Do Conflicts of Interest Exist When the Lending Banks Are Also Stockholders, and How Do They Respond?

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Abstract

The main purpose of this study is to discuss whether or not there exist the conflicts of interest when the lending banks are also stockholders, and how the loan terms or the payout yields respond to such conflicts of interest. The sample of this study consists of the companies included in S&P500 between 1996 and 2006. We differentiate between the boards with banks and those without banks, and whether the lending bankers are on board or not. The results show that the companies who have a banker on board could obtain better loan terms, and the companies with a lending banker on board could receive lower spread rates. Further, the conflicts of interest could derive possibly from the lending banker on board whose equity stakes are larger than debt claims. That is, this kind of lending bankers will easily neglect the responsibility as a creditor so to harm the creditor's right. And the lending bankers with larger equity stakes will try to regulate loan terms to make up for the cost arising from conflicts of interest. Finally, we also find that the banks who enter the board first and make loans afterwards would encounter more conflicts of interest than those who lend before enter the board.

Keywords: Bank, Board, Conflicts of interest, Loan terms, Payout yields

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1. Introduction

It has been well known that in order to lower the risk of lending, banks have concentrated on reducing the problems of information asymmetry. Smith (1980), Fama (1985), Sharpe (1990) and Diamond (1984, 1990, 1991) mentioned that there exists information asymmetry between lending banks and firms, which leads to agency conflicts of liability. Rajan (1992) indicated that agency conflicts of liability of lending banks could be alleviated by becoming the director of board by holding equities of the company or by increasing the lending relationships with firms to lessen the problems mentioned above.

Several previous empirical studies proposed ways to mitigate agency cost and asymmetric information on debt ratio of the company, over- or underinvestment, and the loan terms after the banks' entry to the corporate board (Hoshi, Kashyap and Schafstein, 1990, 1991; Kim, 1991; Kester, 1991; Hoshi, 1994; James, 1995; Berlin, John and Saunders, 1996; Kracaw and Zenner, 1998; Booth and Deli, 1999; Morck, Nakamura and Shivdasani, 2000; Byrd and Mizruchi, 2005; Ciamarra, 2006). It is primarily self-explained that a company having banks on the board is more positively related to debt ratio and loan size and more negatively related to loan rate, inefficient investment and the restrictions of liquidity, relative to a corporate board without banks. The above research, however, has neglected the major issue of the bankers' conflicts of self-interest, and their effects on the lending policy and the loan pricing behavior toward the company. Kroszner and Strahan (2001) probed into the banks' motivation trying to enter the corporate board from the viewpoint of the banks' conflicts of self-interest. Their opinion as to the probabilities of the bankers' entry into the corporate board was determined by the degree of the conflicts of lender's interests confronted by banks. Hence, the size of the firm, its profitability, and the proportion of collateralization and the public debt ratio are found to be positively related to the probabilities of the presence of the banks on the corporate boards with holding equities. Meanwhile, banks also continuously revise the loan terms to react to the declining benefits arising from the information asymmetry and agency cost of liabilities (Petersen and Rajan, 1994; Berger and Udell, 1995).

However, even though the existing conflict of banks' self-interest was generally discussed in Petersen and Rajan (1994), Berger and Udell (1995) and Kroszner and Strahan (2001), almost all current literature has not taken into account if such a conflict actually exists. Herein we emphasize that whether or not the existing conflict exists should be connected with the true structure of equity and debt when the banks enter the corporate board as the shareholder. The severity of the banks' conflict would be reflected in the rise or fall of the structure of equity and liability. The lending banks who own larger proportions of equity than debt will have more conflict of self-interest, compared with those with larger proportions of debt than equity. Yet, if such a conflict did exist, the bank on behalf of the creditor taking the

responsibility of diminishing the gap might offer rather unfavorable loan terms to the borrowing firm. On the contrary, an internal debt proportion larger than equity will push the banks to play the important role of monitor. That is, the lending banks, on behalf of the creditors, ensure the obligatory right, and then not only minimize their own conflict of self-interest, but also offer better loan terms.

As for firms, banks might attempt to exploit some certain profits from the on-going correspondent companies by being present on the corporate board with stock-shareholding, or through the banking relationship with the firm. Gao (2007) believes that, in Japan, the cash flow of companies will not be restricted under the close relationship with their main banks, but it seems that these companies would not out-perform other independent enterprises without main banks owing to the above-mentioned profit-exploiting. During the presence at the corporate board, the lending bank could exploit firms' interest with its powerful influence at the corporate board by raising stock-dividend yields or loan rates (Gao, 2007). The banking relationship between banks and companies can definitely reduce the problems caused by information asymmetry and agency cost of liabilities. The prior related literature has shown that the borrower can obtain lower loan rates (Berger and Udell, 1995; Harhoff and Korting, 1998; Scott and Dunkelberg, 1999; Degryse and Cayseele, 2000) as well as a larger loan size (Petersen and Rajan, 1994; Cole, 1998; Elsas and Krahnen, 1998 and Scott and Dunkelberg, 1999) by maintaining intimate contact with opponent banks. Even so, the relationship with a long history could result in the chance of hold-up for the firm, and the bank with its own monopolistic information could take advantage of their bargaining power and then make adjustments to the contract clauses, such as high loan rates, to exploit the firm's earnings and then expose the company's inadequacy of loan terms.

Prior studies have discussed the effects of conflicts of interest on loan terms when banks enter the corporate board under the proposition that banks do have conflicts of interest, and then lead to the disable monitoring. However, we could not have enough reasons to believe that every bank faces a conflict of interest when entering the corporate board. As a result, we separate the types of bankers by comparing their equity stakes and debt claims and the initial time of the lending relationship between the company and the bank. By doing so, we can observe the probability of the existence of the conflicts of interest and its effect on the loan terms and find out the ways that banks make up for the cost arising from conflicts of interest.

The first purpose of this study is to examine the hypothesis of conflicts of interest. To probe into the effects of bankers' types on loan terms, we differentiate between those boards with banks and the boards without banks, and whether the lending bankers are on the boards or not.

In order to examine if conflicts of interest really exist, we further aim at lending bankers on boards by comparing their equity stakes and debt claims to assert if banks have the conflict

of interest when their position is affected by the equity stakes they hold. Moreover, we attempted to observe the way that banks made up the costs arising from any conflict of interest. Meanwhile, we differentiated the two types of bankers on boards according to the initial time of the lending relationship between the firm and the bank. One type refers to a bank that enters the board first, and makes a loan to the company afterwards; and the other type is for a bank that gives a loan to the company first, and enters the board afterwards. These two different types of bankers might reveal the effect of the entry timing on loan terms.

We further have the interaction terms for the dummy variables of the ratio of debt to equity for the lending bankers on board and the dummy variables of the timing that the lending bankers enter the board. This constitutes a total of four categories including (i) the bank enters the board first, and gives a loan to the company afterwards (Lender_After_Board) × the bank's equity stakes are larger than debt claims (E>D) (ii) the bank enters the board first, and gives a loan to the company afterwards (Lender_After_Board) × the bank's equity stakes are less than debt claims (E<D) (iii) the bank gives a loan to the company first, and enters the board afterwards (Board_After_Lender) × the bank's equity stakes are larger than debt claims (E>D) and (iv) the bank gives a loan to the company first, and enters the board afterwards (Board_After_Lender) × the bank's equity stakes are less than debt claims (E<D). All of these four interaction terms sufficiently represent the variety of the lending bankers on boards, and as a result, we could obtain direct observation for the effects of these four types on the loan terms and the ways that conflicts of interest were solved.

The second purpose of this study is to examine the hypothesis of profit exploiting. We adopted the payout ratio to examine if the banks exploit the profits of companies to offset the loss of self-interest. Similarly, we analyzed the changes of the payout ratio by using the same practice mentioned above.

2. Literature Review

In this section, we first introduce briefly the relationships between banks and firms, and the cost pros and cons for banks as a firm's shareholders. In addition, we focus on both benefits and conflicts of the banks involved in corporate boards, and the relationships between the loan terms and the firm's profitability.

2.1 Banking Relationship

Diamond (1984) assumes it relatively disadvantageous to other creditors rather than banks to collect borrowers' information, generally due to the bank's expertise on credit evaluation and monitoring. Other related studies also indicate that a close relationship between a bank and the firm could lessen problems like adverse selection and moral hazards.

Dennis and Mullineaux (2000) show clearly that banks are able to gain advantage

through continuous contact with companies, and adjust their loan terms to reflect this information arising from the process of contacting. Banks would also sort companies into Chief or Cheap based on their financial quality, and the banks will take the former as their priority borrowers option, trying to cut down the problem of adverse selection (Petersen and Rajan, 1994). Fama (1985) also has shown that some of the firms' information which outsiders cannot easily obtain will be accessible to banks, thereby gives banks a cost advantage in collecting information over the other creditors. Thus, banks can actually reduce the problem of adverse selection by using that information for loan evaluation, risk assessment and even the post-monitoring.

For moral hazards, the bank could have clear ideas about the firm's process of strategic investment decisions through the close relationship with the borrowers, and then make good control of the firm's investment choices by way of renewing loan contracts. All these will reduce the concerns of either over- or underinvestment, and the bank can consequently avoid getting into problems of moral hazards caused by information asymmetry (Fama, 1985; Diamond, 1991; James, 1987; John and Nachman, 1985).

Although the continuance of close relationship between banks and firms mitigates the trouble of both adverse selection and moral hazards, it still comes to the crunch of hold-up problems that firms possibly confront. That is, the bank will easily revise the credit terms in loan contracts by seizing the bargaining power owing to their monopoly of information, and they can thus also exploit the earnings of the aforesaid project by offering high loan rates (Sharpe, 1990). The behavior of bank's hold-up could suppress the hard-work of investment projects the firm has devoted energy to, and the corporate executives could even give up those investment projects with positive net present values, and this could finally lead to investment inefficiency (Rajan, 1992).

2.2 The Benefits and Costs of a Banks' Entry into the Corporate Board as Shareholders

The benefit for a bank entering the corporate board as the firm's shareholder lies in the improvement of information flow between the banks and the firms, which can also lead to improved assistance for the borrowing firms to obtain capital. In addition, banks contacting with different types of numerous businesses have developed a lot of diverse professional knowledge of specific industries. Therefore, a bank is able to provide valuable knowledge of those certain industries to other companies involved. Kroszner and Strahan (2005) accordingly suggest that banks concentrate on making loans to specific industries which the firm belongs to. As directors of the board in non-financial companies, the banks' professional knowledge in the industry will be enhanced, as well as enjoying the scope of economies.

Moreover, for the sake of lender liability, a bank's presence at the corporate board could be recognized as a sign indicating that the firm is hardly drifting towards financial distress.

Thus, it is easier for the firm to hereby get the opportunities of external finance, if the banks' entry into the corporate board possesses the function of certification.

