EUROPEAN CENTRAL BANK
EUROSYSTEM

ECB LAMFALUSSY FELLOWSHIP PROGRAMME

WORKING PAPER SERIES
NO 1023 / MARCH 2009

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DOES BANK ORIGIN MATTER?

By Steven Ongena
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In 2009 all ECB publications feature a motif taken from the €200 banknote.

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CONTENTS

Abstract

Banks play a special role as providers of informative signals about the quality and value of their borrowers. Such signals, however, may have a quality of their own as the banks' selection and monitoring abilities may differ. Using an event study methodology, we study the importance of the geographical origin and organization of the banks for the investors' assessments of firms' credit quality and economic worth following loan announcements. Our sample comprises 986 announcements of bank loans to U.S. firms over the period of 1980-2003. We find that investors react positively to such announcements if the loans are made by foreign or local banks, but not if the loans are made by banks that are located outside the firm's headquarters state. Investor reaction is, in fact, the largest when the bank is foreign. Our evidence suggest that investors value relationships with more competitive and skilled banks rather than banks that have easier access to private information about the firms. These results are applicable also to the European markets where regulatory and economic borders do not coincide and bank identities and reputation seem to matter a great deal.

Keywords: relationship banking, bank organization, bank origin, loan announcement return

JEL Classification: G21, G32, H11, D80

Non-Technical Summary

Previous literature has emphasized the special role of banks as providers of informative signals about borrowers' private information. Given this view, equity investors assess the value and the credit quality of the borrower as increasing when bank loans are announced. These informative signals however are of different qualities, depending on the banks' assessment abilities and reputation on the market. We investigate how various bank characteristics, in general, and banks' geographical origin, in particular, affect investors' reaction to loan announcements. The fact that investors react more/less to loan announcement signals depending on bank characteristics has received not enough attention yet in the literature.

We focus on publicly traded U.S. firms so we can easily observe informative firm equity values over time. Because publicly traded U.S. firms face fewer information asymmetries, they are less reliant on local bank financing than small businesses in emerging markets and have access to a wider menu of financing alternatives, including foreign bank loans. If markets are efficient, then abnormal returns provide direct signals about whether borrowing from foreign banks helps or hurts shareholders of the borrowing firms more or less than borrowing from local banks.

If foreign banks only lend to very transparent firms, the observed abnormal returns following a foreign bank loan announcement should be close to zero, as investors already know the quality of the firm. If, however, foreign banks select their borrowers better than local banks, the abnormal returns following the loan announcements should be larger than those observed for local bank loans. If, on the other hand, local banks are more informed than foreign banks because of their geographical proximity for example the reverse should hold.

We find that when firms announce a loan from a foreign bank, the two-day cumulative abnormal return on the firm stock is on average 91 basis points (bps). In contrast, in-state loan announcements yield only 44 bps in excess returns, neighbor-state loans minus 20 bps and non-neighbor state loans 32 bps. This difference according to bank origin becomes even larger when we control for firm and loan characteristics and

macro conditions. On the other hand, the difference seemingly decreases over time towards the end of the sample period. Overall, our results suggest that markets value most relationships with high quality, competitive, foreign lenders that seem to perform better in selecting and monitoring their clients, rather than local lenders that have easier access to firms' private information. This difference between banks however, dissipates over time. These findings are of particular importance for the European context where regulatory and economic borders do not coincide and bank identities and reputation seem to matter a great deal.

1. Introduction

A previous literature has emphasized the special role of banks as providing certification of their borrowers' quality (James, 1987). Equity investors for example may perceive the credit quality and value of a firm to improve when it obtains a renewal of a bank loan (Lummer and McConnell, 1989). However, the certification itself can be of a varying quality, depending on the bank's assessment ability and reputation (Billet, Flannery and Garfinkel, 1995). In this paper we investigate if the origin of the bank may affect the equity investors' reactions to the bank loan announcements. That equity investors may react differently to the announcement of bank loans granted by local or foreign banks has not been investigated before as far as we know.

This apparent lack of evidence is somewhat surprising, as a fast developing literature has recently raised serious concerns about the willingness and ability of foreign banks to lend to domestic firms. Foreign banks may cherry-pick clients and be more reluctant than domestic financial intermediaries to lend to opaque borrowers for example (Dell'Ariccia and Marquez, 2004). Hence, many firms may be permanently excluded from foreign banks' financing (Mian, 2006). Credit to the private sector may consequently be lower in countries with widespread foreign bank presence (Detragiache, Tressel, and Gupta, 2008).

But as argued by Giannetti and Ongena (2008) this may be too pessimistic a view of the existing literature. All firms possibly indirectly benefit from the entry of foreign banks. Foreign banks may select borrowers more judiciously and their presence may discourage local banks from earning rents from creditworthy firms to subsidize locally connected borrowers for example. However, directly comparing borrower selection by local and foreign banks may be difficult because the true borrower quality may remain unobservable.

We therefore, and in contrast to the previously cited research, focus on publicly traded U.S. firms so we can easily observe informative firm equity values over time. Because publicly traded U.S. firms face fewer information asymmetries, they are less reliant on local bank financing than small businesses in emerging markets and have access to a wider menu of financing alternatives, including foreign bank loans. If markets

are efficient, then abnormal returns provide direct signals about whether borrowing from foreign banks helps or hurts shareholders of the borrowing firms more or less than borrowing from local banks.

If foreign banks only lend to very transparent firms, the observed abnormal returns following a foreign bank loan announcement should be close to zero, as investors already know the quality of the firm. If, however, foreign banks select their borrowers better than local banks, the abnormal returns following the loan announcements should be larger than those observed for local bank loans. If, on the other hand, local banks are more informed than foreign banks because of their geographical proximity for example the reverse should hold.

We rely on a sample of 985 bank loan announcements that were published between 1980 and 2003 and collected by Fields, Fraser, Berry, and Byers (2006). We augment their announcements with the origin of the bank gleaned from the *BankScope* and *Bank Regulatory* databases. On the basis of firm and bank headquarters location, we distinguish between loans from in-state, neighbor-state, non-neighbor state, and foreign banks.

We find that when firms announce a loan from a foreign bank, the two-day cumulative abnormal return on the firm stock is on average 91*** basis points (bps).[1] In contrast, in-state loan announcements yield only 44 bps in excess returns, neighbor-state loans -20 bps and non-neighbor state loans 32* bps. This difference according to bank origin becomes even larger when we control for firm and loan characteristics and macro conditions. On the other hand, the difference seemingly decreases over time towards the end of the sample period. Overall our results indicate that investors assess foreign banks to be more selective in financing firms than the domestic banks, but that this difference between foreign and domestic banks dissipates over time.

The rest of the paper is organized as follows. In section 2, we discuss the relevant literature. Section 3 presents the methodology, while Section 4 describes the sample selection and the variables employed in our empirical analysis. In section 5 we analyze

[1] As in the tables, we star the coefficients to indicate their significance levels: *** significant at 1%, ** significant at 5%, and * significant at 10%.

the cumulative abnormal returns on firms stock during bank loan announcements, first, in a univariate setting, then in a multivariate setting, and finally we discuss a number of robustness tests. Section 6 concludes.

2. Literature Review

2.1. Bank Loan Announcements

Equity market reactions to bank loan announcements have been studied extensively. Motivated by conjectures regarding the uniqueness of bank loans (Fama, 1985) and following work by Mikkelson and Partch (1986), James (1987) studies the average stock price reaction of firms that publicly announce a bank loan agreement or renewal. James finds that bank loan announcements are associated with positive and statistically significant stock price reactions that equal on average 193*** bps in a two-day window, while announcements of privately placed and public issues of debt experience zero or negative stock price reactions. This result holds independently of the type of loan, the default risk and size of the borrower. The results in the seminal paper by James (1987) are key for our current thinking of the role banks play in credit markets.

Results in James (1987} spawned numerous other event studies (for a review see Degryse and Ongena, 2008). Lummer and McConnell (1992) for example find positive equity price reactions to loan renewals only, while Slovin, Johnson, and Glascock (1992) show that equity prices react significantly to both loan initiations and renewals, but only for small firms. More recently, Fields et al. (2006) find that equity price reactions to bank loan announcements have considerably decreased over time, possible due to increased competition and the changing nature of the banking sector. The impact, however, is still considerable for small and poorly performing firms. In line with the latter findings, Ongena, Roscovan, Song, and Werker (2008) find a similarly decreasing reaction of equity prices to bank loan announcements. They are also the first to document that bond price reactions are comparable in size. The authors show theoretically and empirically that contrary to bond prices, stock price reactions are independent of the borrowers'

credit quality, while bond price reactions for riskier and smaller firms are more likely to be negative.[2]

Most studies explain the magnitude of the loan announcement returns in cross-sectional regressions using various firm and loan characteristics. Bank specific characteristics, however, have remained somewhat overlooked with the exception of James (1987) and Preece and Mullineaux (1994) who include bank type (bank versus nonbank), and Billet, Flannery and Garfinkel (1995) who investigate the importance of bank credit ratings for the estimated excess returns. They find that announcements of banks loans granted by lenders with higher credit ratings are associated with larger abnormal returns on the borrowing firms' shares. Different from these studies we focus on the impact of bank origin.

