Bank Ownership and Lending Patterns during the 2008–2009 Financial Crisis

Evidence from Latin America and Eastern Europe

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Abstract

This paper examines the impact of bank ownership on credit growth in developing countries before and during the 2008-2009 crisis. Using bank-level data for countries in Eastern Europe and Latin America, it analyzes the growth of banks' total gross loans as well as the growth of corporate, consumer, and residential mortgage loans. Although domestic private banks in Eastern Europe and Latin America contracted their loan growth rates during the crisis, there are differences in foreign and government-owned bank credit growth across regions. In Eastern Europe, foreign bank total lending fell by

more than domestic private bank credit. These results are primarily driven by reductions in corporate loans. Furthermore, government-owned banks in Eastern Europe did not act counter-cyclically. The opposite was true in Latin America, where the growth of government-owned banks' corporate and consumer loans during the crisis exceeded that of domestic and foreign banks. Contrary to the case of foreign banks in Eastern Europe, those in Latin America did not fuel loan growth prior to the crisis and did not contract lending at a faster pace than domestic banks during the crisis.

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Bank Ownership and Lending Patterns during the 2008-2009 Financial Crisis:

Evidence from Latin America and Eastern Europe*

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1. Introduction

During the last decade, the ownership structure of banking sectors in developing countries changed substantially: most developing countries witnessed a sharp increase in foreign bank participation and a decline in government bank ownership. Between 1999 and 2009, on average, the share of bank assets held by foreign banks in developing countries rose from 26 percent to 46 percent, while government bank ownership declined from 28 percent to 19 percent.¹ These changes in banking structure were in part motivated by increasing evidence that while foreign bank participation brought many benefits to developing countries, especially in terms of competition and banking sector efficiency², government bank ownership was often detrimental to the financial sector.³

The recent global financial crisis reignited the debate on the ownership structure of the banking sector and its consequences for financial intermediation. Some have pointed to the presence of foreign banks in developing countries as a key mechanism for transmitting the 2008-2009 crisis from advanced to developing countries (e.g., IMF, 2009). At the same time, developing countries like Brazil, China, and India, where government-owned banks are systemically important, recovered quickly from the crisis, generating interest in the potential mitigating role that these banks can play during periods of financial distress.⁴

Using bank-level data from 2004 to 2009, this paper examines the impact of bank ownership on credit growth before and during the recent crisis. We analyze the growth of banks'

¹ These data come from the World Bank Regulation and Supervision Surveys. See <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:20345037~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html>.

² See Cull and Martinez Peria (2010) for a review of the literature on the drivers and the impact of foreign bank participation.

³ Arguably, the seminal paper on the negative implications of government bank ownership is La Porta et al. (2002). Also, see literature cited in footnote 10.

⁴ See for example the discussion in the following articles: "They Must Be Giants," *The Economist*, May 15, 2010. "Falling in Love with the State Again," *The Economist*, April 3, 2010. "Not Just Straw Men," *The Economist*, June 20, 2009.

overall loan portfolios, as well as changes in corporate, consumer, and residential mortgage loans. In particular, we compare results for a sample of countries from two regions: Latin America (Argentina, Brazil, Chile, Colombia, Mexico and Peru) and Eastern Europe (Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia). We selected these regions because they have important similarities, but also interesting differences. Both regions include middle-income countries that have among the highest levels of foreign bank participation in developing countries (Claessens and van Horen, 2012). However, there are also contrasts in the types of foreign banks that entered the two regions and in the role and size of state-owned banks. For example, in Latin America the dominant foreign players were Spanish banks, who are said to have funded most of their operations in those countries with local deposits, and extended most of their loans in local currency (Kamil and Rai, 2010). In Eastern Europe, (non-Spanish) banks from neighboring Western European nations were the dominant foreign players. These banks mainly resorted to wholesale funding from non-local sources and denominated most of their loans in foreign currencies. With regard to government-owned banks, though both regions entered the 1990s with sizable government bank participation, governments in Eastern Europe had divested their shareholdings more fully than those in Latin America by the late 2000s.⁵

Our paper is related to an extensive literature on the effects of foreign bank participation in developing countries during crises. In particular, the impact of foreign bank ownership during earlier crisis episodes that originated in developing countries has been well-studied and generally indicates that foreign banks were a stabilizing force in terms of credit supply.⁶ With specific

⁵ The average share of assets held by government-owned banks in the 8 Eastern European countries we focus on fell from 71 percent in 1995 to 10 percent in 2010, while among the 6 Latin American countries, average government bank ownership dropped from 41 percent to 19 percent.

⁶ For example, a study of 1,565 banks from twenty emerging markets from 1989 to 2001 finds weak evidence that foreign banks' credit levels were less sensitive to monetary conditions in the host country, while their lending and deposit rates were less volatile than those of domestic banks during crises (Arena, Reinhart, and Vazquez, 2010).

regard to Latin America, case studies of Argentina, Brazil, and Mexico from 1994 to 1999 indicate that foreign banks did not pull back from host countries in the face of their economic problems, but rather viewed these difficulties as an opportunity to become more firmly rooted in these economies (Peek and Rosengren, 2000). And in fact, in Argentina and Mexico foreign banks had higher growth rates and lower volatility of lending than domestic banks during the crises of the mid to late 1990s (Dages et al., 2000). More generally, foreign banks in Latin American countries (Argentina, Brazil, Chile, Mexico, Peru, and Venezuela) showed more robust loan growth, a more aggressive response to asset deterioration, and greater ability to absorb losses than did domestic banks during this period (Crystal et al., 2001, 2002). In Eastern Europe, domestic banks contracted their credit base during crises from 1993 to 2000, whereas greenfield foreign banks did not (de Haas and van Lelyveld, 2006). Furthermore, a study of banks and firms in 13 countries in Eastern Europe from 2000 to 2005 shows that lending relationships for foreign banks tended to be more stable than those of domestic banks in that foreign banks were less likely to drop their clients, even in the aftermath of an acquisition (Giannetti and Ongena, 2012).

No doubt in response to the global scope and severity of the 2008-2009 crisis, there has been a recent proliferation of studies analyzing credit growth during this recent episode. In particular, there is evidence that foreign banks reduced their lending earlier and faster than domestic banks during the crisis (Claessens and van Horen, 2012; de Haas and van Lelyveld, 2011), in particular within Eastern Europe (de Haas, Korniyenko, Loukoianova, and Pivovarsky,

Using data from 45 of the largest multinational banks from 1991 to 2004, de Haas and van Lelyveld (2010) find that their lending did not slow during systemic crises in host countries, which they attribute to the support received by subsidiaries from their parent banks. Because lending by domestic banks did slow during crises, multinational banks could be viewed as stabilizing forces in turbulent times. For a more thorough review of the literature on crises and foreign bank participation see Cull and Martinez Peria (2010).

2011; Mihaljek, 2010).⁷ However, foreign banks that participated in the Vienna Initiative – a public-private partnership between European governments, multinational banks, and international financial institutions in which foreign banks were eligible for financial support in return for commitments that they would maintain their exposures and keep subsidiaries adequately capitalized in affected host countries – were more stable lenders than those that did not, and had loan growth rates on par with domestic banks by the end of 2009 (de Haas, et al. 2011).⁸ One important difference between this crisis and previous ones is that the recent episode started in foreign banks’ parent countries, while previous crises were endemic to developing countries.

In non-crisis periods, the shortcomings of government-owned banks have been well-documented.⁹ However, in times of crises, when private banks are likely to reduce their supply of credit, government-owned banks could potentially play a crucial stabilizing role. During financial crises in Asia and Latin America in the 1990s, government-owned banks did in fact expand credit faster (or cut it less) than domestic and foreign private banks (Hawkins and Mihaljek, 2001). And, in the recent crisis, government banks in some of the former Soviet Union economies were better able to maintain credit growth rates than private banks, especially foreign-owned ones (de Haas et al., 2011).

⁷ Evidence is from bank-level regressions for 1,275 banks in Eastern Europe and Central Asia in de Haas et al. (2011) and from a survey of central bank governors in Mihaljek (2010).

⁸ Moreover, cross-border bank-to-bank flows to Eastern European countries with a higher foreign bank asset share were more stable during the crisis than flows to other emerging markets (Vogel and Winkler, 2011). And based on the sample of all syndicated loans to private borrowers from 2005 to 2009, de Haas and Van Horen (2011) find that geographic proximity, establishment as a subsidiary (rather than a branch), integration into a network of domestic co-lenders, and a history of syndicated lending to a particular country all enhanced the stability of foreign lending.

⁹ A large number of cross-country studies show that greater government participation in bank ownership tends to be associated with lower levels of financial development (Barth, Caprio, and Levine, 2001, 2004, La Porta et al., 2002), more politically motivated lending (Dinc, 2005, Micco, Panizza and Yañez, 2007), lower banking sector outreach (Beck, Demirguc-Kunt, and Martínez Peria, 2008), wider intermediation spreads and slower economic growth (La Porta et al., 2002), and greater financial instability (La Porta et al., 2002; Caprio and Martínez Peria, 2002). Detailed within-country studies that are less susceptible to endogeneity concerns and are better able to identify the impact of government ownership than cross-country studies provide evidence consistent with the bulk of the cross-country literature (see Khwaja and Mian, 2005; Cole 2009a,b; Carvalho 2010).

Given the literature summarized above, the contribution of our paper is to compare the growth of local lending by domestic private, government- and foreign-owned banks before and during the recent financial crisis, using the same data sources and econometric models for two regions - Eastern Europe and Latin America - that have both similarities and differences. Within the econometric models, we are able to control simultaneously not only for ownership, but also for the size, profitability, liquidity, capital adequacy, and reliance on deposits as a source of funding of both local affiliates and parent banks. Importantly, and to our knowledge not done before in the literature, we are also able to study whether banks' lending behavior differed across the consumer, corporate, and residential mortgage sectors.