Even so, some costs occur when the bank as the firm's shareholder enters the corporate board. As far as banks' entrance into the corporate board concerned, Kroszner and Strahan (2001) show clearly that bankers on a board might easily encounter a conflict of interest. Additionally, the conflict of interest the bank confronts will be most critical when the leading bank is the primary one. Their empirical results reveal that the bank contrarily reduces the loan size for the related firms after entering the corporate boards, since the bank tries to escape from any self-conflicts of interest possibly happening. Also, the probability of the banks on corporate board is found to decline.

For the problems caused from the bank as the borrowing firm's shareholder, Park (2000) and Mathrt-Smith (2000) argue that once the equity ratio the banks hold exceeds some optimal proportion they should have, the banks will encounter more severe problems of self-conflicts of interest and asset exposure.

2.3 The Conflict of Interest from the Bank's Entry into the Corporate Board and the Loan Terms

It could be easier for companies to attain financing if there are bankers on the board (Ramirez, 1995). And the impacts of the bankers on boards on corporate lending are discussed in several subsequent literatures. Booth and Deli (1999) focused on the effects of the presence of commercial bankers on boards on the aggregate firm debt. When separated by three types of financial institutions into investment banks, commercial banks and insurance companies, only the commercial bank is positively related to short-term debt, long-term debt, and total bank debt. On the other hand, it is also found that the presence of an unaffiliated director on the board is positively related to bank borrowing, while the presence of an affiliated director on the board is not. The results are consistent with the theory that commercial bankers offer bank debt market expertise, but not with the theory that they sit on boards to monitor lending relationships.

However, banks cannot offset the conflicts between the role of creditors and shareholders if the monitoring function of bank cannot work well, and thus, additional cost follows. Kroszner and Strahan (2001) put emphasis on how banks deal with conflicts of interest after banks enter the corporate board. The empirical results show that American banks prefer to enter larger, more stable, more fixed assets and less short-term debt companies, in order to decrease the conflicts between the creditors and the shareholders.

But we would like to know how banks react to the tradeoff between the creditors and the shareholders as a role, and how this situation reflects on corporate decisions when banks are suffering from difficult circumstances. Byrd and Mizruchi (2005) compared the timing for the

board to have a lending banker as a director. They found the effects of timing on debt ratio for the separation of before-adding, concurrent with adding, after-adding the directors, and how the ratio changes to lessen the conflicts of interest. Therein, the results show that the debt ratio increases with the concurrent adding in board composition. It can be inferred that, as the degree of information asymmetry decreases, banks can get more interest so to have finance becoming easier when they enter the board. However, the debt ratio decreases after the adding of a banker to the board. Because conflicts of interest happened, and because the bank had played a monitoring role due to the lender's liability, the debt would be exercised more carefully.

The debt ratio is influenced by the board composition, however, it can be considered as a factor of composing the board in reverse. Therefore, Ciamarra (2006) took into account the endogeneity between the board structure and the financial outcome to compare the difference of whether there are bankers on board, and he found that having bankers on board is positively related to debt ratio. It reveals that banks play the roles of monitoring and providing expertise. The more rigorous conclusion is that bankers on boards not only provide the expertise in debt market, but also monitor the public debt and facilitate an increase in debt finance.

Moreover, since there are many factors that affect the debt ratio, it is incomplete for us to judge the conflict of interest by debt ratio. It is also common to use the collateralization to reduce the information asymmetry or make the covenants to restrict the behavior of borrowers. Meanwhile, the bank could revise the loan terms to reflect the cost of information asymmetry or to reflect the benefit from decreasing the agency cost (Petersen and Rajan, 1994; Berger and Udell, 1995; Chen and Lai, 1999). Therefore, a bank's reaction to conflict can be seen more directly through the loan terms, rather than through debt ratio.

Ciamarra (2006) used not only the debt ratio but also the loan terms to probe the conflict of interest happening to banks. It can be obviously observed that the loan spread rate is lower and the probabilities of collateralization and covenant are smaller when the lending bank enters the board. Lai, Chen and Ho (2008) pointed out that since loan terms can reflect the profit of bankers on boards, compared to corporate boards without banks, the corporate board with a bank can get higher loan sizes and lower loan spread rates. Also, these banks will help increase the loan rate (Gao, 2007) or decrease the loan size (Kroszner and Strahan, 2001) to reflect the cost.

2.4 The Conflict of Interest from the Bank's Entrance into the Corporate Board and the Corporate Earnings

Banks entering the corporate board would not only reflect the effect of information asymmetry on loan terms, but also on monetary benefits. Besides, the available benefits

would be taken into consideration when entering the board.

Weinstein and Yafeh (1998) argue that a close relationship between banks and firms would not lead to strong earnings and growth. This view is also found in Rajan (1992), whose research indicated that a bank is able to raise loan rates from the borrowers, resulting in the increase of capital cost and the decrease of profitability for companies. In addition, a bank might be more risk-averse than the firm, so that a bank may choose conservative investment strategies in order to prevent the firm from accepting those profitable projects with high risk, and as a result, reduce the firm's growth. In the firm's place, Garriaga (2006) tested how the relationship between firms and banks in Spain impacted on companies' earnings. He found that the borrowers' profitability was reduced if their relationship with the bank is eliminated, implying that the bank, in such a closed relationship, could exploit firm's benefits.

Jensen and Meckling (1976) pointed out that it induces the underinvestment when the creditors try to avoid risk, and this problem could be improved and firm value increased by holding some stock shares. But it would generate conflicts when the lending banks entered the corporate board by holding their stocks. The degrees of conflict would be decided by the equity stakes and the debt claims held by lending banks. Banks would tend to be creditors when their equity stakes are less than debt claims. In this situation, there is no departure from their interests in dealing with company policies. On the contrary, it would generate conflict of interest between the stockholders and creditors when their equity stakes are larger than debt claims.

Gao (2007) found that the enterprises in Japan react to the conflict of interest after entering the corporate board by means of checking the ratio of their main banks' equity and liability, and examining the influence on the firm's performance. The results show that, in the event of bank's equity ratio less than debt ratio, the performance of the company is inferior, and would not improve until the equity ratio increases to be larger than debt ratio. In a nutshell, banks not only reduce the information asymmetry, but also exploit the interests of companies to maximize banks' benefits by means of entering the corporate board.

3. Methodology

3.1 Data and Sample

Companies included in the Standard and Poor's Index from 1996 to 2006 form the sample for this study. We excluded the financial firms defined in the Compustat database from the sample, leaving 407 companies. We collected information on the structure of boards for companies included in the sample, using company annual reports and proxy statements filed with the Securities and Exchange Commission prior to the annual shareholder meeting. To obtain information on loans initiated over the last two decades, we used the Reuters/Loan

Pricing Corporation (LPC) Dealscan database, and the data of firm characteristics and capital structure are from Compustat. After ruling out the incomplete company data, the final sample size was 373 companies.

3.2 The Variables

3.2.1 Dependent variables

We use three measures of loan condition（LC_{it}）. One is loan size ($\ln(LS_{it})$), which is defined as the natural log of loan size. Another is loan spread ($SPREAD_{it}$), which is defined as the loan spread rate over the prime rate. The last is whether the loan is collateralized (SEC_{it}) or not, which is a dummy variable. The dummy variable equals 1 if the loan is collateralized and 0 otherwise. The data of dividend yield is collected from Compustat, which equates the payout ratio to market value of equity.

3.2.2 Independent Variables

The main variables are the following: 1) bankers on corporate boards, 2) lending bankers on corporate boards, 3) the shareholding ratio, and 4) the timing of the lending banker's entry into the corporate board. All others are considered as control variables. The relations between these variables and the loan size, loan spread rate and whether the loan is collateralized are as follows.

(1) Whether the banks are on the corporate board

This is a dummy variable, and we determine it if there are bankers on boards by using a proxy statement. If there are bankers on boards, the variable of BKBOARD equals 1 and 0 otherwise. It can be expressed as formula (1).

$$BKBOARD=\begin{cases}1 & \text{Banker on board}\\ 0 & \text{Otherwise}\end{cases} \quad (1)$$

(2) Lending bankers on board

This is also a dummy variable, and represents lending bankers on boards by using proxy statement and Dealscan database. If the banks give a loan and also enter the corporate board, then the variable of LENDERBOARD equals 1 and 0 otherwise. It can be outlined as formula (2).

$$LENDERBOARD=\begin{cases}1 & \text{Lending banker on board}\\ 0 & \text{Otherwise}\end{cases} \quad (2)$$

(3) Lending bankers' equity-debt structure

(a) Equity stakes are larger than debt claims

We dichotomize the lending bankers by comparing the proportion of equity stakes and debt claims. If the proportion of equity stakes is larger than the debt claims, the dummy variables are equal to 1 and 0 otherwise. The proportion of the equity stakes is the market value of the equity stakes to the total assets of the firms, and the proportion of the debt claims is defined as the loan size of the firms to the total assets. The sources of market value of equity stakes and total asset of firms were collected from Compustat database respectively, and enterprise loan data are from Dealscan database. It can be shown as formula (3).

$$EQUITYGTDEBT=\begin{cases}1 & \text{Equity stakes larger than debt claims}\\ 0 & \text{Otherwise}\end{cases} \quad (3)$$

(b) Equity stakes are less than debt claims

Another dummy variable is also used to indicate that whether the equity is less than debt. If the proportion of equity stakes is less than the debt claims, the dummy variable equals 1 and 0 otherwise. It can be seen as formula (4).

$$EQUITYLSDEBT=\begin{cases}1 & \text{Equity stakes less than debt claims}\\ 0 & \text{Otherwise}\end{cases} \quad (4)$$

(4) The timing of the lending banks' entrance into corporate board

Furthermore, we divide the lending bankers on boards into two types by the timing of the lending bank's entrance into corporate boards. The first type is when the bank enters the board first, and lends to the company afterwards. The second type is when the bank makes a loan to the company first, and enters the board afterwards. To differentiate between these two kinds of bankers on boards, we compared the initiate date of the loan terms in the Dealscan database and the date of bank's entrance into corporate boards in proxy statements. If the initiate date of the contract is earlier than the bank's entrance into the board, we will refer this kind of banker as type one. Otherwise, we refer it as type two.

(a) Lending bankers enter the corporate board first, and give a loan afterwards (LENDER_AFTER_BOARD)：

If the bank enters the board first, and lends to the company afterwards, then the dummy variable equals 1 and 0 otherwise. It can be shown as formula (5).

$$LENDER\_AFTER\_BOARD=\begin{cases}1 & \text{Entering the board before lending to the company}\\ 0 & \text{Otherwise}\end{cases} \quad (5)$$

(b) Lending bankers give a loan first, and enter the corporate board afterwards (BOARD_AFTER_LENDER)：

If the bank enters the board first, and lends to the company afterwards, then the dummy variable equals 1 and 0 otherwise. It can be noted as formula (6).

$$\text{BOARD\_AFTER\_LENDER}=\begin{cases}1 & \text{Lending to the company before entering the board}\\ 0 & \text{Otherwise}\end{cases} \quad (6)$$

(5) The interaction terms for the equity-debt structure being held by the lending banker on board and the timing of the entrance into the board

(a) The interaction terms for the dummy variables that the lending bankers enter the board first and give a loan afterwards, and the dummy variables that the lending bankers hold a ratio of equity stakes more than debt claims.

