Banks' Lending Decisions after Loan Acquisitions: Do Banks Favor Pre-existing Relationships?

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ABSTRACT

This paper examines the lending decisions of Korean banks after they acquired loan portfolios from failed banks. The salient features of the sample are that each bank had to acquire the loan portfolio in its entirety from a failed bank, and that the pre-existing relationships between the borrowers of the acquired loans and the acquiring bank are identified. We find that banks tend to maintain the lending relationships with the borrowing firms that have pre-existing relationships. However, the loan growth rates of those firms are significantly lower than those of the firms that have no prior relationships and whose relationships with the banks are retained. These results suggest that banks have a conflict of interest that comes with the pre-existing lending relationships. Furthermore, the banks' aggressive loan expansions to the firms without the pre-existing relationships may be evidence for bank's incentive for hold-up from information monopoly.

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1. Introduction

Long-term relationships between banks and borrowers are important instruments for alleviating informational asymmetries in the loan markets. Information is produced more efficiently over time through long-standing relationships, and the benefits from the continuing relationships are shared with borrowers. These benefits to borrowers include lower loan interest rates, lower collateral requirements, and perhaps more importantly, greater credit availability (Berger and Udell, 1995; Harhoff and Koerting, 1998; Petersen and Rajan, 1994).[1]

This paper investigates banks' lending decisions on loan availability from two perspectives: whether banks continue lending relationships, i.e., whether loan balances remain positive, and whether banks increase loan availability once the relationships are maintained. The main purpose of the investigation is to demonstrate the effect of the pre-existing relationships on the banks' lending decisions. By doing so, we can understand further the association of the benefits from banking relationships with the duration of the relationships between banks and borrowers, and possibly find evidence of banks' conflicts of interest that come with the pre-existing relationships.

The sample is drawn from the Korean bank reform of 1998, which resulted in the forced closures of five failing banks and the transfer of their loans to five healthier banks. The salient features of the sample are that each acquiring bank had to acquire the loan portfolio involuntarily in its entirety from each closed bank, and that the pre-existing relationships

[1] In addition to improvements in contract terms, the benefits of easy access to capital (Hoshi, Kashyap, and Scharfstein, 1990), less cash flow constraint (Houston and James, 2001), quick recovery from firm distress (Morck and Nakamura, 1999), smooth loan pricing (Berlin and Mester, 1998), less underpricing in an IPO (James and Wier, 1990), and protection against credit crunches (Machauer and Weber, 1998; Elsas and Krahnen, 1998) are also reported.

between the acquiring bank and the borrowers whose loans were acquired are identified. These characteristics enable us to study how differently the bank treats the borrowers depending on the existence of prior relationships at the time of its own lending decisions following the forced acquisitions.

We find that the acquiring banks are more likely to continue the relationships with firms that have prior relationships, but do not increase their loan exposures to these firms. In contrast, the banks tend to end the relationships with the firms that do not have previous relationships. However, once the relationships are maintained, the banks are enthusiastic to expand loan exposures.

These results suggest that banks have a conflict of interest that comes with an incentive to favor the pre-existing relationships to increase the odds of recovering those pre-existing loans. The banks' aggressive loan expansions in an early stage of lending relationships with the acquired new firms may be evidence for the bank's hold-up problem – an incentive to increase the size of loans until it reaches a level sufficient to subsequently extract the rents from the information monopoly.[2] Thus, the value of banking relationship to its client firms in terms of loan availability declines over time.

The firms that had no prior relationships with the acquiring banks but maintained the new relationships are presumably the ones that passed the creditworthiness tests of the banks. This implies that bank quality does not necessarily convey risk classes of its client firms, because such firms had relationships only with the failing, high-risk banks prior to the loan acquisitions.

[2] Conflicts of interest and the hold-up problem are addressed as primary costs of relationship banking by Boot (2000). Conflicts of interest have to do with the problem that a bank which already has debt claim may well decide to extend credit to borrowers even when their problems arise, in the hope of recovering its previous debt claim. The hold-up problem has to do with the information monopoly generated from the proprietary information about borrowers which banks obtain over multiple lending activities. Facing huge switching costs, borrowers may be locked in, with paying (ex post) high loan interest rates charged by banks or with losing valuable investment opportunities due to their reluctance to borrow.

This paper is organized as follows. Section 2 describes the sample and data, and Section 3 examines the trends of loan size and firm specific characteristics. Section 4 conducts various cross-sectional regressions including OLS, probit, panel regressions and Heckman correction estimations and discusses implications of their results. Section 5 concludes.

2. Sample and Data

On June 29, 1998, the financial regulatory authority of Korea announced that five banks with poor capital structures were to be closed, and their assets and liabilities, excluding nonperforming loans, were to be transferred to five surviving banks. The assets and liabilities of each closed bank were transferred in their entirety to each acquiring bank. The five banks that had to acquire the assets and liabilities from the closed banks were selected and matched with each closed bank by the regulatory authority, which took the financial health and nationwide business networks of the acquiring banks into account. As a result, the total number of commercial banks in Korea dropped by 5 to 21.

For this study, we collect publicly traded firms that had borrowing relationships with at least one of the five closed banks before their closures, excluding financial firms and firms that were delisted during 1997-2000. We select only publicly traded firms that survived until the end of 2000 due to data availability. However, the limited sample fits well with the purpose of this study. First, the sample eliminates the possibility of non-economic influence of the Korean government that persuaded the acquiring banks to renew the transferred loans to small- and medium sized firms, because the firms in the sample are all publicly traded and mostly large ones. The exclusions of the delisted firms and financial firms from the sample can be also

justified, because the main purpose of this paper is to analyze the bank's lending decisions when it faces solvent, non-financial firms. The final sample consists of 181 firms. The size of the sample differs from that used in Sohn (2004) because some firms had multiple lending relationships with the five closed banks, and because each bank-firm relationship is counted as one observation.[3]

For each firm in the sample, we collect variables that proxy the strength of banking relationships with the closed bank and the acquiring banks, and firm's characteristics such as performance and finance and ownership structures. We also consider bank dummy variables, *Bank 1* through *Bank 5*, because banks with a different financial health and size may have a different loan granting standard.[4] For a detailed description of the variables, see Table 1.

The most interesting variable is *Prior Relationship*, a dummy variable indicating whether a firm has a prior relationship with a bank which acquired loans of the firm from a closed bank. The variable is one if there exists a prior relationship between the acquiring bank and the firm (Type P firm), and zero if there exists no prior relationship (Type N firm) before the bank's loan acquisitions.

The development of a banking relationship is reflected on various contract terms, such as loan availability, loan interest rates, collateral requirements, and other implicit commitments. Since loan prices and implicit commitments are not available, we focus on the variables of loan availability and collateral requirements. More specifically, particular attention is paid to the

[3] The total number of borrowing firms is reduced to 118 in Sohn (2004). Using the 118 observations according to firm-based observations creates a problem that each acquiring bank's lending decisions are not clearly addressed. For instance, if one bank increases loan size, while another reduces it for a firm, overall changes in loan availability of the firm do not clearly reflect each bank's individual lending decision.

[4] Another reason for controlling the bank identity is that two (*Bank 3* and *Bank 4*) of the five acquiring banks were involved in mergers and acquisitions in 1999, which should affect their lending decisions directly and indirectly.

amount of loans granted by the acquiring bank as a fraction of that granted by all lending banks (*Loan_Acquiring/Loan_All*).

