows that banks are less likely to demand collateral and to impose dividend restrictions when they have control over a stake of the borrower's voting rights. These findings, together with the interest rate discount that banks offer when they holds a voting stake in the borrower, support the hypothesis that banks' corporate control reduces the agency costs of debt but not the hypothesis that banks use their control to force firms to borrow at uncompetitive interest rates.

Our paper is related to the literature which attempts to investigate if there is value in stock voting rights. One branch of this literature, including Lease, McConnell, and Mikkelson (1983, 1984), De Angelo and DeAngelo (1985) and Zingales (1995), investigates this issue by comparing the prices of shares with identical dividend rights, but differential voting rights. Another branch of this literature, including Chang and Mayers (1992), Gordon and Pound (1990), Dhillon and Ramirez (1994) and Chaplinsky and Niehaus (1994), looks at stock market reaction to firms' announcement of their Employee Stock Ownership Programs. These plans are usually a source of corporate control to managers because as trustees of the plan they are able to vote the unallocated shares in plan without being entitled to their cash flow rights. Lastly, La Porta et al. (2002) and Claessens et al. (2002) rely on pyramid structures and cross-holdings to identify a measure of control of large shareholders and investigate the impact of the conflict of interest between share and small shareholders on the value of the firm. Like this literature, we too are interested in the "clean" value of stock voting rights. In contrast with these studies, we consider the trust business to determine our measure of corporate control and we focus on the effect of bank corporate control.

[12]See Walter B. Hewlett v. Hewlett-Packard Company, Court of Chancery of Delaware, New Castle.

Our paper is also related to the empirical literature on the effects of banks' equity stakes in firms.[13] This literature, however, uses data from Germany or Japan and investigates the effects of these stakes on such things as firm's accounting interest expenses, leverage, credit availability, performance, and ability to recover from distress.[14] In addition, this literature does not attempt to distinguish the effects of the cash flow rights separately from those of the voting rights emanating from banks' equity stakes. The only exception is Gorton and Schmid's (1998) investigation of the impact of German banks' proxy voting separately from the voting rights of their own equity stakes. They find that the bank's direct equity stakes are positively related to firm performance, but its proxy voting stakes make no difference to firm performance. At a first glance, this result on proxy voting contrasts with our findings on the importance of banks' trust voting rights, but there are several important distinctions between the two studies. Gorton and Schmid focus on firm performance while we consider the interest rates banks charge on their loans, which is a variable more directly under bank control. The proxy business like the trust business places the voting rights of firms' stock under bank control, but German banks that do proxy voting, in contrast to the US banks doing trust business, are required to inform shareholders of their voting plans *and* to follow shareholders' instructions in case they wish to exercise their votes differently. Finally, in Gorton and Schmid's study banks can have both an equity stake of their own and proxy votes in firms. In our study banks only have voting stakes in firms; which makes it easier to identify the effects of the bank's voting rights from those of its cash flow rights.

The remainder of the paper is organized as follows. The next section presents a brief overview of the importance of the trust business for US banks. Section 3 presents the method and data we use to investigate the effects of bans' corporate control on their loan pricing policy. This section also presents a characterization of our sample. Section 4 discusses our results on the effect of bank corporate control on loan interest rates. Section 5 investigates the effects of bank corporate control on other components of bank loan contracts. Section 6 concludes with some final remarks and suggestions for future research.

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[13] See Cable (1985), Sheard (1989), Prowse (1990), Hoshi, Kashyap and Scharfstein (1990, 1991), Flath (1993), James (1995), Chirinko and Elston (1996), Wenger and Kaserer (1997), Gorton and Schmid (1998) and Weinstein and Yafeh (1999?), Morck, Nakamura, and Shivdasani (2000).

[14] An exception is James' (1985) investigation of the equity stakes that US banks take in satisfaction of loans previously contracted.

2 American banks' control of firms' voting rights

The most common way to gain control over a firm's voting rights is to purchase its stock. Traditionally, US law has not allowed banks to invest in firms' stock for their own account. Nonetheless, US banks have been allowed to offer trust business and to vote the stock they hold through this business.[15] This is because regulators and the courts have recognized trust activities as traditional banking services. Bank trust services range from simple services such as the provision of depository accounts, to complex services such as the selection of investments and the exercise of the voting rights of the stock held in trust.[16]

Banks are required to select trust investments within the confinements of the federal and state law and their supervisor's regulations. Despite this regulatory framework, banks are still left with significant discretion in the choice of their trust investments. Federal law generally defers to state trust law and does not substantively regulate bank trust investments. An exception is the 1974 Employee Retirement Income Security Act (ERISA), which regulates the terms and administration of employee benefit plans. ERISA imposes affirmative duties on fiduciaries (loyalty, prudence and diversification) for which *no* exemption can be made, but these duties are quite broad.[17] As for the State trust law, as expected it varies across states, but all states recognize the duty of loyalty which requires trustees to act solely in the interest of account and plan beneficiaries, unless they are authorized by the terms of the trust instrument, court order, or local law to do otherwise. Banks also need to observe the duty of care which requires them to follow the "prudent investor rule" and for which no exemption can be made. This rule, however, is also quite general. According to this rule, investments must be part of an overall investment strategy which pursues risk diversification, and no investment is imprudent it per se. Finally, in choosing trust investments banks need to account for the terms of the trust instrument. Some trust settlors or pension-plan sponsors choose to retain investment discretion

[15] Federal and state laws provide for some limited exceptions to that prohibitions. Banks, for example, may acquire shares in satisfaction of "debt previously contracted." Bank holding companies may acquire voting securities of a firm that represent five percent or less of the firm's voting shares. See Haubrich and Santos (2003a) for a detailed discussion of these exceptions.

[16] See PricewaterhouseCoopers (1999) and Krikorian (1995) for reviews of the trust law.

[17] ERISA requires collective funds made of pension plans to be diversified and it allows deviations from diversification only if "clearly prudent not to minimize the risk of large losses". These restrictions are relevant for banks because they are often designated as trustees of plans, and are therefore deemed fiduciaries under ERISA.

for themselves. Others, however, choose to give the trustee full investment discretion.

The trust business gives banks the opportunity to vote the stock of firms they hold in trust. Banks have full discretionary voting power over shares acquired for their collective investment funds. When they act as investment managers for assets not placed in these funds they are also often granted authority to vote the shares acquired with these assets. As with the investment discretion, banks need to exercise their voting authority within the confinements of the federal and state trust laws, and the terms of the trust instrument.

The only specific reference to voting in the federal trust law appears in provisions that prevent a national bank as a trustee from voting its own stock. Additionally, the Department of Labor stated in the Avon letter with regards to ERISA plans that "voting rights" are plan assets and therefore must be exercised. State law varies across states, but in general it empowers banks to vote trust shares without mandating them to do so. Examples of states with such laws are Massachusetts, Delaware and New York. As for the trust instrument, it usually confers the power to vote shares through standardized "boiler plate" language. The voting clause in trust agreements and other pension plan or agency documents often reads as follows: "The Trustee shall have power in its discretion to exercise all voting rights with respect to any investment held in Trust Fund".[18] Also, when a plan sponsor delegates voting authority, it cannot take back the right to vote on issues that are of particular concern. On the other hand, as a general policy investment managers may not decline to vote proxies or vote only non-controversial proxies.[19]

In sum, the trust business gives American banks a unique opportunity to vote the stock of firms even though US law does not allow them to make equity investments in these firms for their own account. Federal and state trust law impose limits on how banks can exercise this voting power, but it still leaves banks plenty of discretion to decide on how to exercise these voting rights when their trust clients confer on them the voting power associated with their trust investments. State trust law empowers banks to vote trust shares but it does not require them to exercise the voting rights under their control. However, with regards to ERISA plans the Department of Labor has stated in the Avon letter that "voting rights" are plan assets

[18]See Krikorian (1995) for further examples.

[19]They may also not be able to avoid their voting responsibilities by seeking guidance from plan participants. As the Department of Labor noted in the Monks letter, in connection with Bank of America's attempt to pass a decision on a tender offer through to the firm plan participants, banks may run into problems if they seek guidance from plan participants in the case of non-ESOP plans for which pass through voting is not mandated.

and therefore must be exercised.

Do banks use their trust voting rights to exert corporate influence or do they follow, instead, the so-called "Wall Street Rule" of voting with management or selling the stock? The adoption of this rule particularly for large banks is problematic. A large selling program, even if spread out over time, will gradually depress the price of the stock, placing the manager in the troublesome position of benefiting the accounts whose shares he sells first to the detriment of the accounts whose shares go on the market later. The Department of Labor, in addition, has advised fiduciaries for ERISA plans not to follow blindly the "Wall Street Rule" and to vote instead plan proxies in the best interests of plan beneficiaries. As we noted in the introduction, there is limited information on the way they cast their trust votes. However, both the information showing that fiduciaries often vote against management proposals and the recent events surrounding Deutsch Bank involvement in Hewlett-Packard acquisition of Compact suggest that the trust voting rights are a potentially important source of corporate control for banks. In what follows, we study the interest rates that banks charge on their loans to firms in which they hold a voting stake in order to determine if banks use these voting rights to control the risk-taking incentives of their borrowers or, alternatively, to force them to borrow at uncompetitive rates.

3 Method, data and sample characterization

3.1 Method

In order to ascertain if firms benefit with banks' corporate control, we investigate the effect that a bank's voting stake on a firm has on the interest rate that the bank charges on loans to this firm, controlling for various features of both the borrower, the loan, and the bank that are likely to affect loan interest rates. Specifically, we estimate the following model of loan credit spreads:

$$LOANSPREAD = c + \alpha\, LVOTSTAKE + \beta_i \sum_{i=1}^{I} X_i + \gamma_j \sum_{j=1}^{J} Y_j + \zeta_g \sum_{g=1}^{G} Z_g + \epsilon, \qquad (1)$$

where $LOANSPREAD$ is the loan's spread over Libor at issue date; this is a standard measure of loan pricing. $LVOTSTAKE$ is the log of 1 plus the bank's voting stake on the borrower measured at the end of the year prior to the loan. This is our main variable of interest. We

estimate the importance of this variable controlling for a number of firm-specific variables, X_i, loan-specific variables, Y_j, and bank-specific variables Z_g.

We begin by discussing the firm-specific variables that we use, since these are more likely to be exogenous to the loan rate that is set. Several of these variables are proxies for the risk of the firm. $LAGE$ is the log of the firm's age in years. To compute the firm's age we proxy the firm's year of birth by the year of its equity IPO. Older firms are typically better established and less risky, so we expect this variable to have a negative effect on the loan spread. $LSALES$ is the log of the firm's real sales in hundreds of millions of 1980 dollars, computed with the CPI deflator. Larger firms are usually better diversified across customers, suppliers, and regions, so again we expect this to have a negative effect on the loan spread.

We also include variables that proxy for the risk of the firm's debt rather than the risk of the overall business. $PROFMARGIN$ is the firm's profit margin (net income divided by sales). More profitable firms have a greater cushion for servicing debt and so should pay lower spreads on their loans. A more direct measure of the ability to service debt is the interest coverage, which we measure by $LINTCOVERAGE$, – the log of 1 plus the interest coverage ratio (EBITDA divided by interest expense) truncated at 0.[20] Again, a higher interest coverage ratio should make the firm's debt less risky. We account for the firm's probability of bankruptcy by controlling for its leverage, $LEVERAGE$, (debt over total assets), and earnings risk, $EARNVOL$, which we measure by the standard deviation of the firm's quarterly return on assets (net income divided by assets) over the last three years. Higher leverage as well as higher earnings volatility suggest a greater chance of default, so both of these variables should have a positive effect on loan spreads.

