Bank ownership, proximity to borrowers and lending behavior – Evidence from Syndicated Loans[*†]

***** Preliminary Draft *****

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Abstract

We examine the lending behavior of banks in relation to their ownership structure and their proximity to borrowers. Using a large dataset on syndicated lending in thirteen emerging markets, we find that both domestic banks and foreign banks with a local subsidiary in the country of the borrower lend to borrowers that are riskier and more opaque than foreign banks without a subsidiary. After controlling for borrower characteristics, domestic banks and especially foreign banks with subsidiaries also charge higher interest rates and lend at shorter maturities than foreign banks without local presence in the country of the borrower. The results are consistent with models in which proximity to the borrower provides banks with privileged access to information and, as a result of asymmetric information among banks and adverse selection, market power. Our findings suggest that proximity to the borrower is an important driver of lending behavior, more so than bank ownership. Consequently, any withdrawal of foreign banks from emerging markets in response to the recent financial crisis could affect borrowers' access to syndicated loans, a key source of investment finance in emerging markets.

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1. Introduction

The literature on bank lending has identified a variety of reasons why proximity between banks and their borrowers facilitates lending and gives banks a measure of market power over borrowers.[1] One of the arguments is that borrowers incur transportation costs and, all else being equal, they prefer the bank that is closest to their home base (Degryse & Ongena, 2005). Alternatively, proximity may reduce screening and monitoring costs for banks and improve the quality of (soft) information they obtain about borrowers (Agarwal & Hauswald, Forthcoming; Hauswald & Marquez, 2006; Petersen & Rajan, 2002).

An important question is whether benefits associated with proximity to borrowers apply to all banks independent of organizational structure and ownership. Stein (2002) argues that large banks cannot process soft information about borrowers. As a result, only small banks with short lines between loan officers and decision makers can effectively exploit soft information about borrowers (Berger, Miller, Petersen, Rajan, & Stein, 2005; Liberti & Mian, 2009; Canales Morales & Nanda, 2008). A similar claim has been made in the literature on foreign ownership of banks. The argument is that, due to the distance between headquarters and borrower as well as the inability of foreign management to evaluate information about borrowers in the proper context, foreign-owned banks cannot adequately assess the creditworthiness of opaque borrowers (Mian, 2006; Berger, Klapper, Peria, & Zaidi, 2008; Eden & Miller, 2004). As a result, these banks are likely to focus on large and transparent borrowers (Gormley, 2008; Detragiache, Tressel, & Gupta, 2008; Sengupta, 2007).

In this paper, we contribute to the debate about proximity, ownership and lending by analyzing bank lending behavior in the market for syndicated loans in emerging markets. These loans are an important source of financing for firms in these countries and provide banks with an avenue to distribute borrower and country risk (Ivashina, 2009; Esty & Megginson, 2003). Qian and Strahan (2007) and Nini (2004) show that participation of domestic banks[2] in syndicates tends to be higher when borrowers are opaque or when creditor rights are weak. This suggests that proximity between borrower and lender can increase access to finance.

We extend the analysis by distinguishing not only between foreign and domestic banks, but also between foreign banks with a subsidiary in the country of the borrower (i.e. with "local presence") and foreign banks without such a subsidiary. This enables us to distinguish more clearly between the significance of proximity on the one hand and ownership of banks on the other hand. In so far as we know, the only other paper on syndicated loans to distinguish between foreign banks with and without local presence is the study of syndicated lending in Russia by Fungacova, Godlewski and Weill (2009).

[1] See Degryse, Kim and Ongena (2009), chapter 5 for an overview of the literature.
[2] "Domestic bank" refers to banks which are both located in the country of the borrower and majority-owned by individuals or companies in that country.

The distinction between foreign banks with and those without local presence has gained importance in light of the recent financial crisis. Especially in Europe, several banks are reconsidering their investments in the emerging markets of Central and Eastern Europe, partially under pressure from the European Union as well as home-country governments that provided the banks with emergency support.[3] Insofar as proximity between bank and borrower (rather than ownership) is important for lending behavior any withdrawal from emerging markets by banks from advanced economies could have serious consequences for syndicated lending to firms in these countries. Domestic banks have limited experience on the market for syndicated loans and it is unlikely that they have the resources to make up for a reduction in lending by foreign banks.

To perform our analysis, we combine data on syndicated loans from *Dealogic's Loan Analytics* database with data on the borrowing firms from *Orbis* (*Bureau van Dijk*) and hand-collected information on ownership of the banks involved in lending and the extent to which they have subsidiaries in the country of the borrower. Our final dataset covers about 700 loans to borrowers in twelve countries in Central and Eastern Europe.

We find that both foreign banks with a subsidiary in the country of the borrower and domestic banks are more likely to participate in smaller loans, loans below investment grade and loans in non-major currencies, all of which are associated with higher risk. We also show that banks with local subsidiaries are less likely to act as lead banks when the loan is investment grade, presumably because other lead banks bid more aggressively for the lead role when borrowers are more transparent and less risky (Dell'Ariccia & Marquez, 2004). After controlling for loan and borrower characteristics, domestic banks and especially foreign banks with a local subsidiary charge higher interest rates on average than foreign banks without local presence. In addition, these banks participate in loans with shorter maturities.

Taken together, the results suggest that proximity between lender and borrower affects lending behavior regardless of the ownership of a bank. Both domestic banks and foreign banks with local presence are more likely to lend to risky and opaque borrowers than foreign banks without local presence. In addition, these banks appear to have some market power over their borrowers as they are able to extract higher interest rates and offer shorter maturities (Rajan, 1992). Our results are consistent with the hypothesis that proximity between bank and borrower gives banks privileged access to information. In addition the results are in line with models of adverse selection in which asymmetric information between banks softens lending competition (Hauswald & Marquez, 2006; Agarwal & Hauswald, Forthcoming).

The fact that proximity rather than ownership drives our results is important in light of the literature on foreign ownership of banks. This literature has focused on differences between foreign and domestic banks and on the question whether foreign banks are less well-informed

[3] The EBRD was sufficiently concerned about the possibility that Western European banks might withdraw from Central and Eastern Europe or might restrict lending to the region that it initiated the "Vienna initiative" in 2009. This initiative was designed to provide subsidiaries of foreign banks with resources to continue lending.

about borrowers than domestic banks (Mian, 2006; Berger, et al., 2008; De Haas, Ferreira, & Taci, 2007; Clarke, Cull, Peria, & Sanchez, 2005). While this literature has not produced an equivocal answer to the question, our results imply that local presence and proximity to the borrower significantly improves the quality of information held by foreign banks. As a result, the difference between foreign banks with and without local presence is more salient than the differences between foreign and domestic banks.

In what follows, we first discuss the literature and the hypotheses on bank ownership, proximity to the borrower and lending behavior in section 2. We then present our data and empirical specification in section 3. The results with regard to loan participation by domestic banks and foreign banks with subsidiaries are discussed in section 4 and those with regard to lending terms in section 5. Section 6 concludes.

2. Literature Review and Hypotheses

Proximity and Lending Behavior

Proximity between banks and borrowers potentially has benefits for banks and borrowers alike. One of the benefits is that proximity reduces transportation costs, which makes the process of applying for a loan cheaper and reduces the cost of monitoring the loan once it has been made. For example, Degryse and Ongena (2005) argue that transportation costs enable banks to charge significantly higher interest rates, especially when other banks are more distant. Another benefit of proximity is that it may give banks privileged access to information, in particular soft information that is instrumental to evaluating a borrower's creditworthiness. This facilitates *ex ante* screening as well as *ex post* monitoring of a borrower and loan covenants (Almazan, 2002; Hauswald & Marquez, 2006; Focarelli, Pozzolo, & Casolaro, 2008; Guiso, Sapienza, & Zingales, 2004).

Proximity to a bank and privileged access to information benefits borrowers insofar as inefficient rationing is reduced. Armed with better information, banks that are close to potential borrowers can distinguish between borrowers that are sufficiently creditworthy and those that are not, even though they look equally risky (perhaps too risky) to a more distant bank. In this context, Nini (2004) and Sufi (2007) find that loan participation by domestic lenders is higher when borrowers are more opaque or observationally risky. Qian and Strahan (2007) find that the same is true if lenders are located when country characteristics such as weak creditor rights and the absence of a sovereign rating contribute to lending risk and opacity.

Information and transportation costs also provide banks with market power. In particular, when one bank has access to better information than its competitors and improves its screening effort, the competitors are faced with adverse selection – the average quality of borrowers screened out by the well-informed bank worsens (Von Thadden, 2004; Dell'Ariccia & Marquez, 2004).

Asymmetric information between banks provides the well-informed bank with market power and tends to soften competition for loans (Rajan, 1992; Hauswald & Marquez, 2006; Degryse, Laeven, & Ongena, 2009; Agarwal & Hauswald, Forthcoming). Therefore, although proximity and privileged access to information may reduce the *ex ante* cost of lending, they may also be associated with stricter loan terms.