It is worthwhile to discuss at this point the validity of *Loan_Acquiring/Loan_All* as a variable representing the value of the banking relationship to borrowing firms. First, unobservable loan interest rates may be related to *Loan_Acquiring/Loan_All* over the complex bargaining process. However, it is a conventional view given the long history of excess demand for loanable funds in Korea that loan interest rates have the second-order importance to borrowing firms. Besides, the effect of relationship banking on loan interest rates is ambiguous due to the information monopoly problem: Longer relationships increase the rent from informational monopoly, so that cost reductions may not be passed on to the borrowing firm.

Second, the welfare analysis requires caution because a reduction in *Loan_Acquiring/Loan _All* may not necessarily mean the welfare losses for client firms. If the acquiring banks force out the borrowing firms with few alternative funding sources, the firms would be worse off. On the other hand, if obtaining loans from the acquiring banks becomes more costly, leaving the banks can offset high switching costs and thus firms would be better off. However, the fact that the five acquiring banks were the best in terms of the size of loanable funds and their durability makes it less likely that firms leave the banks voluntarily.[5]

Finally, changes in *Loan_Acquiring/Loan_All* do not indicate whether the changes in loan availability for Type P firms come from the loans transferred from the closed banks or the loans that already existed with the acquiring bank prior to the event. Investigation of the changes in the transferred loans and the pre-existing loans separately is not possible due to data

[5] The five banks are more durable in terms of BIS capital adequacy ratios and non-performing loans. In addition, the banks' shares in the loan markets increase from 30.96% in 1997 to 54.44% in 2000.

availability. However, this approach also generates a problem that the changes in the transferred loans and the pre-existing loans are closely related to each other because banks manage the loan portfolio of a specific firm in its entirety.

The Loan and collateral data are collected from the Korea Federation of Banks. Various firm characteristics and ownership variables are obtained from the Korea Information Service (KIS) of the National Information & Credit Evaluation, Inc (NICE). The frequency of the data is annual as of the end of each year during 1997-2000, with an exception of 1997 in which loans and collateral data as of June 28, 1998, one day before the loan reallocations, are used.[6]

3. Time-series Evidence

Information produced and used by the loan officers of the closed banks, such as evaluations of corporate managers and associated commitments, is not transferred to the acquiring banks, because the loan officers were not retained by the acquiring banks. Consequently, the acquiring banks may renege or reduce implicit commitments, adversely change terms of loan agreements, or unfavorably revalue collateral. Therefore, the firms are potentially adversely affected by the loan transfers.

A more serious concern of the firms is that the transferred loans may not be renewed at their maturity. The acquiring banks faced capital constraints, because the Korean government required the banks to reduce their capital injected by the Korea Deposit Insurance Corporation (KDIC) at the time of loan acquisitions to fill the negative capital generated by the exclusion of

[6] It is appropriate to consider changes for three years, because 96.3% of bank loan outstanding as of the end of 1997 was three years or less of maturity. In actual fact, changes in loan size for two and half years, from the end of June 1998 to the end of 2000, are analyzed in this paper.

non-performing loans in the transferred loan portfolios.[7] The capital constraints can lead the acquiring banks not to extend some transferred loans.

In this section, we examine how the value of relationship banking in the form of loan availability evolves after the loan acquisitions. The main focus is whether the bank's lending decisions are influenced by the existence of pre-existing relationships, since the banks may favor Type P firms to Type N firms due to the pre-existing relationships.

Figure 1 shows the time-series characteristics of loan availability after controlling for the overall loan demands of firms. Notice that *Loan_Acquiring/Loan_All* declines for both types of firms during six months after the loan transfers: from 9.3% to 7.3% for 94 Type P firms, and from 6.8% to 5.3% for 87 Type N firms, (Figure A.1 and A.2).[8] The ratio, however, further decreases to 7.2% for Type P firms, whereas it rebounds and surpasses the original level to 8.3% for Type N firms during the following two years.

These results may partly come from the fact that some firms' relationships with the acquiring banks were completely terminated after the loan transfers. Therefore, it is interesting to see how many firms maintained the banking relationships, which has to be controlled for the analysis of changes in *Loan_Acquiring/Loan_All*. Sixty two of 94 Type P firms (67%) continued the relationships until the end of 2000, while only 41 of 87 Type N firms (47%) maintained the relationships with the acquiring banks. Most of the terminations were determined during the six month period after the loan transfers. These results suggest that the

[7] The KDIC required the banks to reduce the injected capital by 20% every year. Among many ways to meet the requirements – reducing loan portfolios, and selling marketable securities and physical capital – the acquiring banks reduced their corporate loans by 12.0% during 1998.

[8] Suppose assets and liabilities of the closed bank 1 were transferred to the acquiring bank 1. If firm A has 5% of its total loan from the closed bank 1 before the bank closure, the *Loan_Acquiring/Loan_All* is recorded as 5% (Type N firm). If the firm A has 5% of its total loan from the closed bank 1 as well as 3% from the acquiring bank 1, the *Loan_Acquiring/Loan_All* is recorded as 8% (Type P firm).

acquiring banks are more likely to maintain the relationships with Type P firms than with Type N firms.

Panel B.1 and B.2 show the changes in loan availability of the subsample of firms that in fact continued the relationships. The *Loan_Acquiring/Loan_All* of Type P firms remains statistically unchanged (10.0% to 11.2%) during the period, while that of Type N firms increases significantly from 9.5% to 17.0%. These results suggest that the acquiring banks prefer Type N firms to Type P firms in expanding their loan exposures, given that they continue the lending relationships.

However, the banks require a huge amount of collateral for the increase in loan size. *Collateralized Loan_Acquiring* remains almost unchanged for Type P firms (61.3% to 70.1%), while it increases sharply for Type N firms from 18.6% to 127.9%.[9] These results suggest that the acquiring banks use collateral intensively to reduce default risk of the unfamiliar firms to mitigate the problem of information asymmetry that comes from the relatively short period of relationships.[10] This result is consistent with Boot and Thakor (1994) who demonstrate that borrowers have to pledge more collateral in early stages of the banking relationship.[11]

Panel A of Table 2 reports the time-series characteristics of all variables used in this paper. Among the variables, *Prior relationship*, *Locational Advantage*, *Main Creditor Bank*, *#Closed*

[9] It is often the case that the value of collateral is larger than that of loan itself. This is because banks require collateral to a level sufficient to cover default risk fully, and because the value of collateral to banks is less than its face value due to dissipative costs for changing ownership in the case of default.

[10] This is evidence that bank's information is proprietary in that valuable information produced in the closed banks was not passed on to the acquiring banks. Put differently, the results also suggest that Type N firms have benefited from the long, close relationships with the closed banks in terms of unusually lower collateral requirements before the bank closures.

[11] However, it is not clear in general whether good borrowers pledge more collateral. Riskier borrowers are required to put more collateral because banks try to reduce their risk exposure to such borrowers (rationing), whereas good borrowers may tend to supply more collateral because in general they should have more assets available (signaling).

Banks, #Closed/#Lending Banks, and *Bank dummies* are all time-invariant: About half (53.7%) of firms in the sample had prior relationships with the acquiring banks; 18.4% of firms had their headquarters in the same region as the closed banks; Only 7.9% of firms had their loans transferred to their main creditor banks; Average number of closed banks is two, which is about 20% of the total number of lending banks; *Bank 5* has relatively large proportion of the sample firms because the market share of the closed bank 5 is the largest among the five closed banks.

The rest of the variables are time-variant. The total number of the lending banks of the sample firms decreases from 10.9 to 7.6 during the period of analysis. This is mainly because the level of competition in banking industry declines as there were four other mergers and acquisitions after the bank reform.[12] Negative *Profit/Interest* suggests that during the sample period, the sample firms experienced negative profit (-55.3%) on average, but the losses decrease gradually over time. Regarding the finance structure, firms increase their dependence on the equity markets from 14.5% to 29.8% during the period as the market recovers, whereas the bond market finance is reduced from 30.3% to 21.5%. The rest of the variables, such as *Log_Size, Chaebol*, the proportions of the largest, minority, and foreign shareholders, do not vary significantly over time.