(b) The interaction terms for the dummy variables that the lending bankers enter the board first and give a loan afterwards, and the dummy variables that the lending bankers hold a ratio of equity stakes less than debt claims.

(c) The interaction terms for the dummy variables that the lending bankers give a loan first and enter the board afterwards, and the dummy variables that the lending bankers hold a ratio of equity stakes more than debt claims.

(d) The interaction terms for the dummy variables that the lending bankers give a loan first and enter the board afterwards, and the dummy variables that the lending bankers hold a ratio of equity stakes less than debt claims.

3.2.3 Control variables

The firm size (ln (TA)) is the natural logarithm of the book value of total assets. Comparing to the firm in a small scale, it is much easier for a large firm to obtain lower capital cost. Thus, the value of ln(TA) is positively related to loan size and negatively related to the loan spread rate and the probability of the collateralization.

The fixed asset ratio (FAR) is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Smith (1980) indicates that the more fixed assets there are the more tangible assets could be a guarantee for borrowing. The agent cost of debt between the creditors and shareholders will decrease with the increasing of the fixed asset ratio. Hence, the fixed asset ratio is positively related to loan size and negatively related to loan spread rate and the probability of collateralization.

The loan maturity (ln(MAT)) is a natural log of the days of the loan's duration. Banks will face higher interest rates, market risk, and default risk when the loan contract lasts long. Thus, banks will enhance the probability of the collateralization and loan spread rates, and

reduce loan sizes to reflect the market risk.

The index of high credit risk of the company (HCRISK) comes from S&P senior debt current in Dealscan. If the index is higher than BBB, it can be regarded as a low risk company. The dummy variable is considered as 0, and 1 if otherwise. The lower the credit index is the worse the borrower's credit is. In order to protect the rights of a creditor, the bank will ask the borrower to offer collateralization, raise the loan spread rate, and cut down the loan size. Hence, the quality of the credit of the company is negatively related to loan spread rates and the probability of collateralization, and positively related to loan size.

Moreover, we use the return of assets (ROA) as a measure of corporate profit. The company will have lower bankrupt risk, when they have the higher profitability, and it will help them attain more opportunities of public debt. Hence, we expect that the profitability is positively related to loan size and negatively related to the loan spread rate and the probability of collateralization.

At the part of corporate leverage ratio (LEVR), the bank undertakes quite high default risk as soon as the corporate debt ratio stays high, thus, the bank then requests relatively high risk premiums. Thus, the leverage ratio is positively related to the loan spread rate, and to the probability of collateralization, and negatively related to loan size.

In view of the number of banks (NUM) and the degree of the bank loan concentration (LOANHHI), when a company borrows from a bank intensively, the bank will have the interest of the economies of scale on information. Hence, the number of banks and the degree of the bank loan concentration are positively related to loan size and negatively related to the loan spread rate and the probability of collateralization.

At last, we evaluate the growth opportunity of the company by TobinQ. Jensen and Meckling (1976) indicated much more investing projects show up when the growth opportunity becomes greater. Hence, corporate stockholders tend to choose high-risk investing projects to enhance the value of their fortunes, and to transfer the creditor's fortune. So, the agent cost of debt relatively high is a disadvantage to lending. In addition, banks will have the problems of asset substitution, fortune transfer or claim dilution when they have higher investment opportunities, and they will face higher agent costs. So, banks will regulate loan terms to insure their debt claim rights. Thus, the future growth opportunity is positively related to the spread rate and the probability of collateralization, and negatively related to loan size.

3.3 Models

Bank lending is not only the capital source for the company, but also their guide for the long term relationship to follow possibly with extra benefits for the enterprises themselves. As for banks, except for establishing the relationship under the loan contract, banks could easily enter the board as a director. Under such circumstances, a bank can seize inside information in

the company, and fully understand the interior operation which they could monitor and help reduce corporate moral hazard in management. Petersen and Rajan (1994) indicated that maintaining a good long term relationship between the bank and the company not only reduces the interest cost for the borrower, but also increases the loan size as well. Rajan (1992) thought that banks will easily grasp the confidential internal data just through its surveillance, its examinations and its close lending relationship with the company. Then, the higher loan rate or higher loan size will be subscribed in the following loan contract. But, Rajan indicated that such a problem could be reduced for the bank as the stockholder of company.

We mainly refer to Elsas and Krahnen (1998) and Chen and Lai (2000, 2001) regarding loan pricing models to form the control variable for the model in this study, further adding the testing variables of bankers on boards, lending bankers on boards, the proportion of the equities holding by banks and the timing of the lending bankers' entrance into the board, etc. expressed as BOARD. The empirical models are established as the following:

Model 1：

$$LC_{it}=\beta_0+\beta_1 \ln(TA_{it})+\beta_2 HCRISK_{it}+\beta_3 LEVR_{it}+\beta_4 FAR_{it}+\beta_5 Tobinq_{it}+\beta_6 ROA_{it}+\beta_7 \ln(NUMB_{it})+\beta_8 LOANHHI_{it}+\beta_9 \ln(MAT_{it})+\beta_{10} BOARD_{it}+\varepsilon_{it}$$

Model 2：

$$Payout_{it}=\lambda_0+\lambda_1 \ln(TA_{it})+\lambda_2 HCRISK_{it}+\lambda_3 LEVR_{it}+\lambda_4 FAR_{it}+\lambda_5 Tobinq_{it}+\lambda_6 ROA_{it}+\lambda_7 \ln(NUMB_{it})+\lambda_8 LOANHHI_{it}+\lambda_9 \ln(MAT_{it})+\lambda_{10} BOARD_{it}+\mu_{it}$$

$\beta 0$、$\lambda 0$ are interception terms. βj、λj（$j = 1,2,\ldots,10$）are the coefficients of regression, and εit、μit are residual error terms.

3.4 Hypotheses

This study starts from a point that the bank enters the board or holds shares of company to discuss what influences occur on the loan terms under such a relationship. Kroszner and Strahan (2001) thought the bank entering the board as a stockholder could be viewed as a certification, and the bank is in a position to launch the signal to declare their viewpoint about the company under normal business conditions and to signal that there is no financial distress. Through the bank's entrance into the board, the problem of information asymmetry existing between the company and the capital provider can be diminished, and the company can get lower borrowing costs and better loan terms. All of the above arguments are proposed to be in our study and the hypotheses are as follows:

H1: The dummy variable of bankers on boards is negatively related to the loan spread rate and the probability of collateralization, and positively related to the loan size

The previous literature illustrates that there are two schools of opinion as to the positive

and negative influence on loan terms under a close relationship between a bank and a company. The positive opinion as Petersen and Rajan (1994) indicated, with a good long term relationship maintained with a bank, the company will have not only their loan interest cost reduced, but also the loan size increased. However, the negative opinion as Thadden (1992) identified claims that the internal information which the bank attains has made them an information monopolist owing to the close relationship with the company. Hence, the bank might exploit the company by using this advantage, such as raising the loan rate, subscribing severe loan terms and so on, and produce the holdup cost.

The bank has more power to seize the internal information of the company after entering the board or holding the shares of the company, and this will diminish the problem of information asymmetry. Moreover, the bank as a shareholder also undertakes the pursuing idea about maximum profits, so that the bank is not willing to exploit the company by using the internal information. The problem of holdup will be eliminated, and the company can obtain looser loan terms. Krozsner and Strahan (2001) pointed out that the conflict of interest will arise between two roles of the bank as both the shareholder and the creditor after bank's entrance into the board. The bank has to account for the responsibilities of both the shareholders and the creditors. Hence, the bank will avoid taking the loan order.

H2: The dummy variable of a lending banker on a board is negatively related to the loan spread rate and the probability of collateralization, and positively related to the loan size

As soon as the bank enters the board as a creditor, it will possibly face a different standpoint and lead to conflict of interest. As shown in Krozsner and Strahan (2001), the conflict of interest will be caused by the bank's entrance into the board. Therefore, to survey if the bank will respond to the degree of these conflicts of interest by the adjustment of the loan terms, we observed the relations between the loan terms and whether or not the bank enters the board. However, the bank's entrance into the board is also to reduce the problem of information asymmetry by means of obtaining internal information. This advantage could be possibly a better influence on the loan terms.

H3a: The dummy variable of the equity stakes larger than debt claims is positively related to the loan spread rate and the probability of the collateralization, and negatively related to the loan size.

H3b: The dummy variable of the equity stakes less than debt claims is negatively related to the loan spread rate and the probability of the collateralization, and positively related to the loan size.

Petersen and Rajan（1994） adopted small and medium enterprises as their sample, and

found that the loan size is significantly influenced by the lending relationship. That is, the borrowers are more capable to finance while they have the lending relationship with the bank. Under this circumstance, it could be a signal among banks to demonstrate that the company is unlikely to have financial crisis and they could precede finance at lower cost (Krozsner and Strahan, 2001). So, following the bank's entrance into the board, and the increase of the bank's shareholding proportion and director seats on the board, the loan terms are more advantageous to the company, such as higher loan size, lower spread rate, and no need to provide collateralization and so on. But, when the costs of conflict of interest are too high to offset the problems of agency cost and the information asymmetry, banks will offer smaller loan size, higher loan spread rates and the probability of collateralization.

We argue that whether the conflict of interest exists or not is tightly connected with the equity-debt structure during the bank's presence at board. Therefore, we compare the proportion of equity stakes and debt claims to see if there is any conflict of interest occurring and if the conflict influences the company's loan terms. A relatively high proportion of equity stakes means that the bank could possibly encounter more conflicts of interest, thus the loan spread rate and the probability of the collateralization increased, and meanwhile the loan size decreased to reflect this conflict (Ciamarra, 2006; Gao, 2007). Contrarily, a relatively high proportion of the debt claims means that the bank could possibly maintain the principle creditor role to debase the conflict. By making efforts on monitoring, the problem of information asymmetry will be reduced too. It helps the company obtain a lower loan spread rate and increase the probability of collateralization, and a higher loan size.