Bank Ownership and Lending Behavior

A central question in the literature on foreign ownership of banks is whether foreign banks and their subsidiaries are as well-placed as domestic banks to exploit the (informational) benefits of proximity to the borrower. There are several reasons to believe they are not. One line of reasoning builds on Stein (2002). Stein develops a model in which it is difficult to communicate soft information about borrowers across hierarchical layers of a bank. As a result, lending decisions of banks with multiple layers are expected to rely more heavily on hard information than those of banks in which loan officers and decision makers communicate directly (Stein, 2002). In general, communication between a subsidiary and its foreign parent is less direct than communication within a domestic bank. Hence, it would be more difficult for foreign banks with local presence to exploit informational benefits from proximity to the borrower than it is for domestic banks (Berger, et al., 2008; Beck & Peria, 2010).

An additional challenge for foreign banks is that the interpretation of soft information often requires knowledge of the cultural context in which the information is produced (Zaheer & Mosakowski, 1997). Mian (2007) and Miller and Parkhe (2004) find that the behavior and performance of foreign-owned banks depends on cultural distance between the country in which a subsidiary operates and the home country of the bank. In the same vein, Detragiache, Tressel and Gupta (2008) argue that foreign-owned banks avoid borrowers about whom there is little hard information.

The literature, however, is not equivocal about the ability of the subsidiaries of foreign banks to exploit soft information about borrowers and thus to deal with opaque borrowers (Degryse, Cerqueiro, & Ongena, 2007). Using a sample of banks in Latin America, Clarke et al. (2005) find that large foreign-owned banks contribute to the expansion of services for small, opaque clients. On the basis of a sample of banks in Central and Eastern Europe, De Haas et al. (2009) come to a similar conclusion.[4] [5]

[4] Specifically, they find that banks that are foreign owned as a result of acquisition (as opposed to "greenfield" banks that were newly established by foreign owners) expand services for small and opaque borrowers. However, bank size and the mode of foreign entry are highly correlated and foreign-acquired banks tend to be much larger than foreign greenfield banks (De Haas, et al., 2007; Bogaard, 2009).

[5] Another reason that the results from Mian (2007) and Berger et al. (2008) and others may not carry over to our study is that these papers tend to focus on small and medium sized enterprises and use loan or borrower size as a proxy for opacity. While some of the borrowers in our study are larger than others, and some are more opaque than

Hypotheses

Ultimately, it is an empirical question whether local presence of foreign banks affects lending behavior. A major contribution of our paper is that we do not only compare domestic banks to foreign banks (Nini, 2004; Qian & Strahan, 2007) or only domestic banks to subsidiaries of foreign banks (Mian, 2006; De Haas, et al., 2007; Berger, et al., 2008; Detragiache, et al., 2008), but that we make a three-way comparison between domestic banks and foreign banks with and without local presence in the country of the borrower. This will enable us to distinguish the benefits of proximity from the benefits of ownership types.

On the basis of the discussion above and prior empirical evidence, we anticipate that borrowers that are opaque or observationally risky are more likely to borrow from banks that are geographically close to them, in particular domestic banks. In addition, we expect that banks that are close to borrowers will have a certain level of market power over these borrowers, especially if opaque and risky borrowers tend to lend from them rather than from distant, foreign banks. Therefore, we anticipate that banks that are close to borrowers lend at higher rates and shorter maturities than other banks even after we control for borrower characteristics.

3. Empirical framework and data

We are interested in differences in lending behavior of different types of banks as well as in the lending terms they offer. To this end, we estimate two sets of equations in a framework that is similar to that in Qian and Strahan (2007). First, we treat the participation of domestic banks and foreign banks with local subsidiaries as our dependent variable and analyze how loan (*L*), borrower (*B*) and country characteristics (*C*) affect the likelihood that these banks participate in the syndicate:

$$Syndicate_{ict} = f\left(L_{ict}, B_{ict,} C_{ict}\right) + \varepsilon_{ict} \qquad (1)$$

The subscripts *i*, *c* and *t* are for loan, country and year respectively and the dependent variable $Syndicate_{ict}$ is either a dummy indicating that the syndicate has at least one lender (or lead bank) that is domestic or is foreign and has local representation. ε_{ict} is a random error term.

Second, we estimate equations in which the loan terms are dependent variables and the characteristics of the syndicate (S) are treated as independent variables:

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others, they are all relatively large borrowers. Gormley (2008) argues that there is a loan-size threshold above which subsidiaries of foreign banks are willing to lend even if their cost of screening borrowers is higher than domestic banks' screening cost. Foreign banks are assumed to have lower cost of capital. The level of the threshold depends on the differences in screening cost, the opacity of the borrower and the cost of capital between foreign and domestic banks. If the loans are sufficiently large we may not observe that foreign banks are reluctant to lend to the more opaque borrowers in our sample even if they face higher costs obtaining reliable information about borrowers.

$$Loan\ terms_{ict} = f(S_{ict}, L_{ict}, B_{ict,} C_{ict}) + \upsilon_{ict} \quad (2)$$

We estimate the model with either loan spreads or maturity as the loan terms and treat υ_{ict} as a random error. Before we turn to the estimation of these equations, we discuss our data sources, sample and variables in the remainder of this section.

Our data covers syndicated lending in thirteen countries in Central and Eastern Europe (the CEE region) over the period from 1993 to 2008 (see table 1). We focus on the CEE region because the countries in this region experienced rapid development of the financial sector since the mid 1990s accompanied by a significant amount of foreign entry into banking. Several of the banks that were very active in the market for syndicated lending also invested in new subsidiaries providing us with useful variation in the key variables of interest, both across time and across countries.

Our primary source of data is the *Loan Analytics* database that is maintained by *Dealogic*. This database contains detailed information on syndicated loans including the loan terms, some information on the borrower and information on the composition of the loan syndicate. The other key component of our data is hand-collected information on the ownership of banks in the region. These data record whether the lenders involved in the syndicate were domestically owned. For the foreign-owned banks the data record whether it had a subsidiary in the country of the borrower at the time the loan was made.[6] Country-level data are from several sources including the *European Bank for Reconstruction and Development* (EBRD) and the *World Development Indicators* from the *World Bank* and firm-level data on assets and profitability for a subset of the borrowers from *Bureau van Dijk's Orbis* database.

Our final dataset contains about 699 loans, out of which we have firm-level data for about 404 over the period 1993-2008. In total *Loan Analytics* records 2,951 loan tranches in this sample period and countries covered. From these observations, we drop loans to governments. If a loan has multiple tranches, we only include the first one to avoid double counting. In addition, we exclude loans for which we do not have information on the syndicate members, loan size, maturity or pricing. Finally, some observations are dropped because country level control variables are missing. Unlike others, we do not exclude loans to financial firms (e.g. Qian & Strahan, 2007; Ivashina, 2009). While we recognize that these firms are different from non-financial firms, they account for more than 30% of loans in the raw data. It is difficult to paint a reliable picture of the market for syndicated loans in this region without considering loans to financial firms. All our regressions include industry fixed effects. We tested for the sensitivity of the results to the inclusion of financial firms and find that they are not driven by either financial or non-financial firms.

[6] In *Loan Analytics* we designate the "lender parent" or the "lead bank parent" as lender or lead bank rather than the lender or the lead bank of record. This implicitly assumes that lending decisions are made or vetted at the bank's headquarters, which is reasonable considering the size of the loans. In addition, it makes it easier to track ownership connections of lenders that channel their loans through subsidiaries in third countries for tax or other reasons.

The key variables of interest are those pertaining to the participation of domestic banks and foreign banks with local subsidiaries in the syndicates. Table 1 summarizes these variables by country and by year. In our sample, the relatively large and well-developed Hungarian and Polish economies attracted the highest number of loans. The number of loans tends to increase over the years with dips after the Russian crisis in 1998[7], after the global slow-down in 2001 and at the onset of the most recent financial crisis in 2007. Most countries see significant participation of domestic banks in syndicates, but these banks rarely operate as lead banks. In most of the countries in the sample, well over 50% of bank assets are now controlled by foreign owners. Foreign banks with local subsidiaries routinely participate in loan syndicates as both lenders and lead banks in all countries except for Macedonia. This country did not receive significant foreign investment in the financial sector until late in our sample period. In Estonia and Latvia we see limited participation by foreign lenders with local subsidiaries and no syndicate lead banks with local subsidiaries. This is due to the fact that foreign investment in the banking sector in these countries is dominated by Scandinavian and German banks that are not big players on the market for syndicated lending.

In estimating equation 1, we are primarily interested if banks with local presence are more likely to participate in or lead a syndicate when the borrower is opaque or when observable characteristics of the borrower point to high risk. Consequently, the loan characteristics L_{ict} in our model are indicators of opaqueness and risk. To begin with, we include a dummy that equals 1 if the loan is in a major currency, which reduces currency risk.[8] As reported in Table 2, 90% of loans are in a major currency. The other loans tend to be either in the domestic currency or in Russian Rubles. We also include dummies for borrowers with foreign parents, borrowers that have a credit rating and for loans that are investment grade. These dummies are associated with higher transparency of the borrowers and in the case of the investment grade rating with lower risk. Furthermore, our models include a dummy for term loans. These loans are usually fully drawn at inception (as opposed to credit lines, Carey & Nini, 2007), which may limit banks' leverage over borrowers once the loan is made. Finally, we include a dummy that equals 1 if the loan is secured. Given the risk of a loan, collateral reduces the risk. However, banks tend to ask risky borrowers to pledge collateral (Qian & Strahan, 2007; Standard & Poor's, 2009; Cetorelli & Strahan, 2004).[9]

To control for characteristics of the syndicate beyond the ownership of the loan, we include the log of the number of lenders in our model as well as an indicator of participation by the EBRD or

[7] In the raw data, the dip in 1998/1999 is more pronounced than in table 1, which excludes loans for which we do not have data on loan terms.