Our estimations reveal that while domestic private banks both in Eastern Europe and Latin America experienced a sharp contraction in lending during the 2008-2009 crisis, there are differences across these regions in the behavior of foreign and government-owned banks. In Eastern Europe, loan growth by foreign banks fell more than that of domestic private banks during the crisis, driven largely by a steep reduction in corporate loans. Prior to the crisis, lending to corporate entities by foreign banks grew more swiftly than that of domestic private banks. The loan growth of government-owned banks in Eastern Europe was similar to that of domestic private banks during the crisis, and was not counter-cyclical. The opposite is true in Latin America, where government-owned banks' lending growth during the crisis exceeded that of domestic private and foreign-owned banks. This pattern is true for the overall loan portfolio as well as for the growth of corporate and consumer loans. Furthermore, and contrary to the case of Eastern Europe, foreign banks in Latin America did not appear to fuel loan growth prior to the crisis and did not contract their loans at a faster pace than domestic banks during the crisis. These

results suggest that the link between loan growth and bank ownership is not homogenous across developing countries.

In drawing conclusions from our paper, a number of caveats need to be considered. First, our analysis does not include all economies in both regions. Second, while in analyzing the impact of foreign and government bank ownership on bank lending, we do our best to control for other bank characteristics, our ability to do so is limited by the data at our disposal. Third, we assume that a drop in gross loans represents a real decline in credit. However, in the case of foreign banks, we cannot rule out that some of our findings might be driven by changes in how these banks book their loans. For example, a foreign bank subsidiary might show a decline in loans if it decides to move some of its loans to the parent books. Finally, our analysis focuses only on the behavior of banks' loan growth immediately before and during the 2008-2009 crisis. Hence, the paper does not provide a comprehensive examination of whether financial globalization is good or bad for Latin America and Eastern Europe.¹⁰ Similarly, because we cannot analyze the quality of government bank lending during the crisis, it is not possible to determine whether the increase observed in Latin America was ultimately a good thing for the region.

The rest of the paper is organized as follows. Section 2 describes our estimation approach to study the role of bank ownership in explaining loan growth in Eastern Europe and Latin America. Section 3 discusses the data used. Section 4 presents our empirical results. Finally, Section 5 offers concluding remarks.

¹⁰ For a thorough analysis of how the European growth model of economic and financial integration has fared along many dimensions see Gill and Raiser (2012).

2. Empirical methodology

Our baseline empirical model to examine the impact of bank ownership on credit growth follows equation (1):

$$\begin{aligned}\Delta L_{i,t,j} = & \textit{Foreign}_{i,t,j} + \textit{Government}_{i,t,j} + \textit{Crisis_2008}_{i,t,j} + \textit{Crisis_2009}_{i,t,j} + \textit{Crisis_2008}_{i,t,j} \times \textit{Foreign}_{i,t,j} \\ & + \textit{Crisis_2008}_{i,t,j} \times \textit{Government}_{i,t,j} + \textit{Crisis_2009}_{i,t,j} \times \textit{Foreign}_{i,t,j} + \textit{Crisis_2009}_{i,t,j} \times \textit{Government}_{i,t,j} \\ & + X_{i,t-1,j} + \alpha_j + u_{i,t,j} \quad (1)\end{aligned}$$

where $\Delta L_{i,t,j}$ is the growth of total gross loans (or of corporate, consumer, or residential mortgage loans) for bank i at time t in country j .¹¹ Loans are expressed in dollars.¹² *Foreign* and *Government* are dummies that take the value of one for foreign and government-owned banks, respectively. *Crisis_2008* and *Crisis_2009* are dummies that equal one during 2008 and 2009, respectively. Both dummies are zero in all other periods. The foreign and government bank dummies summarize the differential rate of growth of each of these types of banks vis-à-vis domestic private banks before the crisis. The interactions of the ownership dummies with the crisis dummies capture the impact of government and foreign bank ownership during the crisis, relative to the lending behavior of domestic private banks throughout this episode. $X_{i,t-1,j}$ is a matrix of bank characteristics that can also impact loan growth (such as size, capital, liquidity, profitability, funding structure) lagged one period. α_j are country fixed effects.

We estimate different versions of equation (1) for banks operating in Eastern Europe and, separately, in Latin America. We incorporate country $\times$ year fixed effects in some models to

¹¹ To minimize the influence of outliers, we drop observations in the top 5 percent and bottom 1 percent of the loan growth series. Our main results on the impact of bank ownership do not change as a result.

¹² Our main results do not change significantly if we express loans in constant local currency.

control for country characteristics (e.g., macroeconomic growth, exchange rate changes, etc.) that might be changing over time that can affect loan growth. Furthermore, in some specifications, we allow for interactions of the crisis dummies with bank characteristics to control for the possibility that bank-level variables other than ownership have different effects in crisis and non-crisis episodes.¹³

3. Data

Our main source of bank-level data is Bankscope, a comprehensive commercial database of banks' financial statements produced by Bureau Van Dijk. In particular, for the period 2004-2009, we collect information from this source on bank ownership, total loan volumes, and loan amounts by type of loan (corporate, consumer, and residential mortgages). We also gather data on bank size, capitalization, liquidity, profitability, and funding structure. Table 1 contains definitions of all the variables we include in our analysis along with descriptive statistics.

We classify banks into foreign, government-owned, and domestic private banks depending on whether 50 percent or more of banks' shares are owned by foreigners, central or local governments, or domestic private actors, respectively. On average, between 2004-2009, 70 percent of banks in Eastern Europe were foreign-owned and foreign banks accounted for 81 percent of total bank assets over this period. Only 6 percent of banks were government-owned in Eastern Europe, accounting for 11 percent of total assets. In Latin America, 35 percent of banks were foreign-owned and they represented, on average, 38 percent of banking system assets.

¹³ In some estimations, we drop the ownership dummies and we replace them with bank fixed effects (these results are available in Table 3). This does not change our main results. We prefer to include the foreign and government ownership dummies in our baseline regressions rather than the bank fixed effects because these dummies allow us to assess the extent to which foreign and government bank lending grew faster than domestic private bank lending prior to the crisis.

Government-owned banks in Latin America made up 11 percent of the banks in the system during the period 2005-2009, and they accounted for 19 percent of banking system assets.

Gross loan growth averaged 25 percent in Eastern Europe during 2004-2009 and 26 percent in Latin America. We also distinguish between consumer, corporate, and residential mortgage loan growth rates in both regions. Consumer loan growth in Eastern Europe averaged 33 percent, while it averaged 35 percent in Latin America. On average, corporate loans grew at a rate of 25 percent in Eastern Europe and 26 percent in Latin America. Finally, the average rate of growth of residential mortgages was 36 percent for Eastern Europe and 23 percent for Latin America.

Average loan growth rates within regions mask important differences in lending patterns over time and across bank groups. For example, Figure 1 shows the average growth rate of gross loans for domestic private, government, and foreign-owned banks during the period 2005-2009. Panel A presents the data for banks operating Eastern Europe, while panel B shows the same graph for banks operating in Latin America. In Eastern Europe before the crisis (2006-2007), foreign bank loan growth exceeded domestic loan growth. On the other hand, while lending growth by all three types of banks collapsed during the crisis, foreign bank lending growth dropped most, especially in 2009. In Latin America prior to the crisis, domestic bank lending growth exceeded that for other types of banks, especially in 2007. During the crisis, both domestic and foreign bank loan growth rates dropped substantially, while in 2009 growth in government bank lending increased relative to pre-crisis levels. Of course, these figures do not control for any other bank characteristics that could impact loan growth across banks and regions such as size, capitalization, liquidity, profitability, and funding structure. Such evidence is presented in Section 4.

We control for bank size by including the log of assets. Bank assets averaged \$3.7 million in Eastern Europe and \$5.6 million in Latin America. Our indicator of bank capital is bank equity as a share of total assets. This ratio averaged close to 20 percent for banks in Latin America and 12 percent for Eastern Europe. Bank liquidity, which is captured by the ratio of liquid assets (cash and cash equivalent assets) to total assets, averaged 28 percent in both Eastern Europe and Latin America. We measure profitability by the return on assets ratio. Profitability averaged 1 percent in Eastern Europe and almost 2 percent in Latin America. We account for differences in bank funding structure using data on customer deposits as a share of total liabilities. This ratio averaged 65 percent within Eastern Europe and 51 percent in Latin America during the period 2005-2009.

In the case of foreign banks, we not only collect data on the characteristics of the local operations in Eastern Europe and Latin America of the foreign banks, but also we gather data on the parent banks.¹⁴ The parents of foreign banks operating in Eastern Europe averaged \$395 million in assets and those of Latin American banks averaged \$733 million. The equity ratio averaged close to 10 percent among parents of Latin American banks and 7 among parents of Eastern European banks. On average, return on assets was 1.3 percent among parents of Latin American banks and 0.8 percent among those of Eastern European banks. Liquidity averaged 28 percent for parents of Latin American affiliates and almost 30 percent for those operating in Eastern Europe. On average, the ratio of deposits to liabilities was 48 percent among parents of Latin American affiliates and 43 percent among those of Eastern European affiliates.

¹⁴ Studies such as Kamil and Rai (2010) and de Haas and van Lelyveld (2011) show that parent bank characteristics can have an impact on foreign bank lending in developing countries.

4. Results

The growth of total gross loans

Table 2 shows the results of estimating equation (1) for the growth of total gross loans for banks in Eastern Europe (columns 1-3) and Latin America (columns 4-6). While we find that domestic bank lending growth fell both in Eastern Europe and Latin America during the crisis (as reflected in the negative coefficients on the crisis dummy variables in models 1 and 4), there are interesting differences in the behavior of foreign and government-owned banks across regions. Foreign bank loan growth in Eastern Europe fell more (between 14 and 16 percentage points more) than domestic bank loan growth. The finding is consistent with that of other studies that find that foreign banks reduced their lending earlier and faster than domestic banks during the recent crisis, especially in Eastern Europe (de Haas et al., 2011; Claessens and van Horen, 2012). For Latin America, we find no difference in the loan growth of domestic and foreign banks.¹⁵

While government banks' loan growth in Latin America exceeded domestic bank lending during the crisis (by approximately 28 percentage points), there is no evidence that government banks in Eastern Europe stepped up their lending relative to domestic banks. The finding is consistent with research using firm-level data indicating that government ownership in the banking sector in Eastern Europe and Central Asia was not associated with less severe financial constraints for firms during the crisis (Clarke, Cull, and Kisunko, 2012).