H4a: The dummy variable of the lending bank entering the board before lending to the company is negatively related to the loan spread rate and the probability of the collateralization, and positively related to the loan size

H4b: The dummy variable of the lending bank lending to the company before entering board is positively related to the loan spread rate and the probability of the collateralization, and negatively related to the loan size

We discussed in H2 about the bank's entrance into the board, to see if there is any conflict of interest happening to the loan terms. But we further subdivided the lending banks in hypothesis 3a and 3b, for observation on what type of lending bank could have a much more powerful influence on loan terms. Ciamarra (2006) divided these into two timing points when banks enter the board. The first type is that the bank gives a loan first and enters the board afterwards, and the second type is that the bank enters the board first and gives a loan afterwards. Therein the debt ratio increases when the lending banker on board is the first type. To the contrary, the debt ratio decreases when the lending banker on the board is the second type. The main reason is that it has been divided into two kinds of motives, when a company

invites a bank to join the board. One of the possibilities lies in the company under good performance, and they strongly wish to reduce the problem of information asymmetry after the bank joins the board. Thus, the bank will offer loans after entering board with a clear idea about the low probability of the company's going bankrupt. This belongs to the first type, and company will obtain better loan terms then. The other possibility is found in a company under financial difficulty. In this case, the bank will join the board to monitor the lending. This belongs to the second type, and company will obtain worse loan terms then.

H5a: The interaction terms of the dummy of E>D and the dummy of entering the board before lending are positively related to the loan spread rate and the probability of collateralization, and negatively related to the loan size

H5b: The interaction terms of the dummy of E<D and the dummy of entering board before lending are negatively related to the loan spread rate and the probability of collateralization, and positively related to the loan size

H6a: The interaction terms of the dummy of E>D and the dummy of lending before entering the board are positively related to the loan spread rate and the probability of collateralization, and negatively related to the loan size

H6b: The interaction terms of the dummy of E<D and the dummy of lending before entering the board are negatively related to the loan spread rate and the probability of collateralization, and positively related to the loan size

To distinguishing this study from the prior research, after discussing bank's shareholding proportions and the timing of their entrance into board separately, we further put the both together in order to appropriately conform to the true situation for corporate boards. As per hypothesis 5a and 5b, we take the dummy variables of the equity-debt structure plus the dummy of the lending banker who enters the board before lending to the company. As per hypothesis 6a and 6b, we take the dummy variables of the equity-debt structure plus the dummy of the lending banker who lends to the company before entering the board. All interaction terms fall into four categories, which have fully represented the form for lending bankers entering the board as a shareholder, for the sake of discussing under what kind of form the conflicts of interest will occur and how banks cope with it.

4. Empirical Results

4.1 Descriptive Statistics

The sample of this study includes the enlisted companies in the S&P 500. First of all, we obtained the loan information of the S&P 500 enterprise from the Dealscan Database, and the DEF 14A financial statements disclosed from the open website of the US Securities and

Exchange to define if the sample company has lending bank or non-lending bank on its board of directors. Table 1 shows the proportion of lending banks being enrolled as the director of company from 1996 to 2006, and it further indicates that the average proportion of lending banks as found in the board of borrowers is 10.81%. In addition, loan banks that appear on boards of companies can be classified into two categories, which are the banks that enter the board first, and lend to the company afterwards (there will be further text in this article showing entering first and loan afterwards), and also the banks that make a loan first, and enter the company afterwards (there will be further text in this paper showing loan first and entering afterwards). Table 1 illustrates the average proportion of banks that entered the board first and made loans to the company afterwards as 5.9%, and the average proportion of banks that made loans first, and entered the company afterwards as 5.11%, showing that lending banks that entered the corporate boards would mostly lend to the companies first.

Since this article will investigate if the problem of conflicts of interest really occur as noted by Kroszner and Strahan (2001) when the lending bank enters the company. Therefore, this article will resort to the structure of the equity and the debt to further divide lending banks which have entered the corporate board in which the equity stakes are larger than debt claims, the equity stakes are less than debt claims and the lending bank would not hold any equity. As indicated from Table 2, the average proportion of lending banks that entered corporate boards whose equity stakes are larger than the debt claims is 2.97%, and the average proportion of lending banks that entered companies with equity stakes smaller than the debt claims is 2.03%, and finally the average proportion of lending banks that have not entered a company was 94.99% from 1996 to 2006.

4.2 Impact of Loan Terms If the Bank Enters a Corporate Board

Then we will elaborate on the impact of loan contracts whether the bank enters a corporate board or not by dividing this subject into two aspects for investigation. We will, at the beginning, classify the sampling areas into two clusters as “company with any bank that enters its board” and “company without any bank that enters its board.” Among them, “company with any bank that enters its board” can be further classified into scenarios. The first kind is when a bank gives out loan to a company and become the director of the company (abbreviated as lending banker on board), and the second kind is a bank on the board of directors and the bank supervisors do not give out loans to the company (abbreviated as non-lending banker on board). We will first see if there is any bank that enters the corporate board to set up as a category for our research samples. We investigate if the companies can obtain more favorable loan terms from a bank that enters the corporate board than those companies which do not have banks on their board. Subsequently, we will also divide samples of companies with lending banks on their boards to see if there is any significant difference

between the loan contracts provided by the lending banker on the board and those provided by a non-lending banker on the board. In other words, we would like to investigate if the loan terms as stipulated by the lending banker on board who is acting both as shareholder and creditor and the non-lending banker on board as one who is acting merely as creditor would be different.

Research has shown (Kroszner and Strahan 2001; and Lai, Chen and Ho 2008) that when a bank is given with both roles of shareholder and creditor, there could be conflicts of interest. However, the above studies ignored the conflicts of interest brought by different types of bankers on boards. Lai and Lin (2007) indicated that the disabled monitoring of lending bankers could have resulted from the lending bank that entered the board first and made loans afterwards. Therefore, this article would further classify two separate types of bankers as 1) a lending banker on the board that first makes a loan and enters the board afterwards, and 2) a lending banker that enters the corporate board first and lends to the company afterwards.

On the other hand, we suspect that all of the lending bankers on boards will be exposed to the problem of conflicts of interest. When lending bankers on boards own larger equity stakes than debt claims, they would have even more serious conflicts of interest as compared to those whose equity stakes are less than debt claims. Therefore, lending bankers on boards with greater equity share would resort to unfavorable loan terms or higher payout ratios to compensate for the costs from the problem of conflicts of interest. As of such, in addition to dividing lending bankers on boards into two categories as mentioned above, we will forward categorize the lending bankers into two different types as 1) a bank makes a loan first and enters the board afterward, and 2) a bank enters the corporate board first and gives a loan afterwards, this article would further categorize lending bankers on boards into two more types as 1) banks with greater proportion of equity stakes than debt claims, and 2) banks with smaller proportions of equity stakes than debt claims. By comparing these two types of bankers on board, we can analyze if different approaches are employed to compensate their problems of conflict of interest.

We report the empirical results in Tables 3 and 5 to illustrate if better loan terms can be obtained from a company that has a banker on its board.

4.2.1 Descriptive Statistics

We will first categorize the sample firms into two clusters as companies with banks on its boards and those without, and the descriptive statistic results are indicated in Table 3. As we can see from the Table, loan size, loan spread rate, probability of collateralization, and payout ratio are taken as dependent variables, while others are taken as control variables in this study.

As shown in Table 3, we can observe that there will be prominent differences for most of

the variables in between of the two clusters. For dividends, the average payout ratio with banks on boards is 1.92%, while those without are 1.57%; therefore, banks could choose to enter the corporate board with high dividend yields. For the aspect of lending relationships, the company with a banker on board will, in comparison, enjoy wider relations with banks than do those companies without bankers on their boards, and the average number of banks will amount to 17.531 establishments. Besides, companies with banks in their board will, in comparison, enjoy a larger scale of company board than those without, and the board size will amount to 12.081 people, while the duration of the bankers on boards last on average 2.9742 years in the company. At the end, from the perspective of financial characteristics, those companies with banks on their boards should enjoy greater scale of assets, higher fixed ratio of assets, and lower standard deviation of return on equity (ROE) than those without. Therefore, these results coincide with the presumed expectation of conflict of interest as put forth by Kroszner and Strahan (2001). However, when a bank chooses to hold company shares with higher credit risk, the results are found to be inconsistent to the expectation of conflict of interest, but consistent to the hypothesis of agency of conflict. In summary of the above-mentioned description, the primary motive for a bank to enter a corporate board is not to reduce the problem of agency cost, but to reduce the problem of conflict of interest that arises when the bank is given both roles as creditor and shareholder.

Nonetheless, this study's primary concern is if the borrowing company can obtain better loan terms with a banker on its board than without. From the perspective of loan terms, the company with a banker on its board can, in comparison, lower the loan spread rate (0.46%) more than those without, increase the loan size (1.417 billion), and shorten the duration for loan maturity (35.865 months); however, no difference is found between those borrowing companies with bankers on boards and those without in terms of the probability of collateralization. In other words, aside from the terms of duration of maturity, a company with a banker on its board will more favorably be able to stipulate loan terms than those without. This study will use the regression model to investigate the relationship between a company with a banker on its board and those without against loan terms. In Table 4, such a correlation among each of the variables is demonstrated, and the correlation coefficient stands the highest between the debt ratio and return on assets (ROA) as viewed from the explanatory variables, being -0.362, while the correlation coefficient of other explanatory variables is smaller than 0.362. As such, it demonstrates a low correlation among explanatory variables.

4.2.2 Regression results

This study uses a dummy variable to indicate if the company has a banker on the board. When the company has a banker on the board its value will be 1, and 0 if otherwise. We use the ordinary least squares (OLS) regression model to investigate the relationship between

such a dummy variable and loan terms as loan size and loan spread rate. Besides, the logit model will also be used to explore the relationship between the dummy variable and loan terms if there is any collateralization; when there is collateralization, its value will be 1, and 0 otherwise. The regression results are shown on Table 5. First of all, the loan spread rate as a dependent variable is indicated with regression results, while the dummy variable of regression coefficient of companies with a bank on the board is -0.2355 and has achieved a significant level as 0.01, which indicates that the borrowing company with a bank on its board will obtain lower loan spread rates than those without. As indicated from the regression results of loan size as the dependent variable, the regression coefficient for the dummy variable of a company with a banker on the board is -0.0777, and it is statistically insignificant. As indicated from the regression results, if there is collateralization as a dependent variable, no significant positive impact is observed regarding collateralization for the dummy variable of a company with a bank in its board. To summarize the above-mentioned results, a company with a banker on the board can obtain lower spread rates for its loans.

For control variables, the scale of assets will be negatively related to loan spread rates while they will be positively related to loan size and probability of collateralization. Thus, the dummy variable of high credit risk would be positively and negatively related to the loan spread rate and loan size, respectively. In other words, when the borrowing company is found with higher credit risk, the bank will, then, increase its interest rate for any loan and lower its loan size. And debt ratio will impact positively on the loan spread rate and the probability of collateralization, while Tobin's q should impact positively upon loan spread rates and loan size. Since this article has used Tobin's q to measure the chance of growth for the borrowing company, it shows that when the borrowing company is found with a higher chance of growth the bank is more willing to lower its loan rate, and to increase loan size to maintain the lending relationship with it. The ROA of a borrowing company and loan concentration should have a negative impact on the loan spread rate, while ROA does not levy any impact on loan size and probability of collateralization; however, loan concentration exercises significantly negative impact on loan size and probability of collateralization.