Panel B of Table 2 describes the cross-sectional characteristics along the firm size. Large firms, relative to small firms, are more likely to have prior relationships with the acquiring banks (78.4% versus 43.4%), larger number of lending banks (12.8 versus 5.6) and thus less dependence on loan finance on a specific closed bank (1.4% versus 7.0%). Large firms also

[12] The total number of banks in Korea was 26 just before the bank closures, and 17 at the end of 2000. Therefore, the ratio of the average number of lending banks to the total number of bank institutions remains virtually unchanged (from 41.9% to 44.7%).

have less collateral requirements, older age, larger sales growth, less equity market finance, and larger bond market finance. It is notable, however, that the proportion of the loan market finance is indistinguishable between large and small firms.

4. Cross-sectional Evidence

In this section, we examine rigorously how the firm's pre-existing relationships affect the bank's loan granting behaviors, after controlling for the various firm characteristics and bank dummy variables.[13] We first conduct OLS regressions of changes in *Loan_Acquiring /Loan_ All* from the date of the loan acquisitions to the end of 2000 for the full sample of firms whose loans were transferred to the acquiring banks. Then, we use probit estimation of a dummy variable indicating whether the banks continue the relationships with the transferred firms in terms of maintaining positive loan balances.

Next, for the subsample of firms whose relationships with the acquiring banks were continued until the end of 2000, we conduct pooled OLS regressions of changes in *Loan_Acquiring/Loan_All* during each year, with the inclusion of year-dummy variables. Then, we conduct random effect panel regressions for the same subsample without the year dummy variables, and finally, we conduct a Heckman correction estimation to investigate a possibility

[13] Other than the firm characteristics described in the previous section, type of credit, other financial services, and structure of banking industry may be also related to the bank's lending decisions. For instance, lines of credit are more likely to be relationship-driven, whereas other loans are more likely to be transaction-driven. The effects of relationships may also differ across business conditions and regulatory regimes due to differences in information processing structure. Consideration of these factors is beyond the scope of this paper, mainly due to data availability.

that the results of the regressions are simply due to the different probability of continuation of the relationships.[14]

4.1. OLS and probit estimations for the full sample

To analyze the effect of the pre-existing relationships on the bank's lending decisions during the full sample period, we regress changes in *Loan_Acquiring/Loan_All* from the date of loan acquisitions to the end of 2000 on firm and bank specific characteristics as of the end of 1997. In the regression, we first assume that collateral requirements are determined separately from loan availability (Table 3, specification 1). However, the interpretation of the regression of *Loan_Acquiring/Loan_All* may be misleading because the availability of credit may be restricted by how much the firm is willing to post collateral. Thus, we assume a sequential procedure in specification 2, with the collateral decision preceding the banks' decisions on loan availability.[15] In specification 3, we replace the dummy variable, *Prior Relationship*, with the strength of prior relationships measured by the size of the loans made by the acquiring banks before the loan acquisitions.

No variables, including *Prior Relationship*, are statistically significant determinants of the changes in loan availability in all specifications, although a few variables such as *Main*

[14] Alternatively, rather than using *Loan_Acquiring/Loan_All*, we can consider using loan size (*Loan_ Acquiring*) after controlling for the total amount of loans from all lending banks (*Loan_All*) in the regressions. The error process is not identically distributed, as there is a huge cross-sectional variation in size and hence the alternative specification ends up with having inefficient estimators that have no minimum variance. Moreover, there may exist a severe multicollinearity problem, as *Loan_All* depends on the rest of the explanatory variables.

[15] Inclusion of the collateral ratio (*Collateralized Loan_Acquiring*) in the regression may generate another problem: as the firm's loan size increases, the collateral ratio decreases unless the bank requires firms to put more collateral before making loans. Accordingly, loan proportion and collateral ratio are possibly negatively correlated by construction.

Creditor Bank, Log_Size, Profit/Interest, Bank 3, Bank 4, and *Foreign Shareholders* seem to be related to changes in *Loan_Acquiring/Loan_All* to some extent (significant at 10% level). The negative constant terms suggest that the size of loans to the sample firms decreases after their loan acquisitions.

Table 4 reports the results of probit estimations whose purpose is to see if the bank's decision on whether to continue the relationships, rather than whether to increase the loan exposures, depends on *Prior Relationship* and other explanatory variables. When loan balance of a firm turns zero during the period, we consider this as the case where the bank terminates lending relationships with the firm.

The coefficients of *Prior Relationship* are 0.89-1.33 and significant at 1% level in all specifications, suggesting that the acquiring banks tend to continue the relationships with the firms that had lending relationships prior to the loan acquisitions. It is particularly interesting to see in specification 3 that the coefficient of *Market/Book Value* interacted with *Prior Relationship* is negative (-0.23 with t = -1.44) after controlling for those two variables. This result suggests that the acquiring banks tend to continue the relationships with less valuable firms that had prior relationships, which serves as evidence for the presence of banks' conflicts of interest.

Greater *#Closed/#Lending Banks, Loan_Closed/Loan_All, Locational Advantage, Log_Size, Profit/Interest, Largest Shareholder,* and *Collateralized Loan_Closed* and lower *Equity Finance* and *Collateralized Loan_Acquiring* are also attributable to a greater probability of continuing the lending relationships to some extent.

4.2. Pooled OLS and random effect panel regressions for the subsample

Banks' lending decisions should depend on updated information on the borrowing firms and economic conditions. Thus, we conduct pooled OLS regressions of yearly changes in loan availability on the same explanatory variables as of the end of the previous year as well as year dummy variables. Since some firms' relationships with the acquiring banks were completely terminated – earlier rather than later – during the period of analysis, only the subsample of firms that continued the relationships is used in the estimations.

Table 5 shows that *Prior Relationship* does not seem to significantly affect the lending decisions of the banks. *Log_Size, Profit/Interest,* and *Foreign Shareholders* turn out to be significant at 5% level or below in specification 1, although these results are not robust (see the results in specifications 2 and 3). Relatively low R^2's – around 10% in all specifications – also suggest that the pooled regressions do not have high explanatory power.

Accordingly, we conduct random effect panel regressions of changes in loan availability during each year on the various firm and bank characteristics (Table 6). The coefficient of *Prior Relationship* is -0.02 and significant at 1% level, suggesting that the pre-existing relationship plays a negative role in bank's lending decisions (specification 1). This result remains unchanged even after controlling for collateral requirements (specification 2) and the overall loan growth of firms (specification 3).

Other than the pre-existing relationship, the factor indicating whether the total loan size of each firm increases (Δ *Log_Loan_All*) is significantly negative, suggesting that firms expanding their loan finance rely less on the acquiring banks. *Log_Size, Sales Growth, Minority Shareholders, Bank 1,* and *Collateralized Loan_Closed* also turn out to be statistically significant.

The negative effect of the pre-existing relationships on the increases in loan size (Table 6), together with the positive effect of those pre-existing relationships on continuation of the relationships (Table 4), provide several interesting implications.

First, bank managers may be inclined to refinance loans to a firm even when the firm's prospects are poor, if they are concerned about recovering pre-existing loans. Accordingly, banks tend to keep the relationships with the firm, hoping to increase the probability of recovering those loans, or just to defer the realization of loan losses. In this case, however, banks must not be enthusiastic to increase their loan exposures further. The results are consistent with this conflict of interest that comes with the pre-existing lending relationship.