[8] Major currencies are the US dollar, the Yen, the British Pound, the Euro and before the start of the EMU the Deutschmark, see also Qian and Strahan (2007).

[9] In theory, pledging collateral is cheaper *ex ante* for low-risk borrowers and banks can use collateral as a screening device to offer these borrowers lower interest rates (Besanko & Thakor, 1987; Sengupta, 2007). However, both practitioners (S&P, 2009) and empirical evidence (Strahan, 1999) suggest that high-risk and opaque borrowers are most likely to pledge collateral. Consistent with this evidence, there is a strong negative correlation between the "borrower rated" and "secured" dummies in our data.

the *International Finance Corporation* (IFC) in the loan. The number of lenders more or less mechanically affects the likelihood that a domestic bank or a foreign bank with local presence is part of the syndicate. In addition, syndicates have an incentive to raise the number of lenders when a loan is particularly risky: an increase in the number of lenders disperses the risk of the loan across a large number of lenders and mitigates the risk of strategic default because with many lenders restructuring becomes more costly (Bolton & Scharfstein, 1996; Qian & Strahan, 2007).[10] IFC and EBRD are foreign banks without subsidiaries. Whenever they are part of a syndicate then, all else being equal, the share of foreign banks with subsidiaries is likely to be lower. In addition, the presence of IFC and EBRD in a syndicate is likely to be associated with risk because these development banks focus on deals for which purely private finance is unavailable due to perceived borrower or project risk.

We were able to match a subset of borrowers to firm-level data in *Orbis* and control for profitability (net income over assets) and size (natural logarithm of assets). Both higher profitability and large size are negatively correlated with borrower risk. Finally, we include a number of country-level variables in our models. Real GDP growth and (the log of) GDP per capita are proxies both for demand for loans and for overall economic risk in the borrower's country. Producer price inflation affects expected nominal interest rates and the ratio of domestic credit to GDP is a measure of the availability of credit within the country. Table 2 reports summary statistics for all variables.

In addition to these variables, all our models include country and year fixed effects as well as fixed effects to control for differences between industries and the purpose of the loan (e.g. investments, working capital, refinancing, acquisitions).

4. Lending Behavior, Bank Ownership and Proximity to the Borrower

In this section, we implement the framework of section 3 and examine the lending behavior of domestic banks, foreign banks with subsidiaries and foreign banks without subsidiaries in the syndicated loan market. We first look at the relation of bank ownership with borrower and country characteristics. Then, we look at lending terms, in particular loan spreads and maturity in relation to proximity to the borrower and bank ownership.

4.1 Bank ownership and borrower characteristics

To examine bank ownership in relation to borrower characteristics, we estimate equation (1) using three dependent variables: the percentage of syndicate members that are domestic banks, the percentage of lenders that are foreign banks with a subsidiary in the country of the borrower and the percentage of foreign banks that are lead banks with a subsidiary in the country of the borrower. We do not separate domestic lenders and domestic lead banks because there are only a few loans in a few countries that have domestic lead banks (Table 1). As a result, we cannot

[10] A potential drawback of increasing the number of lenders is that it reduces the incentives of each participating lender to monitor the lead bank, which may be particularly important if the borrower is opaque (Sufi, 2007).

make sensible inference about the relationship between domestic leadership and loan, borrower and country characteristics.

Table 3 presents the baseline estimates for the three dependent variables: The percentage of domestic lenders, foreign lenders with subsidiaries and foreign leaders with subsidiaries, respectively. For each of these dependent variables, the table reports the results of three regressions. The first one is for the full sample of loans. The second regression is for the subsample of loans for which we have firm-level data but without the firm-level controls while the third regression includes these controls.

The results regarding domestic banks in Table 3 show that the percent of domestic participants in syndicates falls with loan size. Domestic participation is also less when a tranche is in a major currency or when it has an investment grade rating and when GDP growth is higher. These results are in line with our expectation that domestic participation in syndicates would be higher when borrowers are opaque or when lending risk grows. With regard to the robustness of the results, it is important to note that, even though there are some changes in the level of significance of certain variables across columns 1, 2 and 3, the results are robust to the omission of observations and the inclusion of firm characteristics. The changes in the values of the coefficients and standard deviations are in fact very small.

When we examine foreign lenders with subsidiaries in columns 4 to 6, we observe several similarities in the behavior of these foreign lenders and domestic lenders and foreign lenders with local subsidiaries. Participation of foreign lenders with subsidiaries in a syndicated loan is lower for larger loans and for loans in a major currency. The number of lenders has a positive coefficient. This variable is indicative of higher risk because banks have an incentive to distribute severe risks among multiple borrowers. Also, the coefficient on the EBRD/IFC dummy is strongly negative. Finally, GDP per capita has a negative coefficient in the subsample of banks for which we have firm-level data.

Continuing to the relationship between loan characteristics and the extent to which foreign banks with local subsidiaries operate as lead banks, we see again that borrower opacity and risk is associated with proximity between the borrowers and their banks. Foreign banks with subsidiaries are lead banks for loans that are below investment grade, that are smaller and that are secured.

Robustness

In order to ascertain the robustness of the results in Table 3, we implemented a variety of tests. To begin with, we included additional country controls in our models such as a financial crisis dummy and the lending rate and credit growth in the country of the borrower. This did not affect the results even though country-level variables tend to introduce multicollinearity in the data. Many are strongly correlated with the country fixed effects or, in the case of the financial crisis dummy, year fixed effects. Furthermore, we estimated the models while restricting the sample to

borrowers from the financial sector only or those from the non-financial sectors only. Some of the coefficients lost significance loose significance in these regressions, but this may be due to the reduction in observations. More importantly, the results are in line with the results in Table 3 and indicate that the results are not driven by either the financial or the non-financial sectors. Furthermore, we replaced the dependent variables with dummies indicating whether at least 1 domestic bank or foreign bank with subsidiary was among the lenders or the lead banks and estimated a logit regression. The results of this exercise in Table A1 reveal essentially the same pattern of loan participation as the estimates in Table 3.[11]

Finally, it might be the case that banks that are very active in the market for syndicated loans are also active as investors in subsidiaries in the countries in our sample. In that case, the results in Table 3 have little to do with proximity between the borrower and the lender. Instead, they would simply reflect the fact that active lenders, and active lead banks in particular, are better placed to deal with opaque borrowers (Sufi, 2007). To address this concern, we analyze the behavior of the five commercial banks that are most active as syndicate leaders (the EBRD is the most active lead bank overall, but it does not have majority-owned subsidiaries). We construct dummy variables that are equal to 1 if a particular bank (the "focal bank") is a lead bank on a particular deal. In Table 4, we use these dummies as dependent variables in estimates of the equation from Table 3. Because some of the loans in our data have multiple lead banks, we estimate the model twice for each bank: once for the full sample and once for a subsample of loans for which there is only one lead bank.

Two things are notable from these regressions. First, banks follow different strategies in the market for syndicated loans. For example, Citi, ING and Commerz focus on large clients, while RZB tends to lend to smaller clients. This is consistent with the fact that RZB has focused its banking activities in the region on building large branch networks to serve retail clients and Small and Medium-sized Enterprises, while a bank like Citi only has a few offices that focus on corporate finance (in addition to private banking). After controlling for loan size, RZB also tends to work with larger syndicates, while Unicredit and ING tend to form smaller ones. Second, after we control for the tendency of banks to operate as a lead bank and for the presence of the other (competing) lead banks in a country, local presence of a bank generally makes it more likely that a bank will operate as lead bank. Moreover, proximity to a borrower is especially useful if the borrower is opaque, as shown by the negative coefficients on the interaction between local presence and the investment grade dummy.

We repeat the analysis for foreign banks' tendency to participate in syndicates as lenders rather than as lead banks. According to the results, in Table A3, the impact of proximity to the borrower is overwhelmed by banks' general tendency to participate in syndicated loans as

[11] These estimates need to be interpreted with some caution. Being maximum likelihood estimates, the logit estimates may not be fully consistent because there are ultimately a limited number of observations in several countries, years and industries and with a specific purpose. In fact, to estimate the logit model, we had to collapse some of the industries and loan purpose categories into broader groups.

lenders. This is as expected since the lead banks, not the lenders, arrange the loan and monitor the borrower once the loan has been made. Hence, proximity is more important for lead banks than for lenders.

4.2 Proximity, bank ownership and loan terms

Next, we examine loan terms as given in equation (2). We consider both loan spreads and loan maturity. Table 5 presents the results. As before, we estimate three versions of our models: one with the full sample, and two with the subsample for which we have firm-level data, both with and without the firm-level variables. When we examine the results on loan spreads, the baseline regressions (in columns 1, 2 and 3) show that loan spreads decrease with loan size, when the borrower is rated and when the tranche is investment grade. Loan spreads increase with the number of lenders in the syndicate and if EBRD or IFC are among the lenders. These results are consistent with riskier loans having higher spreads. Maturity has no linear relation with loan spreads. However, the term loan dummy is positive, suggesting that there may be a non-linear relationship between maturity and interest rates (Sufi, 2007; Nini, 2004).