4.3 Comparison of Loan Terms of Company with Lending Banker on Board and Those Without

Based on previous empirical results, we have learned that a company with a banker on its board should enjoy lower loan spread rates than those without. Then, this study will further investigate the loan terms as provided by lending bankers on boards and non-lending bankers on boards. Given with persistent definition done previously, we will consider banks with dual

identities as creditors and shareholders as “lending banker on board”, while those whose board of directors are not a creditor as “non-lending banker on board”.

4.3.1 Descriptive statistics

The descriptive statistical results regarding loan terms of companies with a lending banker on the board and those without are indicated in Table 6. There is a significant difference with regard to the two clusters of loan spread rates, loan size, duration of loan maturity and payout ratios, while there is no significant difference if there is any collateralization. Besides, we have further categorized two types of lending bankers into those with larger equity stakes than debt claims, and those with equity stakes smaller than the debt claims, and the comparison of loan terms of these two types of lending bankers are indicated in Table 7, which only differs in the probability of collateralization. Furthermore, it is found that the duration of loan maturity will last longer, and the scale of assets and board size are larger for the borrowing company whose lending banker on board holds greater equity stakes than debt claims. Afterwards, we will make use of the regression model to investigate the relationship between the lending banker on the board and the loan terms, and the results are shown in Table 8.

4.3.2 Regression results

The test variables in Table 8 are for the lending banks on the corporate board so as to investigate the difference as well as the relationship of the three variables of loan terms as loan size, loan spread rate, and probability of collateralization. The regression results indicate that if the lending bank enters the corporate board, the dummy variable will merely render a significantly negative impact on the loan spread rate, but be insignificantly negative and have a positive impact on loan size and the provision of collateralization, respectively. Next, we will consider the structure of the equity and debt of the lending bank. Kroszner and Strahan (2001), Byrd and Mizruchi (2005), and Ciamarra (2006) reckoned that the lending bank will be confronted with problems of conflict of interest and disable monitoring when it enters the board of the borrowing company. In other words, when the lending bank is more focused on the role of stockholder, it could easily ignore the responsibility of creditor and jeopardize its right as creditor.

We will resort to the relationship of the equity-debt structure held by the lending bank to measure which role the lending banker will put emphasis on. When the proportion of equity stakes are greater than the debt claims, the lending banker will primarily value its role as a shareholder; on the other hand, if the proportion of equity stakes are greater than the debt claims, the lending bank will primarily value its role as a creditor. We believe that the lending

banker with the larger proportion of equity stakes than debt claims will be exposed to problems of greater conflict of interest. Therefore, the bank will resort to the stipulation of loan terms or share the company surplus to resist the cost occurred by the conflict of interest. Thus, we have added the interaction term of the dummy for the lending banker on the board and the dummy of equity>debt, and the interaction term of the dummy of the lending banker on the board and the dummy of equity<debt to investigate how different types of lending bankers make use of loan terms or share company surpluses to offset the conflict of interest as indicated in Table 9. In Table 9, it shows the impact on loan terms and payout ratio regarding two different types of lending bankers with its equity>debt and equity<debt.

In Table 9, it shows that the dummy variables of equity>debt and equity<debt will both have a negative impact on the loan spread rate, but the lending banker with equity>debt will levy a smaller magnitude of loan cuts than the lending banker with equity<debt. Besides, in comparison to the lending banker of equity<debt, the lending banker with equity<debt should levy a prominent negative impact on loan size, and a positive impact on the probability of collateralization and payout ratio, which indicates the lending banker with equity>debt will make use of lowering the loan size, enhancing the probability of collateralization, or sharing company surpluses to resist the cost of the conflict of interest. As for lending bankers with equity<debt, they might be confronted with the problem of conflict of interest as of greater importance endowed to creditor; therefore, such lending bankers will not share the high dividend yields or render stricter loan terms to reflect such conflicts of interest. Moreover, such results are in contrast to those of Gao (2007). Gao (2007) found that Japanese banks with equity>debt will make use of dividend sharing to reflect conflicts of interest, while Japanese banks with interest smaller than loan credit will resort to increasing loan interest rates to reflect conflicts of interest. As indicated with the empirical results in Table 9, a lending banker on a board in the US will only be confronted with serious conflicts of interest when the equity stakes are larger than debt claims.

4.4 Comparison of Loan Terms and Payout Ratio of Lending Banks that Make Loans First and Enter Corporate Board Afterwards, and Vice Versa

4.4.1 Descriptive statistics

Kroszner and Strahan (2001), Byrd and Mizruchi (2005), and Ciamarra (2006) believed that the lending banker will be confronted with problems of conflict of interest and disable monitoring after entering the corporate board. Byrd and Mizruchi (2005), Ciamarra (2006), and Lai and Lin (2007) have respectively made use of information from the US and Taiwan to corroborate the fact of disable monitoring after the lending bank enters the board; however, Byrd and Mizruchi (2005) and Ciamarra(2006) did not further analyze the source of disable

monitoring. Therefore, Lai and Lin had exploited information of Taiwan to further probe the problem of disable monitoring, and the results indicate that the lending bank that enters the corporate board is the source for disable monitoring. In order to appreciate the source of disable monitoring in the US lending bank, this article has further categorized lending banks that enter the board first, and lend to the company afterwards and vice versa.

Also, we will classify lending banks entering boards first and lending later or those that make a loan first and enter the board afterwards into lending banks with equity>debt and equity<debt, as such, four respective kinds of interaction terms are generated which will be used to investigate if the conflicts of interest of lending banks will still occur, and what are their ways to resist these conflicts of interest. These four interaction terms are respectively as the dummy of bank entering first and lending afterward plus the dummy of equity>debt, the dummy of bank entering first and lending afterwards plus the dummy of equity<debt, the dummy of bank making a loan first and entering board afterwards plus the dummy of equity>debt, and the dummy of bank making a loan first and entering board afterwards plus the dummy of equity<debt. The descriptive statistical results of loan terms comparison of banks that enter boards first and lend to the company afterwards and vice versa are reported in Table 10, and the only difference is found with the provision of collateralization. Then, we will, first, make use of the regression model to elaborate the relationship of lending banks that enter boards first and lend to the company afterwards and banks that make a loan first and enter the board afterwards with loan terms, displayed in Table 11 and 13.

4.4.2 Regression results

The test variables in Table 11 and 13 are of the dummy variables of lending banks that enter boards first and lend to the company afterwards and banks that make loans first and enter the board afterward, and they are used to investigate the relationship of loan terms as loan size, loan spread rate, and provision of collateralization. In Table 11, the regression results reveal the lending banks that enter boards first and lend to the company afterwards levy a significant positive impact on loan spread rates and provisions of collateralization, but have an insignificantly negative impact on loan size. The evidence implies that lending banks that enter boards first and lend to the company afterwards might be confronted with problems of more serious conflicts of interest, or because the lending bank enters board first and is then more informed, it would make use of loan spread rate, and increase of probability of collateralization to reflect the conflict of interest. Table 13 demonstrates the regression results of lending banks that make a loan first and enter the board afterwards on loan terms, which show that lending banks that make a loan first and enter boards afterwards levy significant negative impact on the probability of collateralization, but significant negative impact on loan

spread rate and loan size. Later on, we will further consider the relationship between the equity stakes and the debt claims of lending banks.

Table 12 shows the regression results of the dummy of the lending bank that enters the board first and lends to the company afterwards plus the dummy of equity>debt, and of the dummy of the lending bank that enters the board first and lends to the company afterwards plus the dummy of equity<debt regarding loan terms and payout ratios. As indicated from the regression results in Table 12, the lending bank that enters the board first and lends to the company afterward will be, regardless of its equity-debt structure, significantly positively related to loan spread rate and probability of collateralization. However, the dummy of the lending bank that enters the board first and lends to the company afterwards plus the dummy of equity>debt should levy a negative impact on payout ratios. But the results of lending bank that enters the board first and lends to the company afterwards with its equity>debt are different from that of Gao (2007). Gao (2007) did not classify lending banks that enters boards first and lend afterwards and vice versa, and the results show that the lending bank of equity>debt will choose to increase the payout ratio and reduce the loan spread rate.

Our study has shown that lending banks that enter boards first and lend afterwards will choose to increase the loan terms to resist conflicts of interest. As indicated in Table 14, the lending bank that makes a loan first and enters the board afterwards with equity>debt does not levy significant negative impact on loan spread rates, loan size and the provision of collateralization, and levy an insignificant positive impact on payout ratios. As we correlate the lending banks of equity>debt that enter boards first and lend to the company afterwards and vice versa in Table 12 and 14, we will find that only the lending bank that enters the board first and lends to the company afterward with equity>debt will enhance loan terms and reduce the dividend yields. As we compare the impact on loan terms and payout ratios with lending banks of equity<debt that enter boards first and lend to the company afterwards and the bank that makes a loan first and enters the board afterwards in Table 12 and 14, it shows that the lending bank of equity<debt that enters a board first and lends to the company afterwards will increase the loan spread rate and the probability of collateralization; however, the lending bank of equity<debt that makes a loan first and enters the board afterwards will lower the probability of collateralization and increase the sharing dividend yield. As viewed from the above-mentioned results, it shows that the lending bank with equity>debt enters the board first and lends to company afterwards might be the source that generates conflicts of interest.

5. Conclusions

The purpose of this study is to discuss if conflict of interest exists when lending banks are also stockholders. We intended to figure out how lending banks reduce these conflicts of

interest and to find out the difference in their conflicts of interest at various types of lending banks by examining the changes in loan terms and payout yields. We selected the companies included in S&P500 between 1996 and 2006 as the sample of this study. We differentiated between the boards with banks and those without banks, and whether the lending bankers were on the boards or not. We found the effect of each type of banker based on loan terms. The results show that the companies with a banker on the board could obtain relatively better loan terms, and that companies who have a lending banker on their board could get lower loan spread rates.

We further aimed at lending bankers on boards by comparing their equity stakes and debt claims to probe the probability of the existence of the conflict of interest and its effect on the loan terms. The results revealed that the probabilities of the collateralization increases, loan size decreases and payout yield increases when the equity stakes are larger than debt claims (E>D). On the other hand, the spread rate decreases when the equity stakes are less than debt claims (E<D). Therefore, the conflicts of interest could derive possibly from having a lending banker on the board whose equity stakes are larger than its debt claims. That is, this kind of lending bankers will easily neglect the responsibility as a creditor and harm the creditor's rights. And the lending bankers with larger equity stakes will try to adjust loan terms to make up for the cost that arises from the conflict of interest.