2.2. Foreign Bank Presence

Why would bank origin matter for the assessment by equity investors of bank loan announcements? Local banks may have an informational and organizational advantage in screening and monitoring local borrowers. Information may deteriorate in quality across distance for example and loan officers working for a bank that is anchored locally may have stronger incentives for due diligence (similar to Berger and Udell, 2002 and Stein, 2002). Foreign outside banks as a result either cherry-pick clients and only engage the most transparent ones or break even on a pool containing many low-quality firms (Rajan, 1992 and von Thadden, 2004). Mian (2006) for example shows that foreign banks that have their headquarters farther away from local branches focus less on informationally difficult but economically sound borrowers. In this case equity investors will react positively to the announcement of a bank loan granted by a local bank (unless the local bank manages to extract all informational rents) but will not react to announcements of foreign bank loans.

Alternatively, foreign banks may be better and more selective in financing local firms and less subject to social and political pressure to cross-subsidize low quality firms. Foreign banks may have a better lending technology, organization or other competitive

[2] Hence they provide an explanation for the results by Best and Zhang (1993) who relate firm's announcement returns to firm's risk and do not find statistically significant results.

advantage in screening or monitoring that allowed it to penetrate the local market. If this type of organizational or informational advantage is widely known to investors, announcements of loans to firms made by foreign banks may be followed by positive firm stock price reactions.

To the best of our knowledge, the previous literature has ignored the market valuation of local versus foreign bank borrowing. However differences in lending technologies and specialization of local and foreign banks have been studied extensively especially for developing countries. Stiglitz (1993), Levine (1996), Claessens, Demirguc-Kunt, and Huizinga (2001), Gelos and Roldos (2004), Micco, Panizza, and Yanez (2007), and Martinez, Soledad, and Mody (2004) study the effect of foreign bank entrance on domestic developing markets. They find significant improvements in the local financial system overall. Competition in the local banking markets intensifies, and the profitability of the local banks decreases. Interestingly, Levy-Yeyati and Micco (2003) find that in Latin-America competition actually softens following foreign bank entry, while Giannetti and Ongena (2008) find that foreign bank presence in Eastern European countries benefits all firms, with more pronounced effects for the largest firms and those less likely to be involved in relationship lending.

The operating efficiency of banks has been analyzed in cross-country studies such as those by Mian (2007) and Micco, Panizza, and Yanez (2004). These authors find that foreign banks have lower operation costs and higher profitability than domestic banks, while state owned banks are less efficient in terms of costs and profitability when compared to either foreign or domestic banks. According to Degryse, Havrylchyk, and Jurzyk (2008), foreign banks charge, on average, lower rates to transparent, larger borrowers who appear to be predominant in their portfolios. Clarke, Cull, Martinez-Peria, and Sanchez (2008) show that only foreign banks with significant local presence in Latin America focus on small business lending.

Most recently, Detragiache, Tressel, and Gupta (2008) build on an adverse selection model to study the effects of foreign bank entry in developing markets. In their model, foreign banks have a cost advantage over domestic banks in lending to larger, more transparent borrowers and a disadvantage in lending to smaller, more opaque firms.

Their model suggests that, although possible, it is not necessarily the case that foreign bank entry leads to improved total lending, cost efficiency, and aggregate welfare. Interestingly, it is the more transparent firms who will always benefit from foreign bank presence, while the more opaque firms will either lose or remain indifferent. Hence whether firms benefit and how equity investors react differently to announcements of local and foreign bank loans is ultimately an empirical question.

3. Methodology

We run variations of market model regressions, where in the simplest case we regress measures of the realized stock returns for event firm i at date t, R_{it}, on a measure of the realized daily return of a benchmark index, R_{Mt}. To compute abnormal returns, we augment the market model with a set of $(2\tau+1)$ daily dummy variables, D_{ikt}, with $k=-\tau,-\tau+1,...,\tau-1,\tau$. The augmented dummies take the value of one for the event days (inside the event window) and zero otherwise. The simplest specification we estimate takes the following form:

$$R_{it}=\alpha_i+\beta_i R_{Mt}+\sum_{k=-\tau}^{\tau}\gamma_{ik}D_{ikt}+\varepsilon_{it},\forall i,t. \qquad (1)$$

We assume that the error terms are independent and have a mean zero. The estimated coefficients γ_{ik} measure the daily abnormal returns inside the event window. Contrary to the traditional two step approach for estimating abnormal returns, the one step approach we undertake has the advantage that the estimated abnormal returns and corresponding t-statistics are correctly estimated using ordinary least square methods (Karafiath, 1988). We also estimate variations of (1) by estimating alternative market model specifications. The latter results are discussed in Section 6 where we focus on the robustness of our estimates.

To calculate the cumulative abnormal returns, $CAR_{i\tau}$, we sum the estimated daily abnormal returns over various windows. These can be then tested for significance using Wald or Patell-Z tests. Finally, we relate the calculated cumulative abnormal returns to

various firm and bank specific as well as other characteristics in a univariate and multivariate setting. Generally speaking, we estimate:

$$CAR_{i\tau} = a_{\tau} + B_{\tau} X_i + \upsilon_i \ , \qquad (2)$$

where X_i is a matrix of firm and bank specific as well as other characteristics, among which our primary focus is on bank origin and organization variables, while τ is the event window over which the abnormal returns have been aggregated. Since some firms have been granted multiple loans over the sample period, we are forced to drop the classical assumption of independence of error terms for different observations. For robustness, we assume that the errors are independent across firms but allow for correlation within firms. This assumption leads to traditional cluster regression estimates.

4. Data and Sample Characteristics

4.1 Bank Loan Announcements

We obtain our loan announcements from Fields et al. (2006) who manually collected the largest sample of bank loan announcements that we are aware of. They searched all press releases in the Lexis/Nexis database for the period 1980-2003. For a detailed description of this dataset and a discussion of the sample selection issues we refer the reader to their paper.

The main advantage of relying on this sample is that the authors have comprehensively collected the name of the banks that participated in the loan deal, among a number of other variables. In the original sample that contains 1,111 loan announcements, 113 bank names and 34 firm identifiers are missing. We revisit the respective press releases in the Lexis/Nexis database and are able to identify another 27 banks and 31 firms. We drop the observations with unidentifiable banks or firms and match the remaining observations on bank names with BankScope and Bank Regulatory, two datasets that are available in WRDS. The final match comprises 952 observations (match with BankScope) and 978 observations (match with Bank Regulatory). We will use the latter sample in robustness.

The possibility to match our dataset with BankScope or Bank Regulatory databases is essential for our study. Both datasets allow us to identify the origin of the lending bank. This differentiation is possible since both databases provide us with the location of either the bank's headquarters (Bank Regulatory) or its subsidiaries (Bank Regulatory). As we are able to extract the location of the firm's headquarters from COMPUSTAT, also available via WRDS, we can measure firm-bank proximity.

Given that we have access to two different bank datasets in this study, we are more confident about our results as we are able to carefully test for the robustness of our conclusions. However, the drawback is that in the Bank Regulatory set we are missing a lot of bank specific observations, while the BankScope data set starts only 1986. Both restrict our samples considerably. Table 1 defines the variables used in our study. We now turn to a detailed description and motivation for each of these variables.

(Insert Table 1 here)

4.2 Firm Characteristics

Panel A in Table 1 presents the firm specific variables employed in our study. The dependent variable is the average cumulative abnormal return on the firms' stocks in various event windows around the bank loan announcements. We consider various event windows and denote the cumulative abnormal returns for each one of them by CAR(x,y), where x and y denote the beginning and the end day of the event window respectively. We note that the cumulative abnormal returns equal on average 50 bps which is lower than the results presented in earlier bank loan announcement studies, but is in line with the recent findings of Fields et al. (2006) and Ongena et al. (2008).

On the right hand side, we include typical measures of firm size, LNASSETS or LNMVE, as motivated by Slovin et al. (1992), to control for the existing informational asymmetries regarding the firm's performance. Panel A in Table 1 presents the log transformations of these values. When adjusted for inflation (in 1992 U.S. dollars), we find that borrowers' total assets had an average of 1,195 million U.S. dollars and a market value of equity of 818 million U.S. dollars, though these results are affected by a number of large outliers. The corresponding median values are 197 million U.S. dollars and 126 million U.S. dollars, respectively. The change in total assets in the year prior to the

announcement has been 0.5 million U.S. dollars on average with a median of 0.1 million U.S. dollars.