When we add bank participation to the model, we observe that the coefficients on both types of local participation are positive. However, the coefficient on domestic banks is not consistently significant from zero (nor is it significantly different from the coefficient on foreign banks with a subsidiary). The key result from these regressions is that, even after we control for loan risk and borrower opacity, foreign banks with subsidiaries in the country of the borrower charge higher rates than other lenders. This suggests that these lenders derive market power from their proximity to borrowers.

We repeat the analysis with the natural log of loan maturity as our dependent variable. The baseline regressions in columns 7, 8, and 9 of Table 5 show that larger loans, secured loans and term loans and loans with IFC or EBRD participation have longer maturities. The same may be true for loans to borrowers with foreign parents or for loans in major currencies.[12] Adding loan participation by domestic banks and foreign banks with subsidiaries, we find that both types of banks tend to give shorter maturity loans although again this result is more robust for foreign banks with subsidiaries than for domestic banks. These banks appear to exercise control over their borrowers by keeping maturities short (Rajan, 1992).

Robustness

We performed a variety of robustness tests on the estimates in Table 5. We included additional country controls, we replaced the bank participation percentages with bank participation dummies and we estimated the model for financial firms only and for non-financial firms. None of these tests affects the main thrust of the results that banks that are close to the borrower, and especially foreign-owned banks with subsidiaries in the country of the borrower, extend loans with less generous terms than other borrowers.

[12] The correlation between these two variables is greater than 0.8. It is therefore not surprising that their respective significance depends on the subsample used.

The premise underlying our analysis is that both syndicate participation and loan terms are a function of loan and borrower characteristics and that loan terms also depend on syndicate participation. This raises the concern that syndicate participation is endogenous in equation (2). We address this concern in Table 6, where we use instrumental variables estimation to isolate the exogenous part of loan participation. Our instruments are the growth in domestic credit divided by GDP, cumulative in-country lending (i.e. syndicated lending since the beginning of the sample period until the loan under consideration) by any domestic banks that participate in the syndicate and cumulative in-country lending by foreign banks with subsidiaries that participate in the syndicate. Growth in domestic credit is a proxy for changes in the availability of credit from other sources than the syndicated loan market. Cumulative lending could be associated with loan participation either because it reveals a tendency to participate in loans or because it raises a bank's exposure to a country and reduces its willingness to participate further (Ivashina, 2009). In practice, the first effect dominates: cumulative lending has a strongly positive coefficient in the first stage. The percentage of loans in which a bank is a lead bank reflects the overall likelihood that a bank operates as a lead bank regardless of loan and borrower characteristics.

The results in Table 6 are consistent with those in Table 5. If anything, the results for maturity are stronger than those in Table 5. According to the Sargan Test, we cannot reject the exclusion restrictions and the Anderson test for underidentification rejects the hypothesis that the model is underidentified.

Our interpretation of the results implies that proximity gives banks market power that enables them to offer borrowers more stringent loan terms. If this is correct, the increase in loan spreads and drop in maturities should be especially severe for borrowers that do not have easy access to other sources of funding and less so for other borrowers. To check this, we interact participation by banks with local representation with the borrower rated dummy and the foreign parent dummy. Presumably, borrowers without a rating or a foreign parent have fewer alternative sources of funding than other borrowers. The results of these regressions, although not as strong as one might hope, tend to be in line with our interpretation. In particular, the coefficients on the interactions generally have the right sign (negative for the loan spread regressions, positive for maturity) and when we include them, the coefficients on participation by domestic banks and foreign banks with subsidiaries generally become larger and/or more significant.[13]

[13] The specification including interaction is quite demanding on the data as the interaction terms are highly correlated with the loan participation variables. We are in the process of adding additional countries to our sample (notably Russia and Turkey), which should improve our ability to produce more precise estimates in the presence of multicollinearity.

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Overall, our evidence suggests that domestic banks and foreign banks with subsidiaries in the country of the borrower tend to lend to borrowers that are opaque and risky. Furthermore, they charge higher spreads and keep maturities shorter. The major factor that affects lending behavior is a bank is not bank ownership but rather proximity to the borrower.

5. Conclusion

Using a panel data on syndicated loans given to borrowers in Central and Eastern European countries, we examine bank lending behavior in relation to proximity to borrower and bank ownership. We find that both domestic banks and foreign banks with local subsidiaries tend to participate in loans to relatively opaque and risky borrowers. In addition we find that these banks, especially foreign banks with local subsidiaries, offer less generous lending terms to their borrowers. Our results are consistent with the hypothesis that proximity gives banks privileged access to information. In addition, the results imply that proximity provides banks with market power.

An important result is that the lending behavior of foreign banks with local subsidiaries is more like domestic banks than like foreign banks without subsidiaries. At least in the market for syndicated loans, the impact of proximity on lending behavior is more salient than the impact of ownership. This is an important result in light of the literatures on foreign entry into banking and on syndicated lending, which have focused on ownership as an explanatory variable, rather than on proximity. In addition, the evidence suggests that withdrawal from emerging markets by foreign banks in light of the recent crisis may have a negative impact on access to syndicated loans for firms in these markets.

(Fungacova, Weill, & Godlewski, 2009)

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Table 1 Loans, lenders and lead banks across countries and years

Panel A Loans by country	Tranches	Number of lenders		Domestic lenders		Foreign lenders with subsidiary		Number of lead banks		Domestic lead banks		Foreign lead banks with subsidiary	
		Mean	Median	% tranches	% lenders	% tranches	% lenders	Mean	Median	% tranches	% lead banks	% tranches	% lead banks
Bulgaria	28	9.54	9.50			75%	43%	1.96	1.00			79%	75%
Croatia	66	9.89	10.50			64%	29%	2.32	2.00	2%	25%	52%	56%
Czech Republic	82	10.24	10.50	9%	16%	59%	44%	2.21	1.00			56%	76%
Estonia	18	7.28	7.50	6%	11%	17%	18%	1.39	1.00				
Hungary	125	10.74	11.00	22%	12%	77%	38%	2.21	2.00	6%	22%	62%	73%
Latvia	32	9.50	11.00	19%	18%	16%	16%	1.81	1.00				
Lithuania	12	7.75	6.50	8%	9%	58%	38%	2.08	1.50			8%	17%
Macedonia	2	7.50	7.50					1.00	1.00				
Poland	105	11.03	12.00	19%	17%	84%	49%	2.66	2.00	5%	35%	75%	80%
Romania	50	9.58	11.00	16%	15%	72%	42%	1.90	1.00			68%	82%
Slovakia	42	8.98	8.50			64%	43%	2.45	1.00			55%	72%
Slovenia	67	10.19	11.00	10%	32%	30%	23%	2.54	2.00	3%	42%	33%	55%
Ukraine	75	8.45	8.00	3%	20%	69%	45%	2.03	2.00			47%	65%

Panel B Loans by year	Tranches	Number of lenders		Domestic lenders		Foreign lenders with subsidiary		Number of lead banks		Domestic lead banks		Foreign lead banks with subsidiary	
		Mean	Median	% tranches	% lenders	% tranches	% lenders	Mean	Median	% tranches	% lead banks	% tranches	% lead banks
1993	12	9.08	9.00	8%	8%			1.75	1.00	8%	25%		
1994	19	10.63	11.00	5%	20%	47%	26%	1.89	1.00			32%	61%
1995	34	10.12	12.50	6%	21%	38%	25%	2.53	1.00			32%	71%
1996	41	12.37	14.00	7%	13%	54%	23%	3.20	2.00	2%	50%	46%	56%
1997	46	12.17	13.00	4%	8%	63%	27%	1.59	1.00	4%	29%	33%	73%
1998	38	8.63	9.00	11%	10%	47%	40%	1.71	1.00			37%	74%
1999	27	11.00	12.00	4%	10%	63%	40%	2.19	2.00			52%	78%
2000	51	9.25	8.00	18%	12%	76%	44%	1.41	1.00			39%	81%
2001	52	10.25	10.00	15%	15%	79%	40%	1.77	1.00	6%	61%	60%	83%
2002	28	9.36	8.50	29%	14%	75%	48%	1.75	1.00			64%	77%
2003	60	9.88	10.00	15%	24%	75%	44%	2.38	2.00	2%	25%	70%	72%
2004	65	11.34	12.00	14%	11%	78%	40%	2.14	2.00	2%	33%	68%	76%
2005	77	9.90	11.00	9%	17%	71%	42%	2.55	1.00	1%	9%	64%	75%
2006	79	9.57	10.00	11%	23%	66%	42%	2.49	2.00	4%	11%	57%	69%
2007	3	7.33	4.00			67%	60%	1.67	1.00			67%	67%
2008	72	6.83	6.00	10%	21%	43%	59%	2.92	3.00	3%	12%	61%	63%

Notes Each observation represents a single-tranche loan or the first tranche of a multi-tranche loan. The number of lenders is the number of banks that contribute to the loan as lead bank or participant. The number of leaders represents the number of banks classified as lead bank in *Loan Analytics*. Domestic lenders (lead banks) are banks that are located in the country of the borrower with majority ownership from that country. For domestic lenders, % tranches represents the share of tranches in which at least one domestic lender participates. % lenders represents the number of domestic lenders as a percentage of the total number of lenders, provided at least one fo the lenders is domestic. *Mutatis mutandis* % tranches and and % lenders (lead banks) for the other variables are defined analogously. A bank qualifies as a Foreign lender (lead bank) with subsidiary if the lender has ownership outside of the country of the borrower, but has a subsidiary within the country of the borrower.