In addition, we differentiated two types of bankers on boards according to the initial time of the lending relationship between the company and the bank. One type was (i) that the bank enters the board first, and lends to the company afterwards (Board_before_lend); the other type was (ii) that the bank makes a loan to the company first, and enters the board afterwards (Lend_before_board). These two different types of bankers might help reveal the effect of the timing on loan terms. Compared to case (ii), case (i) would be associated with the increase in the spread rate and the probabilities of the presence of the collateralization. As a result, the banks associated with case (i) would possibly encounter more conflicts of interest.

Meanwhile, we have the interaction terms for the equity ratio of the lending banker on the board and the timing of the entrance into the board. Four categories include (i) the bank whose equity stakes are larger than debt claims enters the board first and lends to the company afterwards, (ii) the bank whose equity stakes are less than debt claims enters the board first and lends to the company afterwards, (iii) the bank whose equity stakes are larger than debt claims makes a loan first and enters the board afterwards, and (iv) the bank whose equity stakes are less than debt claims makes a loan first and enters the board afterwards. These four interaction terms fully represent the variety of the lending bankers on boards, and we can easily have a direct observation for the effects of these four types of bankers on the loan terms and the payout yields. We found that no matter whether the lending banks' equity stakes are larger or smaller than debt claims, the lending banks that enter the board before

lending to the companies will be positively related to the loan spread rate and the probability of collateralization. Only the dummy of the lending banks that enter the board before lending to the companies with equity stakes larger than debt claims is negatively related to payout ratio. Therefore, these kinds of lending bankers could be the main source of conflict of interest and they react by offering less favorable loan terms to the borrowing firms.

Table 1 Distribution of bankers on boards

Year	Number of Loan	Banker on Board (%)	Lending Banker (%)		
			Lending Banker on Board	Entering the Corporate Board Before Lending	Lending Before Entering the Corporate Board
1996	200	11.50	11.50	0.00	11.50
1997	274	12.77	12.77	8.39	5.11
1998	194	10.31	10.31	4.12	6.19
1999	252	13.10	13.10	6.35	7.94
2000	295	6.78	6.78	3.39	3.39
2001	370	13.24	13.24	9.45	3.78
2002	349	6.59	6.59	4.59	2.29
2003	322	13.35	13.35	7.14	6.83
2004	314	14.33	14.33	11.15	3.18
2005	333	9.31	8.71	6.31	2.40
2006	275	7.64	7.64	4.00	3.64
Avg.	289	10.81	10.75	5.90	5.11

Table 2 Distribution of equity-debt structure holding by lending bank

Year	Non-lending Banker on Board	Lending Banker on Board	
	Pure Debt (Equity=0) (%)	Equity>Debt (%)	Equity<Debt (%)
1996	93.68	2.37	3.95
1997	93.90	3.91	2.19
1998	94.77	2.72	2.51
1999	93.78	3.93	2.29
2000	96.68	1.72	1.59
2001	94.48	4.00	1.52
2002	97.27	1.86	0.87
2003	94.42	4.09	1.49
2004	92.71	3.52	3.77
2005	95.90	2.46	1.64
2006	97.33	2.11	0.56
Avg.	94.99	2.97	2.03

Table 3 The comparison of loan terms and financial characters between boards with and without bankers

This table presents the means for the loan terms and financial characters for the sample. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size is defined as the natural log of loan size. The provision of collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has the collateralization and 0 otherwise. Loan maturity is the months of the maturity of a loan agreement. Payout ratio is adopted from COMPUSTAT, which is the payout ratio to market value of equity. Total assets are the natural logarithm of the book value of total assets. Leverage ratio is the book value of debt divided by the book value of asset. The fixed asset ratio is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk of the company comes from S&P senior debt current in Dealscan. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

		Banker on Board		
Variables	Total Sample	With Banker on Board	Without Banker on Board	Differences in Means
	Mean	Mean	Mean	t-statistics
Loan Spread Rate	0.0076	0.0046	0.0075	7.15***
Loan Size	1210.84	1417.10	1185.90	-2.49**
Collateralization	0.7135	0.6822	0.7173	0.17
Loan Maturity in Months	38.7455	35.865	39.105	2.18**
Payout Ratio	0.0161	0.0192	0.0157	-4.41***
Total Asset	9.1632	9.455	9.1259	-5.06***
Leverage Ratio	0.6514	0.662	0.6501	-1.34
Fixed Asset Ratio	0.3399	0.3702	0.3360	-2.63***
Tobinq	4.3164	3.9555	4.3630	0.80
ROA	0.0506	0.0539	0.0502	-1.13
High Credit Risk (Dummy)	0.6135	0.6764	0.6060	-2.53**
Standard Deviation of ROE	0.0915	0.081	0.0929	5.47***
Long-term Loan Ratio	0.5400	0.5191	0.5427	0.83
Board Size	11.0311	12.081	10.883	-7.51***
Duration of Banker on Board	0.3555	2.9742	0	-12.01***
Loan Concentration	0.6440	0.6607	0.642	-1.10
Number of Lending Banks	12.4635	17.531	11.855	-9.29***

*, **, *** denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively.

Table 4 Correlations between variables

	Loan spread rate	Loan size	Loan maturity	Collateralization	Payout ratio	Total Asset	High credit risk	Leverage ratio	Fixed asset ratio	Tobinq	ROA	Number of lending bank	Loan concentration	Long-term loan
Loan spread rate	1.0000													
Loan size	-0.0730***	1.0000												
Loan maturity	0.1437***	0.0466***	1.0000											
Collateralization	0.1528***	-0.0877***	-0.0401**	1.0000										
Payout ratio	-0.2386***	0.0538***	-0.1028***	0.0070	1.0000									
Total Asset	-0.1061***	0.5176***	-0.1398***	0.0520***	0.1988***	1.0000								
High credit risk	0.3947***	-0.1154***	0.1557***	0.0066***	-0.1612***	-0.1232***	1.0000							
Leverage ratio	0.3008***	0.1172***	0.0235	0.0922***	0.0739***	0.2198***	0.1544***	1.0000						
Fixed asset ratio	0.0808***	0.0266	0.033*	0.0400**	0.0727***	0.1938***	0.1038***	0.1353***	1.0000					
Tobinq	-0.0864***	-0.0328*	0.0067	0.0043	0.0108***	-0.0875***	-0.0515***	0.0746***	-0.0186	1.0000				
ROA	-0.3309***	-0.0645***	-0.0114	-0.0604***	0.1128***	-0.1528***	-0.2292***	-0.3620***	-0.1239***	0.1763***	1.0000			
Number of lending banks	-0.0798***	0.5325***	0.0317*	-0.2116***	0.0117	0.2272***	-0.0301*	0.0569***	-0.0030	-0.0157	-0.0336*	1.0000		
Loan concentration	-0.3046***	-0.2309***	-0.1152***	-0.0527***	0.1052***	-0.0233	-0.1495***	-0.2039***	-0.0373**	0.0295	0.1452***	-0.0468***	1.0000	
Long-term loan	0.1986***	0.0607***	0.9159***	-0.0747***	-0.1061***	-0.1224***	0.1716***	0.03448*	0.0200	0.0073	-0.0189	0.1026***	-0.1337***	1.0000

Table 5 The effect of bankers on boards on loan terms

This table presents the results from OLS estimations of loan spread rates and loan size, and logit estimation of the collateralization. Each of the observations corresponds to a loan contract. Dependent variables are the loan spread rate, loan size and the collateralization. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size (lnLS) is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has a provision of collateralization and 0 otherwise. Loan maturity (lnMAT) is the natural log of number the days the loan lasts. Total asset (lnTA) is the natural logarithm of the book value of total assets. Leverage ratio (LEVR) is the book value of debt divided by the book value of asset. The fixed asset ratio (FAR) is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q (Tobinq) is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is the income of the book value of book value of asset. The index of high credit risk (HCRISK) of the company comes from S&P senior debt current in Dealscan. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. If there are bankers on board, the dummy variable of BKBOARD equals 1 and 0 otherwise. We measure the loan concentration (LOANHHI) by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

	Spread Rate		Loan Size		Collateralization	
	Coef.	t-value	Coef.	t-value	Coef.	t-value
Interception	1.0502	5.68***	2.90576	11.90***	0.3183	0.63
lnLS	-0.0693	-3.23***			-0.0759	-1.23
lnMAT	0.0824	4.08***	0.1061	5.34***	-0.0315	-0.57
Collateralization	0.2364	6.68***				
lnTA	-0.0735	-4.10***	0.4263	28.08***	0.2301	4.52***
HCRISK	0.5016	14.22***	-0.1319	-3.80***	-0.040	-0.42
LEVR	1.0393	9.30***	-0.0704	-0.64	1.0068	3.26***
FAR	0.1300	1.67*	-0.3111	-4.60***	0.1110	0.53
Tobinq	-0.0052	-3.13***	0.0028	1.71*	0.0012	0.46
ROA	-2.2628	-8.73***	0.0728	0.28	-1.0039	-1.32
lnNUMB	-0.0137	-0.64	0.4570	24.59***	-0.5523	-8.96***
LOANHHI	-0.6370	-10.62***	-0.8449	-15.00***	-0.4918	-3.04***
BKBOARD	-0.2355	-4.56***	-0.0777	-1.52	0.1165	0.86
Adj-R^2	0.3350		0.4929			
F-statistics	94.98***		218.63***			
Pseudo R^2					0.050	
for c^2 for regression					180.04***	

*, **, *** denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively. Sample size is 2240.

Table 6 Comparison of the loan terms and financial characters between boards with and without lending bankers

This table presents the means for the loan terms and financial characters for the sample. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has the collateralization and 0 otherwise. Loan maturity is the months of the maturity of a loan agreement. Payout ratio is adopted from COMPUSTAT, which is the payout ratio to market value of equity. Leverage ratio is the book value of debt divided by the book value of asset. Total assets are the natural logarithm of the book value of total assets. The fixed asset ratio is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk of a company comes from the S&P senior debt current in Dealscan. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

	Lending Banker on Board		
Variables	With Lending Banker on Board	Without Lending Banker on Board	Differences in Means
	Mean	Mean	t-statistics
Loan Spread Rate	0.0052	0.0079	7.13***
Loan Size	1421.6	1185.5	-2.54**
Collateralization	0.6833	0.7171	1.27
Loan Maturity in Months	35.864	39.102	2.18**
Payout Ratio	0.0192	0.0157	-4.36***
Total Asset	9.458	9.127	-5.10***
Leverage Ratio	0.6632	0.6499	-1.50
Fixed Asset Ratio	0.3712	0.3359	-2.71***
Tobinq	3.9729	4.3604	0.76
ROA	0.0524	0.0504	-0.48
High Credit Risk (Dummy)	0.6745	0.6063	-2.45**
Standard Deviation of ROE	0.0811	0.0929	5.39***
Long-term Loan Ratio	0.5191	0.5426	0.82
Board Size	12.093	10.882	-7.57***
Duration of Banker on Board	3.3195	0	-18.88***
Loan Concentration	0.6616	0.6419	-1.16
Number of Lending Banks	17.54	11.858	-9.25***

*, **, ***denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively. Sample size is 2240.