Best and Zhang (1993) suggest that borrower risk plays an important role in determining the reactions to bank loan announcements. Ongena et al. (2008) develop a theoretical model and relate firm risk to both bond and stock price reactions around the bank loan announcements. To control for the credit quality of the borrowers in our sample, we include the standard deviation of firm stock returns in the year prior to the loan agreement as an independent variable. Our sample comprises relatively risky borrowers as the standard deviation on their stock returns is quite high with an average value of 3.62% and a median of 3.32% in the year prior to the loan announcement. Despite this risk (or because of it), Panel A in Table 1 shows that on average the firms have been quite profitable with an average of 10.61% and a median ratio of operational income to assets of 11.76%. Firm Tobin's Q values have a median of 1.30 and an average of 1.64. Despite their riskiness, our firms appear to be relatively mildly leveraged, with median debt ratios of 22% and average value of 23%.

James and Smith (2000) point out that loan agreements are particularly important for borrowers with an undervalued stock. We therefore also include the cumulative abnormal return on the firm stock during the last year prior to the announcement. Our equally weighted market-adjusted return in the year prior to the loan announcement is minus 1.05% on average and has a median value of minus 0.65%, which is consistent with the James and Smith's (2000) conjecture.

4.3 Bank Characteristics

To control for origin and organizational differences in lenders' characteristics, we employ four mutually exclusive dummy variables INSTATE, NEIGHBOR, NONNEIGHBOR, and FOREIGN. These dummies are defined to be equal to one if the borrower's and lender's headquarters are in the same state, in a neighbor state, in a non-neighbor state (but still in the U.S.) or in a different country, respectively, and zero otherwise. The descriptive statistics presented in Panel B of Table 1 are for the data taken from the BankScope database.

12.90% of the loan agreements are between lenders and borrowers that have their headquarters in the same state, 7.80% between lenders and borrowers with the headquarters in a neighbor state, a majority of 53.00% between lenders and borrowers with headquarters that are not in the same state (but in the same country), while 26.10% of the agreements are between foreign banks and domestic (U.S.) borrowers.

4.4 Loan Characteristics

Among the loan specific characteristics we employ and list in Panel C of Table 1, is the variable LNAMOUNT, that is defined as the natural logarithm of the loan amount in U.S. dollars. Loan size provides a measure of the importance of the deal for both the lender and the borrower and on the impact the announcement might have on the market valuation. While on average borrowers are granted loans of around 135 million U.S. dollars, the median value of the loan size is 30 million U.S. dollars. These amounts are considerable and can reach on average 10% of firm asset values.

Lummer and McConnell (1989) classify bank loans into new loans and renewals. Our right hand side dummy variable, RENEW, captures such differences in the loan deals. Of the 986 loan deals in our dataset, 52% (513) are renewals and 47% (473) are new loans. Lummer and McConnell (1989) similarly report that 49% of their sample are loan renewals.

Preece and Mullineaux (1996) find significant differences in syndicated and non-syndicated bank loan announcement returns with the syndicated loan announcement returns being considerably smaller and rather insignificant. To control for such differences we include a dummy variable, SYNDICATED, which equals one if the loan deal has multiple lenders and equals zero otherwise. Of the 986 loan deals in our sample 65% (639) are syndicated. Preece and Mullineax (1996) similarly report that 72% of the loans in their sample are syndicated loans.

4.5 Other Control Variables

James and Smith (2000) note that abnormal returns to bank loan announcements differ with the size of the relative credit spreads. To control for such differences we employ a variable SPREAD defined as the differences between the AAA and BBB credit spreads

in the month of the loan announcement. Our results show that on average the spread between AAA and BBB bonds is 1.01% with a median value equal to 0.88%.

5. Empirical Results

We estimate market model regressions as shown in equation (1) to compute abnormal returns around bank loan announcements for a sample of 986 firms during 1980-2003. We first start by describing the behavior of abnormal returns around announcement dates in a univariate setting and then link the cumulative abnormal returns for various event windows to bank, firm and loan characteristics and macro conditions in a multivariate regression analysis.

5.1 Univariate Results

The results of our event study for the entire sample, and for in-state, neighbor state, non-neighbor state, and foreign bank loans separately are presented in Table 2. For each of these groups, we present both, the results from the equally-weighted as well as the Fama-French factors regressions.

(Insert Table 2 here)

Looking at the first two columns we observe that the market reactions for the whole sample of announcements are generally limited to the announcement day and are, on average, as large as 49 bps for the equally weighted regressions and 52 bps for the Fama-French regressions, both economically and statistically significant at 1% confidence levels using the Wilcoxon rank test. These magnitudes of loan announcement returns are considerably smaller than those reported in James (1987) but are very much in line with those reported in Preece and Mullineaux (1996), James and Smith (2000), Fields et al. (2006), and Ongena et al. (2008).

Columns 3 to 10 of Table 2 break the sample into in-state, neighbor state, non-neighbor state, and foreign bank loans. These results are already more insightful as they show significant differences between the average loan announcement returns across the four groups. In particular, the largest day-0 average abnormal returns are for the in-state loans. These are economically as large as 105 bps or 111 bps for the equally-weighted

and Fama-French regressions, though with a somewhat "lower" level of statistical significance (5%).

The second group with largest average loan announcement returns is the foreign bank loans group, presented in Column 9 and 10 of Table 2. These are economically smaller than those for the in-state loans at 68 bps and 73 bps for the equally weighted and Fama-French regressions respectively, both statistically significant at the 1% level.

Columns 5 to 8 of Table 2 present the day-0 average loan announcement abnormal returns for the neighbor and non-neighbor state loans. While for the first of the two groups the average day-0 abnormal returns are both economically and statistically insignificant, for the latter, the abnormal returns are economically much smaller at 36 bps for the equally-weighted and Fama-French regressions, and are statistically significant at the 5% level.

These preliminary results already point out that there are significant differences in market valuations of bank loan announcements when bank origin and organization characteristics vary. To provide further evidence that this is the case, we present in Table 3 the cumulative abnormal returns for various event windows, for both equally-weighted and Fama-French regressions.

(Insert Table 3 here)

The results in Table 3 provide more insights on the behavior of market reactions to bank loan announcements across different bank origin and organizational structures. In particular, we observe that on average the cumulative abnormal reactions for all event windows considered are around 50 bps, mostly statistically significant at the 1% level. Again these results are in line with recent studies that have tested for various aspects of bank loan announcement returns.

When the sample is split into the four groups depending on the location of firm and bank headquarters, we observe, in columns 3 and 4 of Table 3, that the in-state loan announcement returns are again the largest, but they do not appear to be significant for any but the (-1, 0) event window and only at 10% confidence levels. The neighbor state

cumulative loan announcement returns presented in columns seem to be negative and insignificant for all event windows.

Contrary to these results, columns 5 and 6 of Table 3, show that the non-neighbor state loans display positive cumulative abnormal returns that vary from 30 to 45 bps depending on the event windows considered. The results for this particular group are very close to the results for the entire sample.

Most importantly, the cumulative abnormal returns on foreign bank loan announcements appear to be most significant and largest among the four groups considered. In particular, the results vary from 86 to 172 bps for various event windows and are statistically significant at the 1% or 5% levels.

So far, our univariate results convincingly show that the market reactions to bank loan announcements vary according to bank origin, and are predominantly positive when lenders are from abroad. As suggested earlier, Field et al. (2006) shows that loan announcement returns have decreased considerably over time. In order to provide some perspective on this time pattern, we provide the cumulative abnormal returns for different time periods in Table 4. Since the announcements in our sample, as collected by Fields et al. (2006), come from news wires carrying a precise time stamp we focus on what occurs in the (0, +1) event window (the results are robust to using alternative event windows).

(Insert Table 4 here)

Panel A of Table 4 presents the average cumulative abnormal returns for the entire sample as well as for different time periods grouped by decade (1980-1989, 1990-1999, and 2000-2003) and bank origin (in-state, neighbor-state, non-neighbor state loans, and foreign). The cumulative abnormal returns declines significantly over the 24 year period for the neighbor state loans, non-neighbor state loans, and the foreign loans but not for the in-state loans. In particular, the abnormal returns for all loans are positive and statistically significant only for the first sub-period. During this first decade significantly positive abnormal returns are observed only for the foreign bank loan announcements. Non-neighbor state announcements also result in positive cumulative abnormal returns but these are much smaller and statistically significant only at the 10% level.