Prior to the crisis, bank size was negatively correlated with loan growth in Eastern Europe and in Latin America (though the relationship was significant only for Latin America). However, this relationship reversed during the crisis and we find that the interaction between

¹⁵ That is, no significant differences at $p=.05$ level. There are some differences at the ten percent significance level. However, those coefficients indicate that the loan growth of foreign banks in Latin America was *greater* than that of other banks in 2008, in stark contrast to the result for foreign banks' credit growth in Eastern Europe in 2009.

bank size and the 2009 dummy variable was positive and significant (models 3 and 6), indicating that larger banks maintained more robust loan growth than smaller ones. Because the positive coefficients on the interaction are larger (in absolute value) than the negative coefficients for the size variable, bank size was positively related to loan growth in both regions during the crisis.¹⁶ In the case of Latin America, we also find that more solvent banks were able to grow their loan portfolios faster during the crisis than banks with low equity ratios, as indicated by the significant large positive coefficients for the interactions between the equity ratio and the crisis year dummy variables in model 6.

As a robustness check, Table 3 presents two variants of the results presented in Table 2. First, columns (1) and (3) show results for the growth of total loans expressed in constant local currency (as opposed to dollars) for banks operating in Eastern Europe and Latin America, respectively. Second, columns (2) and (4) show results where we introduce bank fixed effects, and thus we drop the foreign and government owned dummies (i.e., these variables now only appear interacted with the crises dummies).¹⁷ Bank fixed effects capture average differences in bank lending growth rates that might be due to constant differences across banks such as differences in business models.¹⁸ Neither of the variants shown on Table 3 produces qualitatively

¹⁶ However, we cannot reject the hypothesis that the sum of the size and size×Crisis_2009 coefficients is equal to zero for Latin America. Still, this indicates that large banks' loan growth was no slower than other Latin American banks during the crisis, in contrast to the pre-crisis period. And we can reject that the sum of the size and size×Crisis_2009 coefficients is equal to zero for Eastern Europe.

¹⁷ In appendix Table A.1, we also show results for the growth of bank lending in Latin America, separating out Spanish banks from the remaining foreign banks. Overall, we find that the result that foreign banks in Latin America did not retrench their lending more than private banks holds for both Spanish and non-Spanish foreign banks.

¹⁸ While the time-invariant differences between banks (like different business models, funding structure, strategies etc) are captured by the bank fixed effects, differences across countries over time are captured by country-year fixed effects. As Claessens and Van Horen (2012) note, to the extent that systematic differences in the portfolios of clients across bank ownership types are not correlated with crisis induced shocks to credit demand (that is, did not change due to the crisis), these country-year fixed effects should control for differential changes in credit demand across countries. We acknowledge, however, it is difficult to distinguish all potential supply and demand side factors given the available data. For example, the large reductions in corporate lending that we find for Eastern Europe might not be purely supply driven, but could have been driven by a collapse in the demand for trade credit, an area in which foreign banks were likely heavily involved.

different results from those reported above. While in Eastern Europe foreign bank lending growth was slower than that for domestic private banks during the crisis, in Latin America there is no strong evidence that foreign banks retrenched their lending significantly faster than domestic private banks. In contrast, we continue to observe that in Latin America, government-owned bank loan growth exceeded that of other bank types during the crisis. This did not occur in Eastern Europe.

Corporate, consumer, and residential mortgage loan growth

Table 4 shows regressions for the growth rate of corporate loans among banks in Eastern Europe (columns 1-3) and Latin America (columns 4-6). In Eastern Europe, before the crisis, loan growth among foreign banks exceeded that for domestic banks (by between 5 and 12 percentage points, depending on the specification). But during the crisis, foreign bank corporate loan growth fell more sharply, by between 27 and 35 percentage points.

In the case of Latin America, there is generally no significant difference in corporate loan growth for foreign and domestic banks either before or during the crisis, except in model 6 which indicates that foreign banks' lending growth was slower than for domestic banks in 2009. On the other hand, government bank lending in Latin America was slower than that for domestic banks before the crisis (by between 10 to 14 percentage points), but the reverse was true during the crisis, when government bank corporate loan growth exceeded that for domestic banks by between 22 and 35 percentage points, depending on the specification. In other words, government banks stepped up their lending to corporations in Latin America during the crisis, relative to both other banks and to their pre-crisis lending. No such pattern is visible in the case of government banks in Eastern Europe.

During the crisis, we also observe that banks in Latin America with high equity ratios were able to grow their corporate loan portfolio faster than other banks.¹⁹ On the other hand, in both Eastern Europe and Latin America we find that banks with higher shares of liquid assets (perhaps a sign of risk averseness) had slower corporate loan growth during the crisis relative to others.²⁰ Finally, for banks in Eastern Europe, we find that those whose liabilities consisted mainly of customer deposits were able to grow their corporate loan portfolios at a faster rate during the early phase of the crisis (2008) than banks that relied less on deposits.

Table 5 presents regressions on the growth rate of consumer loans for banks in Latin America and Eastern Europe. Domestic banks' consumer loan growth fell significantly during the crisis both in Eastern Europe and Latin America (see coefficients for crisis dummy variables in models 1 and 4). In Eastern Europe, there are no robust significant differences in foreign and government banks' consumer loan growth relative to domestic banks, both before and during the crisis.²¹ In Latin America, lending by government banks to consumers was slower than that of private domestic banks prior to the crisis, but relatively more swift during the crisis.

Banks with high equity ratios and, *ceteris paribus*, those with high ratios of customer deposits to liabilities in Latin America were able to lend to consumers at a faster rate than those with lower levels of solvency and customer deposits during the crisis (model 6). Prior to the crisis, Latin American banks with high equity ratios lent to consumers at a slower rate than those with low ratios. In the case of banks in Eastern Europe, we find that banks with higher liquidity

¹⁹ The equity ratio is also positively associated with corporate loan growth for Eastern Europe, though the coefficient does not achieve significance in the crisis period (or prior to it).

²⁰ The sum of the coefficients for the liquidity ratio and the liquidity×crisis year interaction (2008 for Eastern Europe, 2009 for Latin America) is also negative and significant for both regions indicating that effects of liquidity on corporate loan growth was significantly less than zero during the crisis.

²¹ Foreign×Crisis_2008 is, however, positive and significant at the ten percent level for Eastern Europe in model 1.

and profitability ratios lent at a slower rate to consumers during the crisis than those with lower ratios.

Table 6 shows estimations for residential loan growth rates for banks in Eastern Europe and Latin America. Residential mortgage loan growth by domestic banks fell in Eastern Europe and Latin America during the crisis (see crisis dummy variables in models 1 and 4). In neither region do we observe a significant difference in terms of foreign and government bank mortgage loan growth during the crisis relative to that for domestic banks.

Overall, we find that while domestic banks' loan growth in both Eastern Europe and Latin America contracted during the crisis, there were differences in the behavior of foreign and government-owned banks across regions. Government-owned banks in Latin America stepped up their lending, relative to other banks and to their own pre-crisis lending pace, to corporations and consumers during the crisis. This did not occur in Eastern Europe, where government-owned banks behaved no differently than domestic private banks. On the other hand, foreign banks in Eastern Europe fueled loan growth prior to the crisis and contracted their lending more severely than domestic banks during the crisis. In contrast, we find no difference in the behavior of foreign and domestic banks during the crisis in Latin America.

Explaining differences in lending patterns across regions

What explains the different lending behavior of foreign and government-owned banks across regions? It is hard to provide a definitive answer to this question, but here we consider a number of possible explanations. First, we estimate separate regressions for the growth of gross loans from foreign and government-owned banks, respectively, in Eastern Europe and Latin America during 2008-2009. Table 7 presents results for the determinants of the growth of foreign

bank loans in Eastern Europe and Latin America, respectively. We find that while foreign bank lending in Latin America depended primarily on the condition of subsidiaries, only parent conditions mattered for banks in Eastern Europe,. This suggests that as the crisis unfolded in developed countries and the condition of the parent banks deteriorated, foreign banks in Eastern Europe were more affected and, hence, curtailed their lending more significantly relative to domestic banks in this region. Appendix Table A.2 shows that most of the banks operating in Eastern Europe were Western European banks. It is possible – though impossible to verify with the data we have - that parents’ banks proximity to their subsidiaries implied greater transmission of shocks and less independence in management for the Eastern European affiliates relative to the operations of foreign banks in Latin America.

With respect to government banks, Table 8 presents results for the determinants of the growth of government bank loans in Eastern Europe and Latin America. The key difference in the drivers of government bank lending across regions appears to be the role of bank profitability. While profitability had no significant impact on the behavior of government-owned banks in Eastern Europe, we observe that it was strongly associated with government bank lending in Latin America. And indeed Table 9 confirms that profitability was much higher among government-owned banks in Latin America - in 2008-2009 average return on assets for government-owned banks in Latin America was 2.2 percent compared with 0.8 percent in Eastern Europe. This could account, in part, for why government-owned banks were in a better position to support loan growth during the crisis in Latin America than in Eastern Europe.

At the same time, governments in Latin America were better prepared than those in Eastern Europe to financially support lending by their government banks. As shown in Table 10, government deficits were relatively small prior to the crisis in 2007 in both regions. With the

exception of Hungary, whose deficit stood at 5 percent of GDP, no other country in our sample was running a deficit greater than 3.2 percent of GDP, and four countries had fiscal surpluses (Chile, Peru, Bulgaria, and Slovenia). By 2008, all Eastern European countries in our sample other than Bulgaria had fiscal deficits, and three countries had deficits between 3.6 and 4.8 percent. In all Eastern European countries, except for Croatia and Hungary, the fiscal situation worsened between 2007 and 2008. By contrast, in Latin America government deficits in Argentina, Brazil, Colombia, and Mexico became even smaller than they were in 2007, while Chile and Peru continued to have surpluses.

Furthermore, and as noted above, government banks in Eastern Europe were smaller relative to the size of the banking sector than in Latin America because Eastern European countries had divested their ownership stakes in banks more fully during the economic transition of the 1990s. The remaining government-owned banks in Eastern Europe might not, therefore, have been well-suited to provide lending support on a large scale during the crisis.