Another aspect of credit risk is losses to debt holders in the event of default. To capture this, we include several variables that measure the size and quality of the asset base that debt holders can draw on in default. $TANGIBLES$ is the firm's tangible assets – inventories plus plant, property, and equipment – as a fraction of total assets. Tangible assets lose less of their value in default than do intangible assets such as brand equity, so we expect this variable to have a negative effect on spreads. $ADVERTISING$ is the firm's advertising expense divided by sales; this proxies for the firm's brand equity, which is intangible, so we expect this to have a positive effect on spreads.[21] $R\&D$ is the firm's research and development expense divided by

[20] For firms with no interest expense this variable is set equal to the log of 1 plus earnings before taxes and depreciation.

[21] Firms are required to report expenses with advertising only when they exceed a certain value. For this reason,

sales; this proxies for intellectual capital, which is intangible, and so we also expect this to have a positive effect on spreads. $NWCDEBT$ is the firm's net working capital (current assets less current liabilities) divided by total debt; this measures the liquid asset base, which is less likely to lose value in default, so we expect this to have a negative effect on spreads.[22] $MKTBOOK$ is the firm's market to book ratio, which proxies for the value the firm is expected to gain by future growth. Although growth opportunities are vulnerable to financial distress, we already have controls for the tangibility of book value assets. Thus, this variable could have a negative effect on spreads if it represents additional value (over and above book value) that debt holders can in part access in the event of default.

Following Santos and Winton's (2005) finding that access to the public bond market alleviates the hold-up costs of bank dependency, we control for firms with access to this market by including the dummy variable $BONDACCESS$ which equals one if the firm's most recent bond issue prior to the loan was a public issue and zero otherwise. We also control for the time that elapsed since the firm's most recent public bond issue by considering $LTIMRPBOND$, which measures the log of the number of months since the firm last issued a public bond. The longer since the bond issue, the less current is information produced at the time of the issue, and so the greater the information advantage of inside banks over outside lenders. Thus, we expect this variable to have a positive effect on spreads.

Lastly, we account for the firm's sector of activity by including dummy variables for single digit SIC industry groups. A given industry may face additional risk factors that are not captured by our firm-specific variables, so this allows us to capture such risk at a very broad level.

We now turn our attention to the loan-specific variables Y_j, that we use in our model. Because the purpose of the loan is likely to impact its credit spread, we include dummy variables for loans taken out for corporate purposes, $CORPURPOSES$, to repay existing debt, $REFINANCE$, to finance takeovers, $TAKEOVER$, and for working capital purposes, $WORKCAPITAL$. Similarly, we include dummy variables to account for the type of the loan. Specifically, we include a dummy variable for lines of credit, $CREDITLINE$, a dummy vari-

this variable is often missing in Compustat. The same is true of expenses with research and development. In either case, when the variable is missing we set it equal to zero. In the Robustness Checks section we discuss what happens when we drop these variables from our models.

[22]For firms with no debt, this variable is set equal to the difference between current assets and current liabilities.

able for term loans, $TERMLOAN$, and a dummy variable for bridge loans, $BRIDGELOAN$.

Our next set of loan controls is likely to be jointly determined with the loan rate. This can create a problem if both the feature and the loan spread are affected by an unobservable factor. For this reason, we first estimate our model with the previous set of controls and then investigate what happens when we add the following additional loan-specific controls. We include dummy variables equal to one if the loan has restrictions on paying dividends ($DIVRESTRICT$), is senior ($SENIOR$), is secured ($SECURED$), has a sponsor ($SPONSOR$), and a guarantor ($GUARANTOR$). All else equal, any of these features should make the loan safer. It is well known, however, that lenders are more likely to require these features if they think the firm is riskier (see for example Berger and Udell (1990)), so we may find spreads to be positively related to these variables. We control for loan's maturity ($LMATURITY$ is the log of maturity in years) and for the size of the loan ($LLOANAMT$ is the log of loan amount in hundreds of millions of 1980 dollars). Loans with longer maturities may face greater credit risk, but they are more likely to be granted to firms that are thought to be more creditworthy; so the effect of maturity on spread is ambiguous. As for the size of the loan, larger loans may represent more credit risk, raising the loan rate, but they may also allow economies of scale in processing and monitoring the loan; again, the sign of this variable's effect on loan spreads is ambiguous. Given that not all of the loans in the sample are syndicated, we include a dummy variable $SYNDICATED$, to distinguish the loans that are syndicated and control for the size of the syndicate by including the log of the number of lenders in the syndicate, $LLENDERS$. These variables tend to be correlated with the size of the loan and so we expect them to have the same sign of $LLOANAMT$.

Our last set of controls, Z_g, are about the lead bank(s) in the loan syndicate. We control for the bank's lending relationship with the borrower by including the dummy variable $LRELATIONSHIP$ which takes the value 1 if the firm borrowed from it at least once over the 12-month period prior to the current loan.[23] Lending relationships may save on monitoring costs but they also give banks opportunities to hold up firms, particularly if they are dependent on bank funding.[24] For this reason, we also include in our model the interaction of

[23] In the Robustness Checks section we investigate what happens when we consider instead a three-year period to define the firm's lending relationships.

[24] This may explain why researchers find mixed effects on the benefits of lending relationships on the cost of bank funding. Berger and Udell (1995) find that long-term relationship lowers funding costs. Petersen and Rajan (1994), Elsas and Krahnen (1998) and Harhoff and Krting (1998a) in turn do not find that these relationships

our relationship variable with our control of firm access to the bond market $BONDACCESS$. Following Hubbard, Kuttner and Palia's (2002) finding that the cost of borrowing varies with the liquidity and capitalization of the lending bank, we control for the identity of the lender by adding individual dummy variables for each of the top-10 bank lenders in our sample. We do not include dummy variables for all of the banks because the top-10 lenders together account for almost 70% of the 4,194 loans in our sample.

In addition to the controls we describe above, in the Robustness Checks section we investigate if our results are robust to the inclusion of several other controls including: (a) the volatility of the firm's stock ($STOCKVOL$) (b) the level of $LIBOR$, which is the interest rate over which we compute our loan spreads, and (c) dummy variables that identify if the borrower belongs to two well-known groups: the S&P 500 Index ($S\&P500$) and the New York Stock Exchange ($NYSE$). In this section, we also investigate if our results continue to hold when we account for the potential corporate control of other important shareholders. To this end, we add to our model of loan pricing the log of 1 plus the voting stakes of insiders ($LINSIDVOTSTAKE$), institutional investors ($LINSTIVOTSTAKE$), and 5% owners ($L5VOTSTAKE$) respectively. We further investigate if our results are dependent on the type of loans out of concerns that different types have different pricing policies. We, therefore, reestimate our model of loan spreads on a subsample consisting only of credit lines, which are the most numerous (70%) loan type in our sample. In addition, given that loans to a firm in the LPC database (facilities) are part of a deal package they can have common features and, consequently, not be independent from each other. For this reason, we randomly select one loan per bank in each deal and reestimate our model on the new sample made of these loans and those that are part of deals with a single facility. This reduces our sample form 4,194 loans to 2,993 loans (and 3,533 loan-observations)

Finally, the method we presented thus far implicitly assumes that banks' voting stakes in firms are exogenous. Indeed, as we indicated before whether or not a bank has authority to vote its trust investments is a decision of its trust clients *not* of the bank itself. Trust clients, however, often grant banks voting authority. Also, banks have full authority to vote the shares they hold in their collective investment funds. Under these conditions, a finding that banks charge lower interest rates to borrowers in which they control a voting stake could simply reflect banks' trust investment choices; banks, for example, could choose to invest in

reduce funding costs, and Degryse and Van Cayseele (2000) and D'Auria, Foglia and Reedtz (1999) even find that they increase funding costs.

better performing and less risky firms using some criteria and information that is not reflected in our controls.

We use the fact that some trust clients choose to keep the voting authority for themselves to define our controls for banks' trust investments. This unique aspect of the trust business is important because it implies that not all trust investments give banks control over firms' voting rights. We define two alternative controls. The first control is the dummy variable $EINVESTMENT$, which takes the value 1 for all the firms in which the bank has an equity investment through its trust business. If the bank's selection of trust investments is important for the pricing of its loans, then this variable should have a negative effect on loan interest rates and its inclusion in our model should affect $LVOTSTAKE$. Our alternative and more powerful control builds on those borrowers in our sample for which banks have trust equity investments but did not get *any* voting rights as a result. We compute the log of 1 plus the bank's equity stake, $LNOVOTE$, for these borrowers. If what is important for the bank's loan pricing policy is the selection of trust investments and not the influence the bank can exercise over the borrower as a result of its voting stake, then we should observe $LNOVOTE$ to be statistically significant and to have the same sign as $LVOTSTAKE$.

3.2 Data

The data for this project come several sources including the Loan Pricing Corporation's Dealscan database (LPC), Compustat, SEC's 13f forms, the Securities Data Corporation's Domestic New Bond Issuances database (SDC), and the Center for Research on Securities Prices's stock prices database (CRSP).

We use LPC's Dealscan database to gather information on firms' bank loans. This database contains mainly information on syndicated loans, but it also reports information on some non-syndicated loans.[25] We also use this database to obtain information on individual loans, including its spread over Libor, maturity, seniority status, purpose and type, and on the loan syndicate, including the identity and role of the banks in the syndicate.

We use Compustat to get information on firms' balance sheets. Even though LPC contains loans from both private firms and publicly listed firms, given that Compustat is dominated by the latter we have to exclude from our sample the loans borrowed by privately held firms. This does not constitute a problem for our study because banks make their trust

[25] See Dennis and Mullineaux (2000) for an extensive description of this database.

investments only on publicly listed firms.

We rely on SDC's Domestic New Bond Issuances database to identify those firms in our sample that issued public bonds prior to borrowing in the syndicated loan market. We use the CRSP database to link companies and subsidiaries that are part of the same firm, and to link companies over time that went through mergers, acquisitions or name changes.[26] We then use these links to merge the LPC-SDC-Compustat databases in order to find out the financial condition of the firm at the time it borrowed from banks and if by that date the firm had already issued public bonds.

Finally, we rely on the 13f forms that institutional investment managers are required to file with SEC to obtain information on the voting rights of borrowing firms in our sample that are under bank control. In 1975, US Congress passed Section 13(f) of the Securities Exchange Act of 1934 requiring all institutional investment managers exercising investment discretion over $100 million or more invested in 13f securities to file form 13f with the SEC.[27] These forms contain detailed information on the portfolio of securities that managers have investment discretion over. This information includes the extent of managers' investment discretion as well as the extent of their voting authority. Regarding the investment discretion, the manager reports the number of shares over which he has sole, shared-defined or shared-other discretion.[28] With respect to voting authority, the manager reports the number of shares over which he has sole, shared or no voting authority.[29] For the purpose of this paper, we define

[26]The CRSP data was first used to obtain CUSIPs for the companies in LPC where this information was missing through a name-matching procedure. With a CUSIP, LPC could then be linked to both SDC and Compustat, which are CUSIP based datasets. We proceed by using the PERMCO variable from CRSP to group companies across CUSIPs, since that variable tracks the same company across CUSIPs and ticker changes. We adopted a conservative criteria to solve the cases of multiple "cross-links" between companies we encountered and dropped the companies that could not be reasonably linked.