Contrary to these findings, returns around announcements of in-state loans increase during the 24-year sample period from being negative and statistically insignificant in the first period to about 300 bps in the last 4 years of our sample period. The results for the last sub-period are statistically significant at the 5% level. These results show, in fact, that there is no clear time pattern in the size of the loan announcement returns during our sample period among the four groups, but rather, market reactions have shifted gradually from valuing loans made by foreign banks during the first sub-period to valuing local, in-state bank loans during the last sub-period. These results are, in fact, not surprising in light of the findings of Petersen and Rajan (2002), who document that the distance between firms and banks has considerably increased over time.

To provide some further evidence on the time pattern in the bank loan announcement returns across the four groups considered in this study, we present in Tabel 4, the cumulative abnormal returns for the (0, +1) event window on a 5-year interval (Panel B) and yearly (Panel C) basis.

The results for the 5-year sub-periods show that there is no consistent pattern behavior in the market reactions to bank loan announcements over the 24-year period considered in our sample. However, it is interesting to note that in-state and foreign bank loan announcements have been consistently opposite in sign in all but the period of 1994-1999. For neighbor and non-neighbor state loans the results are inconclusive as in most the time periods we find no significant cumulative abnormal returns.

The cumulative abnormal returns presented on a yearly basis in Panel C of Table 4, show, consistently with the previous findings, that there has been a shifting pattern in the market reactions to in-state and foreign bank loans. In particular during the earlier years, the market reactions to foreign loans were positive, while negative for the in-state loans. In the latter years, however, the market reactions to foreign loans have become negative and positive for the in-state loans. These results however, should be interpreted with caution given the high volatility in the computed cumulative abnormal returns over time together with limited significance levels due to a small number of observations within each of the considered groups. These results could be sample specific, but as

Fields et al. (2006) show the characteristics of their and hence our sample are very much consistent with those of James (1987) and Lummer and McConnell (1989) and hence are more likely to be generally valid.

So far our results show that although overall the size of the loan announcement returns appear has decreased over time, this is not necessarily the case for all bank origins. In particular, our results show that while foreign loan announcement returns have decreased over time, market reactions to in-state loans have increased in the latter years. These results suggest that changes in the banking and market competition have not completely eroded the informational advantage that banks have, as Field et al. (2006) suggest, but rather have shifted the informational advantage from some type of banks to another. The univariate results, however, might not necessarily reflect the changes in market valuations of bank loan announcements, but rather changes in lender characteristics or sample composition. To overcome such issues we explore our data in a multivariate framework in the following subsection.

5.2 Multivariate Results

Tables 5-8 present our multivariate results. We regress the cumulative abnormal returns on firm stocks (for various event windows) on a number of explanatory variables that prior research has found to explain the market reaction to bank loan announcements. Our primary interest is in assessing the bank origin dummies, but we also control for various proxies of firm size, change in the value of firm assets, pre-announcement firm performance, firm risk and capital structure, as well as loan characteristics and macroeconomic conditions. We turn now to the discussion of our results.

(Insert Table 5 here)

Table 5 presents the results of our multivariate models where the dependent variable is the 2-day cumulative abnormal return for day (-1, 0). Models 1-8 provide important insights on how different origin and organizational structures of lenders affect the cumulative abnormal returns on borrowers' stocks. Given our univariate results, where we have shown that the announcement returns are the lowest when the lender and the borrower are in neighbor-states, we take this group as our reference group and include only the dummies for the in-state loans, non-neighbor state loans, and the foreign loans.

The estimates of the coefficients of the INSTATE, NONNEIGHBOR and FOREIGN dummy variables are positive and statistically significant in all specifications at 10% confidence or less, except for Model 4. Model 4, in fact, is troublesome due to multicollinearity issues between LNASSETS and LNAMOUNT of 72%, between STDRET and LNAMOUNT of -42%, and between SYNDICATE and LNAMOUNT of 52%. The insignificance of estimates is not due to limited number of observations in the variable LNAMOUNT, as we obtain significant estimates when we regress the same specification without LNAMOUNT on the smaller sample where we observe LNAMOUNT. Except for model for, our estimates of INSTATE, NONNEIGHBOR, and FOREIGN seem to be robust among all models considered.

The effects of bank origin and organizational variables are also economically significant. First, we observe that across all models in Table 5 the magnitude of the coefficients next to INSTATE and FOREIGN are the largest amongst the bank dummies while the NONNEIGHBOR coefficient seem to be the lowest. These results are consistent with our conclusions in the univariate analysis and show that when lender's headquarters is located either abroad or in the same state as borrower's headquarters, the cumulative abnormal return on firm stock will go up by 15 bps as compared to the abnormal return on a firm which has been granted a loan from a bank with its headquarters in a neighbor state. If the location of bank's headquarters is in a non-neighbor state, the loan announcement return will increase by 10 bps as compared to our reference group. These results imply that the average cumulative abnormal returns are 30% larger when the lending bank's headquarters is not in a neighbor state.

In Models 2–8 we employ two measures for firm size: LNASSETS and LNMVE. In line with Slovin, Johnson, and Glascock (1992), we find that the cumulative abnormal returns on borrower's stock decrease with size. This effect is statistically significant at 10% confidence level when we include LNASSETS as a control variable and at 1% confidence levels when our control for firm size is LNMVE. These results are economically significant as they suggest that the effect of an average size firm will decrease the cumulative abnormal return by 5-10 bps.

In Models 3, 4, 7, and 8, we control for firm credit quality by including on the right hand side of the regression the standard deviation on firm stock in the year prior to the announcement. In line with Ongena et al. (2008) we find that the cumulative abnormal return on firm stock increases in firm risk. This effect is statistically significant at 1% in Model 3, but its significance decreases to 10% as we extend our model with additional controls. The economic impact of firm risk is non-negligible, as for an average firm, the cumulative abnormal return on firm stock increases by 10 bps for one standard deviation change in our proxy for rim's risk, similar in magnitude to the results in Ongena et al. (2008).

In Models 5-8 we extend our specifications by controlling for alternative risk and performance measures as well as loan and macroeconomic characteristics. Although, in many cases the signs are in line with theoretical predictions, the remaining results have little, if any, economic or statistical significant. This, however, changes as we switch to an alternative specification where we regress the cumulative abnormal return on the firm' stocks for days (0, +1) on similar controls. The results are presented in Table 6.

(Insert Table 6 here)

In table 6 we observe that while the economic and statistical significance of the INSTATE and NONNEIGBOR dummies has decreased considerably, the significance of the FOREIGN dummies has remained the same. Additionally, we observe an increase in significance for alternative risk and performance characteristics of the borrowers. In particular, in Models 5, 7, and 8 of Table 6 the return on firm assets appear to negatively impact the size of the loan announcement returns. This effect is significant at 1% in all specifications considered. Its economic significance, however, is rather low and equals around -3 bps for the average firm.

Recent theories suggest that foreign and domestic banks specialize in serving different types of borrowers depending on existing informational asymmetries. To control for such differences in technology, we include an interaction term in Models 7 and 8 in Table 6 and find a statistically and economically significant negative impact. Specifically, the cumulative abnormal return increases, ceteris paribus, by 10 to 15 bps

when it is granted by a foreign bank. However, when the firm' size increases and there are less informational asymmetries involved this effect is much smaller.

5.3 Robustness

We employ two types of robustness tests. First, we alter the event windows over which we compute abnormal returns, and, second, we perform similar regressions on an alternative sample, collected from the Bank Regulatory database. The results for alternative event windows are presented in Tables 7 and 8, while the results for the alternative sample are not reported.

(Insert Tables 7 and 8 here)

The results in Table 7, where the dependent variable is the cumulative abnormal return for the three-day window (-1, +1), are virtually unchanged. The estimates next to the foreign dummy are both statistically and economically significant and very similar to our previous results. When we increase the event windows, however, we observe statistical significance only in a limited number of specifications for the FOREIGN dummy. As the event window opens contamination most likely decreases the economic and statistical importance of our results.

When we employ the alternative dataset, we obtain virtually the same results. The only difference however is that Bank Regulatory does not report the location of the bank's headquarters, but rather the location of its subsidiaries in the U.S.. Qualitatively, however, our results are unaltered, in the sense that only the closest and the farthest away banks lead to significantly positive abnormal returns during loan announcements.

6. Conclusions and Implications

We document substantial differences in the cumulative abnormal returns on firm stock during bank loan announcements when lender's origin varies. Over our sample period, firms have experienced quite heterogeneous reactions to bank loan announcements from very negative to highly positive and significant. When we group, however, the cumulative abnormal returns by bank origin and organization dummies, constructed using the BankScope dataset, we find that the abnormal returns have been consistently positive when foreign bank-firm relationships and in some cases to closes local firm-bank

relationships. We show that these findings are robust to alternative specifications, various event windows and alternative definitions of bank origin and organization. Overall, our results suggest that investors value most loans from high quality, competitive, foreign lenders that seem to perform better in selecting and monitoring their borrower, rather than local lenders that may have easier access to private corporate information.