5. Conclusions

The 2008-2009 crisis led to a significant decline in bank lending both in Eastern Europe and in Latin America. This paper analyzed the role of bank ownership in explaining lending patterns in both regions before and during the recent crisis episode. We studied the growth of total gross bank credit and, separately, we examined growth in corporate, consumer, and residential mortgage loans.

Though we found that private banks both in Eastern Europe and Latin America experienced a sharp contraction in lending growth rates during the recent crisis, we uncovered significant differences across these regions in the behavior of foreign and government-owned

banks relative to domestic private banks. In Eastern Europe, foreign bank total loan growth fell more than domestic private bank credit growth during the crisis. These results appear to be driven by reductions in corporate lending. Why the reduction would be limited to the corporate sector is a potentially interesting area for future study. At the same time, government-owned bank lending growth in Eastern Europe did not differ significantly from that of domestic private banks. In general, government-owned banks in Eastern Europe did not mitigate the impact of the crisis on credit. The opposite is true in Latin America where government-owned banks' lending growth during the crisis exceeded that of domestic and foreign banks. Contrary to the case of Eastern Europe, foreign banks in Latin America did not appear to fuel loan growth prior to the crisis and did not contract their loans at a faster pace than domestic banks during the crisis.

Identifying what is at the heart of the differences in bank behavior across regions is difficult. We offer some tentative explanations based on evidence we are able to gather. We find that foreign parent characteristics can explain some of the variation in foreign bank lending in Eastern Europe, while subsidiary solvency was important in the case of Latin America. We speculate that this might explain why foreign bank lending declined more relative to domestic bank loan growth in Eastern Europe. At the same time, larger bank profits among government banks in Latin America and smaller fiscal deficits might explain why government bank lending in this region was resilient to the crisis. Overall, our results caution against making sweeping generalizations about the behavior of foreign and government-owned banks during the recent crisis, and point to the need for more research to better understand what is driving the differences we document.

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Table 1: Variable definitions and descriptive statistics

Variables	Definitions	Eastern Europe		Latin America	
		Average	Standard deviation	Average	Standard deviation
Growth rate of gross loans	% annual change in total gross loans (in dollars)	25.37	29.248	25.56	38.071
Growth rate of corporate loans	% annual change in corporate loans (in dollars)	24.68	30.404	25.55	42.468
Growth rate of consumer loans	% annual change in consumer loans (in dollars)	32.83	51.82	35.03	59.034
Growth rate of residential mortgage loans	% change in residential mortgage loans (in dollars)	36.13	39.576	22.61	53.938
Foreign	Dummy equal to 1 if bank is foreign-owned	0.70	0.461	0.35	0.476
Government	Dummy equal to 1 if banks is government-owned	0.06	0.246	0.11	0.317
Size	Log of total assets	13.97	1.650	13.52	2.016
Equity ratio	Equity to asset ratio (%)	11.87	7.933	19.93	17.452
Profitability	Return on assets (%)	1.04	1.450	1.75	3.705
Liquidity ratio	Ratio of liquid to total assets (%)	28.27	16.465	27.91	19.518
Deposit funding ratio	Ratio of customer deposits to total liabilities (%)	64.55	25.444	51.09	26.465
Parent size	Log of total assets of parent of foreign subsidiary or branch	18.59	1.866	19.50	1.914
Parent equity ratio	Equity to asset ratio of parent of foreign subsidiary or branch (%)	7.12	5.226	9.80	15.654
Parent profitability	Return on assets of parent of foreign subsidiary or branch (%)	0.83	1.043	1.29	2.793
Parent liquidity ratio	Ratio of liquid to total assets of parent of foreign subsidiary or branch (%)	29.50	15.050	28.47	13.796
Parent deposit funding ratio	Ratio of customer to total deposits of parent of foreign subsidiary or branch (%)	42.53	21.227	48.20	22.289

Table 2: Determinants of the growth of total gross loans – Baseline estimations

The dependent variable is the annual percentage change in total gross loans. Variable definitions and descriptive statistics are in Table 1. Note that all bank characteristics other than ownership are lagged one period. ***, **, and * denote significance at 1, 5, and 10 percent, respectively. Robust t-statistics are in brackets.

Variables	Eastern Europe			Latin America		
	(1)	(2)	(3)	(4)	(5)	(6)
Foreign	2.651 [0.558]	3.830 [0.986]	4.040 [0.956]	-11.098*** [-6.293]	-10.403*** [-6.014]	-9.320*** [-4.705]
Government	-1.338 [-0.248]	0.174 [0.030]	1.207 [0.203]	-8.660 [-1.779]	-8.576 [-1.694]	-9.833 [-1.765]
Size	-0.670 [-1.639]	-0.539 [-1.195]	-0.741 [-0.978]	-1.055* [-2.377]	-1.038** [-2.845]	-2.295*** [-6.435]
Equity ratio	-0.292 [-1.257]	-0.238 [-1.199]	-0.388* [-1.946]	-0.148 [-0.859]	-0.154 [-0.728]	-0.644* [-2.379]
Liquidity ratio	-0.028 [-0.350]	0.033 [0.395]	0.031 [0.218]	0.008 [0.179]	0.015 [0.339]	0.028 [0.226]
Profitability	-0.167 [-0.174]	-0.259 [-0.275]	0.348 [0.260]	0.778 [1.711]	0.890* [2.197]	1.359 [1.637]
Deposit funding ratio	0.005 [0.147]	0.001 [0.032]	0.023 [0.722]	0.014 [0.628]	0.016 [0.590]	0.029 [0.374]
Crisis_2008	-22.540** [-3.360]			-39.508** [-3.102]		
Crisis_2009	-19.179* [-2.063]			-11.747 [-0.867]		
Foreign×Crisis_2008	2.499 [0.574]	1.909 [0.384]	1.830 [0.377]	11.431* [2.267]	11.375* [2.091]	8.793 [1.450]
Foreign×Crisis_2009	-14.394** [-3.048]	-13.504* [-2.120]	-15.562** [-2.648]	-7.336 [-0.508]	-10.269 [-0.754]	-10.006 [-0.994]
Government×Crisis_2008	4.677 [0.605]	2.303 [0.302]	0.318 [0.057]	27.569*** [8.882]	27.648*** [5.441]	27.926*** [4.778]
Government×Crisis_2009	-1.249 [-0.153]	-3.244 [-0.386]	-4.989 [-0.599]	14.954 [1.411]	14.831* [2.222]	20.421 [1.945]
Size_Crisis_2008			-0.371 [-0.327]			3.169* [2.495]
Size×Crisis_2009			1.429* [1.983]			2.867* [2.351]
Equity ratio×Crisis_2008			0.424 [0.899]			0.737** [3.867]
Equity ratio×Crisis_2009			0.573 [1.412]			1.343** [3.727]
Liquidity ratio×Crisis_2008			0.071 [0.255]			0.042 [0.174]
Liquidity ratio×Crisis_2009			-0.084 [-0.453]			-0.188 [-0.655]
Profitability×Crisis_2008			-2.607 [-1.021]			-0.602 [-0.366]
Profitability×Crisis_2009			-0.855 [-0.562]			-1.200 [-1.523]
Deposit funding×Crisis_2008			-0.026 [-0.382]			-0.083 [-0.581]
Deposit funding×Crisis_2009			-0.078 [-1.069]			0.052 [0.473]
Constant	47.285*** [7.362]	17.877** [2.372]	20.015 [1.606]	53.932*** [13.125]	48.121*** [11.527]	70.439*** [15.072]
Country-year interactions	No	Yes	Yes	No	Yes	Yes
Observations	770	770	770	878	878	878
R-squared	0.210	0.540	0.544	0.170	0.311	0.326

Table 3: Determinants of the growth of total loans – Robustness checks

The dependent variable is the annual percentage change in total gross loans expressed in constant local currency units in columns 1 and 3 and expressed in dollars in columns 2 and 4. Columns 2 and 4 also include bank fixed effects. Variable definitions and descriptive statistics are in Table 1. Note that all bank characteristics other than ownership are lagged one period. ***, **, and * denote significance at 1, 5, and 10 percent, respectively. Robust t-statistics are in brackets.

Variables	Eastern Europe		Latin America	
	Total lending in local currency units (1)	Including bank fixed effects (2)	Total lending in local currency units (3)	Including bank fixed effects (4)
Foreign	3.266 [1.186]		-8.620*** [-6.386]	
Government	-2.324 [-0.507]		-9.597 [-1.875]	
Size	0.070 [0.094]	-22.123*** [-3.552]	-2.142** [-3.941]	-35.330*** [-4.476]
Equity ratio	-0.130 [-0.728]	0.828 [1.530]	-0.385** [-3.325]	-0.037 [-0.091]
Liquidity ratio	-0.028 [-0.187]	0.370*** [2.922]	0.063 [0.537]	0.126 [0.850]
Profitability	-0.532 [-0.496]	-0.053 [-0.030]	1.164* [2.321]	0.567 [0.744]
Deposit funding ratio	0.010 [0.455]	-0.05 [-0.413]	-0.019 [-0.198]	-0.408*** [-2.623]
Foreign×Crisis_2008	0.607 [0.155]	2.443 [0.543]	8.908 [1.664]	9.689 [1.447]
Foreign×Crisis_2009	-13.410** [-3.236]	-13.578** [-2.537]	-14.243* [-2.057]	-10.678 [-1.470]
Government×Crisis_2008	4.308 [1.049]	2.749 [0.504]	24.849*** [4.801]	25.244*** [3.755]
Government×Crisis_2009	1.465 [0.192]	2.491 [0.409]	22.639* [2.436]	19.692** [2.369]
Size_Crisis_2008	-0.487 [-0.377]	-1.278 [-0.919]	3.011** [3.768]	1.298 [0.845]
Size×Crisis_2009	1.164 [1.194]	-1.13 [-0.609]	3.634*** [5.232]	1.221 [0.669]
Equity ratio×Crisis_2008	0.225 [0.572]	0.835** [2.044]	0.757** [3.700]	0.421 [0.783]
Equity ratio×Crisis_2009	0.078 [0.175]	0.717 [1.134]	0.571 [1.995]	0.906* [1.788]
Liquidity ratio×Crisis_2008	0.027 [0.093]	0.088 [0.446]	0.089 [0.522]	0.152 [0.777]
Liquidity ratio×Crisis_2009	-0.129 [-1.506]	-0.195 [-0.918]	-0.402 [-1.769]	-0.135 [-0.466]
Profitability×Crisis_2008	-1.676 [-0.907]	-2.177 [-1.017]	-0.798 [-0.529]	0.264 [0.186]
Profitability×Crisis_2009	0.199 [0.113]	0.873 [0.463]	-0.265 [-0.344]	-0.293 [-0.170]
Deposit funding×Crisis_2008	0.000 [0.006]	-0.046 [-0.628]	-0.057 [-0.423]	-0.036 [-0.284]
Deposit funding×Crisis_2009	-0.126* [-2.123]	-0.071 [-0.718]	0.101 [0.549]	0.072 [0.574]
Constant	-0.450 [-0.057]	298.929*** [3.339]	47.871*** [8.865]	524.728*** [4.796]
Bank fixed effects	No	Yes	No	Yes
Country-year interactions	Yes	Yes	Yes	Yes
Observations	783	770	902	878
R-squared	0.608	0.689	0.345	0.427

Table 4: Determinants of the growth of corporate loans

The dependent variable is the annual percentage change in corporate loans. Variable definitions and descriptive statistics are in Table 1. Note that all bank characteristics other than ownership are lagged one period. ***, **, and * denote significance at 1, 5, and 10 percent, respectively. Robust t-statistics are in brackets.