[27]Investments in which managers have *no* investment discretion are not reported in 13f forms. Managers, in addition, may not report holdings otherwise reportable if they have fewer than 10,000 shares or are worth less than $200,000. Section 13(f) securities include exchange-traded or NASDAQ-quoted stocks, equity options and warrants, shares of closed-end investment companies, and certain convertible debt securities. It does not include shares of open-end investment companies, i.e., mutual funds.

[28]A manager has sole discretion when the trust instrument gives him full authority to choose which securities to buy for the trust account. He has shared-defined discretion when he shares this authority with controlling or controlled companies (such as BHCs or their subsidiaries). He has shared-other discretion when he shares that authority in any other manner.

[29]According to the 13f form instructions, a manager exercising sole voting authority over specified "routine"

investments with voting authority to be the sum of investments over which the bank has sole or shared voting authority.

3.3 Sample characterization

Our sample is made of bank loans taken out by firms during the 2000-2002 time period. We do not consider loans prior to 2000 because investment managers started to file their 13f forms electronically only at the end of 1999. After we limit to loans taken out by nonfinancial firms that are in Compustat (our source for firm accounting data) and delete the loans for which we do not have all the necessary information we are left with 4,194 loans. Once we account for the lead arrangers in these syndicates, given that some loans have more than one lead arranger, we end up with 5,069 loan observations.[30] Of these, 2,431 observations are associated with loans extended by banks that have a voting stake in the borrowing firm.

To gather information on these voting stakes we first searched the 13f fillings of the lead arranger(s) to find out if the bank had a trust investment in the borrower at the end of the year prior to its loan to that firm, and to determine the voting rights of the borrower under bank control at the time.[31] Prior to computing banks' voting stakes in borrowers we searched the proxies of these firms to find out if they had dual classes of voting stock outstanding, and to gather data on the number of shares and the number of votes per share of each class. This information is important not only to compute the total number of outstanding voting rights for these firms, but also because banks may hold and vote both classes of these companies'

matters and no authority over "non-routine" matters has no voting authority. In contrast, a manager sharing voting authority in a manner which would call for a response in the investment category of "shared-defined", should report sole authority.

[30] Of the 4,194 loans, 3,327 were extended by a loan syndicate with one lead arranger, 860 were extended by a syndicate with two lead arrangers, 6 were extended by a syndicate with 3 lead arrangers, and finally one of the loans was extended by a syndicate with 4 lead arrangers.

[31] In doing this, we took into account that filers of 13f forms file either a "13F HOLDINGS REPORT" when they include in the report all of the securities with respect to which they have investment discretion or a "13F COMBINATION REPORT" when part of the securities with respect to which they have investment discretion is reported by other managers. In this case, they include a listing of these managers. We use this information to aggregate the holdings for all the managers in the BHC in order to have consistent data for all BHCs. Unless otherwise noted, in the rest of the paper, even though we use interchangeably the words banks and BHCs, our data refers to BHCs because we aggregated the trust business of all subsidiaries in each BHC.

stock.[32] We identify 47 firms in which banks have a voting stake on dual classes of common stock outstanding. The number of votes per share of the dual class of common stock that banks hold in these corporations varies from 0.0375 to 20.

For the borrowers in our sample in which the lead arranger(s) has a trust investment, on average this investment gives that bank control over 0.35% of the borrower's voting rights. There are nonetheless 187 loan observations in our sample where the bank controls more that 1% of the borrower's voting rights and 7 observations where the bank controls more than 5% of the borrower's voting rights (see Figure 1). These voting stakes may appear to be small, but as we noted above the events that surrounded Hewlett Packard's acquisition of Compaq shows that banks do not need to control a large voting stake to exercise a great deal of influence over the corporation. Recall that Deutsche Bank's voting stake in Hewlett Packard was only 0.88%.

Table 1 characterizes our sample of borrowers, distinguishing between those that borrowed from a bank that had a voting stake in them from those that borrowed from banks with no control over their voting rights. The first thing worth noting is that the former firms are able to borrower at significantly lower interest rates. On average these firms pay 149 bps on their loans while firms that borrow from banks with no control over their voting rights pay 261 bps on their loans.

Part of the difference on these interest rates is certainly attributable to the different creditworthiness of these two sets of firms. As Table 1 shows, on average the former firms are older and larger – they have higher sales, take out larger loans, borrow from larger loan syndicates and their loans are more often syndicated. These firms are not more profitable but on average they are less risky – they have lower leverage, and lower earnings and stock volatilities. In addition, they have a higher working capital over debt ratio, more tangible assets and growth opportunities. As further evidence of their lower risk note that these firms are less often required to pledge collateral, and to have a guarantor and a sponsor when they take out a loan. They are also less subject to dividend restrictions when they borrow from banks. Lastly, firms in which banks control a voting stake on average have more tangible assets and more growth opportunities, and they are more likely to have access to the public bond market.

We next investigate if these differences alone explain the lower interest rates that these firms pay on their loans or whether the bank's voting stake in the borrower also helps explain

[32]Note that banks do not report in the 13f form the number of votes they control in each firm, but instead the number of shares of a particular security for which they have voting power.

why these firms are able to take out loans at a lower interest rate.

4 Effect of banks' corporate control on loan spreads

In order to investigate if a bank's voting stake in a borrowing firm affects the interest rate the bank charges on the loans it extends this firm we estimate the model of loan credit spreads we presented above. As we will see below, our findings strongly support the hypothesis that banks charge lower interest rates on the loans that they extend to firms in which they have a voting stake. Importantly, our findings also show that the larger the bank's voting stake in the firm the larger is the interest rate discount it offers the firm.

Table 2 presents the first set of results of our multivariate analysis of loan credit spreads. We start this table with a model that investigates the relationship between the loan spread and $LVOTSTAKE$, the log of 1 plus the bank's voting stake in the borrowing firm, without accounting for any controls. As the results of model 1 indicate, ceteris paribus, banks do charge lower interest rates on loans to firms in which they have control over a voting stake.

Model 2 adds to model 1 the firm-specific controls derived from Compustat. Although having a voting stake in the borrowing firm continues to reduce spreads significantly, the magnitude of the discount is much smaller now: the coefficient on $LVOTSTAKE$ is now only minus 47 basis points, versus minus 128 in Model 1. This suggests that much of the coefficient in Model 1 is due to differences in risk between firms in which the lender has a voting stake and those in this the lender has no voting stake.

The coefficients for the control variables are generally consistent with the discussion given in the Methodology section. Older and larger firms, as well as firms with more tangible assets pay significantly lower spreads. The variables proxying for intangible assets have mixed effects: R&D expenses have the expected sign but have an insignificant effect, in contrast advertising expenses have a significant negative affect on loan spreads which is contrary to our expectation. The market to book ratio comes in strongly negative, which is consistent with our expectation. The proxies for default risk – profit margin, interest coverage, working capital/debt, leverage, and earnings volatility – all but the working capital have their expected signs, and all but profit margin are strongly significant. The statistical insignificance of profit margin is likely due to the inclusion of interest coverage in our model.

In model 3, we augment the firm-level controls with the loan-specific controls that are likely to be exogenous, namely the purpose of the loan and the type of the loan. In model

4, we further expand this model to consider the loan-specific characteristics that are possibly endogenous. The basic thrust of the results is unchanged with the new controls. Banks charge lower interest rates on loans to firms in which they have control over a voting stake, and the larger the voting stake in the borrower the bigger the interest rate discount the bank offers the borrower.

In contrast to the purpose of the loan, which appears to play only a limited role on the loan interest rate, the type of the loan contract seems to be important in this regard. Credit lines, for example, carry lower interest rates than term loans and bridge loans. Regarding the other loan controls they show that larger loans and loans extended by larger syndicates have lower spreads. (once we account for these controls, whether or not the loan is syndicated does not appear to affect the interest rate). This finding could reflect economies of scale in loan size, but it may also reflect the fact that larger (hence safer) firms have larger loans, which is consistent with the decrease in the coefficient on the log of firm sales when we account for the size of the loan.

With the exception of seniority, loan features that aim to increase loan safety (dividend restrictions, secured interests, guarantors, and sponsors) generally have positive effects on spreads. This is consistent with the well-established result that banks tend to require these features for riskier credits. Conversely, longer-term loans have lower spreads, but the effect is not statistically significant. As noted above, many of these loan features are likely endogenous, that is, lenders set them in tandem with the spread.

Lastly, in model 5 we control for the identify of the lender by including individual bank dummy variables for the top lenders in the sample. The results of model 5 suggest that lending policies indeed vary across banks. Some of the bank dummy variables are statistically significant. Their inclusion in the model reduces the coefficient on $LVOTE$ but by only 3 bps (from 21 bps to 18 bps). Importantly, this variable continues to be highly statistically significant. As for the remaining controls, their effect on loan spreads in general remains the same.

In sum, the evidence from this set of tests on the determinants of loan credit spreads shows that banks charge lower interest rates on their loans to firms in which they control a voting stake. This result is robust to a large set of firm characteristics and loan features that also affect loan spreads as well as bank dummy variables to control for other differences between bank lending policies. We next investigate the robustness of this link. to two factors that the literature finds to play an important role on loan interest rates, namely whether the

borrower has access to the public bond market and whether it has a relationship with bank.

4.1 Controlling for firms' access to bond markets and lending relationships

Table 3 reports the results for our model of loan spreads when we control for firms' access to the public bond market and their lending relationships with banks. A quick look at this table reveals that our finding on the effect of banks' voting stakes on their loan interest rates continues to hold when we account for these additional determinants of loans spreads.

Model 1 shows what happens when we control for firms' access to the public bond market. Consistent with the findings of Santos and Winton (2005) our results show that firms with access to this funding source pay lower spreads on their loans. According to our results, firms with access to the public bond market pay on average less 57 bps on their bank loans. Note, however, that this benefit declines with the time that has elapsed since the firm issued its last public bond as the coefficient on $LTMRPBOND$ (the log of one plus the number of days between that bond issue and the date of the loan) is positive and significant.

Model 2 in turn shows what happens when we account for firms' lending relationships with banks. Firms that borrow from the same bank that they have borrowed at least once in the last year ($LRELATIONSHIP$ equals 1) pay on average lower spreads on their loans but the difference is not statistically significant. This finding is not entirely surprising as the literature on bank lending relationships finds mixed results on the effect of these relationships on loan interest rates. While relationships may lower monitoring costs and consequently give banks an opportunity to charge lower interest rates on their loans, they also amplify the asymmetry of information between the incumbent bank and its competitors, giving the former bank and opportunity to charge higher rates. Of course if firms have access to alternative funding sources or if they can disseminate information about them in a credible way, for example by issuing in the public bond market, this will make it more difficult for relationship banks to exploit informational rents.

We test this hypothesis in Model 3 by adding the interaction of our bond market access dummy variable with our bank relationship dummy variable ($BONDACCESSxLRELATIONSHIP$). Note that effectively this new variable is negative and significant suggesting that for firms with access to the public bond market maintaining a relationship with a bank is advantageous as it reduces the spread on their loans on average by 18 bps. This result continues to hold when we expand our model to account for the loan controls (model 4) and to account for potential differences in the lending policies of each of the top-10 banks in the syndicated loan market

(model 5). More importantly, our main variable of interest, $LVOTSTAKE$, the bank's voting stake on the borrower, continues to be statistically significant when we account for these additional determinants of loan spreads. Moreover, the coefficient on this variable continues to be economically meaningful.