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Table 1 Descriptive Statistics

The Table presents the variable name, definition, data source, and descriptive statistics for the main variables considered in this study. The statistics include the number of observations (Nob), the mean, minimum (Min), maximum (Max) and standard deviation (Std. dev). The primary source for our sample is the dataset used in Fields et al. (2006) who manually collected loan announcements from press releases published in Lexis/Nexis from the period 1980-2003. We match their sample with the BankScope and Bank Regulatory databases.

		Data source	Nob	Mean	Min	Max	Std. dev
Panel A: Firm Characteristics							
LNASSETS	Log of Total Assets (DATA6)	COMPUSTAT	973	5.319	.555	11.338	1.819
DEBTRATIO	Long Term Debt to Total Assets Ratio (DATA9/DATA6)	COMPUSTAT	973	.235	0	1.418	.198
ROA	Return on Total Assets (DATA13/DATA6)	COMPUSTAT	973	.106	-2.672	.754	.172
LNMVE	Log of Market Value of Equity (DATA25*DATA99)	COMPUSTAT	958	4.949	-.296	11.294	1.700
TOBINQ	Tobin's Q (MVE+DATA181)/DATA6	COMPUSTAT	958	1.638	.434	14.589	1.160
ASSETSCHANGE	Change in Total Assets ((DATA6-LAGDATA6)/LAGDATA6)	COMPUSTAT	960	.552	-.804	114.914	4.308
FOREIGNACTIVITY	Firm's Net Sales in foreign and non-domestic segments over Total Sales	COMPUSTAT	986	.037	0	1	.105
CAR(-1,0)	Cumulative abnormal return in the days (0,1)	EVENTUS	985	.005	-.231	.441	.051
CAR(0,+1)	Cumulative abnormal return in the days (-1,0)	EVENTUS	985	.005	-.218	.379	.051
CAR(-1,+1)	Cumulative abnormal return in the days (-1,1)	EVENTUS	985	.005	-.258	.376	.058
CAR(-2,+2)	Cumulative abnormal return in the days (-2,2)	EVENTUS	985	.006	-.353	.411	.074
CAR(-3,+3)	Cumulative abnormal return in the days (-3,3)	EVENTUS	985	.004	-.337	.451	.086
CAR(-5,+5)	Cumulative abnormal return in the days (-5,5)	EVENTUS	985	.004	-.398	.587	.107
CAR(-250,-1)	Cumulative abnormal return in the days (-250,-1)	EVENTUS	985	-.011	-5.689	1.575	.339
STDRET	Standard deviation of borrower daily stock returns over the 250 trading days prior to the announcement	CRSP	986	.036	.009	.120	.016
Panel B: Bank Characteristics							
INSTATE	Dummy variable that equals one if the bank's headquarters is located in the same state as the firm's headquarters and equals zero otherwise	BANKSCOPE	986	.129	0	1	.336
NEIGHBOUR	Dummy variable that equals one if the bank's headquarters is located in the in a neighbor state with the firm's headquarters state (=1 if same neighbor and 0 otherwise)	BANKSCOPE	986	.078	0	1	.268
NONNEIGHBOUR	Dummy variable that equals one if the bank's headquarters is located in the in a non-neighbor state with the firm's headquarters state (=1 if same non-neighbor and 0 otherwise)	BANKSCOPE	986	.530	0	1	. 499
FOREIGN	Dummy variable that equals one if the bank's headquarters is located in the in a foreign country relative to the firm's headquarters location (=1 if foreign country and 0 otherwise)	BANKSCOPE	986	.261	0	1	.440

(Table 1 continued)

Panel C: Loan Characteristics							
LNAMOUNT	Natural logarithm of Loan Amount (LN(AMOUNT))	Fields et al. (2006)	844	3.508	-.693	10.559	1.584
RENEW	Dummy variable that equals one if loan is renewed (=1 if renewal and 0 otherwise)	Fields et al. (2006)	986	.520	0	1	.499
WSJ	Dummy variable that equals one if announcement appeared in the Wall Street Journal (=1 if appears in WSJ and 0 otherwise)	Fields et al. (2006)	986	.188	0	1	.391
SYNDICATE	Dummy variable that equals one if loan is syndicated (=1 if syndicate and 0 otherwise)	Fields et al. (2006)	983	.650	0	1	.477
Panel D: Other Variables							
SPREAD	Spread between AAA and BBB bonds (AAA-BBB)	CRSP	986	1.018	.549	2.690	.436

Table 2 Daily Loan Announcement Abnormal Returns (in %) for In-state, Neighbor, Non-neighbor, and Foreign Bank Loans

The table presents daily loan announcement abnormal returns for 985 firms that have announced a loan agreement with a bank during the sample period 1980-2003. We split the sample into four mutually exclusive groups: (i) In-state loans are loans that have been granted by banks whose headquarters is located in the same state as the firm's headquarters; (ii) Neighbor-state loans are loans that have been granted by banks whose headquarters is located in a state that shares the border with the firm's headquarters state, (iii) Non-neighbor state loans are loans granted by banks whose headquarters is located in a state that is not neighbor with the firm's headquarters state but is in the same country, and (iv) Foreign loans are loans granted by banks whose headquarters is located outside the firm's headquarters country location. For all loans and each of these groups, mean daily abnormal returns for days -5 to +5 are calculated using a market model with either the return on an equally weighted index or the returns on the Fama-French (FF) factor portfolios. To compute abnormal returns we append to each of these models a dummy variable that is equal to one when the corresponding day falls in the event window. Similar results are obtained using value weighted and four factor models (Fama-French plus momentum) and are omitted for brevity. The *, **, and *** indicate significant at 10%, 5%, and 1%, respectively.

Day	All Loans (%)		In-state Loans (%)		Neighbor-state Loans (%)		Non-neighbor state Loans (%)		Foreign Loans (%)	
	EW	FF	EW	FF	EW	FF	EW	FF	EW	FF
-5	-0.07	-0.10	0.00	-0.03	-0.41	-0.42	-0.17	-0.21	0.19	0.17
-4	0.13	0.12	0.15	0.07	-0.27	-0.28	0.08	0.09	0.34	0.35
-3	-0.08**	-0.07	0.00	-0.02	-0.32	-0.38	0.08 *	0.11	-0.36	-0.38
-2	0.12	0.10	0.29	0.21	0.57	0.58	-0.02	-0.01	0.17	0.14
-1	0.04	0.02	-0.09	-0.14	-0.49	-0.56	0.08	0.08	0.18	0.16
0	0.49***	0.52***	1.05**	1.11**	-0.11	-0.13	0.36**	0.36 **	0.68***	0.73***
+1	-0.05**	-0.05*	-0.60	-0.62	-0.08	-0.18	-0.04	-0.03	0.23*	0.23 *
+2	0.00	0.00	0.45*	0.44	0.86	0.81	-0.08	-0.06	-0.32	-0.34 *
+3	-0.13	-0.13	0.04	0.00	-0.24**	-0.15	-0.18*	-0.15	-0.10	-0.13
+4	-0.02	-0.01	-0.16	-0.16	-0.17	-0.16	-0.14*	-0.12*	0.33*	0.32
+5	-0.01*	0.01	0.42	0.38	0.25	0.17	-0.34**	-0.29 *	0.38	0.41
Nob	985		128		77		523		257	

Table 3 Cumulative Loan Announcement Abnormal Returns for In-state, Neighbor, Non-neighbor, and Foreign Bank Loans

The table presents daily cumulative abnormal returns for 985 firms that have announced a loan agreement with a bank during the sample period 1980-2003. We split the sample into four mutually exclusive groups: (i) In-state loans are loans that have been granted by banks whose headquarters is located in the same state as the firm's headquarters; (ii) Neighbor-state loans are loans that have been granted by banks whose headquarters is located in a state that shares the border with the firm'sheadquarters state, (iii) Non-neighbor state loans are loans granted by banks whose headquarters is located in a state that is not neighbor with the firm's headquarters state but is in the same country, and (iv) Foreign loans are loans granted by banks whose headquarters is located outside the firm's headquarters country location. For all loans and each of these groups, cumulative abnormal returns are calculated for event windows (-1,0), (0,+1), (-1,+1), (-2,+2), and (-5,+5) using a market model with either the return on a equally weighted index or the returns on the Fama-French (FF) factor portfolios. To compute cumulative abnormal returns we aggregate the daily abnormal returns estimated from (1) where we append to each of the models a dummy variable that is equal to 1 when the corresponding day falls in the event window. Similar results are obtained using value weighted and four factor models (Fama-French plus momentum) and are omitted for brevity. The number of positive and negative (denoted by +/-) cumulative abnormal returns for the corresponding event window and model are presented in parentheses. The *, **, and *** indicate significant at 10%, 5%, and 1% respectively.