Table 2 Data Summary

	Observations	Mean	Median	S.D.	Min	Max
Loan						
Tranche Size (USD million)	704	165	86	247	2	2,205
Loan maturity (years)	704	4.44	4.88	3.59	0.17	29.50
Loan spread (basis points)	704	147	100	132	10	1,360
Dummy: Loan in major currency	704	0.90	1.00	0.30	0.00	1.00
Dummy: Borrower has foreign parent	704	0.37	0.00	0.48	0.00	1.00
Dummy: Borrower is rated	704	0.18	0.00	0.38	0.00	1.00
Dummy: Tranche investment grade	704	0.68	1.00	0.47	0.00	1.00
Dummy: Term loan	704	0.76	1.00	0.43	0.00	1.00
Dummy: Tranche is secured	704	0.22	0.00	0.42	0.00	1.00
Lenders						
Number of lenders	704	9.91	11.00	4.79	1.00	22.00
Percentage domestic banks among lenders	704	0.02	0.00	0.06	0.00	0.67
Percentage domestic banks in lead group	704	0.01	0.00	0.05	0.00	1.00
Percentage foreign lenders with local subsidiary	704	0.26	0.18	0.27	0.00	1.00
Percentage foreign lead banks with local subsidiary	704	0.38	0.29	0.42	0.00	1.00
Dummy: EBRD or IFC is among the lenders	704	0.06	0.00	0.23	0.00	1.00
Borrowers						
Assets (USD million)	414	2,034	974	2,819	0	20,519
Profit (loss) / assets	404	0.86	1.56	33.18	-646.88	60.76
Country						
Real GDP growth (% per year)	699	4.39	4.36	2.77	-6.05	12.23
GDP per capita (current USD)	704	12,369	11,574	4,809	2,925	27,605
Producer price inflation (% per year)	704	9.89	5.97	15.31	-18.86	156.89
Domestic bank credit (% of GDP)	704	51.40	47.86	19.56	12.78	98.57

Notes Tranche Size, Loan maturity and Loan spread are drawn directly from *Loan Analytics*. The loan spread is measured in basis points over the base rate (generally LIBOR) and includes all fees. The Dummy for major currency equals 1 of the loan is in US dollar, Yen, British Pound, Deutschmark or Euros. The dummy for foreign parent is 1 if the bank is controlled by a foreign owner (according to *Loan Analytics*). The dummy for borrower rated equals 1 if the parent of the borrower had a Moody's rating at loan signing. The percentage of domestic banks among lenders is calculated as number of domestic banks / number of lenders and the other variables regarding the composition of the syndicate are defined accordingly. Loan information is drawn from *Loan Analytics* and the information on lenders is from *Loan Analytics* and a separate database with bank ownership information. Data on borrowers are from *Orbis* and country data are from WDI and the EBRD.

Table 3: Bank ownership and lending behavior

	Domestic lenders (%)			Foreign lenders have subsidiary (%)			Foreign lead banks have subsidiary (%)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Loan Size (log USD)	-0.006*	-0.011**	-0.010**	-0.034***	-0.042***	-0.044***	-0.051***	-0.031	-0.041*
	[0.003]	[0.005]	[0.005]	[0.011]	[0.016]	[0.016]	[0.018]	[0.024]	[0.024]
Dummy: Loan in major currency	-0.019**	-0.034**	-0.032**	-0.133***	-0.112**	-0.110**	-0.008	-0.031	-0.041
	[0.009]	[0.015]	[0.015]	[0.034]	[0.052]	[0.052]	[0.053]	[0.078]	[0.078]
Dummy: Borrower has foreign parent	-0.005	-0.003	-0.003	0.023	0.010	0.007	0.014	0.032	0.024
	[0.006]	[0.008]	[0.008]	[0.021]	[0.028]	[0.028]	[0.033]	[0.042]	[0.042]
Dummy: Borrower is rated	-0.005	-0.007	-0.004	0.049*	0.046	0.039	-0.022	-0.019	-0.045
	[0.007]	[0.009]	[0.009]	[0.026]	[0.031]	[0.031]	[0.042]	[0.046]	[0.047]
Dummy: Tranche investment grade	-0.024***	-0.038***	-0.037***	-0.029	-0.038	-0.040	-0.121***	-0.151***	-0.159***
	[0.007]	[0.010]	[0.010]	[0.027]	[0.036]	[0.036]	[0.042]	[0.054]	[0.054]
Dummy: Term loan	0.012**	0.005	0.005	0.001	-0.038	-0.041	0.006	0.006	-0.001
	[0.006]	[0.009]	[0.009]	[0.022]	[0.032]	[0.032]	[0.036]	[0.048]	[0.048]
Dummy: Tranche is secured	-0.007	-0.009	-0.009	-0.007	0.032	0.032	0.085*	0.155**	0.156**
	[0.009]	[0.013]	[0.013]	[0.032]	[0.046]	[0.046]	[0.052]	[0.069]	[0.069]
log Lenders	0.006	0.009	0.010	0.094***	0.137***	0.137***	0.029	0.014	0.009
	[0.005]	[0.007]	[0.007]	[0.016]	[0.023]	[0.023]	[0.026]	[0.034]	[0.034]
Dummy: EBRD or IFC is among the lenders	0.000	0.014	0.011	-0.097**	-0.237***	-0.227***	-0.148**	-0.211*	-0.177
	[0.012]	[0.023]	[0.024]	[0.044]	[0.080]	[0.081]	[0.070]	[0.121]	[0.121]
log Assets			-0.003			0.004			0.027**
			[0.002]			[0.008]			[0.012]
Profit (loss) / assets			0.000			0.001			0.000
			[0.000]			[0.000]			[0.001]
Real GDP growth (% per year)	-0.003***	-0.004**	-0.004**	0.004	0.004	0.005	0.005	0.011	0.012
	[0.001]	[0.002]	[0.002]	[0.004]	[0.005]	[0.005]	[0.007]	[0.008]	[0.008]

log GDP per capita (current USD)	0.067	0.096	0.092	-0.303	-0.824**	-0.868***	-0.078	-0.265	-0.330
	[0.056]	[0.095]	[0.095]	[0.203]	[0.323]	[0.324]	[0.322]	[0.488]	[0.486]
Producer price inflation (% per year)	0.000	0.000	0.000	0.000	-0.004	-0.005	-0.003**	-0.007	-0.008*
	[0.000]	[0.001]	[0.001]	[0.001]	[0.003]	[0.003]	[0.001]	[0.005]	[0.005]
Domestic bank credit (% of GDP)	0.000	0.000	0.000	0.000	0.003	0.003	-0.002	0.000	0.000
	[0.000]	[0.001]	[0.001]	[0.001]	[0.002]	[0.002]	[0.002]	[0.003]	[0.003]
Constant	-0.577	-0.828	-0.776	2.659	8.540***	8.930***	0.456	3.453	3.935
	[0.464]	[0.862]	[0.863]	[1.682]	[2.948]	[2.952]	[2.670]	[4.452]	[4.433]
Observations	699	404	404	699	404	404	699	404	404
R-squared	0.21	0.26	0.27	0.42	0.47	0.48	0.37	0.48	0.49
Only observations with firm-data?	N	Y	Y	Y	N	Y	Y	Y	N
Test: year fixed effects (p-value)	0.818	0.910	0.877	0.060	0.077	0.057	0.209	0.033	0.019
Test: country fixed effects (p-value)	0.019	0.110	0.109	0.000	0.000	0.000	0.000	0.000	0.000
Test: industry fixed effects (p-value)	0.000	0.004	0.012	0.000	0.000	0.000	0.422	0.066	0.029
Test: purpose fixed effects (p-value)	0.833	0.766	0.672	0.269	0.001	0.002	0.402	0.057	0.065

Notes See table 1 for a definition of domestic lenders and foreign lenders (lead banks) with subsidiary and table 2 for a definition of the other variables. The dependent variable in the first three columns is defined as number of domestic lenders / number of lenders and the other dependent variables are defined analogously. All regressions include year, country, industry and purpose-of-loan fixed effects. Standard errors in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%