4.2 Controlling for banks' trust investments

Our finding showing that banks charge lower interest rates on loans to firms in which they control a stake of the firm's outstanding voting rights is consistent with the hypothesis that the bank is willing to lend at a lower rate because it can use the voting power under its control to limit the borrower's moral hazard. An alternative explanation for this relationship, however, is that the bank chooses to invest its trust funds in safer and better performing firms according to its "own" evaluation and that our voting variable is picking up this effect.

As we note in our methodology section, we attempt to disentangle these two effects through two alternative tests. Both tests build on a unique feature of the trust business: the fact that banks sometimes make investments in firms but they do not get the corresponding voting rights because the trust client opts for retaining this authority. In the first test we add to our models the dummy variable $EINVESTMENT$ which takes the value one if the bank has an equity investment through its trust business in the borrowing firm. If the investment-selection hypothesis is the reason we find the negative relationship between the bank's voting stake in the borrower and the interest rate it charges the borrower, then our new control should be negative and its inclusion in the regression should affect the significance of $LVOTSTAKE$.

The results of this test are presented in models 1 through 3 of Table 4. Model 1 controls for firm characteristics and the set of loan features that are not likely to be endogenous – the loan purpose and the type of the loan. Model 2 extends this model by adding our remaining loan controls. Model 3, in turn, expands model 2 by adding our set of individual bank dummy variables for the largest lenders in the syndicated loan market. Looking at these three models, there are two things worth noting. First, indeed, our new control is negative and highly significant, suggesting that banks do charge a lower interest rates on the loans that they extend to firms in which they have trust equity investments, irrespective of the voting authority they gain in connection with these investments. Second, even after we control for banks' trust investments our variable that measures the banks' voting power over the borrowing firm continues to be both highly statistically significant and economically meaningful, suggesting that the influence that comes with these voting rights does play a role on the interest rate at

which the bank is willing to lend.

We now turn our attention to the second test. More often then not, banks have in each company both trust investments that given them voting rights and investments that do not give them voting authority. However, we also have in our sample firms in which banks made trust investments but they gained *no* voting authority as a result. The presence of loans to these firms in our sample give us the opportunity to design a quite powerful test on the effect that banks' voting rights in borrowers may have on the interest rates that banks charge on loans to these firms. If indeed banks' voting authority does not count for their loan pricing policy but what matters is the selection criteria banks use to make their trust investments, then banks' equity stakes in the borrowers in which they do not have any voting rights should have a similar effect on their lending policies as the voting stakes they control in the other companies. To test this hypothesis we add to our models $LNOVOTSTAKE$ – the log of one plus the bank's equity stake in firms in which the bank has a trust equity investment but no voting authority as a result. The results of this test are reported as models 4 through 6 of Table 4. As with the previous test, we first consider the model where we account for the exogenous controls (model 4), and then expand this model to account for other determinants of loan spreads that are potentially endogenous (model 5). Finally, we add individual dummy variables for the top-10 lenders in the syndicated loan market (model 6).

Note the striking difference between the variables $LVOTSTAKE$ and $LNOVOTSTAKE$. The former variable continues to be highly statistically significant, but the latter does not even come close to being significant. Moreover, the test that the coefficients on the two variables are equal is rejected for all of the usual levels of significance. The difference between these variables in our models of loan pricing is, we would argue, compelling evidence that a reason why banks charge lower interest rates on their loans to borrowers in which they have a voting stake is because of the influence that comes with this voting stake and not because of the bank's selection criteria for its trust investments.

4.3 Controlling for firms' important shareholders

Thus far we have implicitly assumed that the bank's ability to exercise corporate control in connection with its voting stake in a firm is independent from the ownership structure of the firm. All of the firms in our sample are publicly listed and, therefore, have a substantial portion of their capital held by a large number of investors. Despite that, the concentration of shareholders will still likely vary significantly across firms, potentially affecting the bank's

ability to exercise influence in connection with its voting rights across firms. The bank's ability to exercise influence is also likely to vary across firms because of differences across firms in connection with such things as the voting stake of their insiders, or the presence of large investors or other potentially active investors among their shareholders.

To investigate the robustness of our main finding on the interest rate effect of banks' voting stakes in borrowers, we expand our model of loan interest rates to control for some of these differences in the ownership structure of firms. We focus on the differences arising from three issues: the voting stake of the firm's insiders, the voting stake of institutional investors, and finally the voting rights under control of qualified investors, that is, investors with an equity stake equal or larger than 5%.

The results of these robustness tests are reported in Table 5. In each test, we reestimate models 3 and 6 of Table 4 after we add the new controls. Recall that in these models we control for the bank's voting stake in the borrower; but model 3 in addition accounts for banks' trust investments irrespective of whether these give banks control over the firm's voting rights, and model 4 in addition accounts for the banks' trust equity stakes in borrowers that do not give the bank voting rights. These models also include both firm- and loan-specific controls, as well as individual bank dummy variables for the top-10 lenders in the syndicated loan market, but for brevity we do not report in Table 5 the coefficients of the loan-specific and bank-dummy variables.

A quick look at Table 5, in particular its first raw, shows that adding the new controls to our models does not affect our main finding that banks charge lower interest rates on their loans to borrowers in which they have a voting stake. As for the new controls, none of them has a statistically significant impact on loan interest rates. Interestingly, large voting stakes held by institutional investors and qualified investors are associated with a reduction in the interest rate the firm pays on its loans. In contrast, a large voting stake of insiders is associated with an increase in interest rate the firm pays on its loans, possibly reflecting a higher incidence of moral hazard problems in these firms.

4.4 Additional robustness checks

Table 6 presents the results of several additional tests we perform to evaluate the robustness of our main finding that banks charge lower interest rates when they lend to firms in which they have a voting stake. As in the previous section, in all tests we use models 3 and 6 of Table 4, that is, the models that also account for banks' trust investments irrespective of

whether these give banks control over the firm's voting rights (model 3) while and the banks' trust equity stakes in borrowers that do not give the bank voting rights (model 6). As in the previous section, for brevity we do not report in Table 6 the coefficients of the loan-specific and bank-dummy variables.

Our first test attempts to control to changes in the level of the interest rate used to compute the loan spreads. Toward this end we add to the core models the level of this interest rate, $LIBOR$. The results of this test are reported in models 1 and 2 of Table 6. Note that there is a negative relationship between loan spreads and Libor. More importantly, the coefficients on $LVOTSTAKE$ on both models are statistically significant and indicate that banks charge lower interest rates on those loans that they extend to borrowers in which they have a voting stake.

Our second test investigates the impact of controlling for the firm's risk as measured by the volatility of its stock. Toward this end we add $STOCKVOL$ to our models. The results of this test are reported in models 3 and 4 of Table 6. As expected the coefficient on $STOCKVOL$ is positive and statistically significant. Again, the coefficients on $LVOTSTAKE$ on both models continues to be negative and statistically significant.

Our third test investigates the impact of controlling for firms that are in two well-known groups: the S&P 500 Index ($S\&P500$) and the New York Stock Exchange ($NYSE$). Inclusion in either group should boost the firm's visibility to the financial community, making it less costly to raise external funding. The results of this test are reported in models 5 and 6 of Table 6. Indeed, the coefficients on these variables are negative and highly significant. Interestingly, when we add these controls our bank trust investments' variable, $EINVESTMENT$, is no longer significant, suggesting that there is an important correlation between the selection of banks' trust investments and membership in these groups. More importantly, the coefficient on $LVOTE$ on both models continues to be negative and statistically significant.

Our fourth test investigates the robustness of our findings to our definition of firms' bank lending relationships. In the results we presented above we assume that a firm has a relationship with a bank if it borrowed from it at least once over the last year prior to the loan. In this robustness test, we assume instead that the firm has a lending relationship with a bank if it borrower from it at least once over the last three years prior to the loan.[33] Our new results reported as models 7 and 8 of Table 6 show that these relationships are not beneficial to firms.

[33]For the purpose of defining lending relationships we consider only the banks that participate as lead underwriters for the loan syndicates that lend to firms.

This contrasts with our previous findings based on our first definition of lending relationship which showed that firms with access to the public bond market would benefit from borrowing repeatedly from the same bank. Irrespective of the definition we use, however, we find that the coefficient on $LVOTSTAKE$ on both models is negative and statistically significant.

Our fifth test attempts to investigate the possible caveat to our results that different types of loans (credit lines, term loans, etc.) have very different pricing characteristics that are not captured by the additive specification we use. To control for this, we reestimate our core models on the subsample of lines of credit in our data, which are the most numerous loan type (72%) in our sample. The results of this test are reported in models 9 and 10 of Table 6. The coefficient on $LVOTSTAKE$ on both models is negative and statistically significant when we consider this subsample.

Our final robustness test attempts to investigate a special feature of syndicated loans – the existence of loan deals that give rise to multiple facilties. In some cases there are differences between these facilities; some have longer maturity than others, are associated with larger loans, or are provided by different banks. In other cases, however, the multiple facilities of the same deal are similar. Thus far, we have treated each facility in the database as a different loan. In order to test the robustness of our findings to this feature of the data, we selected (randomly) one facility from those deals with multiple facilities provided by the same bank and retained the deals with different banks as well as the deals with a single facility. This led to a reduction in our sample from 5,069 observations to 3,533 observations. We then rerun our loan pricing models on this sample of facilities. The results are reported in models 11 and 12 Table 6. As before, we find that the coefficient on $LVOTSTAKE$ on both models is negative and statistically significant.

In sum, the results of all these robustness checks continue to indicate that banks charge lower interest rates on their loans to borrowers in which they control a voting stake. As before, we also find that the larger is the bank's voting stake in the borrower the bigger is the interest rate discount that it offers the firm.

5 Effect of banks' corporate control on loan covenants

Thus far all of our empirical tests focused on the effect that banks' voting stakes in firms could have on the interest rate that they charge on loans to these firms. We focused on loan pricing because this is a variable that is directly under bank control. But, if indeed the reason banks

can charge lower interest rates on loans to these firms is because they can use the voting rights under their control to limit the typical moral hazard problem of borrowers then we would also expect these voting stakes to affect those components of a loan contract that are usually adopted to face that problem.

Among the most natural candidates to consider in a such a test are the seniority status of the loan, whether the loan is secured or not, if the borrower faced dividend restrictions as a result of the loan, and whether it was required to have a guarantor or not. Because nearly all of the loans are senior we focus on the other three components of a loan contract. We, therefore, develop three probit models to investigate if banks are less likely demand collateral or to impose dividend restrictions, or to require a guarantor, respectively, from borrowers in which they control a stake of their voting rights.

The results of these tests are presented in Table 7. As before, for each test we consider two models; one that also accounts for bank's trust investments, $EINVESTMENT$, and the other that also controls for the bank's equity stakes in firms in which it has no voting rights. The key variable of interest to us in all models, however, continues to be the bank's voting stake, $LVOTSTAKE$, in the borrowing firm. We estimate all of these models controlling for the firm-specific features we used in our loan pricing model as well as the dummy variables that control for the purpose and the type of the loan. We also include the individual bank dummy variables for the top banks in the syndicated loan market. Excluding these dummy variables from our models, however, does not affect our results in any significant way.