Variables	Eastern Europe			Latin America		
	(1)	(2)	(3)	(4)	(5)	(6)
Foreign	11.605** [2.905]	8.302** [3.122]	4.790* [1.924]	-5.681 [-0.954]	-2.759 [-0.451]	0.605 [0.099]
Government	14.284 [0.969]	5.310 [0.396]	0.581 [0.041]	-10.601* [-2.521]	-12.800** [-2.579]	-14.271** [-3.864]
Size	-1.628 [-1.000]	-1.754 [-1.036]	1.000 [0.432]	0.312 [0.297]	0.274 [0.283]	0.270 [0.206]
Equity ratio	-0.486 [-0.574]	-0.329 [-0.446]	0.067 [0.123]	-0.085 [-0.463]	-0.091 [-0.560]	-0.391*** [-5.464]
Liquidity ratio	-0.001 [-0.007]	0.141 [1.061]	0.374* [2.154]	0.052 [0.905]	0.011 [0.104]	0.052 [0.514]
Profitability	2.038 [0.828]	1.464 [0.644]	1.268 [1.251]	-0.847 [-0.592]	-0.589 [-0.399]	1.012 [0.509]
Deposit funding ratio	0.036 [0.276]	0.038 [0.302]	-0.029 [-0.255]	0.064 [0.832]	0.083 [0.954]	0.046 [0.249]
Crisis_2008	-17.764*** [-4.019]			-34.665** [-2.739]		
Crisis_2009	-2.751 [-0.265]			-20.739*** [-5.905]		
Foreign×Crisis_2008	-5.532 [-0.755]	1.003 [0.186]	8.320** [2.694]	9.340 [1.087]	1.481 [0.237]	-5.989 [-0.846]
Foreign×Crisis_2009	-34.891*** [-3.930]	-30.048** [-2.915]	-27.072*** [-3.959]	-4.053 [-0.741]	-8.951 [-1.767]	-10.421** [-2.630]
Government×Crisis_2008	-2.484 [-0.167]	6.856 [0.529]	15.022 [0.985]	22.264** [2.993]	31.516*** [8.405]	34.980*** [8.699]
Government×Crisis_2009	-16.325 [-0.714]	-11.027 [-0.563]	-2.418 [-0.124]	19.568 [0.815]	21.849 [0.899]	25.783 [1.413]
Size_Crisis_2008			-5.832* [-1.895]			-0.118 [-0.052]
Size×Crisis_2009			-3.011 [-0.778]			0.827 [1.141]
Equity ratio×Crisis_2008			0.317 [0.250]			0.701 [1.122]
Equity ratio×Crisis_2009			0.065 [0.091]			0.923*** [4.131]
Liquidity ratio×Crisis_2008			-0.670*** [-4.534]			-0.001 [-0.004]
Liquidity ratio×Crisis_2009			-0.378 [-1.596]			-0.366** [-3.357]
Profitability×Crisis_2008			-5.985 [-1.512]			-5.648 [-1.536]
Profitability×Crisis_2009			2.401 [0.891]			-0.094 [-0.074]
Deposit funding×Crisis_2008			0.344** [2.496]			-0.029 [-0.295]
Deposit funding×Crisis_2009			-0.024 [-0.150]			0.269 [0.800]
Constant	51.779* [2.131]	24.286 [1.029]	-18.188 [-0.599]	33.659 [1.761]	27.997 [1.425]	30.862 [1.167]
Country-year interactions	No	Yes	Yes	No	Yes	Yes
Observations	356	356	359	714	714	714
R-squared	0.248	0.548	0.581	0.095	0.200	0.232

Table 5: Determinants of the growth of consumer loans

The dependent variable is the annual percentage change in consumer loans. Variable definitions and descriptive statistics are in Table 1. Note that all bank characteristics other than ownership are lagged one period. ***, **, and * denote significance at 1, 5, and 10 percent, respectively. Robust t-statistics are in brackets.

Variables	Eastern Europe			Latin America		
	(1)	(2)	(3)	(4)	(5)	(6)
Foreign	-7.225 [-0.814]	-13.610 [-1.048]	-12.166 [-1.126]	-3.721 [-0.706]	-0.628 [-0.132]	-2.247 [-0.356]
Government	-1.206 [-0.096]	-17.175 [-1.875]	-17.344 [-1.711]	-16.020 [-1.792]	-14.903 [-1.822]	-19.410* [-2.360]
Size	-1.397 [-0.525]	0.268 [0.119]	-0.085 [-0.024]	-0.314 [-0.976]	0.087 [0.168]	1.127 [1.469]
Equity ratio	-0.587 [-0.623]	-0.365 [-0.438]	-0.899 [-0.659]	-0.581** [-2.816]	-0.586** [-2.988]	-0.818** [-2.673]
Liquidity ratio	0.442 [1.028]	0.622 [1.355]	1.102 [1.717]	0.168 [1.560]	0.184 [1.860]	0.210 [1.803]
Profitability	-1.392 [-0.244]	-2.793 [-0.487]	-0.719 [-0.096]	0.209 [0.621]	0.545 [1.369]	-0.481 [-0.425]
Deposit funding ratio	0.309** [2.740]	0.248 [1.587]	0.505** [2.445]	-0.113 [-1.495]	-0.093 [-1.126]	-0.247 [-1.982]
Crisis_2008	-43.819*** [-3.822]			-51.529** [-3.914]		
Crisis_2009	-44.339** [-2.433]			-33.637 [-1.847]		
Foreign×Crisis_2008	15.702* [2.122]	20.689 [1.344]	8.911 [0.810]	1.348 [0.080]	-1.309 [-0.097]	4.233 [0.332]
Foreign×Crisis_2009	7.821 [0.753]	19.714 [1.061]	23.086 [1.603]	-24.253 [-1.819]	-26.851* [-2.152]	-21.153 [-1.842]
Government×Crisis_2008	-7.469 [-0.370]	13.125 [0.522]	20.843 [0.772]	25.261** [2.838]	21.737* [2.023]	37.722*** [4.067]
Government×Crisis_2009	-13.366 [-0.640]	3.282 [0.186]	9.613 [0.454]	22.551 [1.307]	18.699 [1.897]	25.696** [3.946]
Size_Crisis_2008			4.398 [0.685]			-3.024 [-1.704]
Size×Crisis_2009			-2.724 [-0.724]			-1.522 [-0.936]
Equity ratio×Crisis_2008			-0.006 [-0.003]			1.734*** [4.811]
Equity ratio×Crisis_2009			1.929 [1.427]			0.791 [1.798]
Liquidity ratio×Crisis_2008			-1.393** [-2.576]			-0.107 [-0.643]
Liquidity ratio×Crisis_2009			-0.849 [-0.793]			-0.118 [-0.342]
Profitability×Crisis_2008			-13.493* [-1.913]			0.810 [0.575]
Profitability×Crisis_2009			1.302 [0.170]			2.451 [1.094]
Deposit funding×Crisis_2008			-0.831 [-1.757]			0.266 [1.885]
Deposit funding×Crisis_2009			-0.187 [-0.689]			0.618* [2.187]
Constant	51.351 [1.371]	10.022 [0.301]	-16.484 [-0.274]	70.426*** [8.951]	61.634*** [7.337]	61.249*** [4.762]
Country-year interactions	No	Yes	Yes	No	Yes	Yes
Observations	305	305	305	598	598	599
R-squared	0.220	0.367	0.413	0.167	0.298	0.311

Table 6: Determinants of the growth of residential mortgage loans

The dependent variable is the annual percentage change in residential mortgage loans. Variable definitions and descriptive statistics are in Table 1. Note that all bank characteristics other than ownership are lagged one period. ***, **, and * denote significance at 1, 5, and 10 percent, respectively. Robust t-statistics are in brackets.