Second, the rapid growth of loans to Type N firms may also be understood as evidence of information monopoly of banks – the banks may hold negotiation power driven by exclusive access to the information accumulated over the course of the relationships.[16] From the borrowing firm's standpoint, substantial switching costs occur once a lending relationship is established. Hence, the exploitation of information monopoly results in the finding that cost and non-cost credit condition do not improve or even deteriorate as lending relationships continue, due to the emergence of the hold-up problem.[17] To lock in borrowing firms, banks may expand loans rapidly in their early stages of relationships until the size of the loans reaches a level sufficient to exploit the rents from information monopoly. This result also suggests that

[16] The variable (*Loan_Acquiring/Loan_All*) that measures the firm's loan dependence on the acquiring bank – rather than the bank's dependence on the firm in its portfolio – is an appropriate measure for investigating the bank's hold-up problem.

[17] See Sharpe (1990), Greenbaum, Kanatas and Venezia (1989), and most recently, Degryse and Van Cayseele(2000). They argue that contract terms can deteriorate with duration of the relationship. Houston and James (1996), Ongena and Smith (2000), and Detragiache, Garella and Guiso (2000) suggest that multiple bank relationship is a way to avoid the hold-up problem and the resultant premature liquidation of projects.

benefits from banking relationship to its client firms in terms of loan availability are greater in its early stage and decline over time.[18]

Third, if bank quality does convey risk classes of its client firms, Type N firms that had the relationships with the closed banks but not with the acquiring surviving banks should be classified as high risk class. Presumably, the level of risk exceeds the minimum risk standard approved by the acquiring banks that have a higher loan granting standard. Therefore, we should expect that the acquiring banks would not extend the relationships with this type of firms. However, as seen in Figure 1, the acquiring banks maintained half of the relationships and in fact increased the loan size to those firms. This result suggests that bank quality does not necessarily convey risk classes of its client firms.

4.3. Heckman correction estimations

Banks' lending decisions may have two stages – the first is to decide whether to continue lending relationships and the second is to decide whether to increase the loan size. Thus, we conduct panel regressions with the inclusion of inverse Mills ratios to see whether the negative effect of the prior relationship on changes in loan availability simply comes from the different probability of continuing the lending relationships.

The inverse Mills ratios are computed from the probit estimation in Table 4, specification 3. Three different exclusion restrictions are imposed for the panel regressions of the banks' decisions on the size of loans: In specification 1, market-to-book value of firm is replaced by

[18] Ongena and Smith (2000) find a similar result using a duration model of Norway banks. They argue that the value of bank relationship declines over time because valuable information is produced intensively in its early stage of the relationship.

overall loan growth rate of firm, Δ *Log_Loan_All*, and variables indicating ownership structure are excluded. Specification 2 excludes additionally age of firm, size of firm, sales growth, profit, bond finance, equity finance, and chaebol dummy variable because they might not be important determinants of the size of loan; Specification 3 excludes collateral requirement in addition to those variables.

The results are reported in Table 7. The coefficients of *Prior Relationship* remain negative and significant in the correction estimations, which suggests that the acquiring banks tend to expand the loan enthusiastically to Type N firms even after incorporating the different probability of continuation of the relationships reflected on the inverse Mills ratios.

In specification 1, the difference between the results of OLS with and without the inverse Mills ratios are significant and the coefficient of the inverse Mills ratio is statistically significant. This is because we include almost all variables used in the probit estimation again in the correction estimation for the subsample, which makes the estimates very imprecise due to severe multicollinearity that comes from adding the inverse Mills ratio to the explanatory variables. In specifications 2 and 3, however, the coefficients of *Prior Relationship* and the one interacted with loan growth rates are marginally different from those in the regression without the inverse Mills ratios. This result suggests that the effect of different probability of continuation does not affect the negative effect of pre-existing relationship on loan size.

4.4. Discussion: Loan portfolio diversification effects

One may argue that the empirical results reported in Section 4 are simply due to the bank's motivation for firm-based loan portfolio diversification: the bank does not increase its loan

exposure to Type P firms because they already have some amount of loan balances. However, this is not likely the case for the following reasons.

First, the size of transferred loans is much smaller relative to that of pre-existing corporate loans made by the acquiring banks (about 10% of the size of the pre-existing loans). Therefore, portfolio diversification is not likely to be a factor for driving the banks not to renew the transferred loans to firms that have prior relationships.

Second, the result of Table 6, specification 3 does not support the aspect of portfolio diversification in the banks' lending decisions. The coefficient of *Prior Relationship* is -0.02 with t = -2.89 and that of firm's loan growth rate is -0.12 with t = -9.12. However, when those two variables are interacted with each other, the coefficient is 0.13 with t = 6.37, suggesting that the acquiring banks tend to increase their loan exposures to Type P firms when the firms increase loan finance overall from all other lending banks. In other words, when firms' prospects are good enough to be funded well by all other banks, the acquiring banks provide more loans to those firms, even if they had previous lending relationships. This result further supports the argument that banks have conflicts of interest only when firms' prospects are poor, i.e., when the recovery of the previously extended loans is doubtful.

Third, if the banks maintain the size of loans to a specific firm that had a prior relationship, whether the banks increase or decrease their loan exposures should depend on the existence of a pre-existing relationship. A probit estimation of a dummy variable indicating whether a firm's loan size increases shows that the banks' decisions on whether to increase loan exposure to a firm is not determined by the pre-existing relationship, though not reported in this paper.

Finally, it is possible that the empirical results might be related to the banks' industry-based loan portfolio diversification. Controlling for the industry of the sample firms in the various regressions does not change the results qualitatively.

5. Conclusion

Using a unique sample from the Korean bank restructuring of 1998, this paper examines the lending decisions of Korean banks after they acquired loan portfolios from failed banks. In particular, we examine how the lending decisions of the acquiring banks after the loan acquisitions differ for two different types of borrowing firms – firms that have established relationships before the loan transfers and firms that just began relationships. This investigation sheds light on the bank's conflicts of interest and the development of banking relationships in their early stages.

We find that banks tend to end relationships with the firms that have not had previous relationships. However, once the relationships are maintained, banks are enthusiastic to expand loans. These results suggest that banks have a conflict of interest that comes with an incentive to favor the pre-existing relationships to increase the odds of recovering those pre-existing loans.

The banks' aggressive loan expansions in the early stage of lending relationships may be evidence for a bank's hold-up problem – the incentive to increase the size of loans until it reaches a level sufficient to exploit the rents from the information monopoly. This result also suggests that benefits from banking relationship to its client firms in terms of loan availability are greater in its early stage and thus decline over time.