Looking at all the models in Table 7 there are two results worth noting. First, consistent with our priors, banks are less likely to make use of these covenants on loans to borrowers in which they have a voting stake. Note that $LVOTSTAKE$ is negative across all of the probit models. This variable, however, is not statistically significant when it comes to the presence of a loan guarantor. These results are further proof that banks' voting stakes in borrowers are important. Given that they are derived after we account for banks' selection of trust investments, these results are also proof that the source of the importance of these voting stakes is the ability that they give banks to use the control rights that come with them to manage the moral hazard problems that arise subsequently to them granting loans to borrowers.

Second, in contrast to loan pricing, having access to the public bond market does not make a difference when it comes to the presence of covenants in the loan contract, but having a lending relationship reduces the incidence of these covenants. Recall that our investigation into the determinants of loan spreads shows that firms with access to the public bond market

pay lower interest rates on their bank loans, and lending relationship with the lender was beneficial only for firms access to the public bond market. Firms with no access to this market did not benefit from that relationship. According to our findings on the determinants of loan covenants, firms benefit from these relationships in that they are more likely to be able to take out an unsecured loan, and not to face dividend restrictions or to have to present a guarantor when they borrow from their relationship lender, irrespective of whether they have access to the public bond market. Our findings suggest, therefore, that access to the public bond market is beneficial to firms because it lowers the interest rates they pay to borrow in the loan market. It does not affect, however, the incidence of covenants on their loan contracts. In contrast, lending relationships does not seem to be beneficial to firms when it some to the interest rate they pay on their bank loans. These relationships, however, are beneficial to firms in that they lower the incidence of restrictive covenants on their loan contracts.

6 Final remarks

A distinct feature of trust equity investments is that they separate a stock's cash rights from its voting rights, giving the former to trust beneficiaries and placing the latter (sometimes) under fiduciaries' control. These investments, therefore, introduce a deviation from the one-share-one-vote principle of efficient corporate governance arrangements (Grossman and Hart 1988 and Harris and Raviv 1988). They also place a large portion of US corporations' voting rights under banks' control (Santos and Rumble 2005).

Thus far, the literature on the trust business has focused on the potential conflicts that this business introduces between trust beneficiaries and fiduciaries, and paid only limited attention to the implications arising with the placement of a large portion of trust voting rights under banks' control.[34] As we argued in this paper this placement provides a good opportunity to investigate the effects of banks' corporate control. This is indeed a unique opportunity to research this issue both because it gives banks control over voting stakes in firms without entitling them to the corresponding cash flow rights, and because banks' voting stakes result at least in part from decisions of their trust clients and not entirely from banks' choices.

We considered these aspects of the trust business to investigate the effects of banks' corporate control on their borrowers. Our findings that banks charge lower interest rates and impose less stringent covenants on loans to firms in which they hold a voting stake suggests

[34]See Jarrow and Leach (1991), Payne, Millar, and Glezen (1996), and Brickley, Lease, and Smith (1988).

that the influence banks can exercise over corporations in connection with their voting rights is valuable at reducing the agency costs of debt. This result is novel for the United States. It is also novel in that it shows a new source of value of voting rights.

Finally, our findings raise questions about the often-made claim that banking is separate from commerce in the United States. While it is true that US banks are in general not allowed to invest in the equity of firms for their own account, the voting rights they accumulate through their trust business seem to have a similar effect to the voting rights under German and Japanese banks' control. This suggests that a fruitful area for future research is to investigate whether U.S. banks' control of trust voting stakes share the other implications researchers have found in connection with Japanese and German banks' corporate control.

Figure 1 Distribution of banks' voting stakes in borrowing firms

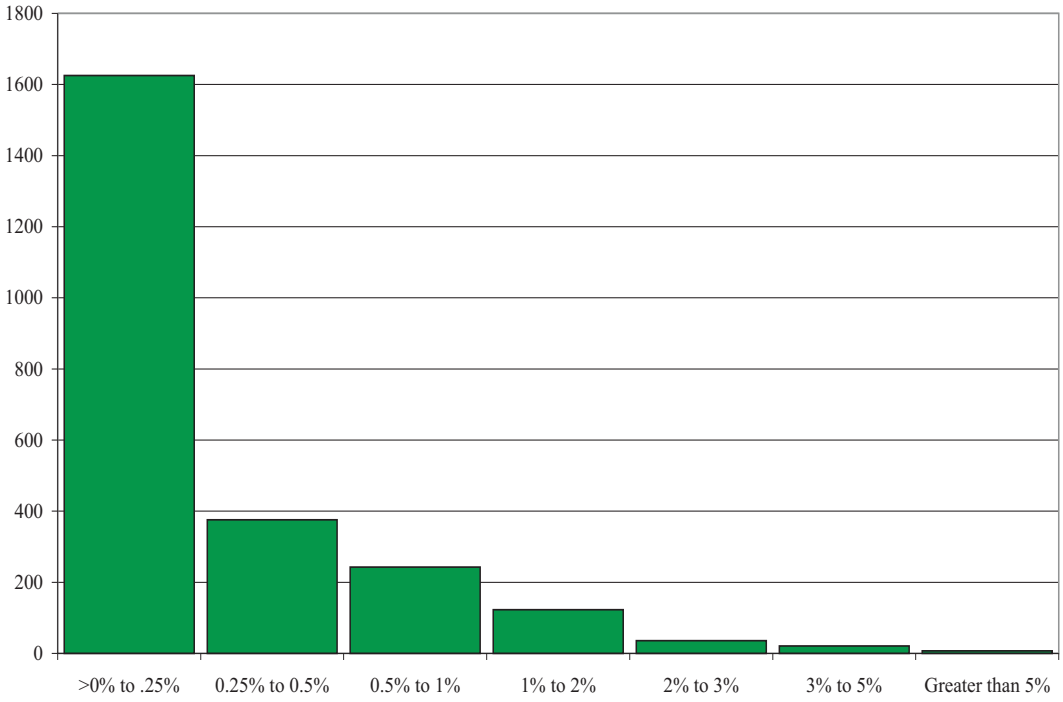

Table 1
Sample characteristics[a]

Variables	Borrowers			
	With a bank VOTSTAKE	Without a bank VOTSTAKE	Difference	T Statistic
VOTSTAKE	0.349	–	–	–
LOANSPREAD	148.537	260.880	-112.343	28.992***
FIRM CONTROLS				
AGE	28.935	16.862	12.073	-26.217***
SALES	37.855	10.891	26.964	-16.481***
TANGIBLES	0.687	0.627	0.059	-7.287***
ADVERTISING	0.011	0.021	-0.009	3.510***
R&D	0.028	0.980	-0.952	3.634***
MKTBOOK	2.336	2.021	0.315	-5.57***
PROFMARGIN	0.001	-0.630	0.631	-1.578
INTCOVERAGE	26.239	28.060	-1.821	0.211
NWCDEBT	75.513	9.627	65.886	-2.059**
LEVERAGE	0.326	0.340	-0.014	2.060**
EARNVL	0.018	0.045	-0.027	12.996***
STOCKVOL	0.013	0.055	-0.043	14.862***
LRELATIONSHIP	0.410	0.177	0.232	-18.856***
LRELATIONSHIPa	0.558	0.322	0.236	-17.395***
BOND ACCESS	0.438	0.144	0.294	-24.463***
INSIDVOTSTAKE	1.292	2.179	0.887	21.696***
INSTIVOTSTAKE	3.850	3.194	-0.666	-19.155***
5VOTSTAKE	2.786	3.171	0.385	9.158***
LOAN CONTROLS				
CORPURPOSES (%)	0.225	0.187	0.038	-3.326***
REFINANCE (%)	0.156	0.27	-0.114	9.951***
TAKEOVER (%)	0.100	0.094	0.005	-0.620
WORKCAPITAL (%)	0.130	0.224	-0.094	8.749***
CREDITLINE (%)	0.775	0.663	0.112	-8.872***
TERMLOAN (%)	0.169	0.28	-0.111	9.515***
BRIDGELOAN (%)	0.031	0.010	0.021	-5.235***
LOANAMT	2.715	0.950	1.765	-14.956***
DIVRESTRICT (%)	0.408	0.629	-0.221	16.119***
SENIOR (%)	0.998	0.998	0	0.116
SECURED (%)	0.140	0.299	-0.159	13.835***
GUARANTOR (%)	0.060	0.067	-0.006	0.910
SPONSOR (%)	0.045	0.072	-0.027	4.059***
SYNDICATED (%)	0.981	0.896	0.085	-12.533***
LENDERS	10.930	5.629	5.301	-23.383***
MATURITY	2.811	3.245	-0.434	7.712***
SECTOR ACTIVITY				
SERVICES	0.126	0.193	-0.067	6.555***
TRADE	0.118	0.146	-0.027	2.882***
TRANSPORTATION	0.203	0.143	0.06	-5.627***
MANUFACTURING	0.508	0.460	0.048	-3.434***
# Observations	2,431	2,638	–	–

[a] Continues on the next page.

VOTSTAKE: Voting stake of the lending bank on the firm. LOANSPREAD: Loan spread over Libor at the time of the loan. AGE: Age in years. SALES: Sales in millions dollars at 1980 prices. COllATERAL: Property, plant and equipment plus inventories over assets. ADVERTISING: Advertising expenses over sales. R&D: Research and development expenses over sales. MKTBOOK: Market to book ratio. PROFMARGIN: Net income over sales. INTCOVERAGE: Earnings before taxes and depreciation over interest expenses. When the firm has no interest expenses this variable is set equal to earnings before taxes and depreciation. NWCDEBT: Current assets minus current liabilities over total debt. When the firm has no debt this variable is set equal to current assets minus current liabilities. LEVERAGE: Total debt over assets. EARNVOL: Earnings volatility measured by the standard deviation of the firm's quarterly return on assets (net income divided by assets) over the last three years. STOCKVOL: Volatility (standard deviation) of the firm stock computed over the previous three years scaled by the stock price at the end of the year before the loan. LRELATIONSHIP: Dummy variable equal to 1 if the firm borrowed at least once from the lead underwriter(s) in the loan syndicate in the year prior to the loan. LRELATIONSHIPa: Dummy variable equal to 1 if the firm borrowed at least once from the lead underwriter(s) in the loan syndicate in the three years prior to the loan. BOND ACCESS: Dummy variable equal to 1 for firms whose most recent bond prior to the loan was a public bond. INSIDVOTSTAKE: Voting stake of insiders. INSTIVOTSTAKE: Voting stake of institutional investors. 5VOTSTAKE: Voting stake of qualified investors (shareholders with a voting stake equal or higher than 5%). CORPURPOSES: Dummy variable equal to 1 when loan is for corporate purposes. REFINANCE: Dummy variable equal to 1 when loan is to repay existing debt. TAKEOVER: Dummy variable equal to 1 when loan is for takeover purposes. WORKCAPITAL: Dummy variable equal to 1 when loan is for working capital purposes. CREDITLINE: Dummy variable equal to 1 for lines of credit. TERMLOAN: Dummy variable equal to 1 for term loans. BRIDGELOAN: Dummy variable equal to 1 for bridge loans. LOANAMT: Amount in millions dollars at 1980 prices. DIVRESTRICT: Dummy variable equal to 1 when borrower is imposed dividend restrictions. SENIOR: Dummy variable equal to 1 when loan is senior. SECURED: Dummy variable equal to 1 when loan is secured. RENEWAL: Dummy variable equal to 1 when loan is a renewal. GUARANTOR: Dummy variable equal to 1 when borrower has a guarantor. SPONSOR: Dummy variable equal to 1 when borrower has a sponsor. SYNDICATED: Dummy variable equal to 1 when loan is syndicated. LENDERS: Number of lenders in the loan syndicate. MATURITY: Maturity of the loan in years.
Source: Authors' computations.