Variables	Eastern Europe			Latin America		
	(1)	(2)	(3)	(4)	(5)	(6)
Foreign	15.922 [1.382]	18.859 [1.245]	10.014 [0.578]	-0.099 [-0.006]	5.223 [0.347]	5.351 [0.325]
Government	31.744** [2.509]	9.158 [0.642]	25.275 [1.167]	3.988 [0.272]	5.473 [0.451]	4.244 [0.301]
Size	-6.154 [-0.639]	-8.882 [-0.594]	-21.140 [-1.161]	-2.500* [-2.250]	-2.418 [-1.900]	-2.085 [-0.827]
Equity ratio	-0.228 [-0.065]	1.343 [0.286]	-2.996 [-0.585]	-0.594*** [-5.961]	-0.832** [-3.426]	-1.331** [-3.760]
Liquidity ratio	0.485 [1.296]	0.018 [0.046]	-0.009 [-0.006]	0.200 [0.985]	0.247 [1.291]	0.308 [1.028]
Profitability	0.540 [0.044]	-0.885 [-0.058]	19.018 [1.577]	0.169 [0.122]	2.776*** [4.406]	4.026** [3.253]
Deposit funding ratio	-0.191 [-0.855]	0.176 [0.467]	-0.107 [-0.221]	-0.087 [-0.599]	-0.074 [-0.415]	0.018 [0.081]
Crisis_2008	-50.603* [-2.159]			-24.464** [-3.858]		
Crisis_2009	-46.927* [-2.150]			-22.496** [-3.442]		
Foreign×Crisis_2008	21.007 [1.008]	10.462 [0.797]	12.192 [0.421]	-19.786 [-1.106]	-17.387 [-0.900]	-17.050 [-0.606]
Foreign×Crisis_2009	-6.689 [-0.316]	-10.855 [-0.830]	10.658 [0.391]	7.176 [0.295]	-2.939 [-0.124]	-0.282 [-0.013]
Government×Crisis_2008	-4.126 [-0.366]	-5.487 [-0.363]	-43.174 [-1.421]	3.219 [0.702]	2.325 [0.498]	1.574 [0.213]
Government×Crisis_2009				16.820 [0.915]	2.596 [0.726]	9.172* [2.459]
Size_Crisis_2008			13.642 [1.154]			1.179 [0.236]
Size×Crisis_2009			37.695* [2.126]			-1.442 [-0.415]
Equity ratio×Crisis_2008			9.775 [0.913]			-0.328 [-0.658]
Equity ratio×Crisis_2009			6.885 [0.863]			2.107** [3.356]
Liquidity ratio×Crisis_2008			-0.287 [-0.171]			-0.403 [-0.424]
Liquidity ratio×Crisis_2009			-0.104 [-0.074]			-0.003 [-0.006]
Profitability×Crisis_2008			-34.513 [-1.337]			-1.887 [-0.983]
Profitability×Crisis_2009			-43.821 [-1.580]			-4.479 [-1.665]
Deposit funding×Crisis_2008			0.980 [1.366]			-0.322* [-2.137]
Deposit funding×Crisis_2009			-0.047 [-0.099]			-0.071 [-0.431]
Constant	148.388 [0.863]	135.385 [0.510]	366.199 [1.091]	75.319*** [5.269]	75.399*** [4.521]	68.353* [2.273]
Country-year interactions	No	Yes	Yes	No	Yes	Yes
Observations	87	87	87	379	373	373
R-squared	0.444	0.720	0.766	0.076	0.196	0.207

Table 7: Determinants of foreign bank lending during the 2008-2009 crisis

The dependent variable is the annual percentage change in total gross loans by foreign banks during 2008-2009. Variable definitions and descriptive statistics are in Table 1. Note that all bank characteristics other than ownership are lagged one period. ***, **, and * denote significance at 1, 5, and 10 percent, respectively. Robust t-statistics are in brackets.

Variables	Eastern Europe	Latin America
Size	-1.506 [-0.964]	4.752 [1.716]
Equity ratio	0.382 [1.082]	0.533*** [4.087]
Liquidity ratio	0.034 [0.169]	0.338 [0.736]
Profitability	-3.204 [-1.194]	-0.748 [-0.368]
Deposit funding ratio	0.088 [1.344]	-0.417* [-2.094]
Parent size	-2.117 [-1.498]	-1.772 [-0.745]
Parent equity ratio	-1.665** [-2.931]	-0.38 [-0.387]
Parent liquidity	0.372* [2.120]	-0.587* [-2.159]
Parent profitability	5.422** [2.986]	1.171 [0.222]
Parent deposit funding ratio	-0.031 [-0.194]	-0.166 [-1.002]
Constant	66.124* [2.189]	0.503 [0.014]
Observations	147	73
R-squared	0.140	0.159

Table 8: Determinants of government bank lending during the 2008-2009 crisis

The dependent variable is the annual percentage change in total gross loans by government banks for 2008-2009. Variable definitions and descriptive statistics are in Table 1. Note that all bank characteristics other than ownership are lagged one period. ***, **, and * denote significance at 1, 5 and 10 percent, respectively. t-statistics are in brackets

Variables	Eastern Europe	Latin America
Size	-7.757 [-1.581]	-1.011 [-2.002]
Equity ratio	-3.019** [-2.963]	-2.100*** [-6.950]
Liquidity ratio	-0.158 [-0.894]	-0.194 [-0.402]
Profitability	-1.543 [-0.260]	2.440** [3.689]
Deposit funding ratio	-0.848*** [-7.949]	-0.305** [-5.499]
Constant	219.377** [2.706]	78.562* [2.719]
Observations	23	40
R-squared	0.661	0.045

Table 9: Mean tests for predictors of the growth of gross loans during 2008-2009

Table shows the means of the determinants of foreign (Table 7) and government banks (Table 8) gross loans during 2008-2009. *, **, *** denote significance at 10, 5, and 1 percent, respectively.

Variables	Foreign banks				Government banks			
	Mean for banks in Eastern Europe	Mean for banks in Latin America	Test statistic for differences in means	p-values for test of differences in means	Mean for banks in Eastern Europe	Mean for banks in Latin America	Test statistic for differences in means	p-values for test of differences in means
Size	14.52	13.71	4.40	0.00***	14.80	14.66	0.32	0.75
Equity ratio	11.46	22.20	7.67	0.00***	11.84	12.07	0.11	0.91
Liquidity ratio	23.36	29.06	3.48	0.00***	30.82	30.69	0.03	0.97
Profitability	0.96	1.39	1.93	0.05*	0.8	2.24	5.00	0.00***
Deposit funding ratio	53.45	43.95	6.53	0.00***	54.22	54.16	0.01	0.99
Parent size	18.83	19.63	4.04	0.00***				
Parent equity ratio	7.37	10.95	2.81	0.01**				
Parent liquidity	28.74	29.32	0.37	0.71				
Parent profitability	0.59	1.11	3.05	0.00***				
Parent deposit funding ratio	40.57	46.42	2.56	0.01**				

Table 10: Government bank budget surplus (+)/ deficit(-) as a share of GDP (%)

	2007	2008
Eastern Europe		
Bulgaria	3.256	2.870
Croatia	-2.118	-1.338
Czech Republic	-0.656	-2.672
Hungary	-5.012	-3.648
Poland	-1.883	-3.676
Romania	-3.117	-4.830
Slovak Republic	-1.811	-2.085
Slovenia	0.262	-0.275
Latin America		
Argentina	-2.079	-0.811
Brazil	-2.693	-1.390
Chile	8.354	4.349
Colombia	-1.033	0.039
Mexico	-1.177	-1.111
Peru	3.190	2.205

Appendix Table A.1

Determinants of total gross loans in Latin America – Separating Spanish from other foreign banks

The dependent variable is the annual percentage change in total gross loans. Variable definitions and descriptive statistics are in Table 1. Note that all bank characteristics other than ownership are lagged one period. ***, **, and * denote significance at 1, 5, and 10 percent, respectively. Robust t-statistics are in brackets.

Variables	(1)	(2)	(3)
Spanish	-4.076 [-0.936]	-2.662 [-0.526]	
Non-Spanish	-11.439*** [-4.309]	-10.452** [-3.661]	
Government	-8.513 [-1.682]	-9.761 [-1.746]	
Size	-1.202** [-3.540]	-2.489*** [-6.635]	-35.434*** [-4.476]
Equity ratio	-0.156 [-0.724]	-0.645* [-2.329]	-0.036 [-0.090]
Liquidity ratio	0.019 [0.451]	0.033 [0.272]	0.129 [0.868]
Profitability	0.870* [2.067]	1.319 [1.556]	0.552 [0.720]
Deposit funding ratio	0.010 [0.353]	0.021 [0.274]	-0.408*** [-2.620]
Spanish×Crisis_2008	1.322 [0.156]	-3.247 [-0.327]	-4.605 [-0.453]
Non_Spanish×Crisis_2008	12.890* [2.478]	10.658 [1.725]	11.777 [1.607]
Spanish×Crisis_2009	-5.139 [-0.777]	-5.968 [-0.923]	-7.194 [-0.772]
Non_Spanish×Crisis_2009	-10.984 [-0.746]	-10.533 [-0.924]	-11.152 [-1.370]
Government×Crisis_2008	27.763*** [5.386]	27.811*** [4.838]	25.122*** [3.744]
Government×Crisis_2009	14.813* [2.269]	20.591 [1.931]	19.780** [2.374]
Size_Crisis_2008		3.497** [2.787]	1.655 [1.082]
Size×Crisis_2009		2.717 [1.862]	1.105 [0.577]
Equity ratio×Crisis_2008		0.746** [3.579]	0.439 [0.822]
Equity ratio×Crisis_2009		1.332** [3.760]	0.899* [1.767]
Liquidity ratio×Crisis_2008		0.036 [0.152]	0.149 [0.760]
Liquidity ratio×Crisis_2009		-0.189 [-0.654]	-0.137 [-0.472]
Profitability×Crisis_2008		-0.566 [-0.336]	0.270 [0.191]
Profitability×Crisis_2009		-1.176 [-1.436]	-0.282 [-0.163]
Deposit funding×Crisis_2008		-0.067 [-0.450]	-0.014 [-0.108]
Deposit funding×Crisis_2009		0.044 [0.451]	0.067 [0.524]
Constant	50.623*** [12.570]	73.430*** [15.153]	526.063*** [4.795]
Country-year interactions	Yes	Yes	yes
Bank-fixed effects	No	No	Yes
Observations	878	878	878
R-squared	0.313	0.328	0.428

Appendix Table A.2: Roster of foreign banks operating in Eastern Europe and Latin America