Table 4: Lending behavior by key lead banks

	Unicredit		Citi Bank		RZB		ING		Commerz	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Share of deals in which bank is a leader (by year)	6.214***	2.422***	3.980***	2.180***	3.198***	2.162***	0.787*	0.161	1.330***	0.446
	[0.385]	[0.460]	[0.395]	[0.568]	[0.427]	[0.633]	[0.428]	[0.436]	[0.441]	[0.375]
Focal bank has a local subsidiary	0.103*	0.095*	0.202***	0.329***	0.279***	0.272***	0.197**	0.084	0.191**	-0.020
	[0.057]	[0.057]	[0.065]	[0.079]	[0.054]	[0.072]	[0.086]	[0.077]	[0.095]	[0.072]
Focal bank has a subsidiary x loan investment grade	-0.036	-0.044	-0.009	-0.210***	-0.170***	-0.162**	-0.065	-0.034	-0.019	-0.015
	[0.061]	[0.062]	[0.061]	[0.077]	[0.059]	[0.082]	[0.073]	[0.073]	[0.079]	[0.067]
Other top 5 lead banks have subsidiaries	-0.098*	-0.016	-0.023	-0.044	-0.075	-0.136	0.001	0.091	-0.111*	0.000
	[0.056]	[0.059]	[0.045]	[0.062]	[0.063]	[0.096]	[0.064]	[0.066]	[0.067]	[0.057]
Loan Size (log USD)	0.036**	-0.005	0.060***	0.035	-0.057***	-0.067***	0.087***	0.031*	0.057***	0.010
	[0.015]	[0.018]	[0.015]	[0.022]	[0.016]	[0.025]	[0.016]	[0.017]	[0.016]	[0.015]
Dummy: Loan in major currency	0.018	0.073	0.054	0.028	-0.070	-0.083	-0.013	-0.010	-0.112**	-0.038
	[0.046]	[0.049]	[0.045]	[0.060]	[0.047]	[0.066]	[0.046]	[0.046]	[0.047]	[0.039]
Dummy: Borrower has foreign parent	0.006	0.034	-0.014	-0.034	-0.052*	-0.002	-0.049*	-0.030	-0.043	0.010
	[0.028]	[0.031]	[0.027]	[0.038]	[0.029]	[0.042]	[0.028]	[0.029]	[0.029]	[0.025]
Dummy: Borrower is rated	0.023	-0.107**	0.031	-0.001	0.075**	0.064	0.003	0.007	-0.023	-0.009
	[0.036]	[0.046]	[0.035]	[0.056]	[0.037]	[0.062]	[0.036]	[0.043]	[0.037]	[0.037]
Dummy: Tranche investment grade	-0.013	-0.068	-0.008	0.010	0.114**	0.108*	0.001	-0.032	-0.019	0.040
	[0.053]	[0.051]	[0.049]	[0.061]	[0.046]	[0.064]	[0.041]	[0.039]	[0.042]	[0.033]
Dummy: Term loan	-0.036	-0.084**	-0.004	0.045	0.044	0.063	-0.069**	0.019	-0.039	0.023
	[0.030]	[0.036]	[0.030]	[0.043]	[0.031]	[0.048]	[0.031]	[0.033]	[0.032]	[0.028]
Dummy: Tranche is secured	0.057	0.061	0.062	0.032	-0.034	0.009	0.000	-0.056	-0.004	0.001
	[0.044]	[0.044]	[0.043]	[0.054]	[0.045]	[0.061]	[0.044]	[0.041]	[0.046]	[0.035]
log Lenders	0.000	-0.051**	0.035	0.005	0.044*	0.072**	-0.036	-0.043**	0.025	-0.011
	[0.022]	[0.022]	[0.022]	[0.027]	[0.023]	[0.030]	[0.022]	[0.021]	[0.023]	[0.018]

Dummy: EBRD or IFC is among the lenders	-0.128**	-0.092	-0.095	-0.189**	-0.012	0.014	-0.037	-0.060	0.019	-0.073
	[0.060]	[0.073]	[0.059]	[0.090]	[0.062]	[0.099]	[0.061]	[0.069]	[0.063]	[0.059]
Real GDP growth (% per year)	0.004	0.007	-0.012**	-0.010	0.002	0.010	0.010*	0.009	-0.008	-0.003
	[0.006]	[0.007]	[0.006]	[0.008]	[0.006]	[0.009]	[0.006]	[0.006]	[0.006]	[0.005]
log GDP per capita (current USD)	0.042	0.141	-0.182	-0.446	0.723**	0.090	-0.568**	-0.286	0.112	0.118
	[0.291]	[0.330]	[0.277]	[0.392]	[0.291]	[0.439]	[0.286]	[0.302]	[0.296]	[0.260]
Producer price inflation (% per year)	-0.001	-0.001	0.001	-0.001	0.000	0.000	0.000	0.001	-0.003**	0.000
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.002]	[0.001]	[0.001]	[0.001]	[0.001]
Domestic bank credit (% of GDP)	-0.002	0.002	-0.001	-0.002	-0.001	-0.001	0.000	0.000	0.000	0.000
	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.001]
Constant	-0.713	-1.377	1.304	4.062	-5.845**	-0.312	4.447*	2.175	-0.651	-0.817
	[2.399]	[2.695]	[2.290]	[3.215]	[2.408]	[3.605]	[2.358]	[2.479]	[2.450]	[2.138]
Observations	702	334	699	334	703	334	699	334	703	334
R-squared	0.465	0.474	0.399	0.463	0.347	0.404	0.198	0.188	0.165	0.179
Observations with one lead bank only?	N	Y	N	Y	N	Y	N	Y	N	Y

Notes The dependent variables in these regressions is a dummy that is equal to 1 when the focal bank is a lead bank on a particular deal. Unicredit (Italy) acquired HVB (Germany) and its subsidiary Bank-Austria Creditanstalt in 2005 and *Loan Analytics* lists alls loans made by any of these three banks as loans from Unicredit. The dummy indicating that the focal bank has a subsidiary is for Unicredit only. Citi Bank (US) transformed some of its subsidiaries into branches of European headquarters in Ireland towards the end of the sample period. Because this did not substantially alter the scope of activities, the branches continue to be coded as subsidiaries. RZB (Austria) stands for Raiffeisen Zentral Bank, ING is from the Netherlands and Commerz from Germany. See table 2 for a definition of the independent variables. All regressions include year, country, industry and purpose-of-loan fixed effects. Standard errors in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%

Table 5: Loan participation and lending terms

	Loan spread (log bp)						Loan maturity (log years)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Loan spread (log bp)							-0.067	-0.095	-0.093	-0.043	-0.052	-0.050
							[0.051]	[0.072]	[0.073]	[0.051]	[0.073]	[0.073]
Loan maturity (log years)	-0.041	-0.054	-0.053	-0.027	-0.030	-0.028						
	[0.032]	[0.041]	[0.041]	[0.032]	[0.041]	[0.041]						
Percentage domestic banks among participants (DB)				0.766**	0.638	0.673				-0.652	-1.099	-1.127*
				[0.384]	[0.512]	[0.514]				[0.491]	[0.680]	[0.683]
Percentage foreign participants with local subsidiary (FS)				0.287***	0.432***	0.436***				-0.374***	-0.459**	-0.458**
				[0.101]	[0.137]	[0.139]				[0.128]	[0.183]	[0.186]
Loan Size (log USD)	-0.163***	-0.189***	-0.193***	-0.157***	-0.182***	-0.185***	0.113***	0.102**	0.107**	0.108***	0.097**	0.101**
	[0.024]	[0.034]	[0.034]	[0.024]	[0.033]	[0.034]	[0.032]	[0.046]	[0.047]	[0.031]	[0.046]	[0.047]
Dummy: Loan in major currency	-0.004	-0.053	-0.062	0.046	0.012	0.005	0.114	0.474***	0.480***	0.058	0.371**	0.376**
	[0.071]	[0.110]	[0.110]	[0.072]	[0.112]	[0.112]	[0.091]	[0.143]	[0.144]	[0.092]	[0.147]	[0.148]
Dummy: Borrower has foreign parent	-0.065	-0.105*	-0.108*	-0.066	-0.098*	-0.099*	0.129**	0.105	0.108	0.132**	0.096	0.098
	[0.044]	[0.058]	[0.058]	[0.043]	[0.057]	[0.058]	[0.056]	[0.077]	[0.078]	[0.055]	[0.076]	[0.077]
Dummy: Borrower is rated	-0.182***	-0.180***	-0.189***	-0.179***	-0.177***	-0.182***	-0.084	-0.020	-0.009	-0.081	-0.018	-0.011
	[0.056]	[0.064]	[0.065]	[0.055]	[0.063]	[0.064]	[0.071]	[0.085]	[0.088]	[0.071]	[0.085]	[0.087]
Dummy: Tranche investment grade	-0.813***	-0.736***	-0.739***	-0.776***	-0.687***	-0.688***	0.028	0.131	0.136	0.002	0.094	0.097
	[0.057]	[0.075]	[0.075]	[0.057]	[0.075]	[0.076]	[0.083]	[0.112]	[0.113]	[0.083]	[0.112]	[0.113]
Dummy: Term loan	0.101**	0.074	0.073	0.098**	0.098	0.098	0.301***	0.311***	0.313***	0.294***	0.278***	0.279***
	[0.048]	[0.068]	[0.068]	[0.048]	[0.068]	[0.068]	[0.061]	[0.088]	[0.089]	[0.061]	[0.089]	[0.089]
Dummy: Tranche is secured	0.099	0.015	0.016	0.097	-0.002	-0.001	0.161*	0.227*	0.226*	0.161*	0.234*	0.233*
	[0.069]	[0.096]	[0.096]	[0.068]	[0.095]	[0.096]	[0.087]	[0.127]	[0.127]	[0.087]	[0.126]	[0.126]
log Lenders	0.047	0.131***	0.128***	0.052	0.142***	0.140***	-0.044	-0.054	-0.052	-0.053	-0.067	-0.065
	[0.035]	[0.047]	[0.048]	[0.035]	[0.047]	[0.047]	[0.044]	[0.063]	[0.064]	[0.044]	[0.063]	[0.064]