Table 2

Loan spreads and bank's voting stake in the borrowing firm[a,b]

Variables	1	2	3	4	5
LVOTSTAKE	-127.999	-46.593	-37.33	-21.434	-17.729
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
FIRM CONTROLS					
LAGE		-24.488	-20.795	-16.507	-16.347
		(0.000)	(0.000)	(0.000)	(0.000)
LSALES		-36.053	-30.74	-10.348	-10.537
		(0.000)	(0.000)	(0.001)	(0.001)
TANGIBLES		-35.958	-32.274	-33.01	-35.983
		(0.002)	(0.002)	(0.001)	(0.000)
ADVERTISING		-88.083	-82.093	-77.387	-80.66
		(0.025)	(0.029)	(0.028)	(0.025)
R&D		0.548	0.580	0.670	0.739
		(0.199)	(0.182)	(0.123)	(0.092)
MKTBOOK		-9.776	-8.669	-6.87	-7.103
		(0.000)	(0.000)	(0.000)	(0.000)
PROFMARGIN		-0.075	-0.072	0.002	0.014
		(0.495)	(0.514)	(0.985)	(0.890)
LINTCOVERAGE		-32.47	-30.949	-26.949	-25.708
		(0.000)	(0.000)	(0.000)	(0.000)
NWCDEBT		0.001	0.001	0.002	0.002
		(0.019)	(0.085)	(0.000)	(0.000)
LEVERAGE		45.83	27.035	36.771	36.816
		(0.033)	(0.136)	(0.066)	(0.065)
EARNVOL		102.723	118.019	88.327	85.872
		(0.005)	(0.001)	(0.005)	(0.006)
LOAN CONTROLS					
CORPURPOSES			0.266	1.934	2.445
			(0.967)	(0.737)	(0.668)
REFINANCE			3.641	2.703	1.311
			(0.580)	(0.664)	(0.833)
TAKEOVER			11.229	16.829	14.195
			(0.146)	(0.034)	(0.073)
WORKCAPITAL			18.296	2.119	-0.23
			(0.035)	(0.795)	(0.978)
CREDITLINE			-41.144	-26.456	-23.165
			(0.000)	(0.010)	(0.026)
TERMLOAN			49.578	43.380	45.320
			(0.000)	(0.000)	(0.000)
BRIDGELOAN			12.853	30.293	32.086
			(0.566)	(0.198)	(0.172)
LLOANAMT				-15.889	-14.871
				(0.000)	(0.000)
DIVRESTRICT				33.129	32.218
				(0.000)	(0.000)
SENIOR				-301.706	-301.682
				(0.010)	(0.010)
SECURED				50.962	48.301
				(0.000)	(0.000)
GUARANTOR				2.647	2.976
				(0.772)	(0.745)
SPONSOR				53.763	53.117
				(0.000)	(0.000]

[a] Continues on the next page.

Table 2 (Continued)

Variables	1	2	3	4	5
LLENDERS				-7.685	-4.965
				(0.051)	(0.206)
SYNDICATED				-0.928	1.087
				(0.924)	(0.911)
LMATURITY				-0.715	-1.616
				(0.890)	(0.747)
CONSTANT	221.032	398.323	399.096	834.79	827.415
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
BANK DUMMIES	NO	NO	NO	NO	YES
R^2	0.0441	0.4346	0.4970	0.5577	0.5652
# observations	5,069	5,069	5,069	5,069	5,069

[b] Models estimated with robust standard errors clustered by firm. Included in the regressions but not shown in the table are also dummy variables for the issuer's sector of activity as defined by SIC one-digit code. The dependent variable is LOANSPREAD: Loan spread over Libor at the time of the loan. LAGE=Log(AGE). LSALES=LOG(SALES). LINTCOVERAGE=log(1+INTCOVERAGE), with INTCOVERAGE truncate at 0. LLENDER=LOG(LENDERS). LMATURITY=Log(Maturity). Variables are computed as defined in Table 1. Values in parenthesis are p values.
Source: Authors' computations.

Table 3

Loan spreads and bank's voting stake in the borrowing firm:

The role of lending relationships and firm's access to bond financing[a,b]

Variables	1	2	3	4	5
LVOTSTAKE	-36.313	-36.514	-35.182	-20.409	-16.954
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
BOND ACCESS	-57.502		-47.142	-37.96	-38.227
	(0.000)		(0.001)	(0.001)	(0.001)
LTMRPBOND	4.084		3.476	3.611	3.925
	(0.094)		(0.139)	(0.074)	(0.051)
LRELATIONSHIP		-6.794	1.373	13.792	15.345
		(0.155)	(0.813)	(0.015)	(0.006)
BOND ACC x LRELATION			-17.673	-25.073	-24.644
			(0.059)	(0.003)	(0.003]
FIRM CONTROLS					
LAGE	-17.72	-20.726	-17.703	-14.339	-14.317
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LSALES	-25.977	-30.190	-25.769	-6.913	-7.354
	(0.000)	(0.000)	(0.000)	(0.032)	(0.021)
TANGIBLES	-31.237	-32.581	-31.495	-32.115	-34.986
	(0.003)	(0.002)	(0.003)	(0.001)	(0.000)
ADVERTISING	-69.233	-81.748	-67.451	-65.261	-69.524
	(0.058)	(0.031)	(0.066)	(0.057)	(0.049)
R&D	0.464	0.584	0.449	0.548	0.627
	(0.277)	(0.178)	(0.294)	(0.201)	(0.149)
MKTBOOK	-8.332	-8.655	-8.279	-6.544	-6.800
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
PROFMARGIN	-0.080	-0.070	-0.082	-0.010	0.003
	(0.461)	(0.526)	(0.453)	(0.920)	(0.976)
LINTCOVERAGE	-31.568	-30.988	-31.613	-27.421	-26.115
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
NWCDEBT	0.001	0.001	0.001	0.002	0.002
	(0.160)	(0.087)	(0.173)	(0.000)	(0.000)
LEVERAGE	28.885	27.307	28.847	38.411	38.469
	(0.118)	(0.134)	(0.117)	(0.060)	(0.058)
EARNVOL	120.496	117.569	120.663	90.242	87.579
	(0.000)	(0.001)	(0.000)	(0.004)	(0.005)
LOAN CONTROLS					
CORPURPOSES	-1.288	-0.199	-2.024	0.216	0.978
	(0.842)	(0.975)	(0.750)	(0.970)	(0.862)
REFINANCE	0.490	2.807	-0.252	0.729	-0.300
	(0.941)	(0.667)	(0.969)	(0.907)	(0.962)
TAKEOVER	10.67	10.428	9.809	17.368	14.999
	(0.167)	(0.181)	(0.203)	(0.027)	(0.054)
WORKCAPITAL	15.503	17.374	14.993	0.790	-1.232
	(0.080)	(0.043)	(0.086)	(0.923)	(0.880)
CREDITLINE	-38.771	-41.208	-38.819	-24.561	-21.21
	(0.000)	(0.000)	(0.000)	(0.016)	(0.038)
TERMLOAN	49.153	49.298	48.806	43.338	45.346
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
BRIDGELOAN	17.815	12.098	16.85	34.115	36.239
	(0.418)	(0.588)	(0.443)	(0.143)	(0.119)
LLOANAMT				-16.24	-15.29
				(0.000)	(0.000)

[a] Continues on the next page.

Table 3 (Continued)

Variables	1	2	3	4	5
DIVRESTRICT				32.133	31.395
				(0.000)	(0.000)
SENIOR				-301.201	-300.845
				(0.009)	(0.010)
SECURED				50.559	47.968
				(0.000)	(0.000)
GUARANTOR				1.771	2.217
				(0.846)	(0.809)
SPONSOR				52.229	51.612
				(0.000)	(0.000)
LLENDERS				-7.491	-4.951
				(0.053)	(0.199)
SYNDICATED				-1.547	0.406
				(0.874)	(0.967)
LMATURITY				-1.370	-1.963
				(0.790)	(0.695)
CONSTANT	391.482	400.705	391.419	831.873	824.566
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
BANK DUMMIES	NO	NO	NO	NO	YES
R^2	0.5048	0.4973	0.5056	0.5641	0.5713
# observations	5,069	5,069	5,069	5,069	5,069

[b] Models estimated with robust standard errors clustered by firm. Included in the regressions but not shown in the table are also dummy variables for the issuer's sector of activity as defined by SIC one-digit code. The dependent variable is LOANSPREAD: Loan spread over Libor at the time of the loan. BOND ACCESS: Dummy variable equal to 1 for firms whose most recent bond prior to the loan was a public bond. LTIMRPBOND: Log of 1 plus the number of months since the firm issued its most recent public bond. LAGE=Log(AGE). LSALES=LOG(SALES). LINTCOVERAGE=log(1+INTCOVERAGE), with INTCOVERAGE truncate at 0. LLENDER=LOG(LENDERS). LMATURITY=Log(Maturity). Variables are computed as defined in Table 1. Values in parenthesis are p values.
Source: Authors' computations.

Table 4

Loan spreads and bank's voting stake in the borrowing firm:

The role of banks' equity investments[a,b]