Table 7 Comparison of loan terms and financial characters between the different equity-debt structures

This table presents the means for the loan terms and financial characters for the sample. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has collateralization and 0 otherwise. Loan maturity is the months of the maturity of a loan agreement. Payout ratio is adopted from COMPUSTAT, which is the payout ratio to market value of equity. Leverage ratio is the book value of debt divided by the book value of asset. Total assets are the natural logarithm of the book value of total assets. The fixed asset ratio is the sum of net value of the fixed asset and inventory divided by the book value of total assets. Tobin's q is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk of a company comes from the S&P senior debt current in Dealscan. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

		Equity>Debt vs. Equity<Debt		
	Non-lending Banker (E=0)	Lending Banker (E>D)	Lending Banker (E<=D)	Differences in Means
	Mean	Mean	Mean	t-statistics
Loan Spread Rate	0.0077	0.0051	0.0049	0.34
Loan Size	1220.76	1370.88	1488.02	-0.66
Collateralization	0.7128	0.7352	0.5714	2.58***
Loan Maturity in Months	38.508	34.753	38.013	-1.02
Payout Ratio	0.0160	0.0197	0.0192	0.29
Total Asset	9.1504	9.5282	9.1751	2.53**
Leverage Ratio	0.6510	0.6599	0.6691	-0.47
Fixed Asset Ratio	0.3382	0.3625	0.4073	-1.54
Tobinq	4.3670	3.7164	4.5417	-0.70
ROA	0.0501	0.0509	0.0623	-1.41
High Credit Risk (Dummy)	0.5925	0.6554	0.7402	-1.38
Standard Deviation of ROE	0.0928	0.0802	0.0846	-0.88
Long-term Loan Ratio	0.5367	0.4957	0.5714	-1.15
Board Size	10.9102	12.1681	11.5454	1.88*
Duration of Banker on Board	0	3.7226	2.7012	3.27***
Loan Concentration	0.6356	0.6581	0.6537	0.12
Number of Lending Banks	12.1190	16.0966	21.5714	-4.03***

Table 8 Effect of lending bankers on boards on loan terms

This table presents the results from OLS estimation of loan spread rate and loan size, and logit estimation of collateralization. Each of the observations corresponds to a loan contract. Dependent variables are the loan spread rate, loan size and the collateralization. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size (lnLS) is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has collateralization and 0 otherwise. Loan maturity (lnMAT) is the natural log of the number of days the loan lasts. Total assets (lnTA) are the natural logarithm of the book value of total assets. The fixed asset ratio (FAR) is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q (Tobinq) is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk (HCRISK) of a company comes from the S&P senior debt current in Dealscan. Leverage ratio (LEVR) is the book value of debt divided by the book value of asset. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration (LOANHHI) by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

If the banks give a loan and also enter the corporate board, then the variable of LENDERBOARD equals 1 and 0 otherwise.

	Spread Rate		Loan Size		Collateralization	
	Coef.	t-value	Coef.	t-value	Coef.	t-value
Interception	1.0499	5.68***	2.0966	11.90***	0.3182	0.63
lnLS	-0.0692	-3.23***			-0.0759	-1.23
lnMAT	0.0824	4.08***	0.1061	5.35***	-0.0315	-0.57
Collateralization	0.2364	6.68***				
lnTA	-0.0735	-4.10***	0.4263	28.08***	0.2302	4.52***
HCRISK	0.5010	14.21***	-0.1323	-3.81***	-0.0398	-0.42
LEVR	1.0395	9.30***	-0.0703	-0.64	1.0066	3.26***
FAR	0.1308	1.68*	-0.3112	-4.60***	0.1107	0.53
Tobinq	-0.0052	-3.12***	0.0028	1.72*	0.0012	0.46
ROA	-2.2747	-8.78***	0.0684	0.27	-0.9968	-1.32
lnNUMB	-0.0137	-0.64	0.4568	24.59***	-0.5523	-8.96***
LOANHHI	-0.6361	-10.61***	-0.8448	-15.00***	-0.4923	-3.04***
LENDERBOARD	-0.2401	-4.64***	-0.0749	-1.46	0.1184	0.87
Adj-R^2	0.3352		0.4929			
F-statistics	95.07***		218.59***			
Pseudo R^2					0.0556	
for c^2 for regression					180.04***	

*, **, ***denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively. Sample size is 2240.

Table 9 Effect of the equity-debt structure of lending banks on loan terms and payout ratios

This table presents the results from OLS estimations of loan spread rate and loan size, and logit estimations of collateralization. Each of the observations corresponds to a loan contract. Dependent variables are the loan spread rate, loan size and the collateralization. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size (lnLS) is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has collateralization and 0 otherwise. Loan maturity (lnMAT) is the natural log of the number of days the loan lasts. Payout ratio is adopted from COMPUSTAT, which is the payout ratio to market value of equity. Total assets (lnTA) are the natural logarithm of the book value of total assets. The fixed asset ratio (FAR) is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q (Tobinq) is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk (HCRISK) of a company comes from the S&P senior debt current in Dealscan. Leverage ratio (LEVR) is the book value of debt divided by the book value of asset. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration (LOANHHI) by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

We take the lending bankers separated by comparing the proportion of equity stakes and the debt claims. For the Equity>Debt, if the proportion of equity stakes is larger than the debt claims, then the dummy variables equals 1, and 0 otherwise. And for the Equity<Debt, if the proportion of equity stakes is smaller than the debt claims, then the dummy variables equals 1, and 0 otherwise. The proportion of the equity stakes is the market value of the equity stakes to the total assets of the firms, and the proportion of the debt claims are defined as the loan size of the firm to the total assets. The sources of market value of equity stakes and total assets of firms are collected from Compustat database respectively, and enterprise loan data are from Dealscan database.

	Spread Rate		Loan Size		Collateralization		Payout Ratio	
	Coef.	t-value	Coef.	t-value	Coef.	t-value	Coef.	t-value
Interception	1.0547	5.70***	2.0926	11.89***	0.3186	0.63	-1.4728	-5.47***
lnLS	-0.0690	-3.22***			-0.0724	-1.17		
lnMAT	0.08271	4.09***	0.1063	5.36***	-0.0312	-0.56		
Collateralization	0.2362	6.67***						
lnTA	-0.0745	-4.14***	0.4285	28.19***	0.2242	4.39***	0.2102	8.36***
HCRISK	0.5010	14.20***	-0.1338	-3.86***	-0.0383	-0.40	-0.3754	-6.37***
LEVR	1.0410	9.31***	-0.0758	-0.69	1.0175	3.29***	1.2392	6.64***
FAR	0.1331	1.71*	-0.3201	-4.17***	0.129	0.62	0.4581	3.53***
Tobinq	-0.0051	-3.11***	0.0028	1.69*	0.0012	0.45	-0.0081	-2.94***
ROA	-2.2733	-8.77***	0.0563	0.22	-0.9827	-1.29	3.2907	7.60***
lnNUMB	-0.0137	-0.64	0.4535	24.37***	-0.5473	-8.88***		
LOANHHI	-0.6361	-10.60***	-0.8461	-15.03***	-0.4885	-3.01***	0.4349	4.57***
Long-term Loan Ratio							-0.0793	-1.40
Equity>Debt	-0.2345	-3.96***	-0.1409	-2.41**	0.2763	1.72*	0.2086	2.11**
Equity<Debt	-0.2747	-2.70***	0.1120	1.11	-0.2774	-1.11	0.26859	1.58
Adj-R^2	0.3349		0.4938				0.1189	
F-statistics	87.74***		199.58***				31.21***	
Pseudo R^2					0.0567			
for c^2 for regression					183.88***			

*, **, ***denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively. Sample size is 2240.

Table 10 Comparison of loan terms and financial characters between boards with and without lending bankers: Lending after entering board vs. Entering board after lending

This table presents the means for the loan terms and financial characters for the sample. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has collateralization and 0 otherwise. Loan maturity is the months of the maturity of a loan agreement. Payout ratio is adopted from COMPUSTAT, which is the payout ratio to market value of equity. Total assets are the natural logarithm of the book value of total assets. Leverage ratio is the book value of debt divided by the book value of asset. The fixed asset ratio is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q (Tobinq) is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk of a company comes from the S&P senior debt current in Dealscan. If the index is higher than BBB, the dummy variable is considered as 0, and 1 otherwise. We measure the loan concentration by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

	Entering Before Lending vs. Lending Before Entering		
	Entering Before Lending	Lending Before Entering	Differences in Means
	Mean	Mean	t-statistics
Loan Spread Rate	0.0055	0.0048	1.05
Loan Size	1276.4	1604.2	-1.97*
Collateralization	0.7474	0.6026	2.88***
Loan Maturity in Months	37.118	34.255	1.06
Payout Ratio	0.0188	0.0197	-0.64
Total Asset	9.355	9.5968	-1.98**
Leverage Ratio	0.671	0.6529	1.09
Fixed Asset Ratio	0.3924	0.343	1.98**
Tobinq	4.1667	3.7136	0.74
ROA	0.0589	0.0439	2.71***
High Credit Risk (Dummy)	0.7105	0.6291	1.59
Standard Deviation of ROE	0.0815	0.0806	0.23
Long-term Loan Ratio	0.5421	0.4901	0.95
Board Size	11.834	12.425	-2.03**
Duration of Banker on Board	4.8789	1.3576	13.06***
Loan Concentration	0.6456	0.6744	0.92
Number of Lending Banks	15.753	19.788	-3.33***

*, **, *** denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively. Sample size is 225.

Table 11 Effect of the lending banker lending after entering board on loan terms

This table presents the results from OLS estimation of loan spread rate and loan size, and logit estimation of collateralization. Each of the observations corresponds to a loan contract. Dependent variables are the loan spread rate, loan size and the collateralization. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size ln(LS) is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has collateralization and 0 otherwise. Loan maturity (lnMAT) is the natural log of the number of days the loan lasts. Payout ratio is adopted from COMPUSTAT, which is the payout ratio to market value of equity. Total assets (lnTA) are the natural logarithm of the book value of total assets. The fixed asset ratio (FAR) is the sum of net value of the fixed assets and inventory divided by the book value of total assets. The index of high credit risk (HCRISK) of the company comes from the S&P senior debt current in Dealscan. Leverage ratio (LEVR) is the book value of debt divided by the book value of asset. Tobin's q (Tobinq) is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration (LOANHHI) by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

We divided the lending bankers on boards into two types by the timing of the lending bank's entrance into the corporate board. We compared the initiate date of the loan terms in the Dealscan database and the date of a bank's entrance into the corporate board in the proxy statement. If the initiate date of the contract is earlier than the bank's entrance into board, we will refer this kind of banker as the bank that enters the board first and lends to the company afterwards (LENDER_AFTER_BOARD), and the dummy variable equals 1, and 0 otherwise.