Event Window	All Loans (%)		In-state Loans (%)		Neighbor-state Loans (%)		Non-neighbor state Loans (%)		Foreign Loans (%)	
	EW	FF	EW	FF	EW	FF	EW	FF	EW	FF
(-1,0)	0.53***	0.54***	0.95*	0.98*	-0.60	-0.69	0.43**	0.44 **	0.86**	0.89***
+/-	(516:469)	(516:469)	(67:61)	(64:64)	(42:35)	(43:34)	(269:254)	(266:257)	(138:119)	(143:114)
(0,+1)	0.45***	0.46***	0.44	0.49	-0.20	-0.31	0.32*	0.32*	0.91***	0.97***
+/-	(507:478)	(517:468)	(66:62)	(63:65)	(40:37)	(41:36)	(261:262)	(264:259)	(140:117)	(149:108)
(-1,+1)	0.48**	0.49***	0.35	0.35	-0.69	-0.87	0.39*	0.40 *	1.09***	1.12**
+/-	(511:474)	(521:464)	(64:64)	(66:62)	(42:35)	(39:38)	(271:252)	(280:243)	(134:123)	(136:121)
(-2,+2)	0.60**	0.59***	1.09	1.00	0.75	0.52	0.30	0.33	0.94**	0.92**
+/-	(506:479)	(506:479)	(63:65)	(67:61)	(41:36)	(40:37)	(267:256)	(264:259)	(135:122)	(135:122)
(-5,+5)	0.42	0.41*	1.55	1.23**	-0.42	-0.70	-0.37*	-0.25*	1.72	1.66**
+/-	(481:504)	(484:501)	(66:62)	(70:58)	(38:39)	(37:40)	(243:280)	(244:279)	(134:123)	(133:124)
Nob	985		128		77		523		257	

Table 4 Cumulative Loan Announcement Abnormal Returns for In-state, Neighbor, Non-neighbor, and Foreign Bank Loans grouped by period (Panel A and B) and by year (Panel C)

The table presents daily cumulative abnormal returns for 985 firms that have announced a loan agreement with a bank during the sample period 1980-2003. We split the sample into four mutually exclusive groups: (i) In-state loans are loans that have been granted by banks whose headquarters is located in the same state as the firm's headquarters; (ii) Neighbor-state loans are loans that have been granted by banks whose headquarters is located in a state that shares the border with the firm's headquarters state, (iii) Non-neighbor state loans are loans granted by banks whose headquarters is located in a state that is not neighbor with the firm's headquarters state but is in the same country, and (iv) Foreign loans are loans granted by banks whose headquarters are located outside the firm's headquarters country location. For all loans and each of these groups, cumulative abnormal returns are calculated for event windows (0,+1) using a market model with either the return on a equally weighted index (EW) or the returns on the Fama-French (FF) factor portfolios. To compute cumulative abnormal returns we aggregate the daily abnormal returns estimated from (1) where we append to each of the models a dummy variable that is equal to 1 when the corresponding day falls in the event window. Similar results are obtained using value weighted and four factor models (Fama-French plus momentum) and are omitted for brevity. Panel A presents cumulative abnormal returns grouped by decade, Panel B splits the sample into 5-year periods, and Panel C presents cumulative abnormal returns grouped by each year. The number of positive and negative (denoted by +/-) cumulative abnormal returns for the corresponding event window and model are presented in parentheses. The *, **, and *** indicate significant at 10%, 5%, and 1% respectively.

Period	All Loans (%)			In-state Loans (%)		Neighbor-state Loans (%)		Non-neighbor State Loans (%)		Foreign Loans (%)	
	Nob	EW	FF	EW	FF	EW	FF	EW	FF	EW	FF
Panel A: Cumulative abnormal returns grouped by decade											
1980-2003	985	0.45***	0.46***	0.44	0.49	-0.20	-0.31	0.32*	0.32*	0.91***	0.97***
+/-	985	(507:478)	(517:468)	(66:62)	(63:65)	(40:37)	(41:36)	(261:262)	(264:259)	(140:117)	(149:108)
1980-1989	287	0.57***	0.64***	-1.33	-0.98	0.25	-0.25	0.22*	0.31*	1.43***	1.49***
+/-	287	(157:130)	(161:126)	(11:12)	(12:11)	(10:9)	(10:9)	(61:69)	(68:62)	(66:48)	(70:44)
1990-1999	495	0.42*	0.41	-0.04	0.00	-0.12	0.01	0.40*	0.41*	0.67	0.81*
+/-	495	(246:249)	(54:241)	(34:41)	(33:42)	(18:18)	(21:15)	(129:141)	(135:135)	(54:60)	(65:49)
2000-2003	203	0.35	0.34	2.94**	2.85**	-0.65	-0.88	0.12	0.15	-0.56	-0.50
+/-	203	(104:99)	(102:101)	(20:10)	(18:12)	(9:13)	(10:12)	(60:62)	(60:62)	(15:14)	(14:15)
Panel B: Cumulative abnormal returns grouped by 5-year periods											
1980-1984	147	0.66**	0.79***	-0.94	-0.45	0.45	0.09	0.94**	1.08**	0.65*	0.79*
+/-	147	(74:73)	(80:67)	(5:6)	(6:5)	(6:5)	(7:4)	(35:37)	(37:35)	(28:25)	(30:23)
1985-1989	140	0.50**	0.49***	-1.69	-1.46	-0.03	-0.72	-0.68	-0.62	2.10***	2.10***
+/-	140	(75:65)	(81:59)	(6:6)	(6:6)	(4:4)	(3:5)	(29:30)	(32:27)	(38:23)	(40:21)
1990-1994	232	0.57	0.66	-0.66	-0.56	-1.41	-1.21	0.94	1.01	0.73	0.81
+/-	232	(112:120)	(118:114)	(10:16)	(8:18)	(6:7)	(8:5)	(64:66)	(67:63)	(32:31)	(35:28)
1994-1999	263	0.17*	0.19*	0.30	0.29	0.62	0.70	-0.10	-0.15	0.60	0.82*
+/-	263	(123:140)	(136:127)	(24:25)	(25:24)	(12:11)	(13:10)	(65:75)	(68:72)	(22:29)	(30:21)
2000-2003	203	0.35	0.34	2.94**	2.85**	-0.65	-0.88	0.12	0.15	-0.56	-0.50
+/-	203	(104:99)	(102:101)	(20:10)	(18:12)	(9:13)	(10:12)	(60:62)	(60:62)	(15:14)	(14:15)

(Table 4 continued)

Panel C: Cumulative abnormal returns grouped by year

Year	All Loans (%)		In-state Loans (%)		Neighbor-state Loans (%)		Non-neighbor State Loans (%)		Foreign Loans (%)	
	Nob	**EW**	**Nob**	**EW**	**Nob**	**EW**	**Nob**	**EW**	**Nob**	**EW**
1980	33	0.18	3	0.34	4	1.63	11	1.26	15	-1.03
1981	33	0.28	2	1.73	1	1.00	18	0.61	12	-0.32
1982	30	1.73**	3	-1.36	3	-1.56	16	1.23	8	5.02**
1983	24	1.44**	1	-3.63	1	-2.31	12	2.73***	10	0.78*
1984	27	-0.23	2	-3.54**	2	2.24	15	-0.62	8	0.73
1985	25	0.74	1	0.07	0	-	11	-0.03	13	1.50
1986	24	-1.02	1	0.56	1	-6.96**	8	-4.38**	14	1.21*
1987	27	0.80*	4	-0.52	1	5.13***	13	0.26	9	1.69*
1988	35	1.85**	4	-1.82	5	0.66	16	-0.20	10	7.09**
1989	29	-0.36	2	-5.75	1	-1.66	11	-0.29	15	0.39
1990	34	1.13	3	-0.61	0	-	13	-0.14	18	2.33
1991	28	0.07	4	-2.66	1	-0.76	14	1.06	9	-0.15
1992	30	0.11	4	-3.92*	5	0.49	16	0.56	5	1.50
1993	60	1.20	6	1.23	2	-1.35	41	1.01	11	2.70*
1994	80	0.20	9	0.39	5	-3.47	44	1.28	22	-1.19
1995	70	0.25	13	0.11	6	2.19	34	-0.27	17	0.38
1996	72	-0.16	16	0.78	3	-2.69	42	-0.39	11	0.03
1997	54	-1.21	8	0.06	7	-0.35	29	-1.23	10	-2.63*
1998	42	1.07	6	-0.70	5	-0.44	23	1.03	8	3.44*
1999	25	2.61***	6	0.72	3	4.22*	12	1.92	4	6.29**
2000	26	0.19	4	5.59	1	-10.71**	17	-0.03	4	-1.54
2001	50	1.13	4	11.03**	6	2.00	34	-0.43	6	2.48*
2002	65	-0.03	10	-0.04	10	-0.25	34	0.87	9	-2.61*
2003	62	0.20	12	1.85	5	-2.62	37	-0.01	8	0.45