Dummy: EBRD or IFC is among the lenders	0.311***	0.384**	0.392**	0.338***	0.490***	0.493***	0.536***	0.447**	0.434*	0.485***	0.314	0.307
	[0.095]	[0.168]	[0.169]	[0.095]	[0.170]	[0.171]	[0.120]	[0.223]	[0.225]	[0.121]	[0.228]	[0.229]
log Assets			0.013			0.010			-0.012			-0.010
			[0.016]			[0.016]			[0.021]			[0.021]
Profit (loss) / assets			0.000			-0.001			0.000			0.000
			[0.001]			[0.001]			[0.001]			[0.001]
Real GDP growth (% per year)	-0.009	-0.010	-0.011	-0.010	-0.013	-0.014	0.016	0.004	0.004	0.017	0.006	0.007
	[0.009]	[0.011]	[0.011]	[0.009]	[0.011]	[0.012]	[0.012]	[0.015]	[0.015]	[0.012]	[0.015]	[0.015]
log GDP per capita (current USD)	-1.064**	-1.192*	-1.179*	-1.019**	-0.898	-0.862	0.604	0.847	0.857	0.544	0.583	0.572
	[0.430]	[0.675]	[0.679]	[0.428]	[0.675]	[0.679]	[0.549]	[0.897]	[0.902]	[0.547]	[0.899]	[0.905]
Producer price inflation (% per year)	0.001	0.001	0.001	0.001	0.005	0.005	0.000	0.016*	0.017*	0.000	0.012	0.012
	[0.002]	[0.006]	[0.007]	[0.002]	[0.006]	[0.007]	[0.002]	[0.008]	[0.009]	[0.002]	[0.009]	[0.009]
Domestic bank credit (% of GDP)	-0.005**	-0.004	-0.004	-0.005**	-0.006	-0.006	-0.001	-0.006	-0.006	-0.001	-0.005	-0.005
	[0.002]	[0.004]	[0.004]	[0.002]	[0.004]	[0.004]	[0.003]	[0.005]	[0.006]	[0.003]	[0.005]	[0.005]
Constant	16.086***	17.058***	16.884***	15.622***	13.815**	13.439**	-4.849	-7.281	-7.338	-4.402	-4.513	-4.379
	[3.563]	[6.156]	[6.186]	[3.546]	[6.177]	[6.215]	[4.605]	[8.236]	[8.279]	[4.588]	[8.269]	[8.325]
Observations	699	404	404	699	404	404	699	404	404	699	404	404
R-squared	0.76	0.80	0.80	0.77	0.80	0.80	0.55	0.57	0.57	0.56	0.58	0.58
Only observations with firm-data?	N	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y
Test: DB = FS (p-value)				0.231	0.700	0.659				0.584	0.368	0.349
Test: year fixed effects (p-value)	0.000	0.001	0.001	0.000	0.006	0.010	0.425	0.443	0.642	0.381	0.412	0.000
Test: country fixed effects (p-val)	0.000	0.000	0.000	0.000	0.000	0.000	0.443	0.433	0.002	0.424	0.411	0.000
Test: industry fixed effects (p-val)	0.000	0.001	0.001	0.004	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
Test: purpose fixed effects (p-val)	0.000	0.163	0.164	0.000	0.165	0.174	0.142	0.134	0.005	0.123	0.118	0.000

Notes See table 1 for a definition of domestic lenders and foreign lenders (lead banks) with subsidiary and table 2 for a definition of the other variables. "Percentage domestic participants" (banks that participate either as lenders and/or as lead banks in a syndicate) is defined as number of domestic participants / number of participants and "Percentage foreign participants with local subsidiary" is defined analogously. All regressions include year, country, industry and purpose-of-loan fixed effects. Standard errors in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%

Table 6: Loan participation and lending terms (IV regressions)

	Loan spread (log bp)	Loan maturity (log years)
	(1)	(2)
Loan spread (log bp)		0.011
		[0.062]
Loan maturity (log years)	0.002	
	[0.038]	
Percentage domestic banks among participants	-0.564	-0.024
	[0.990]	[1.251]
Percentage foreign participants with local subsidiary	1.202**	-1.604**
	[0.503]	[0.640]
Loan Size (log USD)	-0.147***	0.099***
	[0.026]	[0.033]
Dummy: Loan in major currency	0.105	-0.053
	[0.095]	[0.123]
Dummy: Borrower has foreign parent	-0.086*	0.151***
	[0.044]	[0.056]
Dummy: Borrower is rated	-0.186***	-0.065
	[0.056]	[0.072]
Dummy: Tranche investment grade	-0.715***	-0.059
	[0.076]	[0.092]
Dummy: Term loan	0.132***	0.246***
	[0.051]	[0.065]
Dummy: Tranche is secured	0.064	0.185**
	[0.070]	[0.089]

log Lenders	0.088**	-0.097**
	[0.038]	[0.049]
Dummy: EBRD or IFC is among the lenders	0.444***	0.317**
	[0.108]	[0.150]
Real GDP growth (% per year)	-0.021**	0.030**
	[0.010]	[0.013]
log GDP per capita (current USD)	-0.693	0.197
	[0.451]	[0.573]
Producer price inflation (% per year)	0.002	-0.002
	[0.002]	[0.003]
Domestic bank credit (% of GDP)	-0.006**	0.000
	[0.002]	[0.003]
Constant	12.783***	-1.604
	[3.779]	[4.789]
Observations	697	697
R-squared	0.73	0.49
Sargan test (p-value)	0.983	0.430
Anderson under-indentification test (p-value)	0.000	0.000

Notes See table 1 for a definition of domestic lenders and foreign lenders (lead banks) with subsidiary and table 2 for a definition of the other variables. "Percentage domestic participants" (banks that participate either as lenders and/or as lead banks in a syndicate) is defined as number of domestic participants / number of participants and "Percentage foreign lenders with local subsidiary" and "Percentage foreign lead banks with local subsidiary" are defined analogously. Omitted instruments are country-level growth in bank cedit, cumulative lending to borrowers in the deal-country by domestic lenders involved in the syndicate, cumulative lending in the deal-country by foreign lenders involved in the syndicate and (in columns 2 and 4) the share of loans (excluding the loan under consideration) in which the lead bank operates as lead bank in the deal year. All regressions include year, country, industry and purpose-of-loan fixed effects. Standard errors in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%

Table 7: Loan participation, borrower characteristics and lending terms

	Loan spread (log bp)						Loan maturity (log years)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Percentage domestic banks among participants	0.971**	0.986*	1.023*	0.831*	1.079*	1.108*	-0.595	-1.128	-1.165	-0.721	-1.290*	-1.314*
	[0.412]	[0.581]	[0.584]	[0.432]	[0.582]	[0.584]	[0.527]	[0.774]	[0.778]	[0.552]	[0.779]	[0.782]
Percentage domestic banks x borrower rated	-1.471	-1.456	-1.465				-0.382	0.118	0.147			
	[1.064]	[1.138]	[1.141]				[1.360]	[1.517]	[1.522]			
Percentage domestic banks x borrower foreign				-0.394	-2.160*	-2.146*				0.373	1.010	0.995
				[0.892]	[1.116]	[1.118]				[1.138]	[1.500]	[1.505]
Percentage foreign participants with local subsidiary	0.259**	0.393***	0.397***	0.333***	0.533***	0.539***	-0.410***	-0.552***	-0.550***	-0.404***	-0.527**	-0.527**
	[0.104]	[0.146]	[0.147]	[0.112]	[0.158]	[0.159]	[0.133]	[0.194]	[0.195]	[0.143]	[0.212]	[0.215]
Percentage foreign banks with subsidiary x borrower rated	0.240	0.226	0.227				0.289	0.467	0.474			
	[0.212]	[0.240]	[0.241]				[0.271]	[0.318]	[0.320]			
Percentage foreign banks with subsidiary x borrower foreign				-0.133	-0.199	-0.201				0.084	0.139	0.140
				[0.156]	[0.196]	[0.196]				[0.199]	[0.262]	[0.263]
	699	404	404	699	404	404	699	404	404	699	404	404
	0.77	0.80	0.81	0.77	0.81	0.81	0.56	0.58	0.58	0.56	0.58	0.58
Only observations with firm-data?	N	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y
Firm-level controls included?	N	N	Y	N	N	Y	N	N	Y	N	N	Y

Notes See table 1 for a definition of domestic lenders and foreign lenders (lead banks) with subsidiary and table 2 for a definition of the other variables. "Percentage domestic participants" (banks that participate either as lenders and/or as lead banks in a syndicate) is defined as number of domestic participants / number of participants and "Percentage foreign participants with local subsidiary" is defined analogously. The regressions include the loan, firm and country controls reported in Table 5 as well as year, country, industry and purpose-of-loan fixed effects. Standard errors in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%

Table A1: Bank ownership and lending behavior (logit regressions)