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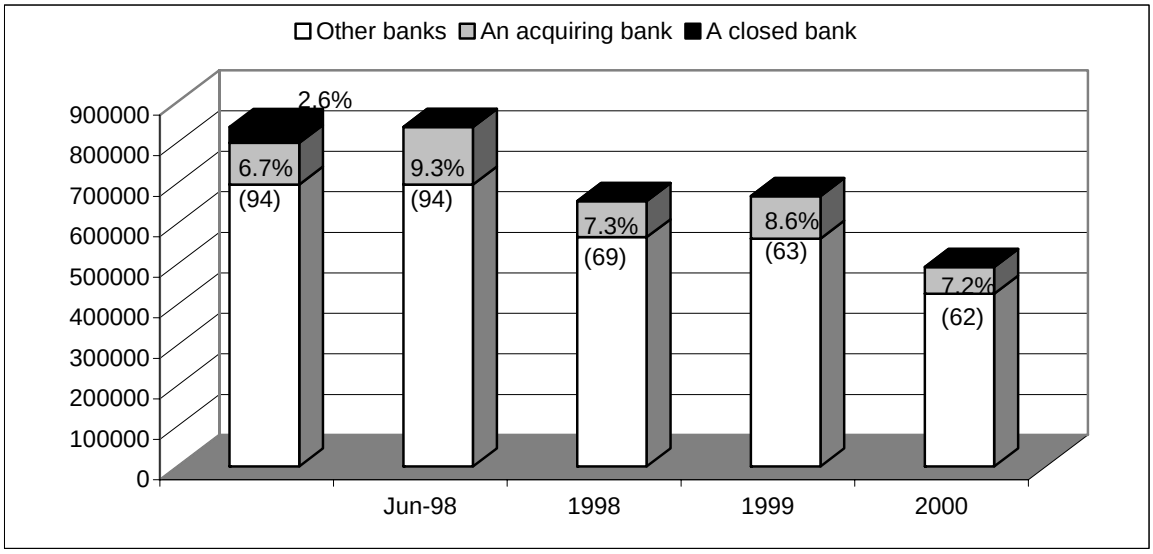
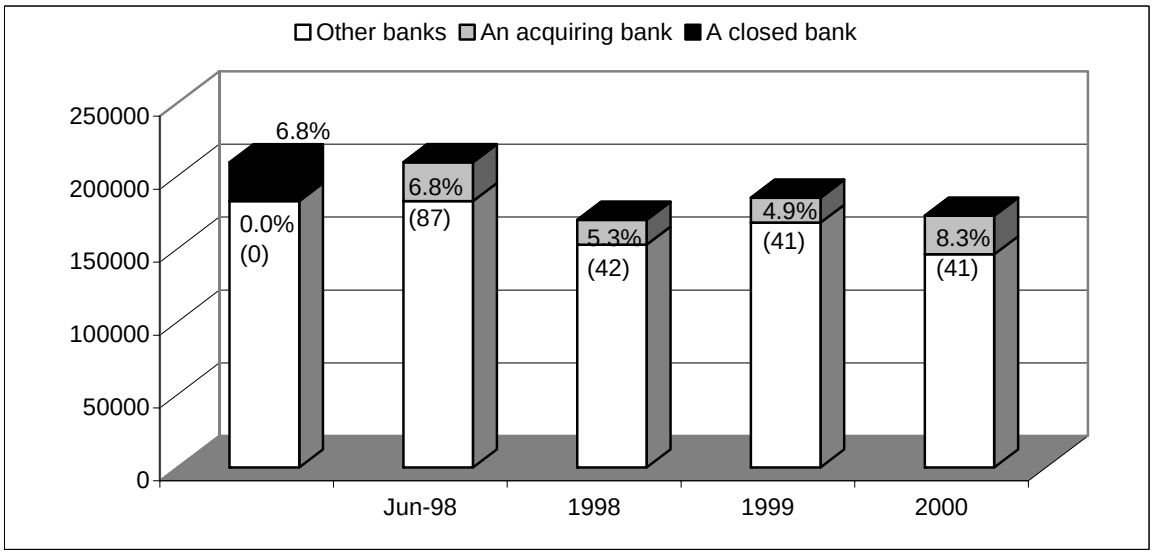
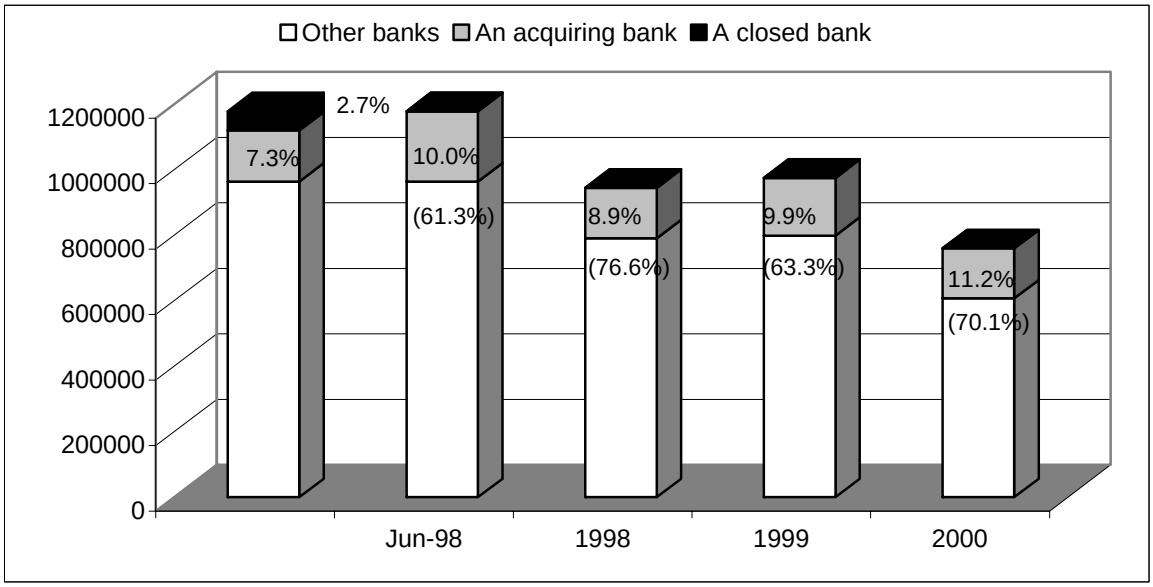
Figure 1. Changes in the proportion of loans made by the acquiring banks over loans made by all lending banks (*Loan_Acquiring/Loan_All*)



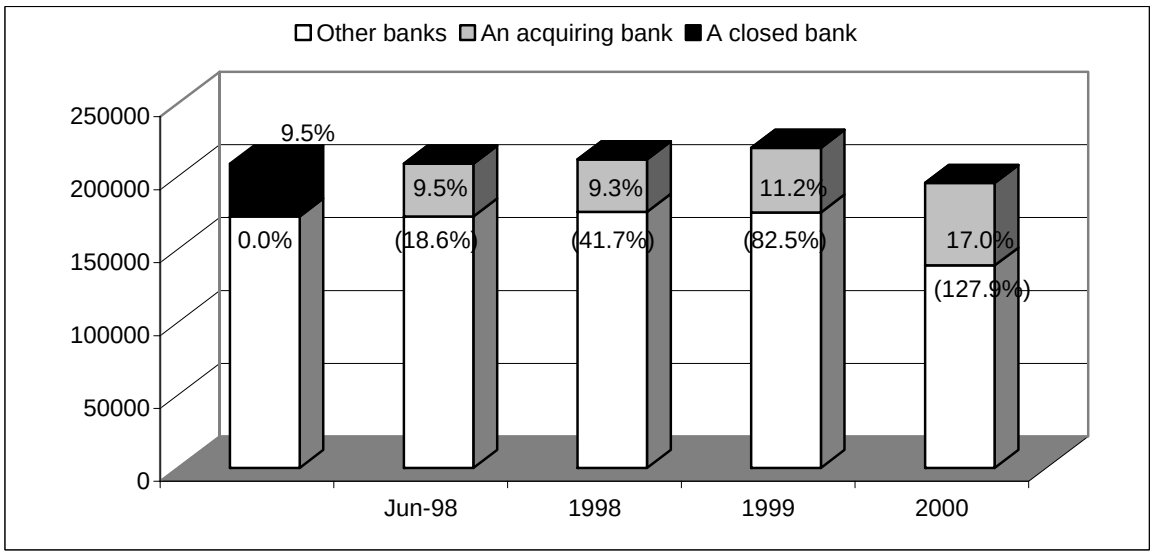
A.1. Type P firms (94): firms that had relationships with the acquiring banks prior to the loan acquisitions. The number in parenthesis is the number of firms that continued the relationships. All numbers are as of each year or month, except that 1997 indicates one day before the loan transfers.