Table 5 Estimation Results: Dependent Variable – CAR(-1,0)

This table presents the OLS estimates for Models 1-8 run on a sample of 985 firms that have announced a loan agreement with a bank during the period 1980-2003. The dependent variable is the cumulative abnormal return on firm's stock for the event window (-1, 0). Dependent variables are dummy variables that control for bank location (INSTATE, NEIGHBOR, NONNEIGHBOR, and FOREIGN); firm specific characteristics such as log of firm assets (LNASSETS), log of firm's market value of equity (LNMVE), change in firm assets in the year prior to the announcement (ASSETCHANGE), standard deviation on firm stock for 250 days prior to the announcement (STDRET), the return on firm assets (ROA), firm Tobin Q ratio (TOBINQ); firm leverage (DEBTRATIO) and firm sales from non-domestic and foreign sales as well as the cumulative abnormal return on firm stock for a period of 250 days prior to the announcement (CAR250); loan specific characteristics such as log of loan amount (LNAMOUNT), a dummy variable that indicates if the announcement has been published in the Wall Street Journal (WSJ), a dummy variable that indicates that loan was a renewal (RENEW), and a dummy variable that indicates if the loan was syndicated (SYNDICATE); macroeconomic characteristics such the spread between the AAA and BBB bond indices (SPREAD). Models 7 and 8 also include an interaction term between the FOREIGN dummy and firm size, i.e. FOREIGN x LNASSETS. The interaction terms have been demeaned prior to multiplication. Model 8 also contains time (5-year period) dummies. The *, **, and *** indicate significant at 10%, 5%, and 1% respectively.

	Dependent Variable: CAR(-1,0)							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Bank Characteristics								
INSTATE	.016**	.014*	.014*	.008	.013*	.014*	.013*	.013*
	(.0073)	(.0073)	(.0074)	(.0077)	(.0074)	(.0074)	(.0074)	(.0074)
NONNEIGHBOR	.010*	.011*	.011*	.009	.011*	.011*	.011*	.012*
	(.0062)	(.0063)	(.0074)	(.0066)	(.0063)	(.0063)	(.0063)	(0064)
FOREIGN	.015**	.015**	.015**	.012*	.015**	.014**	.014**	.015**
	(.0066)	(.0067)	(.0067)	(.0069)	(.0067)	(.0067)	(.0067)	(.0068)
Firm Characteristics								
LNASSETS	-	-.001*	-.000	-.001	-	-	-	-
		(.001)	(.001)	(.0015)				
LNMVE	-	-	-	-	-.003***	-.003***	-.002**	.015*
					(.0012)	(.0011)	(.0013)	(.0013)
ASSETCHANGE	-	-	.000	.000	-	-	-	-
			(.000)	(.0004)				
STDRET	-	-	.316***	.142	-	-	.248*	.239*
			(.120)	(.1286)			(.1284)	(.1302)
ROA	-	-	-	-	-.0169*	-	-.012	-.014
					(.0098)		(.0099)	(-.0140)
TOBINQ	-	-	-	-	.0017	-	.001	.002
					(.0015)		(.0015)	(.0016)
DEBTRATIO	-	-	.007	-.002	-	.005	-	-
			(.0087)	(.0093)		(.0087)		
FOREIGNACTIVITY	-	-	-	-.000	-	-	-	-
				(.0156)				
CAR250	-	-	-.004	-.000	-	-.005	-	-.006
			(.0050)	(.0052)		(.0051)		(-.0056)

(Table 5 continued)

Loan Characteristics								
LNAMOUNT	-	-	-	-.000 (.0016)	-	-	-	-
WSJ	-	-	-	.002 (.0045)	-	-	-	-
RENEW	-	-	-	.002 (.0036)	.0046 (.0033)	-	-	.004 (.0043)
SYNDICATE	-	-	-	-.001 (.0046)	.0055 (.0042)	.004 (.0041)	.007* (.0042)	.007 (.0067)
Macroeconomic Characteristics								
SPREAD	-	-	-	-	-.000 (.0038)	-.000 (.0038)	.000 (.0038)	.001 (.0006)
Interaction effects								
FOREIGN x LNASSETS	-	-	-	-	-	-	-.001 (.0021)	-.001 (-.0010)
Other controls								
Time Dummies	-	-	-	-	-	-	-	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	.006	0.009	0.017	0.009	0.020	0.014	0.022	0.025
Nob	985	972	959	823	954	954	954	954

Table 6 Estimation Results: Dependent Variable – CAR(0,+1)

This table presents the OLS estimates for Models 1-8 run on a sample of 985 firms that have announced a loan agreement with a bank during the period 1980-2003. The dependent variable is the cumulative abnormal return on firm stock for the event window (0, +1). Dependent variables are dummy variables that control for bank location (INSTATE, NEIGHBOR, NONNEIGHBOR, and FOREIGN); firm specific characteristics such as log of firm assets (LNASSETS), log of firm market value of equity (LNMVE), change in firm assets in the year prior to the announcement (ASSETCHANGE), standard deviation on firm stock for 250 days prior to the announcement (STDRET), the return on firm assets (ROA) firm Tobin Q ratio (TOBINQ); firm leverage (DEBTRATIO) and firm sales from non-domestic and foreign sales as well as firm cumulative abnormal return for a period of 250 days prior to the announcement (CAR250); loan specific characteristics such as log of loan amount (LNAMOUNT), a dummy variable that indicates if the announcement has been published in the Wall Street Journal (WSJ), a dummy variable that indicates that loan was a renewal (RENEW), and a dummy variable that indicates if the loan was syndicated (SYNDICATE); macroeconomic characteristics such the spread between the AAA and BBB bond indices (SPREAD). Models 7 and 8 also include an interaction term between the FOREIGN dummy and firm size, i.e. FOREIGN x LNASSETS. The interaction terms have been demeaned prior to multiplication. Model 8 also contains time (5-year period) dummies. The *, **, and *** indicate significant at 10%, 5%, and 1% respectively.

	Dependent Variable: CAR(0,+1)							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Bank Characteristics								
INSTATE	.006	.005	.005	.003	.004	.005	.005	.005
	(.0074)	(.0075)	(.0074)	(.0080)	(.0074)	(.0074)	(.0073)	(.0074)
NONNEIGHBOR	.005	.006	.007	.006	.007	.008	.006	.007
	(.0062)	(.0063)	(.0064)	(.0069)	(.0063)	(.0063)	(.0063)	(.0063)
FOREIGN	.011*	.012*	.014**	.013*	.012*	.013**	.012*	.012*
	(.0067)	(.0067)	(.0078)	(.0073)	(.0067)	(.0067)	(.0066)	(.0068)
Firm Characteristics								
LNASSETS	-	-.001	.001	.000	-	-	-	-
		(.0010)	(.001)	(.0016)				
LNMVE	-	-	-		-.003**	-.003***	-.002	-.002
					(.0012)	(.0011)	(.0013)	(.0013)
ASSETCHANGE	-	-	.001*	.001*	-	-	-	-
			(.0004)	(.0004)				
STDRET	-	-	.450***	.528***	-	-	.364***	.370***
			(.1216)	(.000)			(.0099)	(.1292)
ROA	-	-	-	-	-.034***	-	-.028***	-.030***
					(.0098)		(.0015)	(.0100)
TOBINQ	-	-	-	-	-.001	-	-.002	-.002
					(.0015)		(.1276)	(.0015)
DEBTRATIO	-	-	-.013	-.010	-	-.016*	-	-
			(.0087)	(.0098)		(.0087)		
FOREIGNACTIVITY	-	-	-	-.001	-	-	-	-
				(.0163)				
CAR250	-	-	-.007	-.005	-	-.008	-	-.009*
			(.0051)	(.0054)		(.0051)		(.0051)

(Table 6 continued)

Loan Characteristics								
LNAMOUNT	-	-	-	.001 (.0017)	-	-	-	-
WSJ	-	-	-	.002 (.0047)	-	-	-	-
RENEW	-	-	-	.000 (.0037)	.001 (.0033)	-	-	.001 (.0034)
SYNDICATE	-	-	-	.001 (.0048)	.003 (.0042)	.005 (.0041)	.006 (.0042)	.006 (.0042)
Macroeconomic Characteristics								
SPREAD	-	-	-	-	.003 (.0038)	.004 (.0038)	.005 (.0038)	.004 (.0040)
Interaction effects								
FOREIGN x LNASSETS	-	-	-	-	-	-	-.005** (.0021)	-.005** (.0021)
Other controls								
Time Dummies	-	-	-	-	-	-	-	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.004	0.007	0.029	0.033	0.030	0.024	0.044	0.049
Nob	985	972	959	823	954	954	954	954