	Spread Rate		Loan Size		Collateralization	
	Coef.	t-value	Coef.	t-value	Coef.	t-value
Interception	-0.1427	-0.41	1.5650	2.97***	-0.2715	-0.15
lnLS	-0.0593	-1.44			-0.0571	-0.26
lnMAT	0.0639	1.84*	0.1076	2.02**	-0.3060	-1.80*
Collateralization	0.1319	2.22**				
lnTA	0.0210	0.61	0.4444	9.84***	0.2780	1.56
HCRISK	0.3303	5.14***	-0.0941	-0.95	0.5548	1.77*
LEVR	0.49868	2.20**	0.0794	0.23	2.2159	1.90*
FAR	-0.0244	-0.19	-0.4149	-2.13**	-0.9252	-1.50
Tobinq	-0.0039	-0.74	0.0136	1.66*	0.0889	1.83*
ROA	-1.4121	-1.96*	1.1759	1.05	-0.1090	-0.03
lnNUMB	0.0596	1.34	0.48391	8.03***	-0.7762	-3.08***
LOANHHI	-0.1774	-1.72*	-0.7925	-5.24***	-0.3759	-0.76
LENDER_AFTER_BOARD	0.1438	2.47**	-0.0111	-0.12	0.7610	2.75***
Adj-R^2	0.2571		0.5099			
F-statistics	8.32***		27.42***			
Pseudo R^2					0.1082	
for c^2 for regression					42.102	

*, **, *** denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively. Sample size is 225.

Table 12 Effect of lending banker lending after entering board on loan terms and payout ratio: Equity>Debt vs. Equity<Debt

This table presents the results from OLS estimation of loan spread rate and loan size, and logit estimation of collateralization. Each of the observations corresponds to a loan contract. Dependent variables are the loan spread rate, loan size and the collateralization. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size (lnLS) is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has collateralization, and 0 if otherwise. Loan maturity (lnMAT) is the natural log of the number of days the loan lasts. Payout ratio is adopted from COMPUSTAT, which is the payout ratio to market value of equity. Total assets (lnTA) are the natural logarithm of the book value of total assets. Leverage ratio (LEVR) is the book value of debt divided by the book value of asset. The fixed asset ratio (FAR) is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q (Tobinq) is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk (HCRISK) of the company comes from the S&P senior debt current in Dealscan. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration (LOANHHI) by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

	Spread Rate		Loan Size		Collateralization		Payout Ratio	
	Coef.	t-value	Coef.	t-value	Coef.	t-value	Coef.	t-value
Interception	-0.1328	-0.38	1.6815	3.16***	-0.2672	-0.15	-2.5519	-2.88***
lnLS	-0.0594	-1.43			-0.0553	-0.25		
lnMAT	0.0620	1.78*	0.1023	1.92*	-0.3154	-1.85*		
Collateralization	0.1322	2.22**						
lnTA	0.0227	0.66	0.4436	9.82***	0.2893	1.62	0.4299	5.25***
HCRISK	0.3306	5.12***	-0.1032	-1.04	0.5579	1.78*	-0.0978	-0.54
LEVR	0.4902	2.15**	0.0685	0.20	2.1634	1.85*	-0.3839	-0.61
FAR	-0.0284	-0.22	-0.4438	-2.26**	-0.9375	-1.51	0.9828	2.76***
Tobinq	-0.0039	-0.74	0.013	1.58	0.0902	1.85*	-0.0021	-0.15
ROA	-1.4316	-1.97*	1.0276	0.92	-0.2468	-0.07	2.2929	1.13
lnNUMB	0.0576	1.28	0.4656	7.58***	-0.7896	-3.09***		
LOANHHI	-0.1833	-1.77*	-0.7972	-5.27***	-0.4069	-0.81	0.6839	2.50**
Long-term Loan Ratio							-0.1423	-0.92
Lending After Entering and Equity More than Debt	0.1362	2.22**	-0.0648	-0.70	0.7597	2.56**	-0.3185	-1.91**
Lending After Entering and Equity Less than Debt	0.1627	1.82*	0.1197	0.87	0.8454	2.07**	-0.2946	-1.19
Adj-R^2	0.2538		0.5118				0.1534	
F-statistics	7.64***		25.21***				5.60***	
Pseudo R^2					0.1093			
for c^2 for regression					42.522			

*, **, *** denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively. Sample size is 225.

Table 13 Effect on loan terms of the lending banker entering board after lending

This table presents the results from OLS estimation of loan spread rate and loan size, and logit estimation of collateralization. Each of the observations corresponds to a loan contract. Dependent variables are the loan spread rate, loan size and the collateralization. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size (lnLS) is defined as the natural log of loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has the collateralization and 0 otherwise. Loan maturity (lnMAT) is the natural log of the number of days the loan lasts. Total assets (lnTA) are the natural logarithm of the book value of total assets. The fixed asset ratio (FAR) is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q (Tobinq) is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk (HCRISK) of the company comes from the S&P senior debt current in Dealscan. Leverage ratio (LEVR) is the book value of debt divided by the book value of asset. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration (LOANHHI) by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

We divided the lending bankers on boards into two types by the timing of the lending bank's entrance into corporate board. We compared the initiate date of the loan terms in Dealscan database and the date of bank's entrance into corporate board in proxy statement. If the initiate date of the contract was later than the bank's entrance into board, we will refer this kind of banker to the bank that makes a loan first, and enters the board afterwards (BOARD_AFTER_LENDER), and the dummy variable equals 1 and 0 otherwise.

	Spread Rate		Loan Size		Collateralization	
	Coef.	t-value	Coef.	t-value	Coef.	t-value
Interception	-0.0275	-0.08	1.5657	2.98***	0.6066	0.34
lnLS	-0.0605	-1.45			-0.0694	-0.32
lnMAT	0.0644	1.84*	0.1073	2.01**	-0.3092	-1.82*
Collateralization	0.1421	2.35**				
lnTA	0.0183	0.53	0.4457	9.87***	0.2812	1.58
HCRISK	0.3300	5.09***	-0.0947	-0.95	0.5515	1.76*
LEVR	0.5176	2.26**	0.0645	0.18	2.1187	1.81*
FAR	0.0095	0.07	-0.4239	-2.19**	-0.8988	-1.46
Tobinq	-0.0044	-0.82	0.0138	1.69*	0.0909	1.87*
ROA	-1.2962	-1.78*	1.1197	1.00	-0.3349	-0.09
lnNUMB	0.0585	1.30	0.4860	8.05***	-0.7437	-2.96***
LOANHHI	-0.1737	1.67*	-0.7945	-5.25***	-0.4313	-0.86
BOARD_AFTER_LENDER	-0.0756	-1.29	-0.0174	-0.20	-0.8072	-2.92***
Adj-R^2	0.2435		0.5099			
F-statistics	7.81***		27.43**			
Pseudo R^2					0.1108	
for c^2 for regression					43.121	

*, **, *** denote significance at the 10 percent, 5 percent and 1 percent level respectively. Sample size is 225.

Table 14 Effect of a lending banker entering board after lending on loan terms and payout ratio: Equity>Debt vs. Equity<Debt

This table presents the results from OLS estimation of loan spread rate and loan size, and logit estimations of collateralization. Each of the observations corresponds to a loan contract. Dependent variables are the loan spread rate, loan size and the collateralization. The loan spread rate is defined as the loan spread rate over the prime rate announced by the Central Bank. The loan size (lnLS) is defined as the natural log of the loan size. The collateralization is considered a dummy variable, and the dummy variable equals 1 if the company has collateralization and 0 otherwise. Loan maturity (lnMAT) is the natural log of the number of days the loan lasts. The payout ratio is adopted from COMPUSTAT, which is the payout ratio to market value of equity. Total assets (lnTA) are the natural logarithm of the book value of total assets. The fixed asset ratio (FAR) is the sum of net value of the fixed assets and inventory divided by the book value of total assets. Tobin's q (Tobinq) is the sum of the market value of equity and the book value of debt divided by the book value of asset. ROA is income of the book value of book value of asset. The index of high credit risk (HCRISK) of the company comes from the S&P senior debt current in Dealscan. Leverage ratio (LEVR) is the book value of debt divided by the book value of asset. If the index is higher than BBB, the dummy variable is considered as 0, and 1 if otherwise. We measure the loan concentration (LOANHHI) by Herfindahl-Hirschman index computed as the sum of the square of the percentages of the amount the firm borrowed from each bank.

	Spread Rate		Loan Size		Collateralization		Payout Ratio	
	Coef.	t-value	Coef.	t-value	Coef.	t-value	Coef.	t-value
Interception	0.0037	0.01	1.4292	2.71***	1.5819	0.87	-3.0247	-3.37***
lnLS	-0.0586	-1.39			0.0107	0.05		
lnMAT	0.0625	1.76*	0.1185	2.23**	-0.3795	-2.15**		
Collateralization	0.1375	2.24**						
lnTA	0.0144	0.40	0.4649	10.16***	0.1174	0.63	0.4552	5.46***
HCRISK	0.3311	5.10***	-0.1030	-1.04	0.5875	1.83*	-0.0967	-0.54
LEVR	0.5225	2.27**	0.0346	0.10	2.3497	1.96**	-0.4392	-0.70
FAR	0.0121	0.09	-0.44	-2.29**	-0.8468	-1.35	0.9188	2.62***
Tobinq	-0.0042	-0.78	0.0133	1.62	0.0948	2.02**	-0.0023	-0.15
ROA	-1.3136	-1.80*	1.1177	1.00	-0.6821	-0.19	2.255	1.11
lnNUMB	0.0587	1.30	0.4653	7.67***	-0.7211	-2.82***		
LOANHHI	-0.17865	-1.71*	-0.7816	-5.19***	-0.4719	-0.92	0.6946	2.54***
Long-term Loan Ratio							-0.1252	-0.81
Entering After Lending and Equity More than Debt	-0.067	-1.04	-0.1109	-1.14	-0.3980	-1.32	0.170	0.96
Entering After Lending and Equity Less than Debt	-0.1129	-1.12	0.2191	1.48	-2.2063	-4.12***	0.4440	1.68*
Adj-R^2	0.2413		0.5164				0.1513	
F-statistics	7.21***		25.66***				5.53***	
Pseudo R^2					0.1403			
for c^2 for regression					54.61***			

*, **, *** denotes significance at the 10 percent, 5 percent and 1 percent levels, respectively. Sample size is 225.

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