Variables	1	2	3	4	5	6
LVOTESTAKE	-20.365	-11.879	-10.798	-35.155	-20.355	-16.848
	(0.001)	(0.029)	(0.046)	(0.000)	(0.000)	(0.001)
EINVESTMENT	-20.119	-11.971	-9.622			
	(0.000)	(0.015)	(0.052)			
LNONVOTESTAKE				14.045	27.238	45.907
				(0.728)	(0.578)	(0.214)
BOND ACCESS	-46.383	-37.53	-37.79	-47.144	-37.97	-38.231
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
LTMRPBOND	3.636	3.673	3.964	3.478	3.616	3.932
	(0.121)	(0.069)	(0.048)	(0.139)	(0.073)	(0.050)
LRELATIONSHIP	3.624	14.833	16.013	1.363	13.775	15.318
	(0.529)	(0.009)	(0.004)	(0.815)	(0.015)	(0.006)
BOND ACC x LRELATION	-18.878	-25.49	-25.033	-17.66	-25.047	-24.594
	(0.041)	(0.002)	(0.002)	(0.059)	(0.003)	(0.003)
LAGE	-17.059	-13.933	-13.989	-17.696	-14.324	-14.293
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LSALES	-23.85	-6.428	-6.897	-25.769	-6.904	-7.334
	(0.000)	(0.044)	(0.029)	(0.000)	(0.032)	(0.021)
TANGIBLES	-30.598	-31.411	-34.369	-31.464	-32.053	-34.884
	(0.003)	(0.001)	(0.000)	(0.003)	(0.001)	(0.000)
ADVERTISING	-67.526	-65.45	-69.362	-67.613	-65.573	-70.043
	(0.061)	(0.053)	(0.047)	(0.065)	(0.056)	(0.047)
R&D	0.439	0.543	0.615	0.451	0.551	0.632
	(0.300)	(0.201)	(0.153)	(0.293)	(0.199)	(0.146)
MKTBOOK	-7.863	-6.332	-6.59	-8.278	-6.54	-6.794
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
PROFMARGIN	-0.067	-0.003	0.008	-0.081	-0.01	0.004
	(0.532)	(0.977)	(0.935)	(0.455)	(0.925)	(0.968)
LINTCOVERAGE	-31.073	-27.178	-26.017	-31.614	-27.423	-26.116
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
NWCDEBT	0.001	0.002	0.002	0.001	0.002	0.002
	(0.089)	(0.000)	(0.000)	(0.173)	(0.000)	(0.000)
LEVERAGE	30.275	38.522	38.548	28.822	38.363	38.382
	(0.106)	(0.059)	(0.058)	(0.118)	(0.060)	(0.059)
EARNVOL	115.128	88.43	86.239	120.772	90.443	87.927
	(0.001)	(0.005)	(0.006)	(0.000)	(0.004)	(0.005)
CORPURPOSES	-1.546	0.621	1.272	-2.009	0.248	1.03
	(0.807)	(0.912)	(0.820)	(0.752)	(0.965)	(0.855)
REFINANCE	-0.52	0.595	-0.393	-0.238	0.762	-0.25
	(0.936)	(0.924)	(0.950)	(0.971)	(0.903)	(0.968)
TAKEOVER	10.883	17.43	15.254	9.824	17.412	15.065
	(0.161)	(0.027)	(0.051)	(0.203)	(0.026)	(0.053)
WORKCAPITAL	14.674	0.852	-1.174	14.975	0.763	-1.288
	(0.094)	(0.917)	(0.886)	(0.086)	(0.925)	(0.875)
CREDITLINE	-37.432	-24.327	-21.35	-38.84	-24.589	-21.247
	(0.000)	(0.017)	(0.037)	(0.000)	(0.016)	(0.038)
TERMLOAN	50.364	43.994	45.645	48.80	43.329	45.338
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

[a] Continues on the next page.

Table 4 (Continued)

Variables	1	2	3	4	5	6
BRIDGELOAN	20.758	36.11	37.585	16.835	34.101	36.218
	(0.346)	(0.122)	(0.107)	(0.444)	(0.143)	(0.120)
LLOANAMT		-15.786	-14.977		-16.247	-15.3
		(0.000)	(0.000)		(0.000)	(0.000)
DIVRESTRICT		32.02	31.424		32.125	31.382
		(0.000)	(0.000)		(0.000)	(0.000)
SENIOR		-303.449	-301.919		-301.243	-300.924
		(0.008)	(0.009)		(0.009)	(0.010)
SECURED		50.11	47.814		50.562	47.97
		(0.000)	(0.000)		(0.000)	(0.000)
GUARANTOR		2.305	2.581		1.724	2.134
		(0.801)	(0.778)		(0.850)	(0.816)
SPONSOR		52.124	51.663		52.274	51.685
		(0.000)	(0.000)		(0.000)	(0.000)
LLENDERS		-6.755	-4.446		-7.489	-4.938
		(0.082)	(0.250)		(0.053)	(0.200)
SYNDICATED		-1.238	0.515		-1.578	0.343
		(0.899)	(0.958)		(0.871)	(0.972)
LMATURITY		-1.549	-2.036		-1.359	-1.951
		(0.764)	(0.685)		(0.792)	(0.698)
CONSTANT	389.555	827.392	820.548	391.373	831.91	824.629
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
BANK DUMMIES	NO	NO	YES	NO	NO	YES
R^2	0.5085	0.5651	0.5719	0.5651	0.5719	0.5719
# observations	5,069	5,069	5,069	5,069	5,069	5,069

[b] Models estimated with robust standard errors clustered by firm. Included in the regressions but not shown in the table are also dummy variables for the issuer's sector of activity as defined by SIC one-digit code. The dependent variable is LOANSPREAD: Loan spread over Libor at the time of the loan. EINVESTMENT: Dummy variable equal to 1 when the bank has a trust equity investment in the firm. LNONVOTSTAKE: Log of the equity stake the bank has in the firm computed only for those firms in which the bank does have any voting rights as a result of its trust investment. LTIMRPBOND: Log of 1 plus the number of months since the firm issued its most recent public bond. LAGE=Log(AGE). LSALES=LOG(SALES). LINTCOVERAGE=log(1+INTCOVERAGE), with INTCOVERAGE truncate at 0. LLENDER=LOG(LENDERS). LMATURITY=Log(Maturity). Variables are computed as defined in Table 1. Values in parenthesis are p values. Source: Authors' computations.

Table 5

Loan spreads and bank's voting stake in the borrowing firm:

Controlling for the voting stake of other important shareholders[a,b]

Variables	1	2	3	4	5	6
LVOTSTAKE	-11.193	-16.700	-10.940	-16.547	-10.943	-16.698
	(0.059)	(0.003)	(0.063)	(0.003)	(0.063)	(0.003)
EINVESTMENT	-9.204		-9.470		-9.614	
	(0.116)		(0.098)		[0.096]	
LNONVOTSTAKE		32.502		34.661		34.924
		(0.488)		(0.462)		(0.454)
BOND ACCESS	-33.526	-33.814	-33.981	-34.378	-34.009	-34.305
	(0.010)	(0.009)	(0.009)	(0.008)	(0.009)	(0.008)
LTMRPBOND	3.115	3.057	3.158	3.112	3.151	3.083
	(0.165)	(0.173)	(0.159)	(0.165)	(0.157)	(0.166)
LRELATIONSHIP	14.005	13.471	13.931	13.371	13.929	13.360
	(0.033)	(0.041)	(0.035)	(0.043)	(0.035)	(0.043)
BOND ACC x LRELATION	-24.719	-24.238	-24.724	-24.253	-24.617	-24.088
	(0.007)	(0.009)	(0.007)	(0.008)	(0.007)	(0.009)
LINSIDVOTSTAKE	1.422	1.678				
	(0.593)	(0.525)				
LINSTIVOTSTAKE			-0.719	-0.991		
			(0.766)	(0.682)		
L5VOTSTAKE					-0.206	-0.136
					(0.917)	(0.945)
FIRM CONTROLS						
LAGE	-14.562	-14.674	-15.047	-15.251	-15.174	-15.409
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
LSALES	-4.510	-4.918	-4.726	-5.185	-4.743	-5.199
	(0.240)	(0.204)	(0.202)	(0.165)	(0.212)	(0.175)
TANGIBLES	-44.756	-45.582	-44.366	-45.126	-44.346	-45.175
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ADVERTISING	-67.983	-68.684	-66.760	-67.314	-66.947	-67.186
	(0.118)	(0.123)	(0.125)	(0.131)	(0.129)	(0.137)
R&D	0.564	0.594	0.552	0.581	0.555	0.582
	(0.176)	(0.162)	(0.183)	(0.170)	(0.183)	(0.173)
MKTBOOK	-7.767	-7.980	-7.815	-8.049	-7.808	-8.033
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
PROFMARGIN	-0.047	-0.050	-0.049	-0.052	-0.048	-0.051
	(0.592)	(0.577)	(0.578)	(0.560)	(0.588)	(0.569)
LINTCOVERAGE	-23.769	-23.817	-23.737	-23.784	-23.720	-23.770
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
NWCDEBT	0.002	0.002	0.002	0.002	0.002	0.002
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LEVERAGE	65.342	65.304	65.485	65.373	65.976	65.977
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
EARNVOL	133.770	135.124	133.754	134.990	134.052	135.506
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LOAN CONTROLS	YES	YES	YES	YES	YES	YES
BANK DUMMIES	YES	YES	YES	YES	YES	YES
R^2	0.589	0.589	0.589	0.589	0.589	0.589
# observations	3,986	3,986	3,986	3,986	3,987	3,987

[a] Models estimated with robust standard errors clustered by firm. Included in the regressions but not shown in the table are all the LOAN CONTROLS used in the other tables and dummy variables for the issuer's sector of activity as defined by SIC one-digit code. The dependent variable is LOANSPREAD: Loan spread over Libor at the time of the loan. EINVESTMENT: Dummy variable equal to 1 when the bank has a trust equity investment

in the firm. LNONVOTSTAKE: Log of the equity stake the bank has in the firm computed only for those firms in which the bank does have any voting rights as a result of its trust investment. LINSIDVOTSTAKE: Log of 1 plus the voting stake of insiders. INSTIVOTSTAKE: Log of 1 plus the voting stake of institutional investors. 5VOTSTAKE: Log of 1 plus the voting stake of qualified investors (shareholders with a voting stake equal or higher than 5%). LTIMRPBOND: Log of 1 plus the number of months since the firm issued its most recent public bond. LAGE=Log(AGE). LSALES=LOG(SALES). LINTCOVERAGE=log(1+INTCOVERAGE), with INTCOVERAGE truncate at 0. LLENDER=LOG(LENDERS). LMATURITY=Log(Maturity). Variables are computed as defined in Table 1. Values in parenthesis are p values.
Source: Authors' computations.

Table 6

Loan spreads and bank's voting stake in the borrowing firm:
Additional robustness checks[a,b]

Variables	1	2	3	4	5	6
LVOTSTAKE	-11.805	-18.560	-11.529	-17.071	-10.982	-13.478
	(0.030)	(0.000)	(0.035)	(0.001)	(0.037)	(0.008)
EINVESTMENT	-10.892		-9.703		-4.124	
	(0.031)		(0.057)		(0.389)	
LNONVOTSTAKE		50.443		50.446		42.607
		(0.120)		(0.150)		(0.275)
BOND ACCESS	-38.655	-39.105	-36.442	-36.670	-26.727	-26.775
	(0.001)	(0.001)	(0.002)	(0.002)	(0.017)	(0.016)
LTMRPBOND	3.966	3.930	3.524	3.496	3.653	3.64
	(0.048)	(0.050)	(0.084)	(0.086)	(0.075)	(0.076)
LRELATIONSHIP	16.147	15.358	14.938	14.299	17.561	17.276
	(0.004)	(0.006)	(0.008)	(0.012)	(0.001)	(0.001)
BOND ACC x LRELATION	-24.971	-24.482	-25.564	-25.003	-28.354	-28.189
	(0.002)	(0.003)	(0.002)	(0.003)	(0.001)	(0.001)
LIBOR	-3.319	-3.144				
	(0.003)	(0.004)				
STOCKVOL			127.439	128.851		
			(0.000)	(0.000)		
S&P500					-28.072	-28.417
					(0.000)	(0.000)
NYSE					-37.044	-37.542
					(0.000)	(0.000)
FIRM CONTROLS						
LAGE	-14.380	-14.702	-14.248	-14.535	-10.788	-10.862
	(0.000)	(0.000)	(0.000)	(0.000)	(0.003)	(0.003)
LSALES	-6.965	-7.453	-4.719	-5.195	0.232	0.149
	(0.027)	(0.019)	(0.158)	(0.122)	(0.938)	(0.960)
TANGIBLES	-34.986	-35.535	-35.550	-36.042	-31.458	-31.584
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)
ADVERTISING	-70.724	-71.405	-64.879	-65.831	-60.061	-60.492
	(0.044)	(0.044)	(0.039)	(0.040)	(0.080)	(0.080)
R&D	0.633	0.651	0.313	0.333	0.522	0.531
	(0.144)	(0.137)	(0.372)	(0.356)	(0.222)	(0.216)
MKTBOOK	-6.363	-6.604	-5.446	-5.643	-6.413	-6.494
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
PROFMARGIN	0.014	0.010	-0.019	-0.023	-0.004	-0.005
	(0.888)	(0.927)	(0.838)	(0.809)	(0.971)	(0.961)
LINTCOVERAGE	-26.006	-26.118	-21.171	-21.175	-24.814	-24.841
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
NWCDEBT	0.002	0.002	0.002	0.002	0.002	0.002
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
LEVERAGE	39.388	39.160	77.119	76.700	35.711	35.56
	(0.051)	(0.052)	(0.000)	(0.000)	(0.070)	(0.071)
EARNVOL	88.394	90.171	62.514	63.088	85.9	86.78
	(0.005)	(0.004)	(0.099)	(0.099)	(0.005)	(0.005)
LOAN CONTROLS	YES	YES	YES	YES	YES	YES
BANK DUMMIES	YES	YES	YES	YES	YES	YES
R^2	0.5734	0.5727	0.5803	0.5797	0.5823	0.5822
# observations	5,069	5,069	5,069	5,069	5,069	5,069

[a] Continues on the next page.