Table 7 Estimation Results: Dependent Variable – CAR(-1,+1)

This table presents the OLS estimates for Models 1-8 run on a sample of 985 firms that have announced a loan agreement with a bank during the period 1980-2003. The dependent variable is the cumulative abnormal return on firm stock for the event window (-1, +1). Dependent variables are dummy variables that control for bank location (INSTATE, NEIGHBOR, NONNEIGHBOR, and FOREIGN); firm specific characteristics such as log of firm assets (LNASSETS), log of firm market value of equity (LNMVE), change in firm assets in the year prior to the announcement (ASSETCHANGE), standard deviation on firm stock for 250 days prior to the announcement (STDRET), the return on firm assets (ROA) firm Tobin Q ratio (TOBINQ); firm leverage (DEBTRATIO) and firm sales from non-domestic and foreign sales as well as firm cumulative abnormal return for a period of 250 days prior to the announcement (CAR250); loan specific characteristics such as log of loan amount (LNAMOUNT), a dummy variable that indicates if the announcement has been published in the Wall Street Journal (WSJ), a dummy variable that indicates that loan was a renewal (RENEW), and a dummy variable that indicates if the loan was syndicated (SYNDICATE); macroeconomic characteristics such the spread between the AAA and BBB bond indices (SPREAD). Models 7 and 8 also include an interaction term between the FOREIGN dummy and firm size, i.e. FOREIGN x LNASSETS. The interaction terms have been demeaned prior to multiplication. Model 8 also contains time (5-year period) dummies. The *, **, and *** indicate significant at 10%, 5%, and 1% respectively.

	Dependent Variable: CAR(-1,+1)							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Bank Characteristics								
INSTATE	.010	.010	.009	.004	.008	.008	.008	.008
	(.0084)	(.0085)	(.0086)	(.0092)	(.0084)	(.0085)	(.0084)	(.0084)
NONNEIGHBOR	.010	.012*	.012*	.009	.013*	.013*	.012*	.012*
	(.0071)	(.0072)	(.0073)	(.0078)	(.0072)	(.0072)	(.0072)	(.0072)
FOREIGN	.017**	.019**	.019**	.016*	.019**	.018**	.018**	.018**
	(.0076)	(.0077)	(.0078)	(.0083)	(.0077)	(.0076)	(.0076)	(.0077)
Firm Characteristics								
LNASSETS	-	-.001	.000	-.001	-	-	-	-
		(.0011)	(.0013)	(.0018)				
LNMVE	-	-	-	-	-.004***	-.004***	-.003**	-.003**
					(.0014)	(.0013)	(.0015)	(.0015)
ASSETCHANGE			.001*	.001*	-	-	-	-
			(.0004)	(.0004)				
STDRET	-	-	.288**	.282*	-	-	.152	.151
			(.1396)	(.1536)			(.1458)	(.1479)
ROA	-	-	-	-	-.039***	-	-.035***	-.036***
					(.0112)		(.0113)	(.0114)
TOBINQ	-	-	-	-	.001	-	.001	.001
					(.0017)		(.0017)	(.0017)
DEBTRATIO	-	-	-.008	-.008	-	-.014	-	-
			(.0100)	(.0111)		(.0099)		
FOREIGNACTIVITY	-	-	-	-.004	-	-	-	-
				(.0186)				
CAR250	-	-	.002	.002	-	-.000	-	-.0014
			(.0058)	(.0062)		(.0058)		(.0058)

(Table 7 continued)

Loan Characteristics								
LNAMOUNT	-	-	-	.000 (.0019)	-	-	-	-
WSJ	-	-	-	.002 (.0053)	-	-	-	-
RENEW	-	-	-	.002 (.0042)	.004 (.0038)	-	-	.004 (.0039)
SYNDICATE	-	-	-	.002 (.0054)	.009* (.0048)	.009* (.0047)	.010** (.0048)	.010** (.0048)
Macroeconomic Characteristics								
SPREAD	-	-	-	-	.002 (.0043)	.003 (.0043)	.003 (.0043)	.003 (.0046)
Interaction effects								
FOREIGN x LNASSETS	-	-	-	-	-	-	-.004* (.0024)	-.004* (.0024)
Other controls								
Time Dummies	-	-	-	-	-	-	-	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.006	0.009	0.017	0.017	0.032	0.020	0.035	0.037
Nob	985	972	959	823	954	954	954	954

Table 8 Estimation Results: Dependent Variable – CAR(-5,+5)

This table presents the OLS estimates for Models 1-8 run on a sample of 985 firms that have announced a loan agreement with a bank during the period 1980-2003. The dependent variable is the cumulative abnormal return on firm stock for the event window (-5, +5). Dependent variables are dummy variables that control for bank location (INSTATE, NEIGHBOR, NONNEIGHBOR, and FOREIGN); firm specific characteristics such as log of firm assets (LNASSETS), log of firm market value of equity (LNMVE), change in firm assets in the year prior to the announcement (ASSETCHANGE), standard deviation on firm stock for 250 days prior to the announcement (STDRET), the return on firm assets (ROA) firm Tobin Q ratio (TOBINQ); firm leverage (DEBTRATIO) and firm sales from non-domestic and foreign sales as well as firm cumulative abnormal return for a period of 250 days prior to the announcement (CAR250); loan specific characteristics such as log of loan amount (LNAMOUNT), a dummy variable that indicates if the announcement has been published in the Wall Street Journal (WSJ), a dummy variable that indicates that loan was a renewal (RENEW), and a dummy variable that indicates if the loan was syndicated (SYNDICATE); macroeconomic characteristics such the spread between the AAA and BBB bond indices (SPREAD). Models 7 and 8 also include an interaction term between the FOREIGN dummy and firm size, i.e. FOREIGN x LNASSETS. The interaction terms have been demeaned prior to multiplication. Model 8 also contains time (5-year period) dummies. The *, **, and *** indicate significant at 10%, 5%, and 1% respectively.

	Dependent Variable: CAR(-5,+5)							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Bank Characteristics								
INSTATE	.020	.021	.021	.021	.018	.019	.018	.017
	(.0154)	(.0155)	(.0152)	(.0161)	(.0153)	(.0152)	(.0153)	(.0152)
NONNEIGHBOR	.000	.003	.000	.003	.005	-.000	.005	.000
	(.0130)	(.0132)	(.0130)	(.0138)	(.0130)	(.0129)	(.0131)	(.0130)
FOREIGN	.021	.025*	.021	.022	.023	.018	.023*	.020
	(.0121)	(.0140)	(.0138)	(.0145)	(.0139)	(.0137)	(.0139)	(.0139)
Firm Characteristics								
LNASSETS	-	-.003*	-.001	.001	-	-	-	-
		(.0019)	(.0022)	(.0032)				
LNMVE	-	-	-	-	-.006*	-.006**	-.005**	-.004
					(.0025)	(.0023)	(.0027)	(.0027)
ASSETCHANGE	-	-	-.001	-.000	-	-	-	-
			(.0008)	(.0008)				
STDRET	-	-	.417*	.361	-	-	.195	.238
			(.2477)	(.2701)			(.2660)	(.2662)
ROA	-	-	-	-	-.079	-	-.076***	-.069***
					(.0204)		(.0206)	(.0206)
TOBINQ	--	-	-	-	.001	-	.000	.000
					(.0031)		(.0031)	(.0031)
DEBTRATIO	-	-	-.011	-.020	-	-.024	-	-
			(.0178)	(.0196)		(.0178)		
FOREIGNACTIVITY	-	-	-	-.011	-	-	-	-
				(.0327)				
CAR250	-	-	.057*	.051***	-	.055***	-	.052***
			(.0103)	(.0108)		(.0104)		(.0104)

(Table 8 continued)

Loan Characteristics								
LNAMOUNT	-	-	-	-.005 (.0034)	-	-	-	-
WSJ	-	-	-	.002 (.0094)	-	-	-	-
RENEW	-	-	-	-.005 (.0075)	.001 (.0069)	-	-	.003 (.0069)
SYNDICATE	-	-	-	.011 (.0096)	.010 (.0087)	.008 (.0084)	.011 (.0087)	.010 (.0069)
Macroeconomic Characteristics								
SPREAD	-	-	-	-	.013 (.0079)	.014* (.0078)	.013* (.0079)	.010 (.0087)
Interaction effects								
FOREIGN x LNASSETS	-	-	-	-	-	-	-.001 (.0043)	-.001 (.0043)
Other controls								
Time Dummies	-	-	-	-	-	-	-	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.009	0.014	0.050	0.048	0.038	0.052	0.040	
Nob	985	985	959	823	954	954	954	

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