	Dummy: Domestic lenders			Dummy: Foreign lenders have subsidiary			Dummy: Foreign lead banks have subsidiary		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Loan Size (log USD)	-0.584***	-1.350***	-1.176***	-0.318**	-0.368	-0.369	-0.004	-0.002	-0.087
	[0.219]	[0.407]	[0.422]	[0.160]	[0.241]	[0.248]	[0.124]	[0.186]	[0.196]
Dummy: Loan in major currency	-1.263***	-3.200***	-3.212***	-0.275	-0.334	-0.278	0.047	-0.241	-0.357
	[0.483]	[0.980]	[1.037]	[0.442]	[0.632]	[0.635]	[0.360]	[0.625]	[0.642]
Dummy: Borrower has foreign parent	-0.592*	-1.650**	-2.022***	0.274	0.317	0.274	-0.207	-0.087	-0.134
	[0.357]	[0.678]	[0.748]	[0.275]	[0.433]	[0.436]	[0.215]	[0.315]	[0.324]
Dummy: Borrower is rated	-0.313	-0.498	0.114	-0.451	-0.831*	-0.886**	0.079	0.232	0.012
	[0.444]	[0.607]	[0.677]	[0.338]	[0.433]	[0.444]	[0.281]	[0.349]	[0.363]
Dummy: Tranche investment grade	-1.040**	-2.732***	-2.939***	-0.649*	-1.395***	-1.422***	-0.569*	-0.925**	-1.114**
	[0.468]	[0.845]	[0.911]	[0.354]	[0.534]	[0.533]	[0.310]	[0.463]	[0.474]
Dummy: Term loan	0.597	-0.116	0.117	0.160	-0.247	-0.291	0.125	0.589	0.537
	[0.380]	[0.630]	[0.662]	[0.293]	[0.460]	[0.468]	[0.234]	[0.372]	[0.382]
Dummy: Tranche is secured	-0.037	-0.753	-0.675	0.550	1.204	1.232	0.336	0.261	0.310
	[0.504]	[0.907]	[1.037]	[0.460]	[0.788]	[0.801]	[0.355]	[0.528]	[0.548]
log Lenders	1.426***	2.844***	3.458***	2.638***	3.681***	3.741***	0.227	0.169	0.236
	[0.403]	[0.761]	[0.904]	[0.290]	[0.497]	[0.503]	[0.171]	[0.256]	[0.268]
Dummy: EBRD or IFC is among the lenders	-0.195	1.632	0.945	-0.466	-1.405	-1.344	-0.438	-0.755	-0.496
	[0.688]	[1.400]	[1.502]	[0.615]	[1.138]	[1.186]	[0.502]	[0.906]	[0.976]

log Assets			-0.523**			-0.014			0.234**
			[0.214]			[0.117]			[0.091]
Profit (loss) / assets			0.076***			0.014			-0.055***
			[0.030]			[0.024]			[0.020]
Real GDP growth (% per year)	-0.164**	-0.278**	-0.324**	0.116	0.183*	0.202*	0.059	0.127	0.125
	[0.072]	[0.131]	[0.149]	[0.073]	[0.107]	[0.107]	[0.062]	[0.086]	[0.088]
log GDP per capita (current USD)	2.120	5.185	5.338	-5.436*	-13.414***	-14.365***	-1.294	-4.215	-5.018
	[3.730]	[8.367]	[9.300]	[2.934]	[4.709]	[4.767]	[2.439]	[4.118]	[4.217]
Producer price inflation (% per year)	-0.055	-0.073	-0.048	0.009	-0.120**	-0.133***	-0.015	-0.076**	-0.086**
	[0.043]	[0.083]	[0.093]	[0.010]	[0.047]	[0.047]	[0.015]	[0.037]	[0.037]
Domestic bank credit (% of GDP)	0.037	0.086*	0.091*	0.014	0.070**	0.073**	0.014	0.029	0.024
	[0.027]	[0.050]	[0.052]	[0.015]	[0.029]	[0.030]	[0.014]	[0.026]	[0.027]
Constant	-37.179	-65.771	-66.353	22.242	117.201***	126.288***	-6.077	41.653	47.505
	[512.166]	[930.245]	[2,283.911]	[738.184]	[43.100]	[43.637]	[727.994]	[38.304]	[39.183]
Observations	585	283	283	696	397	397	646	354	354
Only observations with firm-data?	N	Y	Y	Y	N	Y	Y	Y	N

Notes See table 1 for a definition of domestic lenders and foreign lenders (lead banks) with subsidiary and table 2 for a definition of the other variables. The dependent variable in the first three columns is a dummy variable that equals 1 when at least one of the lenders in the syndicate is a domestic lenders and the other dependent variables are defined analogously. All regressions include year, country, industry and purpose-of-loan fixed effects. Standard errors in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%

Table A2: Lending behavior by key lenders

	UniC	BLB	RZB	Commerz	Erste
	(1)	(2)	(3)	(4)	(5)
Share of deals in which bank is a lender (by year)	13.897***	8.459***	7.605***	9.133***	7.419***
	[0.301]	[0.829]	[0.692]	[0.855]	[0.853]
Focal bank has a local subsidiary	0.120**	0.044	0.277***	0.010	0.070
	[0.047]	[0.161]	[0.081]	[0.106]	[0.094]
Focal bank has a subsidiary x loan investment grade	-0.068	-0.047	-0.234***	-0.070	0.098
	[0.048]	[0.130]	[0.083]	[0.098]	[0.086]
Other top 5 lenders have subsidiaries	-0.023	-0.121	-0.055	0.021	0.091
	[0.047]	[0.085]	[0.078]	[0.095]	[0.083]
Loan Size (log USD)	0.021**	0.041*	-0.041**	0.040*	-0.018
	[0.010]	[0.021]	[0.020]	[0.022]	[0.022]
Dummy: Loan in major currency	-0.007	0.133**	-0.048	-0.037	-0.033
	[0.031]	[0.062]	[0.061]	[0.066]	[0.067]
Dummy: Borrower has foreign parent	-0.043**	-0.017	-0.001	-0.026	0.002
	[0.019]	[0.038]	[0.037]	[0.040]	[0.041]
Dummy: Borrower is rated	-0.005	0.043	0.017	0.058	0.044
	[0.024]	[0.048]	[0.048]	[0.051]	[0.052]
Dummy: Tranche investment grade	0.005	-0.017	0.168**	0.053	-0.048
	[0.043]	[0.051]	[0.076]	[0.058]	[0.063]
Dummy: Term loan	0.001	0.001	0.042	-0.086*	0.103**
	[0.021]	[0.042]	[0.041]	[0.044]	[0.045]
Dummy: Tranche is secured	0.057*	0.005	-0.076	-0.104	-0.056
	[0.030]	[0.060]	[0.058]	[0.063]	[0.064]
log Lenders	0.035**	0.194***	0.179***	0.184***	0.199***
	[0.017]	[0.032]	[0.031]	[0.033]	[0.034]

Dummy: EBRD or IFC is among the lenders	-0.153***	-0.145*	0.023	0.028	-0.224***
	[0.040]	[0.081]	[0.078]	[0.085]	[0.086]
Real GDP growth (% per year)	0.001	-0.007	-0.003	0.003	0.004
	[0.004]	[0.008]	[0.008]	[0.009]	[0.009]
log GDP per capita (current USD)	0.065	0.649*	-0.679*	0.231	-0.311
	[0.197]	[0.387]	[0.401]	[0.407]	[0.435]
Producer price inflation (% per year)	-0.001	0.000	0.002	0.000	0.003
	[0.001]	[0.002]	[0.002]	[0.002]	[0.002]
Domestic bank credit (% of GDP)	-0.001	0.004**	0.000	0.000	0.000
	[0.001]	[0.002]	[0.002]	[0.002]	[0.002]
Constant	-0.765	-6.828**	5.029	-2.452	2.664
	[1.632]	[3.187]	[3.302]	[3.348]	[3.621]
Observations	664	652	630	648	640
R-squared	0.855	0.441	0.459	0.355	0.34

Notes The dependent variables in these regressions is a dummy that is equal to 1 when the focal bank is a lead bank on a particular deal. Unicredit (Italy) acquired HVB (Germany) and its subsidiary Bank-Austria Creditanstalt in 2005 and *Loan Analytics* lists alls loans made by any of these three banks as loans from Unicredit. The dummy indicating that the focal bank has a subsidiary is for Unicredit only. BLB (Germany) is the Bayerische Landesbank, RZB (Austria) is Raiffeisen Zentral Bank, Commerz is from Germany and Erste Bank from Austria. See table 2 for a definition of the independent variables. All regressions include year, country, industry and purpose-of-loan fixed effects. Standard errors in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%

Table A3: Loan participation and lending terms

	Loan spread (log bp)			Loan maturity (log years)		
	(1)	(2)	(3)	(4)	(5)	(6)
Dummy: Domestic bank among participants	0.154**	0.142	0.149*	-0.070	-0.194*	-0.200*
	[0.062]	[0.087]	[0.088]	[0.080]	[0.116]	[0.117]
Dummy: Foreign participants have local subsidiary	0.185***	0.203**	0.200**	-0.168**	-0.142	-0.138
	[0.061]	[0.089]	[0.089]	[0.079]	[0.119]	[0.120]
Observations	699	404	404	699	404	404
R-squared	0.77	0.80	0.80	0.55	0.57	0.57
Only observations with firm data?	N	Y	Y	N	Y	Y
Firm-level controls included?	N	N	Y	N	N	Y
Test: DB = FS (p-value)	0.726	0.209	0.213	0.378	0.175	0.164

Notes See table 1 for a definition of domestic lenders and foreign lenders (lead banks) with subsidiary and table 2 for a definition of the other variables. "Dummy: domestic bank among participants" (banks that participate either as lenders and/or as lead banks in a syndicate) is equal to 1 if at least one of the members of a syndicate is a domestic bank. The other dummies are defined defined analogously. The regressions include the loan, borrower, country and firm controls that are reported in table A5 as well as year, country, industry and purpose-of-loan fixed effects. Standard errors in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%