Name	Branch (B) or Subsidiary (S)	Parent Bank	Parent Country
EASTERN EUROPE			
Bulgaria			
Piraeus Bank Bulgaria AD	S	PIRAEUS BANK SA	Greece
Bulgarian-American Credit Bank	S	ALLIED IRISH BANKS PLC	Ireland
ProCredit Bank (Bulgaria) AD	S	PROCREDIT HOLDING AG	Germany
DSK Bank Plc	S	OTP BANK PLC	Hungary
Raiffeisenbank (Bulgaria) EAD	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
NLB Banka Sofia AD	S	NLB DD-NOVA LJUBLJANSKA BANKA D.D.	Slovenia
International Asset Bank AD	S	<i>Unknown shareholders, including companies and individuals</i>	
Eurobank EFG Bulgaria AD (Postbank)	S	EFG EUROBANK ERGASIAS SA	Greece
United Bulgarian Bank - UBB	S	NATIONAL BANK OF GREECE SA	Greece
MKB Unionbank AD	S	BAYERISCHE LANDESBANK	Germany
UniCredit Bulbank AD	S	UNICREDIT BANK AUSTRIA AG-BANK AUSTRIA	Austria
Societe Generale Expressbank	S	SOCIÉTÉ GÉNÉRALE	France
Allianz Bank Bulgaria AD	S	ALLIANZ SE	Germany
D Commerce Bank AD	S	FUAT GYUVEN	Turkey
Emporiki Bank - Bulgaria EAD	S	EMPORIKI BANK OF GREECE SA	Greece
Croatia			
Hypo Alpe-Adria-Bank dd	S	HYPO ALPE-ADRIA BANK INTERNATIONAL AG	Austria
Volksbank dd	S	VOLKSBANK INTERNATIONAL AG	Austria
Raiffeisenbank Austria d.d., Zagreb	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
BKS Bank d.d.	S	BKS BANK AG	Austria
OTP banka Hrvatska dd	S	OTP BANK PLC	Hungary
Wuestenrot Stambena Stedionica dd	S	BAUSPARKASSE WUESTENROT	Austria
Societe Generale - Splitska Banka dd	S	SOCIÉTÉ GÉNÉRALE	France
Erste & Steiermärkische Bank dd	S	ERSTE GROUP BANK AG	Austria
Zagrebacka Banka dd	S	UNICREDIT BANK AUSTRIA AG-BANK AUSTRIA	Austria
Raiffeisen Stambena Stedionica dd	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
Banco Popolare Croatia dd	S	BANCO POPOLARE	Italy
Primorska Banka dd	S	<i>Various shareholders</i>	Italy
Podravska Banka	S	<i>Various shareholders</i>	Italy
Veneto Banka d.d.	S	VENETO BANCA SCPA	Italy
Privredna Banka Zagreb d.d	S	INTESA SANPAOLO HOLDING INTERNATIONAL S.A.	Luxembourg
Czech Republic			
Modra Pyramida Stavebni Sporitelna as	S	SOCIÉTÉ GÉNÉRALE	France
Raiffeisen Stavební Sporitelna AS	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
J&T Banka as	S	TECHNO PLUS	Slovakia
Unicredit Bank Czech Republic AS	S	UNICREDIT BANK AUSTRIA AG-BANK AUSTRIA	Austria
Calyon Bank S.A., organizacni slozka	B	CRÉDIT AGRICOLE SA	France
Evropsko-Ruska banka As	S	FIRST CZECH-RUSSIAN BANK, LLC	Russian Federation
PPF Banka a.s.	S	PPF GROUP N.V.	Netherlands
Ceska Sporitelna a.s.	S	ERSTE GROUP BANK AG	Austria
Komerční Banka	S	SOCIÉTÉ GÉNÉRALE	France
GE Money Bank as	S	GENERAL ELECTRIC COMPANY	United States
LBBW Bank CZ a.s	S	LANDESBANK BADEN-WÜRTTEMBERG	Germany
Raiffeisenbank Akciová společnost	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
Banco Popolare Ceska republika, a.s	S	BANCO POPOLARE	Italy
Ceskoslovenska Obchodni Banka A.S.-CSOB	S	KBC BANK NV	Belgium
Volksbank CZ as	S	VOLKSBANK INTERNATIONAL AG	Austria

Name	Branch (B) or Subsidiary (S)	Parent Bank	Parent Country
Hungary			
Volksbank Hungary-Magyarországi Volksbank Rt	S	VOLKSBANK INTERNATIONAL AG	Austria
K&H Bank Zrt	S	KBC BANK NV	Belgium
Bank of China (Hungária) Hitelintézet Rt	S	BANK OF CHINA LIMITED	China
Sopron Bank Burgenland	S	HYPO-BANK BURGENLAND AG	Austria
Raiffeisen Bank Zrt	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
Porsche Bank Hungaria	S	PORSCHE BANK AG	Austria
Allianz Bank Zrt	S	FHB MORTGAGE BANK PLC-FHB JELZALOGBANK NYRT.	HU
Banco Popolare Hungary Bank Zrt	S	BANCO POPOLARE	Italy
CIB Bank Ltd-CIB Bank Zrt	S	INTESA SANPAOLO	Italy
MKB Bank Zrt	S	BAYERISCHE LANDESBANK	Germany
UniCredit Bank Hungary Zrt	S	UNICREDIT BANK AUSTRIA AG-BANK AUSTRIA	Austria
OTP Bank Plc	S	GROUPAMA HOLDING via its funds	France
Erste Bank Hungary Nyrt	S	ERSTE GROUP BANK AG	Austria
Budapest Hitel-és Fejlesztési Bank Nyrt	S	GENERAL ELECTRIC CAPITAL CORPORATION	United States
Granit Bank Zrt	S	WESTLB AG	Germany
Commerzbank Zrt	S	COMMERZBANK ZRT AG	Germany
Deutsche Bank ZRT	S	DEUTSCHE BANK AG	Germany
Poland			
Allianz Bank Polska SA	S	GETIN HOLDING SA	Poland
Volkswagen Bank Polska	S	VOLKSWAGEN BANK GMBH	Germany
Mercedes-Benz Bank Polska S.A.	S	DAIMLER AG	Germany
Alior Bank Spółka Akcyjna	S	ALIOR LUX SARL & CO S.C.A.	Luxembourg
Fortis Bank Polska SA	S	FORTIS BANK SA/ NV-BNP PARIBAS FORTIS	Belgium
Fiat Bank Polska	S	FGA CAPITAL SPA	Italy
BRE Bank Hipoteczny SA	S	COMMERZBANK ZRT AG	Germany
Bank BPH SA	S	GE INVESTMENTS POLAND SP. Z O.O.	Poland
Lukas Bank SA	S	CRÉDIT AGRICOLE S.A.	France
Bank Dnb NORD Polska SA	S	BANK DNB NORD A/S	Denmark
RCI Bank Polska SA	S	RCI BANQUE	France
Euro Bank SA	S	SOCIÉTÉ GÉNÉRALE	France
Raiffeisen Bank Polska SA	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
Invest-Bank SA	S	POLARIS FINANCE B.V.	Netherlands
ING Bank Śląski S.A.	S	ING BANK NV	Netherlands
Bank Millennium	S	BANCO COMERCIAL PORTUGUÊS, SA-MILLENNIUM BCP	Portugal
Kredyt Bank SA	S	KBC BANK NV	Belgium
Bank Handlowy w Warszawie S.A.	S	CITIGROUP INC	United States
DZ Bank Polska SA	S	DZ BANK AG-DEUTSCHE ZENTRAL- GENOSSENSCHAFTSBANK	Germany
Deutsche Bank PBC SA	S	DEUTSCHE BANK PRIVAT-UND GESCHAFTSKUNDEN AG	Germany
Bank Polska Kasa Opieki SA-Bank Pekao SA	S	UNICREDIT SPA	Italy
Deutsche Bank Polska S.A.	S	DEUTSCHE BANK AG	Germany
Rabobank Polska SA	S	RABOBANK NEDERLAND - RABOBANK GROUP	Netherlands
Polski Bank Przedsiębiorczości Spółka Akcyjna	S	WESTLB AG	Germany
HSBC Bank Polska SA	S	HSBC BANK PLC	United Kingdom
RBS Bank (Polska) SA	S	ROYAL BANK OF SCOTLAND NV (THE)-RBS NV	Netherlands
Nordea Bank Polska SA	S	NORDEA BANK AB (PUBL)	Sweden
AIG Bank Polska SA	S	SANTANDER CONSUMER BANK SA	Poland
Bank Zachodni WBK S.A.	S	ALLIED IRISH BANKS PLC	Ireland
BRE Bank SA	S	COMMERZBANK AG	Germany

Name	Branch (B) or Subsidiary (S)	Parent Bank	Parent Country
Romania			
Alpha Bank Romania	S	ALPHA BANK AE	Greece
Banca Comerciala Romana SA	S	ERSTE GROUP BANK AG	Austria
Raiffeisen Bank SA	S	RAIFFEISEN ZENTRALBANK OESTERREICH AG - RZB	Austria
Marfin Bank (Romania) SA	S	MARFIN EGNATIA BANK SA	Greece
UniCredit Tiriac Bank SA	S	UNICREDIT BANK AUSTRIA AG-BANK AUSTRIA	Austria
BCR Banca Pentru Locuinte	S	ERSTE GROUP BANK AG	Austria
Bancpost SA	S	EFG EUROBANK ERGASIAS SA	Greece
Volksbank Romania	S	VOLKSBANK INTERNATIONAL AG	Austria
Credit Europe Bank (Romania) SA	S	FINANSBANK	Turkey
ProCredit Bank S.A	S	PROCREDIT HOLDING AG	Germany
Bank Leumi Romania	S	BANK LEUMI LE ISRAEL BM	Israel
Intesa Sanpaolo Romania SA	S	INTESA SANPAOLO	Italy
MKB Romexterra Bank S.A.	S	BAYERISCHE LANDESBANK	Germany
Piraeus Bank Romania	S	PIRAEUS BANK SA	Greece
Banca Romaneasca S.A.	S	NATIONAL BANK OF GREECE SA	Greece
OTP Bank Romania SA	S	OTP BANK PLC	Hungary
Banca CR Firenze Romania SA	S	CASSA DI RISPARMIO DI FIRENZE SPA	Italy
RBS Bank (Romania) SA	S	ROYAL BANK OF SCOTLAND NV (THE)-RBS NV	Netherlands
Emporiki Bank - Romania SA	S	EMPORIKI BANK OF GREECE SA	Greece
BRD-Groupe Societe Generale SA	S	SOCIÉTÉ GÉNÉRALE	France
Slovakia			
OTP Banka Slovensko, as	S	OTP BANK PLC	Hungary
CSOB Stavebna Sporitelna	S	KBC BANK NV	Belgium
Tatra Banka a.s.	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
VOLKSBANK Slovensko, as	S	VOLKSBANK INTERNATIONAL AG	Austria
Ceskoslovenska obchodna banka CSOB	S	KBC BANK NV	Belgium
Vseobecna Uverova Banka a.s.	S	INTESA SANPAOLO HOLDING INTERNATIONAL S.A.	Luxembourg
Slovenska Sporitel'na as-Slovak Savings Bank	S	ERSTE GROUP BANK AG	Austria
UniCredit Bank Slovakia a.s.	S	UNICREDIT BANK AUSTRIA AG - BANK AUSTRIA	Austria
Dexia banka Slovensko a.s.	S	DEXIA CRÉDIT LOCAL SA	France
Komerčni Banka Bratislava a.s.	B	KOMERCNI BANKA	Czech Republic
Citibank Europe Plc, pobočka zahraničnej banky	B	CITIGROUP INC	United States
Prva Stavebna Sporitelna as	S	ERSTE GROUP BANK AG	Austria
Slovenia			
BAWAG Banka dd	S	BANK FÜR ARBEIT UND WIRTSCHAFT UND ÖSTERREICHISCHE POSTSPARKASSE AKTIENGESELLSCHAFT	Austria
Hypo Alpe-Adria-Bank dd	S	HYPO ALPE-ADRIA BANK INTERNATIONAL AG	Austria
Banka Koper d.d.	S	INTESA SANPAOLO	Italy
UniCredit Banka Slovenija d.d.	S	UNICREDIT BANK AUSTRIA AG-BANK AUSTRIA	Austria
SKB Banka DD	S	SOCIÉTÉ GÉNÉRALE	France
Raiffeisen Banka dd	S	RAIFFEISEN BANK INTERNATIONAL AG	Austria
Volksbank-Ljudska Banka - d.d	S	VOLKSBANK INTERNATIONAL AG	Austria