A.2. Type N firms (87): firms that had no relationships with the acquiring banks prior to the loan acquisitions. The number in parenthesis is the number of firms that continued the relationships. All numbers are as of each year or month, except that 1997 indicates one day before the loan transfers.



B.1. Type P firms (62): firms that had relationships with the acquiring banks prior to the loan acquisitions and that continued relationships until the end of 2000. The number in parenthesis is the value of collateral over the loan. All numbers are as of each year or month, except that 1997 indicates one day before the loan transfers.



B.2. Type N firms (41): firms that had no relationship with the acquiring banks prior to the loan acquisitions and that continued relationships until the end of 2000. The number in parenthesis is the value of collateral over the loan. All numbers are as of each year or month, except that 1997 indicates one day before the loan transfers.

Table 1. Description of variables

Variable	Description
[Qualitative banking relationship]	
Prior Relationship	Dummy indicating whether a firm had lending relationships with an acquiring bank before the loan acquisition.
Locational Advantage	Dummy indicating whether the headquarter of a closed bank was located in the same city or province as the headquarter of a firm.
Main Creditor Bank	Dummy indicating whether an acquiring bank was the main creditor bank of a firm at the loan acquisition.
[Quantitative banking relationship]	
#Closed Banks	The number of closed banks with which firms had lending relationships.
#Lending Banks	The total number of lending banks.
#Closed/#Lending Banks	*#Closed Banks / #Lending Banks*
Loan_Acquiring/Loan_All	The amount of loans made by an acquiring bank as a fraction of that made by all lending banks.
(Loan_Closed/Loan_All)	The amount of loans made by a closed bank as a fraction of that made by all lending banks.
Collateralized Loan_Acquiring	The amount of collateralized loans as a fraction of the total loans made by an acquiring bank.
(Collateralized Loan_Closed)	The amount of collateralized loans as a fraction of the total loans made by a closed bank.
[Firm-specific characteristics]	
Log_Age	Logarithm of firm age.
Log_Size	Logarithm of total asset.
Sales Growth	Growth rate of sales.
Profit/Interest	Profit / interest payment.
Bond Finance	Proportion of the bond market finance.
Equity Finance	Proportion of the equity market finance.
Loan Finance	Proportion of the loan market finance.
[Firm ownership]	
Chaebol	Dummy indicating whether a firm is a subsidiary of the top 64 conglomerates (“chaebol”).
Largest Shareholder	Proportion of shares that the largest shareholder owns.
Minority Shareholders	Proportion of shares that minority shareholders (less than 1%) own.
Foreign Shareholders	Proportion of shares that foreign firms or individuals own.
[Bank dummies]	
Bank1-5	Indicators for the five pairs of a closed and an acquiring bank.

Table 2. Summary statistics

Panel A. Time series characteristics

		End of 6/1998	End of 1998	End of 1999	End of 2000	mean
Number of firms		181				181
Prior Relationship	{0,1}	0.537				0.537
Locational Advantage	{0,1}	0.184				0.184
Main Creditor Bank	{0,1}	0.079				0.079
#Closed Banks	number	1.989				1.989
#Lending Banks	number	10.905	9.242	7.484	7.589	8.805
#Closed/#Lending Banks	ratio	0.196				0.196
Loan_Acquiring/Loan_All	ratio	0.084	0.065	0.070	0.079	0.075
Collateralized Loan_Acquiring	ratio	0.416	0.630	0.701	0.916	0.634
Log_Age	log	1.468	1.485	1.501	1.516	1.493
Log_Size	log	8.690	8.693	8.677	8.603	8.666
Sales Growth	ratio	0.123	-0.089	0.145	0.040	0.055
Profit/Interest	ratio	-0.511	-1.553	-0.119	-0.026	-0.553
Bond Finance	ratio	0.303	0.265	0.258	0.215	0.260
Equity Finance	ratio	0.145	0.183	0.240	0.298	0.216
Loan Finance	ratio	0.552	0.552	0.502	0.487	0.523
Chaebol	{0,1}	0.326	0.326	0.332	0.332	0.329
Largest Shareholder	ratio	0.241	0.223	0.216	0.226	0.226
Minority Shareholders	ratio	0.495	0.545	0.558	0.520	0.529
Foreign Shareholders	ratio	0.043	0.047	0.036	0.042	0.042
Bank 1	{0,1}	0.226				0.226
Bank 2	{0,1}	0.116				0.116
Bank 3	{0,1}	0.132				0.132
Bank 4	{0,1}	0.153				0.153
Bank 5	{0,1}	0.374				0.374

Panel B. Cross-sectional characteristics according to firm size

		Small	Medium	Large	t test [1)]
Number of firms		241	242	241	
Prior Relationship		0.434	0.392	0.784	-8.874**
Locational Advantage		0.251	0.192	0.116	3.955**
Main Creditor Bank		0.080	0.144	0.016	3.368**
#Closed Banks		1.530	1.956	2.488	-12.208**
#Lending Banks		5.649	7.948	12.804	-26.044**
#Closed/#Lending Banks		0.224	0.199	0.169	7.433**
Loan_Acquiring/Loan_All		0.091	0.078	0.054	3.272**
(Loan_Closed/Loan_All)		(0.070)	(0.047)	(0.014)	(8.683**)
	Prior Relationship = 0	0.081	0.057	0.017	3.259**
	1	0.103	0.109	0.063	2.601**
Collateralized Loan_Acquiring		0.960	0.637	0.402	2.317*
(Collateralized Loan_Closed)		(0.450)	(0.291)	(0.045)	(3.375**)
	Prior Relationship = 0	0.584	0.588	0.524	0.175
	1	1.435	0.695	0.377	2.977**
Log_Age		1.462	1.496	1.530	-3.655**
Log_Size		8.002	8.552	9.446	-49.657**
Sales Growth		0.045	0.004	0.133	-2.218*
Profit/Interest		-0.715	-0.344	-0.599	-0.396
Bond Finance		0.206	0.258	0.318	-6.606**
Equity Finance		0.314	0.198	0.137	9.873**
Loan Finance		0.480	0.545	0.546	-3.144**
Chaebol		0.060	0.176	0.764	-22.886**
Largest Shareholder		0.243	0.252	0.192	3.274**
Minority Shareholders		0.521	0.518	0.554	-1.548
Foreign Shareholders		0.025	0.026	0.076	-5.778**
Bank 1		0.347	0.220	0.120	6.209**
Bank 2		0.092	0.116	0.144	-1.821
Bank 3		0.092	0.160	0.148	-1.946*
Bank 4		0.127	0.140	0.180	-1.631
Bank 5		0.343	0.364	0.408	-1.511

1) test statistic for the hypothesis that the values of large and small firms are not statistically different each other. ***, **, and * denote the significance levels of 1%, 5%, and 10%, respectively.

Table 3. OLS regressions of changes in loan size

For the full sample of firms (181) whose loans were transferred to the acquiring banks, OLS regressions of changes in *Loan_Acquiring/Loan_All* from the date of the loan acquisitions to the end of 2000 on the explanatory variables as of prior to the loan acquisitions. The number in parentheses is t-statistic computed using heteroskedasticity-robust standard errors. F-statistic is for the null hypothesis that all the coefficients are jointly zeros. ***, **, and * denote the significance of the parameter estimates at the 1%, 5%, and 10% levels, respectively.