Table 6 (continued)
Loan spreads and bank's voting stake in the borrowing firm:
Additional robustness checks[a,b]

Variables	7	8	9	10	11	12
LVOTSTAKE	-11.829 (0.030)	-17.744 (0.001)	-10.578 (0.053)	-16.075 (0.002)	-11.548 (0.032)	-17.261 (0.001)
EINVESTMENT	-9.431 (0.058)		-8.94 (0.050)		-9.750 (0.044)	
LNONVOTSTAKE		50.104 (0.190)		64.016 (0.154)		59.935 (0.158)
BOND ACCESS	-45.45 (0.000)	-46.019 (0.000)	-32.204 (0.001)	-33.015 (0.001)	-41.491 (0.000)	-41.657 (0.000)
LTMRPBOND	4.446 (0.032)	4.42 (0.033)	2.528 (0.114)	2.512 (0.119)	4.237 (0.021)	4.171 (0.025)
LRELATIONSHIP			7.996 (0.115)	7.06 (0.164)	12.664 (0.021)	11.981 (0.029)
BOND ACC x LRELATION			-11.09 (0.095)	-10.317 (0.122)	-18.179 (0.011)	-17.898 (0.013)
LRELATIONSHIPa	9.82 (0.046)	9.324 (0.056)				
BOND ACC X LRELATIONa	-8.381 (0.241)	-7.877 (0.269)				
FIRM CONTROLS						
LAGE	-13.836 (0.000)	-14.138 (0.000)	-19.328 (0.000)	-19.696 (0.000)	-16.822 (0.000)	-17.140 (0.000)
LSALES	-6.791 (0.032)	-7.228 (0.023)	-1.704 (0.537)	-2.07 (0.455)	-3.868 (0.198)	-4.333 (0.152)
TANGIBLES	-33.782 (0.000)	-34.291 (0.000)	-26.753 (0.001)	-27.146 (0.001)	-23.761 (0.007)	-23.977 (0.007)
ADVERTISING	-71.313 (0.041)	-72.022 (0.041)	-46.779 (0.082)	-47.892 (0.080)	-52.741 (0.149)	-53.103 (0.149)
R&D	0.643 (0.136)	0.66 (0.130)	0.627 (0.094)	0.651 (0.084)	0.580 (0.178)	0.597 (0.168)
MKTBOOK	-6.593 (0.000)	-6.795 (0.000)	-5.535 (0.000)	-5.72 (0.000)	-5.285 (0.000)	-5.448 (0.000)
PROFMARGIN	0.013 (0.899)	0.009 (0.931)	0.017 (0.857)	0.014 (0.879)	0.038 (0.700)	0.035 (0.724)
LINTCOVERAGE	-26.067 (0.000)	-26.161 (0.000)	-26.795 (0.000)	-26.963 (0.000)	-25.154 (0.000)	-25.301 (0.000)
NWCDEBT	0.002 (0.000)	0.002 (0.000)	0.007 (0.000)	0.007 (0.000)	0.002 (0.000)	0.002 (0.000)
LEVERAGE	37.752 (0.063)	37.609 (0.064)	42.075 (0.064)	41.687 (0.066)	50.172 (0.004)	49.928 (0.004)
EARNVOL	89.072 (0.004)	90.644 (0.004)	76.86 (0.017)	78.667 (0.015)	58.230 (0.039)	59.724 (0.036)
LOAN CONTROLS	YES	YES	YES	YES	YES	YES
BANK DUMMIES	YES	YES	YES	YES	YES	YES
R^2	0.5709	0.5704	0.6168	0.6162	0.5643	0.5638
# observations	5,069	5,069	3,632	3,632		

[b] Models estimated with robust standard errors clustered by firm. Included in the regressions but not shown in the table are all the LOAN CONTROLS used in the other tables and dummy variables for the issuer's sector of activity as defined by SIC one-digit code. The dependent variable is LOANSPREAD: Loan spread over Libor at the time of the loan. EINVESTMENT: Dummy variable equal to 1 when the bank has a trust equity investment in the firm. LNONVOTSTAKE: Log of the equity stake the bank has in the firm computed only for those firms in which the bank does have any voting rights as a result of its trust investment. LTIMRPBOND: Log of 1 plus the number of months since the firm issued its most recent public bond. LAGE=Log(AGE).

LSALES=LOG(SALES). LINTCOVERAGE=log(1+INTCOVERAGE), with INTCOVERAGE truncate at 0. LLENDER=LOG(LENDERS). LMATURITY=Log(Maturity). Variables are computed as defined in Table 1. Values in parenthesis are p values.
Source: Authors' computations.

Table 7

Determinants of the likelihood of loan covenants[a,b]

	Collateral required		Restrictons on dividends		Guarantor demanded	
Variables	1	2	3	4	5	6
LVOTSTAKE	-0.267	-0.277	-0.369	-0.306	-0.251	-0.174
	(0.066)	(0.038)	(0.005)	(0.009)	(0.188)	(0.328)
EINVESTMENT	-0.014		0.090		0.091	
	(0.871)		(0.266)		(0.463)	
LNONVOTSTAKE		0.166		0.570		0.982
		(0.783)		(0.566)		(0.151)
BOND ACCESS	-0.423	-0.424	-0.555	-0.550	-0.413	-0.418
	(0.253)	(0.251)	(0.047)	(0.048)	(0.384)	(0.379)
LTMRPBOND	0.041	0.041	0.050	0.051	0.017	0.019
	(0.462)	(0.460)	(0.210)	(0.204)	(0.806)	(0.786)
LRELATIONSHIP	-0.211	-0.212	-0.304	-0.296	-0.232	-0.224
	(0.022)	(0.021)	(0.000)	(0.000)	(0.048)	(0.055)
BOND ACC x LRELATION	-0.157	-0.156	0.060	0.055	0.215	0.208
	(0.433)	(0.439)	(0.684)	(0.709)	(0.293)	(0.309)
LAGE	-0.111	-0.112	-0.181	-0.178	-0.075	-0.072
	(0.038)	(0.038)	(0.000)	(0.000)	(0.264)	(0.298)
LSALES	-0.068	-0.070	-0.112	-0.104	0.086	0.096
	(0.111)	(0.093)	(0.002)	(0.003)	(0.072)	(0.036)
TANGIBLES	0.015	0.014	-0.226	-0.220	0.148	0.156
	(0.913)	(0.915)	(0.083)	(0.091)	(0.417)	(0.391)
ADVERTISING	-0.419	-0.422	0.219	0.215	0.091	0.067
	(0.393)	(0.390)	(0.705)	(0.709)	(0.907)	(0.932)
R&D	0.006	0.006	-0.009	-0.009	-1.869	-1.903
	(0.254)	(0.251)	(0.129)	(0.127)	(0.046)	(0.047)
MKTBOOK	-0.085	-0.085	-0.005	-0.003	-0.028	-0.024
	(0.000)	(0.000)	(0.745)	(0.858)	(0.420)	(0.479)
FROFMARGIN	0.024	0.024	-0.003	-0.003	-0.097	-0.099
	(0.061)	(0.061)	(0.047)	(0.052)	(0.464)	(0.451)
LINTCOVERAGE	-0.118	-0.118	-0.054	-0.053	-0.029	-0.028
	(0.000)	(0.000)	(0.094)	(0.102)	(0.517)	(0.532)
NWCDEBT	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.578)	(0.576)	(0.011)	(0.013)	(0.549)	(0.548)
LEVERAGE	-0.057	-0.059	0.178	0.181	-0.031	-0.030
	(0.688)	(0.683)	(0.394)	(0.389)	(0.862)	(0.867)
KEARNVL	0.227	0.231	-0.605	-0.619	-0.147	-0.157
	(0.542)	(0.536)	(0.097)	(0.090)	(0.802)	(0.792)
CORPURPOSES	0.170	0.170	-0.147	-0.144	0.293	0.298
	(0.108)	(0.110)	(0.120)	(0.128)	(0.031)	(0.028)
REFINANCE	-0.082	-0.082	0.560	0.561	0.028	0.029
	(0.462)	(0.463)	(0.000)	(0.000)	(0.854)	(0.849)
TAKEOVER	0.391	0.390	0.744	0.752	0.581	0.590
	(0.008)	(0.008)	(0.000)	(0.000)	(0.002)	(0.002)
WORKCAPITAL	0.554	0.554	0.553	0.552	0.600	0.599
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CREDITLINE	0.110	0.109	0.057	0.056	0.573	0.576
	(0.391)	(0.392)	(0.632)	(0.637)	(0.018)	(0.017)
TERMLOAN	0.110	0.109	0.057	0.056	0.573	0.576
	(0.391)	(0.392)	(0.632)	(0.637)	(0.018)	(0.017)
BRIDGELOAN	-0.198	-0.201	0.004	0.014	0.430	0.449
	(0.415)	(0.411)	(0.987)	(0.948)	(0.251)	(0.232)
Constant	-0.185	-0.183	0.910	0.899	-2.239	-2.262
	(0.514)	(0.520)	(0.001)	(0.001)	(0.000)	(0.000)
Pseudo R^2	0.1517	0.1517	0.1915	0.1911	0.0780	0.0779
# observations	5,069	5,069	5,069	5,069	5,069	5,069

[a] Continues on the next page.

[b] Probit models estimated with robust standard errors clustered by firm. Included in the regressions but not shown in the table are also dummy variables for the issuer's sector of activity as defined by SIC one-digit code. The dependent variable is LOANSPREAD: Loan spread over Libor at the time of the loan. EINVESTMENT: Dummy variable equal to 1 when the bank has a trust equity investment in the firm. LNONVOTSTAKE: Log of the equity stake the bank has in the firm computed only for those firms in which the bank does have any voting rights as a result of its trust investment. LTIMRPBOND: Log of 1 plus the number of months since the firm issued its most recent public bond. LAGE=Log(AGE). LSALES=LOG(SALES). LINTCOVERAGE=log(1+INTCOVERAGE), with INTCOVERAGE truncate at 0. LLENDER=LOG(LENDERS). LMATURITY=Log(Maturity). Variables are computed as defined in Table 1. Values in parenthesis are p values.
Source: Authors' computations.

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