LATIN AMERICA			
Name	Branch (B) or Subsidiary (S)	Parent Bank	Parent Country
Argentina			
Banco B.I. Creditanstalt S.A.	S	UNICREDIT BANK AUSTRIA AG-BANK AUSTRIA	Austria
BBVA Banco Frances SA	S	BANCO BILBAO VIZCAYA ARGENTARIA SA	Spain
Banco Santander Rio S.A.	S	BANCO SANTANDER SA	Spain
JP Morgan Chase Bank	B	JP MORGAN CHASE BANK, NA	United States
ABN Amro Bank	B	RBS HOLDINGS NV	Netherlands
Standard Bank Argentina	S	STANDARD BANK LONDON HOLDINGS PLC	United Kingdom
Citibank NA	B	CITIBANK NA	United States
Banco do Brasil SA	B	BANCO DO BRASIL S.A.	Brazil
Banco Itau Argentina SA	S	BANCO ITAU UNIBANCO SA	Brazil
Bank of America NA	B	BANK OF AMERICA, NATIONAL ASSOCIATION	United States
BNP Paribas	B	BNP PARIBAS	France
Banco Republica Oriental del Uruguay	B	BANCO DE LA REPUBLICA ORIENTAL DEL URUGUAY	Uruguay
American Express Bank Ltd SA	S	AMERICAN EXPRESS COMPANY	United States
Banco Cetelem Argentina SA	S	BNP PARIBAS PERSONAL FINANCE	France
Banco de Servicios Financieros SA	S	CARREFOUR SA	France
Banco Bradesco Argentina SA	S	BANCO BRADESCO SA	Brazil
Banco Cofidis SA	S	COFIDIS PARTICIPATIONS SA	France
Deutsche Bank SA	S	DEUTSCHE BANK AG	Germany
Brazil			
Banco Credit Suisse (Brasil) SA	S	CREDIT SUISSE AG	Switzerland
Banco WestLB do Brasil SA	S	WESTLB AG	Germany
Banco CNH Capital SA	S	CNH GLOBAL N.V.	Netherlands
Banco Credit Agricole Brasil S.A	S	CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK	France
HSBC Bank Brasil SA/ Banco Multiplo	S	HSBC HOLDINGS PLC	United Kingdom
Banif - Banco Internacional de Funchal	S	BANIF COMERCIAL, SGPS, S.A.	Portugal
Banco de la Nacion Argentina	B	BANCO DE LA NACION ARGENTINA	Argentina
Banco Santander (Brasil) S.A.	S	BANCO SANTANDER SA	Spain
Banco de la Republica Oriental del Uruguay	B	BANCO DE LA REPUBLICA ORIENTAL DEL URUGUAY	Uruguay
Banco BTG Pactual SA	S	UBS AG	Switzerland
ING Bank N.V.	B	ING BANK NV	Netherlands
Banco Morgan Stanley Dean Witter	S	MORGAN STANLEY LATIN AMERICA INC	United States
Banco de Lage Landen Brasil SA	S	RABOBANK NEDERLAND-RABOBANK GROUP	Netherlands
Goldman Sachs do Brasil	S	GOLDMAN SACHS GLOBAL HOLDINGS LLC	United States
Lemon Bank Banco Multiplo SA	S	<i>Unknown shareholders</i>	
Banco BNP Paribas Brasil S.A.	S	BNP PARIBAS	France
Banco Sumitomo Mitsui Brasileiro SA	S	SUMITOMO MITSUI BANKING CORPORATION	Japan
Banco ABC - Brasil SA	S	ARAB BANKING CORPORATION BSC	Bahrain
Banco Citibank	S	CITIGROUP INC	United States
Banco JP Morgan SA	S	JP MORGAN INTERNATIONAL FINANCE, LTD.	United States
BPN Brasil Banco Multiplo SA	S	BANCO PORTUGUES DE NEGOCIOS, SA-BPN SA	Portugal
Banco GMAC S.A.	S	ALLY FINANCIAL INC	United States
Banco de Tokyo-Mitsubishi UFJ Brasil	S	THE BANK OF TOKYO-MITSUBISHI UFJ LTD	Japan
Banco Rabobank International Brasil	S	RABOBANK NEDERLAND-RABOBANK GROUP	Netherlands
Banco Ford S.A.	S	<i>Unknown shareholders</i>	
Dresdner Bank Brasil / Banco Multiplo	S	COMMERZBANK AG	Germany
Citibank NA	B	CITIBANK NA	United States
Banco KEB do Brasil SA	S	KOREA EXCHANGE BANK	Rep. of Korea
NBC Bank Brasil SA	S	NUEVO BANCO COMERCIAL SA	Uruguay
Deutsche Bank SA - Banco Alemao	S	DEUTSCHE BANK AG	Germany
Banco Cargill SA	S	CARGILL, INCORPORATED	United States
Banco Societe General Brasil SA	S	SOCIÉTÉ GÉNÉRALE	France
Banco Toyota do Brasil S.A.	S	TOYOTA FINANCIAL SERVICES CORPORATION	Japan

Name	Branch (B) or Subsidiary (S)	Parent Bank	Parent Country
Chile			
Scotiabank Chile	S	BANK OF NOVA SCOTIA (THE) - SCOTIABANK	Canada
Banco Itau Chile	S	ITAU UNIBANCO HOLDINGS	Brazil
Banco de la Nacion Argentina	B	BANCO DE LA NACION ARGENTINA	Argentina
Banco do Brasil S.A.	B	BANCO DO BRASIL	Brazil
Deutsche Bank (Chile) SA	S	DEUTSCHE BANK AG	Germany
HSBC Bank (Chile)	S	HSBC HOLDINGS PLC	United Kingdom
JP Morgan Chase Bank	S	JP MORGAN CHASE BANK, NA	United States
Rabobank Chile	S	RABOBANK NEDERLAND-RABOBANK GROUP	Netherlands
Banco Sudamericano	S	ROYAL BANK OF SCOTLAND NV (THE)-RBS NV	Netherlands
Bank of Tokyo - Mitsubishi UFJ	B	THE BANK OF TOKYO-MITSUBISHI UFJ LTD	Japan
Banco Santander Chile	S	BANCO SANTANDER SA	Spain
Colombia			
Banco Santander Colombia SA	S	BANCO SANTANDER SA	Spain
Banco GNB Sudameris SA	S	GILEX HOLDING B.V.	Netherlands
Scotiabank Colombia SA	S	ROYAL BANK OF SCOTLAND NV (THE)-RBS NV	Netherlands
BBVA Colombia SA	S	BANCO BILBAO VIZCAYA ARGENTARIA SA	Spain
Mexico			
Bank of America (Mexico)	S	BANK OF AMERICA CORPORATION	United States
Scotiabank Inverlat SA	S	BANK OF NOVA SCOTIA (THE) - SCOTIABANK	Canada
Banco Walt-Mart de Mexico Adelante, S.A.	S	WALT-MART STORES, INC	United States
Banco Nacional de Mexico, SA – BANAMEX	S	CITIGROUP INC	United States
BBVA Bancomer S.A.	S	BANCO BILBAO VIZCAYA ARGENTARIA SA	Spain
Banco Santander (Mexico) SA	S	BANCO SANTANDER SA	Spain
HSBC Mexico, SA	S	HSBC HOLDINGS PLC	United Kingdom
Royal Bank of Scotland Mexico SA (The)	S	ROYAL BANK OF SCOTLAND NV (THE)-RBS NV	Netherlands
ING Bank (Mexico)	S	ING BANK NV	Netherlands
Deutsche Bank (Mexico)	S	DEUTSCHE BANK AG	Germany
Peru			
Scotiabank Peru SAA	S	BANK OF NOVA SCOTIA (THE) - SCOTIABANK	Canada
Banco Santander Peru	S	BANCO SANTANDER SA	Spain
HSBC Bank Peru SA	S	HSBC HOLDINGS PLC	United Kingdom
Banco Interamericano de Finanzas S.A. – BIF	S	LANDY SA	Uruguay
Banco Financiero del Peru	S	BANCO PICHINCHA C.A.	Ecuador
Citibank	S	CITIBANK NA	United States
Banco de Credito del Peru	S	CREDICORP LTD.	Bermuda

Figure 1: Growth of gross loans

Panel A: Banks operating in Eastern Europe

Panel B: Banks operating in Latin America