	[1]	[2]	[3]
Prior Relationship	-0.016	-0.012	
	(-0.709)	(-0.440)	
Loan_Acquiring/Loan_All			-0.134
			(-0.603)
#Closed/#Lending Banks	0.182	0.170	0.165
	(1.325)	(1.131)	(1.139)
Loan_Closed/Loan_All	-0.227	-0.252	-0.247
	(-1.063)	(-1.129)	(-1.109)
Locational Advantage	0.018	0.027	0.026
	(0.590)	(0.812)	(0.772)
Main Creditor Bank	0.117*	0.133*	0.134*
	(1.770)	(1.701)	(1.7050
Log_Age	0.010	0.039	0.032
	(0.229)	(0.813)	(0.694)
Log_Size	0.061*	0.065*	0.061*
	(1.904)	(1.937)	(1.863)
Sales Growth	-0.017	-0.012	-0.017
	(-0.337)	(-0.228)	(-0.326)
Profit/Interest	0.006*	0.005	0.005
	(1.700)	(1.452)	(1.556)
Bond Finance	-0.034	0.004	0.001
	(-0.490)	(0.051)	(0.014)
EquityFinance	0.100	0.139	0.136
	(0.434)	(0.601)	(0.585)
Chaebol	-0.021	-0.022	-0.022
	(-0.869)	(-0.852)	(-0.851)
Largest Shareholder	-0.054	-0.039	-0.036
	(-0.712)	(-0.502)	(-0.455)
Minority Shareholders	-0.022	-0.036	-0.031
	(-0.478)	(-0.706)	(-0.627)
Foreign Shareholders	-0.174*	-0.210*	-0.209*
	(-1.656)	(-1.905)	(-1.976)
Bank1	0.042	0.042	0.040
	(1.540)	(1.281)	(1.316)
Bank2	-0.008	-0.002	-0.004
	(-0.347)	(-0.068)	(-0.150)
Bank3	0.069*	0.078**	0.075*
	(1.878)	(2.000)	(1.902)
Bank4	0.057*	0.052	0.051
	(1.653)	(1.387)	(1.408)
Collateralized Loan_Acquiring		-0.025	-0.025
		(-0.983)	(-1.011)
Collateralized Loan_Closed		0.028	0.026
		(1.535)	(1.431)
Constant	-0.569*	-0.664*	-0.619*
	(-1.660)	(-1.854)	(-1.752)
F test	1.900**	2.140***	2.14***
R-square	0.205	0.225	0.227

Table 4. Probit regressions of continuation of relationship

For the full sample of firms (181) whose loans were transferred to the acquiring banks, probit regressions of the dummy variable indicating whether a firm continued relationships with an acquiring bank until the end of 2000 on the explanatory variables as of prior to the loan acquisitions. The number in parentheses is t-statistic computed using heteroskedasticity-robust standard errors. Chi-square statistic is for Wald test for the null hypothesis that all the coefficients are jointly zeros. ***, **, and * denote the significance of the parameter estimates at the 1%, 5%, and 10% levels, respectively.

	[1]	[2]	[3]
Prior Relationship [1)]	0.885***	1.259***	1.330***
	(3.332)	(4.055)	(3.566)
Market/Book value			2.093**
			(2.323)
*Prior Relationship*Market/Book value*			-0.229
			(-1.344)
#Closed/#Lending Banks	1.915	3.017*	3.172*
	(1.217)	(1.798)	(1.895)
Loan_Closed/Loan_All	7.495***	7.753***	7.545**
	(2.801)	(2.618)	(2.334)
Locational Advantage	0.853**	0.725*	0.729*
	(2.248)	(1.878)	(1.879)
Main Creditor Bank	0.336	-0.190	-0.127
	(0.779)	(-0.476)	(-0.299)
Log_Age	-0.251	-0.120	-0.310
	(-0.505)	(-0.220)	(-0.570)
Log_Size	0.657**	0.552	0.810**
	(2.130)	(1.620)	(2.246)
Sales Growth	0.300	0.275	0.442
	(0.482)	(0.464)	(0.715)
Profit/Interest	0.269**	0.239**	0.313***
	(2.318)	(2.015)	(3.552)
Bond Finance	-0.332	0.096	-0.211
	(-0.434)	(0.112)	(-0.233)
EquityFinance	-3.732***	-3.673***	-5.304***
	(-2.643)	(-2.590)	(-3.362)
Chaebol	-0.077	0.078	0.058
	(-0.234)	(0.206)	(0.150)
Largest Shareholder	1.615*	2.313**	2.047*
	(1.821)	(2.212)	(1.914)
Minority Shareholders	0.670	1.047*	1.004*
	(1.282)	(1.834)	(1.724)
Foreign Shareholders	0.175	0.057	-0.635
	(0.120)	(0.045)	(-0.464)
Bank1	-0.088	0.015	0.118
	(-0.266)	(0.043)	(0.330)
Bank2	-0.043	0.295	0.297
	(-0.103)	(0.653)	(0.643)
Bank3	-0.484	-0.522	-0.500
	(-1.522)	(-1.604)	(-1.451)
Bank4	0.267	0.625	0.590
	(0.695)	(1.218)	(1.129)
Collateralized Loan_Acquiring		-0.659*	-0.654*
		(-1.860)	(-1.920)
Collateralized Loan_Closed		0.532**	0.471*
		(2.068)	(1.836)
Constant	-6.102**	-6.318**	-8.316**
	(-2.010)	(-1.932)	(-2.429)
Wald test	65.30***	62.76***	77.40***
Pseudo R-square	0.311	0.368	0.386

1) Replacing *Prior Relationship* by the strength of prior relationship (*Loan_Acquiring/Loan_All*) produces similar results.

Table 5. Pooled OLS regressions of changes in loan size

For the subsample of firms (103x3) whose loans were transferred to the acquiring banks, and whose relationships with the banks were continued until the end of 2000, OLS regressions of changes in *Loan_Acquiring/ Loan_All* during each year on the explanatory variables as of the end of previous year and year-dummy variables. The number in parentheses is t-statistic computed using heteroskedasticity-robust standard errors. F-statistic is for the null hypothesis that all the coefficients are jointly zeros. ***, **, and * denote the significance of the parameter estimates at the 1%, 5%, and 10% levels, respectively.

	[1]	[2]	[3]
Prior Relationship	-0.028	-0.027	-0.018
	(-1.215)	(-0.897)	(-0.627)
Δ Log_Loan_All			-0.132**
			(-2.115)
Prior Relationship Δ Log_Loan_All*			0.121
			(1.156)
#Closed/#Lending Banks	0.074	0.023	0.052
	(0.601)	(0.146)	(0.342)
Loan_Closed/Loan_All	-0.121	-0.121	-0.148
	(-1.013)	(-0.856)	(-1.039)
Locational Advantage	0.010	0.026	0.020
	(0.512)	(1.084)	(0.899)
Main Creditor Bank	0.012	0.006	0.005
	(0.558)	(0.197)	(0.178)
Log_Age	-0.054	-0.034	-0.034
	(-0.786)	(-0.420)	(-0.435)
Log_Size	0.039**	0.032	0.028
	(2.144)	(1.371)	(1.168)
Sales Growth	0.011	0.041	0.046
	(0.435)	(0.825)	(0.934)
Profit/Interest	0.019***	0.008	0.008
	(3.150)	(0.852)	(0.936)
Bond Finance	-0.067	0.022	0.031
	(-1.272)	(0.394)	(0.581)
EquityFinance	-0.086	-0.041	-0.007
	(-0.898)	(-0.359)	(-0.062)
Chaebol	-0.027*	-0.024	-0.019
	(-1.663)	(-1.533)	(-1.207)
Largest Shareholder	-0.109*	-0.072	-0.049
	(-1.940)	(-0.978)	(-0.734)
Minority Shareholders	-0.081	-0.074	-0.057
	(-1.620)	(-1.162)	(-0.954)
Foreign Shareholders	-0.159**	-0.125	-0.133
	(-1.999)	(-1.472)	(-1.516)
Bank1	0.029	0.019	0.020
	(1.149)	(0.642)	(0.682)
Bank2	-0.015	-0.019	-0.019
	(-0.549)	(-0.636)	(-0.642)
Bank3	0.029	0.031	0.028
	(1.203)	(1.190)	(1.002)
Bank4	-0.002	0.006	0.002
	(-0.093)	(0.242)	(0.059)
Collateralized Loan_Acquiring		0.002	0.002
		(0.361)	(0.395)
Collateralized Loan_Closed		0.001	-0.001
		(0.121)	(-0.107)
during 1998	-0.030	-0.005	-0.001
	(-1.642)	(-0.272)	(-0.035)
during 1999	0.008	0.026	0.029
	(0.392)	(1.180)	(1.406)
Constant	-0.112	-0.150	-0.150
	(-0.605)	(-0.650)	(-0.667)
F test	1.47*	0.75	0.96
R square	0.181	0.075	0.091

Table 6. Random effect panel regressions of changes in loan size

For the subsample of firms (103x3) whose loans were transferred to the acquiring banks, and whose relationships with the banks were continued until the end of 2000, random effect panel regressions of changes in *Loan_Acquiring/Loan_All* during each year on the explanatory variables as of the end of previous year. The number in parentheses is t-statistic computed using heteroskedasticity-robust standard errors. Wald test is a statistic for the null hypothesis that all the coefficients are jointly zeros. ***, **, and * denote the significance of the parameter estimates at the 1%, 5%, and 10% levels, respectively.

	[1]	[2]	[3]
Prior Relationship	-0.022***	-0.015***	-0.015***
	(-4.291)	(-2.818)	(-2.889)
Δ Log_Loan_All			-0.122***
			(-9.124)
Prior Relationship Δ Log_Loan_All*			0.126***
			(6.370)
#Closed/#Lending Banks	0.065*	-0.007	-0.004
	(1.903)	(-0.159)	(-0.076)
Loan_Closed/Loan_All	-0.081	-0.027	-0.050
	(-1.493)	(-0.507)	(-1.070)
Locational Advantage	-0.002	0.007	0.012
	(-0.255)	(0.774)	(1.367)
Main Creditor Bank	0.008	0.002	-0.004
	(0.757)	(0.147)	(-0.303)
Log_Age	-0.017	0.003	0.019
	(-0.946)	(0.188)	(1.000)
Log_Size	0.015**	0.015**	0.010
	(2.175)	(2.091)	(1.460)
Sales Growth	0.011	0.019**	0.018**
	(1.431)	(2.400)	(2.320)
Profit/Interest	0.006***	0.002	0.001
	(3.060)	(1.081)	(0.746)
Bond Finance	-0.038**	0.018	0.019
	(-2.333)	(1.114)	(1.179)
EquityFinance	-0.016	-0.034	0.000
	(-0.553)	(-1.167)	(0.001)
Chaebol	-0.012**	-0.006	-0.005
	(-2.009)	(-0.922)	(-0.594)
Largest Shareholder	-0.091***	-0.029	-0.013
	(-5.672)	(-1.599)	(-0.754)
Minority Shareholders	-0.074***	-0.045***	-0.037***
	(-5.538)	(-2.947)	(-2.594)
Foreign Shareholders	-0.042	-0.028	-0.022
	(-1.345)	(-0.933)	(-0.653)
Bank1	0.021***	0.014*	0.012*
	(2.754)	(1.869)	(1.682)
Bank2	-0.007	-0.002	-0.006
	(-1.104)	(-0.325)	(-0.712)
Bank3	0.018*	0.016	0.013
	(1.860)	(1.454)	(1.119)
Bank4	0.002	0.012	0.010
	(0.190)	(1.365)	(1.052)
Collateralized Loan_Acquiring		-0.001	-0.001
		(-0.542)	(-0.546)
Collateralized Loan_Closed		0.005*	0.005**
		(1.697)	(2.013)
Constant	-0.017	-0.099*	-0.094
	(-0.290)	(-1.760)	(-1.547)
Wald (chi^2)	114.97***	43.09***	365.82***
Log-likelihood	661.74	602.91	606.27

Table 7. Heckman correction estimation of changes in loan size

For the subsample of firms (103x3) whose loans were transferred to the acquiring banks, and whose relationships with the banks were continued until the end of 2000, random effect panel regressions of changes in *Loan_Acquiring/Loan_All* during each year on the explanatory variables as of the end of previous year. Inverse Mills ratios computed from Table 3.5 [3] probit estimation are included in the explanatory variables, and three different exclusion restrictions are made. In the last column, a random effect panel regression without inverse Mills ratios is conducted. The number in parentheses is t-statistic computed using heteroskedasticity-robust standard errors. Wald test is for the null hypothesis that all the coefficients are jointly zeros. ***, **, and * denote the significance of the parameter estimates at the 1%, 5%, and 10% levels, respectively.

	[1]	[2]	[3]	without Mills ratio
Prior Relationship	-0.003	-0.017***	-0.010**	-0.014**
	(-1.423)	(-5.191)	(-2.369)	(-2.543)
Δ *Log_Loan_All*	-0.104***	-0.130***	-0.118***	-0.124***
	(-8.020)	(-13.711)	(-12.035)	(-9.321)
*Prior Relationship** Δ *Log_Loan_All*	0.113***	0.138***	0.128***	0.136***
	(5.529)	(11.132)	(10.130)	(6.511)
#Closed/#Lending Banks	0.004	-0.005	0.038	0.008
	(0.088)	(-0.184)	(1.618)	(0.172)
Loan_Closed/Loan_All	-0.035	-0.132***	-0.106***	-0.047
	(-0.7220	(-3.417)	(-4.563)	(-1.094)
Locational Advantage	0.015*	0.009	0.007	0.005
	(1.659)	(1.460)	(1.187)	(0.595)
Main Creditor Bank	-0.008	-0.001	-0.009	-0.004
	(-0.760)	(-0.124)	(-1.039)	(-0.342)
Log_Age	-0.003			-0.006
	(-0.203)			(-0.332)
Log_Size	0.009			0.010
	(1.490)			(1.461)
Sales Growth	0.029***			0.018**
	(3.457)			(1.968)
Profit/Interest	0.006***			0.002
	(2.940)			(1.170)
Bond Finance	0.016			0.021
	(1.159)			(1.474)
EquityFinance	-0.052			0.001
	(-1.627)			(0.058)
Chaebol	-0.003			-0.004
	(-0.428)			(-0.484)
Bank1	0.018**	0.014***	0.008**	0.013*
	(2.169)	(4.604)	(2.307)	(1.762)
Bank2	-0.005	-0.012*	-0.013**	-0.003
	(-0.609)	(-1.890)	(-2.366)	(-0.304)
Bank3	0.009	0.026***	0.008	0.011
	(0.780)	(4.353)	(1.002)	(0.966)
Bank4	0.018**	0.001	0.005	0.010
	(2.157)	(0.081)	(0.690)	(1.130)
Collateralized Loan_Acquiring	-0.003**	0.003**		-0.002
	(-2.287)	(2.000)		(-1.013)
Collateralized Loan_Closed	0.005***	0.002		0.005**
	(3.202)	(0.742)		(1.971)
Inverse Mills ratio	0.097**	-0.037***	-0.013	
	(2.491)	(-3.649)	(-1.139)	
Constant	-0.121**	0.029***	0.010	-0.077
	(-2.034)	(3.990)	(1.095)	(-1.394)
Wald (chi^2)	222.00***	935.50***	735.35***	764.17***
Log-likelihood	615.78	599.77	613.87	599.44